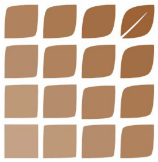

International Environmental
Law Research Centre

BLAZING THE TRAIL

PROFESSOR CHARLES OKIDI'S ENDURING LEGACY IN THE DEVELOPMENT OF ENVIRONMENTAL LAW

Patricia Kameri-Mbote & Collins Odote (eds)

Published in: *Nairobi: University of Nairobi* (2019).

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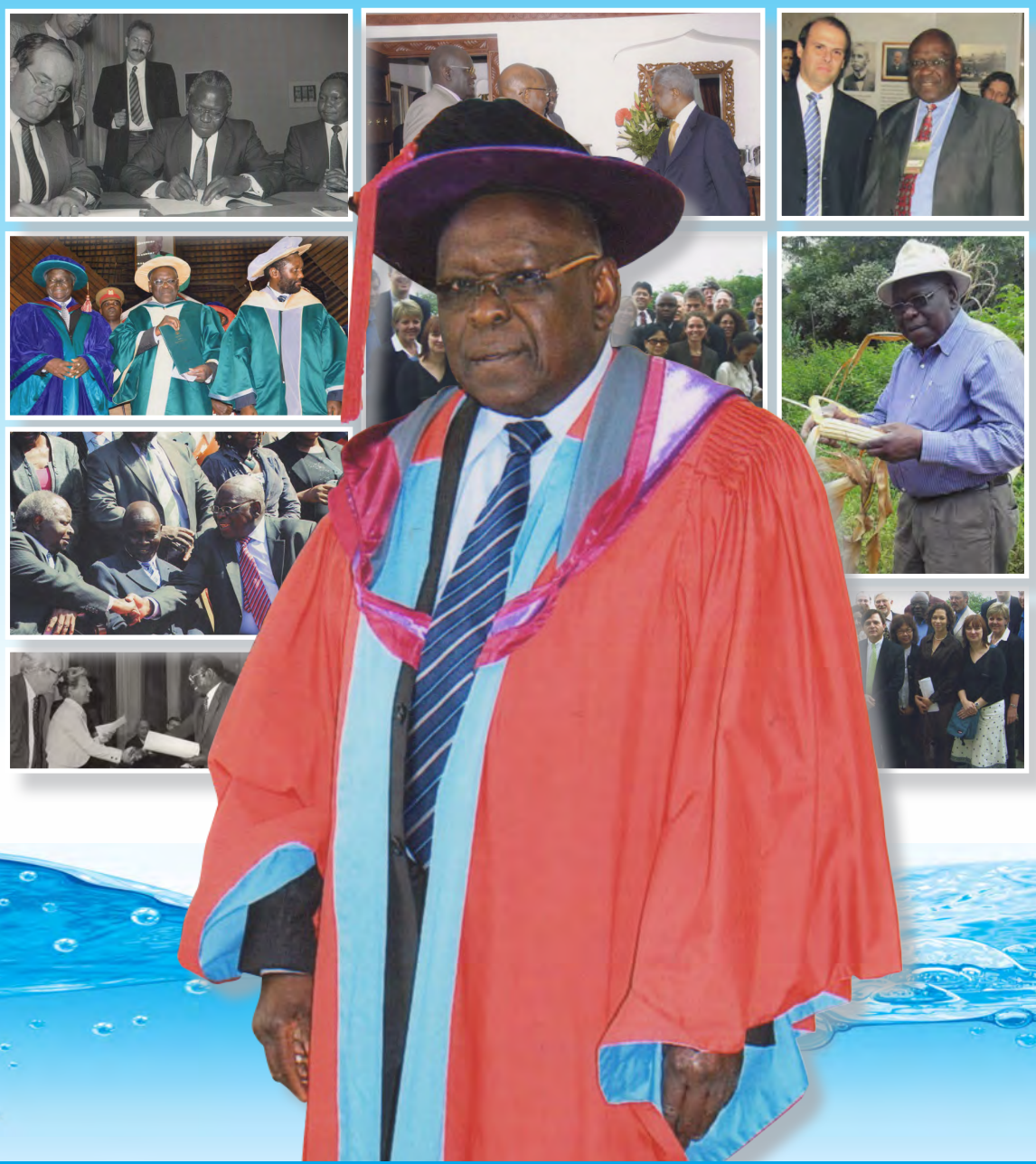

EDITED BY
PATRICIA KAMERI-MBOTE AND COLLINS ODOTE

Blazing the Trail

Professor Charles Okidi's Enduring Legacy in the Development of Environmental Law

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Citation:
Blazing the Trail: Professor Charles Okidi's Enduring Legacy: the Development of Environmental Law. Edited by Patricia Kameri-Mbote and Collins Odote. 2019

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ISBN: 978-9966-1952-2-7

Design & Layout: Conrad Mudibo, Ecomedia Limited

Printed by: Digital Process Works

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Foreword

Kenya has been and continues to be a leader in efforts to address global environmental challenges. A study of the history of the development of international environmental law demonstrates the active engagement of the country in international environmental processes and its contribution to shaping various decisions that the global community has made in response to emerging environmental challenges. The most visible sign of these efforts is the hosting of the United Nations Environment Programme, since 1972 when the organization was established following the conclusion of the United Nations Conference on the Human Environment in Stockholm.

Nationally, the adoption of the 2010 Constitution reaffirmed the importance that Kenya accords to environmental governance. The Constitution demonstrates that the country's development is inextricably linked to how it manages its environment. In addition to recognizing and protecting the Right to a Clean and Healthy environment, the Constitution also obligates all entities to pursue sustainable development in all their undertakings. In essence, environmental matters are mainstreamed and weaved into all sectors and processes of the country.

Professor Charles Okidi's life and work mirrors the edict of the Constitution. From an early age, as this *Festshrift* demonstrates, he sought to improve the manner in which the environment is governed. Using the tool of scholarship, he has made an indelible mark in the country's efforts to develop a progressive and responsive environmental legal framework, in addition to influencing Kenya's role in international environmental negotiations. From his PhD Studies at the Fletcher School of Law and Diplomacy, where he focused on issues of the Law of the Sea, to his University teaching on environmental law, development and policy and on to capacity building initiatives at the United Nations and beyond, Professor Okidi is without doubt one of the foremost Kenyan scholars in the environmental field. He has made a great contribution to the discipline and practice of environmental studies.

When Kenya adopted the Environment Management and Coordination Act in 1999, Professor Okidi was instrumental in its drafting and the stakeholder consultations that resulted in what is still a very far-sighted piece of legislation. He made an influential presentation to the Constitution of Kenya Review Commission, which informed the Land and Environment Chapter in the Constitution. Professor Okidi has also served on several Government institutions and Task Forces making critical policy contributions to the country.

Blazing the Trail is, therefore, a worthy celebration of the life of an academic giant who was not just content with teaching but ensured that there was a link between the academies and practice as evidenced by his close engagement with national policy processes. At the same time, the publication discusses topical environmental challenges that the country continues to grapple with in its quest to ensure sustainable development. These include pollution control, conservation, natural resource management and promotion of the blue economy.

The publication will form a very useful resource to the Ministry of Environment and Tourism, policy makers, researchers, students and all persons interested in environmental matters.

I congratulate Professor Okidi for a life well lived, for demonstrating true patriotism and for his contribution to improving our environment and the manner in which it is managed.

Keriako Tobiko, CBS, SC
Cabinet Secretary
Ministry of Environment & Forestry
Republic of Kenya

Foreword

This book honours a great academic who has greatly contributed to the development of environmental law, not only in Kenya but globally. Kenya which hosts the Headquarters of the United Nations Environment Programme has been particularly fortunate to have Prof. Charles Okidi, a renowned environmental law scholar who was the first professor as wel I as the first Dean of the first School of Environmental Studies in Kenya.

As the Attorney General of Kenya (1991-2011) I turned to Prof. Okidi to lead members of the Task Force I had appointed with the mandate to come up with a draft environmental Law for Kenya. This resulted in the drafting and enactment of the Environmental Management and Co-ordination Act which was hailed as a far sighted piece of legislation worthy of emulation by other countries. Prof. Okidi's contribution to the environmental law provisions in the 2010 Constitution of Kenya put Kenya in a league of countries that had elevated sustainable environmental and natural resources management to the highest law of the land.

Beyond Kenya, Prof Okidi's commitment to environmental law is evidenced by his contribution to the development of regional and global instruments that have shaped the countries' actions in the quest for sustainable development. He is known all over the world as a champion of environmental law. The diversity of scholars and subjects covered is testament to both Prof. Okidi's influence and contribution to the development of the discipline. In this regard he has played his role in ensuring that Africa and Africans are not left behind in matters relating to environmental law.

Those following in Prof. Okidi's footsteps have a tough act to follow. This is however made easier by his generosity in mentoring upcoming environmental law and policy practitioners and scholars and his prolific authorship of works that will guide generations in years to come. His mentees and students have a responsibility to continue the work he started and to grow the discipline and practice of environmental law. The institutions he established will also indelibly mark his imprimatur on sustainable development in Kenya, Africa and the world.

Prof. Okidi's story demonstrates how ordinary activities performed with passion can contribute to changes with long lasting impacts. It should inspire other scholars to go the extra mile in carrying out their work. It should also encourage younger scholars to take the road less travelled like Prof. Okidi who started his environmental law journey long before the subject was taught at universities around the world. His courage and fortitude have provided the fodder for this *festschrift*.

02/03/2019.

Senator. S.Amos Wako, EBS, EGH, FCIArb, SC, MP
Attorney General Emeritus & Member, UN International Law Commission

Acknowledgements

Putting together this *festschrift/liber amicorum* took a village. Indeed, it would not have been possible without the cooperation, enthusiasm, passion and support of many people in Kenya and around the world. The *tour de force* benefitted from overwhelming support and great commitment of all the authors who worked tirelessly and responded timeously to the editors' questions and requests. We thank you most sincerely for this commitment. We also express our gratitude to Professor Charles Okidi for providing the fodder for this *festschrift/liber amicorum* through a lifetime of commitment and dedication to scholarship in environmental law and policy and to building institutions to grow the discipline and practice.

We are also grateful to Hon. Keriako Tobiko, the Cabinet Secretary, Ministry of Environment and Forestry and Hon. Senator Amos Wako for their contribution to the tome by penning incisive forewords. We also thank Professor Koh Kheng-Lian, Professor Lena Gipperth and Professor Wanjiku Kabira for reading the book and sharing their comments for the blurb.

Kwamchetsi Makokha deserves gratitude for his painstaking and detailed technical editing of the manuscript, which helped in refining the *festschrift/liber amicorum*. In similar vein, we thank our dedicated research assistants Muriuki Muriungi, Macharia Kaguru, Jennifer Githu, Claire Soit, Garvin Rodgers and Bridget Njoki Wambui for their contribution to the referencing and provision of additional research materials for the *festschrift/liber amicorum*. We are also immensely grateful to Ecomedia for professionally laying out this manuscript and to Digital Process Works for publishing the final *festschrift/liber amicorum*.

To the Ford Foundation, through the Institute of International Education (IIE), we owe a debt of gratitude for providing the financial resources necessary for publishing the manuscript. We particularly thank the Regional Director for East Africa, Maurice Makoloo for sharing our belief in the value of this *festschrift/liber amicorum* as an invaluable teaching, mentoring and policy tool and for facilitating the procurement of finances for the publication of the *festschrift/liber amicorum*. Without your support, the publication would have taken much longer.

Editors

Patricia Kameri-Mbote earned her doctorate from Stanford University in 1999 specializing in property rights and environmental law. She had earlier studied law in Nairobi, Warwick and Zimbabwe and has taught law globally for over 25 years. She is a Professor of Law and former Dean at the School of Law, University of Nairobi; was conferred the rank of Senior Counsel in 2012; and also awarded a doctorate degree in law by the University of Oslo (UiO) in 2017 for outstanding contribution to research through groundbreaking work cutting across established fields such as Women's Law, Natural Resources Law, Human Rights and Law and Development.

Kameri-Mbote is an engaged and public spirited global citizen who has served and currently serves on various national, regional and international boards such as: the Global Council of the Water and Sanitation Program (WSP); the International Development Law Organization (IDLO); and Lewa Wildlife Conservancy. She is the chairperson of the Association of Environmental Law Lecturers in African Universities (ASSELLAU) and has published widely in her areas of research interest.

Collins Odote is an advocate of the High Court of Kenya, with a PhD in law from the University of Nairobi with a specialization in land and environmental law. His PhD Thesis was on "Regulating Property Rights to Ensure Sustainable Management of Wetlands in Kenya". Professor Okidi was one of his supervisors and nudged him to join the University as a member of staff, where he serves as a senior lecturer at the Centre for Advanced Studies in Environmental Law and Policy (CASELAP.

Odote's research interests span property theory, natural resource management, environmental law and governance. He has written widely on issue to do with land, environment and natural resource governance. In 2017 he co-edited with Patricia-Kameri-Mbote, " The Gallant Academic: Essays in Honous of H.W.O Okoth Ogendo." His most recent publications are " The Role of the Environment and Land Court in Governing Natural Resources in Kenya" in in Patricia Kameri Mbote, et al(eds) Law, Environment, Africa, (Nomos, 2019), and " Implications of the Ecosystem-Based Approach to Wetlands Management to the Kenyan Coast in David Langlet and Rosemary Rayfuse(eds), The Ecosystem Approach in Ocean Planning and Governance: Perspectives from Europe and Beyond(Brill Nijhoff, 2019).

Contributors

Jamie Benidickson teaches Environmental Law and Water Law at the University of Ottawa where he is also a member of the Centre for Environmental Law and Global Sustainability. Jamie Benidickson's publications include *Environmental Law* (Irwin Law, 2019); *The Culture of Flushing: A Social and Legal History of Sewage* (UBC Press, 2007) and *Levelling the Lake: Transboundary Resource Management and the Lake of the Woods Watershed* (UBC Press, 2019). He was appointed the first Director of the IUCN Academy of Environmental Law in 2004 and served in that capacity with his colleague Yves LeBouthillier for most of the period to 2016.

Philippe Cullet is Professor of international and environmental law at SOAS University of London, a Senior Visiting Fellow at the Centre for Policy Research in New Delhi and a convenor of the International Environmental Law Research Centre (IELRC). He works on international and domestic environmental law, natural resources, water and sanitation and socio-economic rights and engages regularly with policymakers at the national and international levels. He was a member of the committee set up by Government of India to draft the Draft National Water Framework Bill, 2016 and the Model Groundwater (Sustainable Management) Act, 2017. His latest books are *Right to Sanitation in India – Critical Perspectives* (Oxford University Press, 2019 – co-editors S. Koonan & L. Bhullar) and *Groundwater and Climate Change – Multi-Level Law and Policy Perspectives* (Routledge, 2019 – co-editor RM Stephan).

Parvez Hassan, Senior Advocate, Supreme Court of Pakistan, and Senior Partner of Hassan & Hassan (Advocates), is currently the President of the Pakistan Environmental Law Association. He is Chairman, Emeritus, World Commission on Environmental Law, IUCN. His educational credentials include a Bachelor of Laws from Punjab University in Lahore, a Masters of Law degree from Yale University and a Doctorate of Law from Harvard University.

He has led environmental public interest litigation in Pakistan starting with the internationally-acclaimed Shehla Zia case which he successfully argued before the Supreme Court of Pakistan in 1994. He drafted the Environmental Legislation in Pakistan and served on its highest Pakistan Environmental Protection Council. He also chaired the National Environmental Quality Standards Implementation Committee.

The Supreme Court of Pakistan, the Islamabad High Court and the Lahore High Court appointed him, from time to time, to chair Judicial Commissions including on air, water, smog, solid waste disposal, climate change, houbara bustard, blackbucks and child care.

Hassan's work for the environment has been acknowledged in many international awards including the UNEP Global 500 Roll of Honour (1991), the Elizabeth Haub Prize for the Environment (1998), and the honorary membership of the IUCN-The World Conservation Union (2000).

He has been actively involved in promoting and defending the rule of law in Pakistan throughout his career. He co-led the nation-wide lawyers movement in 1983 against General Zia ul Haq and actively participated in the lawyers movement against General Pervez Musharraf in 2007.

He is the author of books, including Resolving Environmental Disputes in Pakistan: The Role of Judicial Commission (2018), and Stories of Gratitude (2016) and of numerous articles in national and international journals.

Kenneth Kakuru was born in Uganda in 1958. He is a Justice of the Court of Appeal of Uganda, which also doubles as the Constitutional Court a position he has held since July 2013. Prior to that, he was an advocate in private practice as a Senior Partner with Kakuru & Co. Advocates from February 1987 to July 2013. He had long career as Environmental lawyer and Human Rights Activists, specializing in Public Interest Litigation. He was a Director of Greenwatch Uganda an advocacy NGO he founded in 1995. He taught Environmental Law at Uganda Pentecostal University where he was an Associate Professor and Media Law at Makerere University. He holds Masters Degree in Law from Makerere University and Masters Degree in Educational Policy and Planning from Kyambogo University. He is married with children.

Patricia Kameri-Mbote earned her doctorate from Stanford University in 1999 specializing in property rights and environmental law. She had earlier studied law in Nairobi, Warwick and Zimbabwe and has taught law globally for over 25 years. She is a Professor of Law and former Dean at the School of Law, University of Nairobi; was conferred the rank of Senior Counsel in 2012; and also awarded a doctorate degree in law by the University of Oslo (UiO) in 2017 for outstanding contribution to research through groundbreaking work cutting across established fields such as Women's Law, Natural Resources Law, Human Rights and Law and Development.

Kameri-Mbote is an engaged and public spirited global citizen who has served and currently serves on various national, regional and international boards such as: the Global Council of the Water and Sanitation Program (WSP); the International Development Law Organization (IDLO); and Lewa Wildlife Conservancy. She is the chairperson of the Association of Environmental Law Lecturers in African Universities (ASSELLAU) and has published widely in her areas of research interest.

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Kibugi has extensive experience in development of law and policy frameworks, including design and drafting of the 2016 Climate Change Act, and the National Climate Change Framework Policy, and working on development of a New National Water Policy for Kenya.

Stephen C. McCaffrey is Carol Olson Endowed Professor of International Law at the University of the Pacific, McGeorge School of Law in Sacramento, California. He served two terms on the U.N. International Law Commission (ILC), chaired that body for one of its sessions, and was the Commission's special rapporteur on international watercourses. The ILC's work on that topic resulted in the negotiation of the 1997 U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses. Professor McCaffrey is the 2017 Stockholm Water Prize Laureate and 2018 recipient of the Elisabeth Haub Award for Environmental Law and Diplomacy. He was elected by the parties to the UNECE Water Convention as a member of that agreement's Implementation Committee. He has served as counsel to States in cases before the International Court of Justice and the Permanent Court of Arbitration and has published widely in the fields of international water and environmental law.

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Before joining UNEP, Ms. Mrema worked as a lawyer and career diplomat with the Tanzanian Ministry of Foreign Affairs and International Cooperation to a rank of senior counsellor. During this period, she also taught Public International Law and Conference Diplomacy at Tanzania's Centre for Foreign Relations and Diplomacy.

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Hildah Mutwiri is an advocate of the High Court of Kenya and also a Lecturer at the School of Law Kenyatta University. She holds a Master of Laws (LL.M) degree with a specialization in the Environmental and Natural Resources Law thematic area from the University of Nairobi. She is currently pursuing a PhD in Environmental Law at the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) University of Nairobi. She practiced law as a State Prosecutor at the Office of the Director of Public Prosecutions (ODPP), where she prosecuted environmental crimes among other matters.

Collins Odote is an advocate of the High Court of Kenya, with a PhD in law from the University of Nairobi with a specialization in land and environmental law. His PhD Thesis was on "Regulating Property Rights to Ensure Sustainable Management of Wetlands in Kenya".

Professor Okidi was one of his supervisors and nudged him to join the University as a member of staff, where he serves as a senior lecturer at the Centre for Advanced Studies in Environmental Law and Policy (CASELAP.

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Dan Bondi Ogolla obtained his Ph.D. in Law from the Centre for International & Comparative Law, University of Bordeaux I, France, in 1991. He also holds the LL.B. (Hons) (1978) and LL.M. (1980) Degrees from the University of Nairobi. He taught at the University of Nairobi School of Law from 1983 to 1992 rising to the position of Senior Lecturer in the Department of Public Law. His main courses were environmental law, land law and labour law. He joined UNEP in 1993 as Legal Officer responsible for UNEP's technical assistance programme to developing countries and countries with economies in transition in the field of environmental policy, law and institutions. He was Legal Adviser at the UN Convention on Biological Diversity (Montreal, Canada) from 1999 to 2006; Chief Legal Adviser at UNFCCC (Bonn, Germany) from 2007 to 2012; and Director of Legal Affairs & Principal Legal Adviser at UNFCCC from 2013 to 2016.

Bondi Ogolla is a member of the International Council of Environmental Law, the IUCN Commission on Environmental Law, the Editorial Board of the Journal of International Wildlife Law & Policy, and the Kenya National Academy of Sciences. He is published in the fields of environmental law, trade and environment, and land tenure.

Nicholas Oguge is a Professor of Environmental Policy and the Director at the Centre for Advanced Studies in Environmental Law and Policy (CASELAP), University of Nairobi. He is an Expert with the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services African Regional Assessment, a Trustee at the African Conservation Centre (ACC), the founding President of the Ecological Society for Eastern Africa (ESEA), and a member of the Editorial Board, African Journal of Ecology. He is published widely and has expertise on a wide range of environmental issues including: climate change, biodiversity and ecosystem services, circular economy measures, etc. He was a member of Ministerial Task Force on Climate Change policy and Bill (2013), and the Team Leader in the revision of National Wildlife Conservation and Management Policy (2017).

Jackton B. Ojwang's trek in legal scholarship reverts to the late 1970's, when he took his place as Lecturer in Law at the University of Nairobi, upon completing the Master of Laws programme. Soon thereafter, he proceeded to Downing College in the University of Cambridge, where he earned his Ph.D. in comparative constitutional law in 1981. Thenceforth he rose, at his *alma mater*, to the position of Senior Lecturer (1983); Associate Professor (1987) and Professor (1990). A career scene-change saw him take oath as a Judge of the High Court of Kenya in 2003, and later as a Justice of the inaugural Supreme Court under the Constitution. His works of scholarship are in several authored, as well as edited books (such as: *Constitutional Development in Kenya* (1990); *Ascendant Judiciary in East Africa* (2013); *The Common Law, Judges' Law* (2014) and over ten dozen articles and reviews in international legal journals. Such works are the substructure of Justice Ojwang's special study, *The Unity of the Constitution and the Common Law*, for which he earned the Higher Doctorate (LL.D.) of his *alma mater* in 2015.

Charles Odidi Okidi is Research Professor at the Institute for Development Studies and Professor of Environmental Law at The Centre for Advanced Studies in Environmental Law and Policy, both at University of Nairobi. He taught Environmental Law and Law of the Sea at the University of Nairobi School of Law. He has taught, lectured and published widely on comparative environmental law, law of the sea and international water law. He is a former Senior Legal Officer at UNEP and Task Manager of Project of Environmental Law and Institutions in Africa. He is a former Vice Chair of IUCN/CEL and Regional Governor of ICEL and was a member of the Founding Board of the IUCN Academy of Environmental Law. He was founding Dean of Moi University School of Environmental Studies. He was 1984 Elizabeth Haub Prize in Environmental Law and a few other Awards and Honours.

Okidi holds BA (Magna Cum Laude) from Alaska Methodist University; M.A, M.ALD and Ph.D in public International Law and International Environmental Law from The Fletcher School of Law and Diplomacy, Tufts University, USA.

Michel Prieur is a French emeritus professor of environmental law and president of the International center of comparative environmental law, an international NGO with special consultative status in the UN and the UNEP and observer in the international organisation of francophonia (OIF). He founded in the 1970's the French society for environmental law and of the environmental law review. Author of many books and articles on national and international environmental law, he promoted recently the principle of non regression and the development of environmental legal indicators. He has been dean of the Limoges law school and legal adviser of many national and international institutions. He was member of the compliance committee of the Espoo convention and of the Barcelona convention. He developed specifically the convention on landscape and the protocol on the integrated coastal zone management in the mediterranean sea.

Nicholas A. Robinson is the Gilbert & Sarah Kerlin Professor *Emeritus* at the Elisabeth Haub School of Law at Pace University in New York, and a Professor Adjunct at the Yale University School of Forestry & Environmental Studies. He served as Chair of the Commission on Environmental Law of the International Union for the Conservation of Nature, and was founding chair of the IUCN Academy of Environmental Law. He is currently Executive Governor of the International Council of Environmental Law. He edited the *traveaux preparatoires* for the 1992 UN Conference on Environment & Development (Agenda 21 & The UNCED Proceedings), and has written widely on environmental law. He serves as an environmental law delegate from 1972-92 to the USA-USSR negotiations in the field of environmental protection. He delivered his lectures, as recipient of the Elizabeth Haub Prize in Environmental Law, at the University of Nairobi and Moi University, in Kenya.

Iwona Rummel-Bulska is a Senior Lecturer at the School of Law, University of Nairobi. She holds LL.M and Ph.D. degrees from the University of Warsaw, Poland. Her doctoral thesis focused on Non-navigational uses of international waterways. She has over 30 years professional experience in international and environmental law, water law, international organizations, international negotiations, international relations and international environmental policy. She is also Associate Professor, Institute of International Relations, Warsaw and has lectured at other Universities and UNITAR. She has served as the Head Environmental Law Branch of UNEP, Senior Legal Advisor of WMO and UNEP; Coordinator and Executive Secretary of Ozone Secretariat and of the Secretariat of the Basel Convention; Executive Secretary of Negotiations of Ozone Convention and Montreal Protocol, Convention on Biological Diversity, Basel Convention, Chemicals, Zambezi Agreement and several UNEP Guidelines and Principles. She has written widely on environmental law; participated at many environmental law negotiations as a representative of UNEP; as a Polish Delegate at the preparations of Rio+20 and as Advisor to President of Climate Change Conference of Parties. She was awarded honours by UNEP for her exceptional and leading role in the development and negotiations of Montreal Protocol; by the USA EPA for exceptional contribution to global environmental protection; for Leadership in the Vienna Convention and Montreal Protocol; by Board of Trustees of the Centre of International Environmental Law; and as Head of UNEP's Environmental Law Branch for its outstanding work in developing and implementing international environmental law. She is an Honorary Member of the Commission of Environmental Law of IUCN.

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Abbreviations

ACTS	African Center of Technology Studies
ADD	Architecture, Design and Development
ADP	Ad Hoc Working Group of the Durban Platform for Enhanced Action
ADR	Alternative Dispute Resolution Mechanisms
AES	Applied Energy Services
AfDB	Africa Development Bank
AFGRAD	African Graduate Students
AG	Attorney General
AILAC	Chile, Colombia, Costa Rica, Guatemala, Panama and Peru
AIM	Africa's Integrated Maritime
ALBA	Venezuela, Bolivia, Cuba and Nicaragua
AMCEN	African Ministerial Conference on the Environment
AMRF	African Mountains Regional Forum
AMU	Alaska Methodist University
AMU	Arab Maghreb Union
AOSIS	Alliance of Small Island Developing States
ASP	Assistant Superintendent of Police
ASSELLAMU	Association of Environmental Law Lecturers for the Middle East Universities
ASSELLAU	Association of Environmental Law Lecturers in African Universities
ASTII	African Science, Technology and Innovation Indicators Initiative
ATM	Automated Teller Machines
ATT	Arms Trade Treaty
AU	African Union

AWG-LCA	Ad Hoc Working Group on Long-term Cooperative Action
AWSC	African Women's Studies Centre
AWWF	Alternative World Water Forum
BASIC	Brazil, South Africa, India & China
BAU	Business as Usual
BBNJ	Beyond National Jurisdiction
BNU	Beaconhouse National University
BWRC	Basin Water Resources Committees
CASELAP	Centre for Advanced Studies in Environmental Law and Policy
CBD	Convention of Biological Diversity
CBDR	Differentiated Responsibilities
CCA	Climate Change Act
CCD	Climate Change Division
CCTWG	Climate Change Thematic Working Group
CCU	Climate Change Units
CDA	Capital Development Authority
CEE	Common Entrance
CEMZA	Combined Exclusive Maritime Zone of Africa
CEN-SAD	Community of Sahel-Saharan States
CEO	Chief Executive Officer
CFR	Central Forest Reserve
CFtA	Continental Free Trade Area
CIArb	Chartered Institute of Arbitrators
CIDA	Canadian International Development Agency
CIDCE	Centre International de Droit Comparé de l'environnement
CIDP	County Integrated Development Plan
CIF	Cost, Insurance and Freight

CITES	Convention on International Trade in Endangered Species of Wild Fauna & Flora
CLESAP	Climate Policy and Energy Security Programme for Sub-Saharan Africa
CMI	Comité Maritime International
CMS	Church Missionary Society
CMS	Conservation of Migratory Species of Wild Animals
CNG	Compressed Natural Gas
CoE	Centre of Excellence
CoG	Council of Governors
COMESA	Common Market for Eastern and Southern Africa
CONDESAN	Consortium for the Sustainable Development of the Andean Eco region
COP	Conference of the Parties
CSO	Corporate Social Responsibility
CSR	Corporate Social Responsibility
CSS	Community of Sahel–Saharan States
CUE	Commission of University Education
DC	District Council
DD	Dutch Disease
DEA	Directorate of Environmental Affairs
DEO	District Environment Officer
DEP	Department of Environment Protection
DESS	Environmental Support Services
DOSP	Dalhousie Ocean studies project
DPP	Director of Public Prosecution
DRC	Democratic Republic of Congo
DSB	Dispute Settlement Body
DSU	Dispute Settlement Understanding
DWD	Department of Water Development

DWO	District Water Office
DWRM	Directorate of Water Resources Management
EAC	East African Community
EACJ	East Africa Court of Justice
ECCAS	Economic Community of Central African States
ECE	Compliance and Enforcement
UNECE	United Nations Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ECOSOC	Economic and Social Council
ECOWAS	Economic Community of West African States
EDI	Electronic Document Interchange
EDI	Environmental Democracy Index
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EIG	Environmental Integrity Group
EITI	Extractive Industries Transparency Initiatives
ELC	Environmental Law Centre
ELI	Environmental Law Institute
EM	Ecosystem Management
EMCA	Environment Management and Coordination Act
EU	European Union
FSSD	Forestry Sector Support Department
GCLME	Guinea Current Large Marine Ecosystem
GDP	Gross Domestic Product
GECKO	Green and Circular Innovation for Kenyan Companies
GEF	Global Environmental Facility
GHCTS	Global Hydrologic Cycle Trusteeship System
GHG	Green-House Gas

GIS	Geographical Information Systems
GJIE	Global Judicial Institute on the Environment
GMOs	Genetically Modified Organisms
GOPb	Government of Punjab
GPA	Global Programme of Action)
GRULAC	Latin American & Caribbean Group
GTZ	German Technical Cooperation Agency
HDI	Human Development Index
HDR	Human Development Report
IAEG	Inter-Agency and Expert Group
ICCEL	International Centre for Comparative Environmental Law
ICEL	International Commission of Environmental Law
ICEL	International Council of Environmental Law
ICJ	International Court of Justice
ICP	Inter-institutional Cooperation
ICT	Information and Communications Technology
ICZM	Integrated Coastal Zone Management
IDLO	International Development Law Organisation
IDS	Institute for Development Studies
IDS	Institute for Development Studies
IFAD	International Fund for Agricultural Development
IFC	International Finance Cooperation
IFDD	Institut de la Francophonie pour le développement durable
IGAD	Inter-Governmental Authority on Development
IIAG	Ibrahim Index of African Governance
ILA	International Law Association
ILC	International Law Commission
ILO	International Labour Organization

IMB PRC	International Maritime Bureau Piracy Reporting Centre
IMF	International Monetary Fund
IML	International Maritime Law
IMO	International Maritime Organization
IMPEL	Implementation and Enforcement of Environmental Law
INECE	International Network for Environmental Compliance and Enforcement
INTERREG	Interreg programme between Switzerland and Italy
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Program on Chemical Safety
IRPTC	International Register of Potentially Toxic Chemicals
ISBA	International Sea Bed Authority
ISPS Code	International Ship and Port Facility Security Code
IUCN	International Union for the Conservation of Nature and Natural resources
IUCNAEL	IUCN Academy of Environmental Law
IYM	International Year of Mountains
JICA	Japan International Cooperation Agency
KAM	Kenya Association of Manufacturers
KAPE	Kenya African Primary Examination
KfW	Kreditanstalt fur Wiederaufbau
KIRDI	Kenya Industrial Research and Development Institute
KNCPC	Kenya Cleaner Production Centre
KP	Kyoto Protocol
KPCS	Kimberley Process Certification Scheme
KRA	Kenya Revenue Authority
LBT	Lahore Bachao Tehreek
LDCs	Least Developed Countries
LEAD	Leadership for Environment and Development
LLM	Masters of Laws

LMDC	Like-Minded Group of Developing Countries
LME	Large Marine Ecosystems
LUMS	Lahore University of Management Sciences
MA	Master's
MALD	Master of Arts in Law and Diplomacy
MAP	Mediterranean Action Plan
MARPOL	International Convention for the Prevention of Pollution from Ships
MCAA	Mountain Catchment Areas Act of 1970
MDGs	Millennium Development Goals
MEAs	Multilateral Environmental Agreements
MED POL	Meeting of the Focal Points of the Mediterranean Pollution Assessment and Control Programme
MIT	Massachusetts Institute of Technology
MMBCP	Mulanje Mountain Biodiversity Conservation Project
MOU	Memorandum of Understanding
MTP	Medium Term Plan
MWRRA	Maharashtra Water Resources Regulatory Authority
NAP	National Adaptation Plan
NATO	North Atlantic Treaty Organization
NBSAPs	National Biodiversity Strategies and Action Plans
NCCAP	National Climate Change Action Plan
NCCC	National Climate Change Council
NDC	Nationally Determined Contributions
NEA	National Environment Act
NEAP	National Environment Action Plan
NEAT	New Railway Transalpine Transit
NEITI	Nigeria Extractive Industries Transparency
NEMA	National Environment Management Authority

NEMP	National Environment Management Policy
NEPAD	New Partnership for Africa's Development
NESDA	North-East Scotland Development Authority
NESPAK	National Engineering Services Pakistan
NFA	National Forest Authority
NGO	Non-Governmental Organization
NIAPs	National Ivory Action Plans
NIS	National Systems of Innovation
NLC	National Land Commission
NMAs	National Member Associations
NOGP	National Oil and Gas Policy
NRA	National Resistance Army
NRG	Natural Resources Governance
NRM	National Resistance Movement
NWCPC	National Water Conservation and Pipeline Corporation
NWSA	National Water Storage Authority
OAU	Organisation of African Unity
OECD	Organisation for Economic Co-operation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
PADELIA	Partnership for the Development of Environmental Law and Institutions in Africa
PAPs	Project Affected
PAs	Priority Areas
PAT	Participation, Accountability and Transparency
PCSIR	Pakistan Council of Scientific and Industrial Research
PEPD	Petroleum Exploration, Production and Development
PFMA	Public Finance Management Act
PhD	Doctor of Philosophy

PIEL	Public Interest Environmental Litigation
PIMS	Pakistan Institute of Medical Sciences
PPA	Power Purchase Agreement
PPP	Polluter-Pays Principle
PRSP	Poverty Reduction Strategy Paper
PWYP	Publish What You Pay
R&D	Research and Development
RECs	Regional Economic Communities
RFMOs	Regional Fisheries Management Organizations
RMCCA	Regional Mountain Centre for Central Asia
RUBICOM	Ruaraka Business Community
SADC	Southern African Development Community
SAJEI	South African Judicial Education Institute
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SC	Standing Committee
SDG	Sustainable Development Goal
SDPI	Sustainable Development Policy Institute
SIDA	Swedish International Development Agency
SIDS	Small Island Developing States
SLOCs	Sea Lines of Communication
SMD	Sustainable Mountain Development
SOL	School of Law
SOLAS	International Convention for the Safety of Life at Sea
SSP	Sardar Sarovar Project
STI	Science, Technology and Innovation
STISA	Science, Technology and Innovation Strategy for Africa
TAI	The Access Initiative

TDR	Traditional Dispute Resolution
TEPA	Traffic Engineering and Planning Agency
UAE	United Arab Emitares
UCCA	University Central Committee on Admission
UDHR	Universal Declaration of Human Rights
UG	Umbrella Group
UK	United Kingdom
UN FAO	Food and Agriculture Organisation of the United Nations
UN	United Nations
UNCC	United Nations Compensation Commission
UNCED	United Nations Conference on Environment and Development
UNCED	United Nations Conference on Environment and Development
UNCITRAL	United Nations Commission on International Trade Law
UNCLOS	UN Convention on the Law of the Sea and the Convention
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNMA	Uganda National Meteorological Authority
UNOC	Uganda National Oil Company
UNODC	United Nations Office on Drugs and Crime
UNSC	United Nations Security Council
UNTOC	Convention against Transnational Organized Crime
USA	United States of America
USAID	United States Agency for International Development

USD	United States Dollar
USSR	Union of Soviet Socialist Republics
UWA	Uganda Wildlife Authority
WAPDA	Water and Power Development Authority
WASREB	Water Services Regulatory Board
WCED	World Commission on Environment and Development
WCMC	World Conservation Monitoring Centre
WEF	World Economic Forum
WGI	Worldwide Governance Indicators
WHO	World Health Organization
WJC	Wildlife Justice Commission
WJP	World Justice Project
WMD	Wetlands Management Department
WMO	World Meteorological Organization
WMPA	World Mountain People Association
WRA	Waters Resources Authority
WRUAs	Water Resource User Associations
WSBs	Water Services' Boards
WSP	Water and Sanitation Programme
WSP	Water Services Provider
WSRS	Water Sector Reforms Secretariat
WSTF	Water Sector Trust Fund
WTO	World Trade Organization
WUAs	Water Users Associations
WWDAs	Waters Works Development Agencies

Part I:
Introduction

Chapter 1

A Fitting Tribute to Charles Odidi Okidi: The Father of Environmental Law

Patricia Kameri-Mbote & Collins Odote

I. THE CONTEXT

Environmental law is a fairly new discipline of regulation and scholarship. At the international level, its evolution gained prominence following the 1972 United Nations Conference on the Human Environment held in Stockholm, Sweden. At the time that the United Nations General Assembly (UNGA) adopted the resolution to convene the Stockholm Conference, there was an assumption that the concept of the environment and the nature of environmental problems were universally understood.[1] It, however, soon emerged that there was no consensus on what the terms meant. Developing countries argued that the conception of the term focused on challenges facing developed countries without any contextual linkages to, and appreciation of issues in the developing world. This forced the UN Secretary General to convene a special group of experts in 1971, before the Stockholm Conference, to discuss the problem and try and generate consensus.[2] These events led to the development of the principle of sustainable development as the *raison d'etre* of legal and policy developments in the environmental law.

Originally defined by the Brundtland Commission, in its report, *Our Common Future,*[3] as 'development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs',[4] sustainable development has become the key principle in environmental governance. Justice Weeramantry in the *Gabcikovo Nagymaros*[5] case before the International Court of Justice cemented the place of sustainable development as an important principle with normative status. The United Nations General Assembly adopted the Sustainable Development Goals (SDGs)[6] in 2015 as the blueprint for achieving a sustainable future. SDGs are a

1 CO Okidi, 'Reflections on Teaching and Research on Environmental Law in African Universities' (1988) 18 *Journal of Eastern African Research and Development* 128.
2 ibid. This was the Conference's Preparatory Committee, which came up with a draft Declaration.
3 Report of the World Commission on Environment and Development: Our Common Future, 4 August 1987 (A/42/427, Annex). < http://www.un-documents.net/our-common-future.pdf > accessed 27 January 2019.
4 ibid, para 27.
5 [1997] ICJ Rep 88.
6 <https://www.un.org/sustainabledevelopment/sustainable-development-goals/ > accessed 27 January 2019.

set of 17 Goals[7] and 169 targets focused on ending poverty and ensuring sustainable development. At the time of adopting the SDGs, the members of the UNGA, "recognize (d) that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development."[8] Consequently, they purposed to embark on developing the world sustainably and in an integrated manner, addressing the economic, social and environmental components of sustainable development. This entailed a commitment to "take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path"[9] carrying everybody in the journey towards sustainability and prosperity.

Despite the importance of sustainable development, legal clarity on its content and modalities for its achievement continue to be elusive. While policy makers discussed modalities for its implementation, culminating in the adoption of the SDGs; scholars and practitioners also researched, taught, debated and explored ways of ensuring that sustainable development became a reality globally. Significantly, Professor Charles Odidi Okidi has contributed immensely to the clarification of the legal content of sustainable development and its realization since his graduation with the degree of Doctor of Philosophy (PhD) from the Fletcher School of Law and Diplomacy in the United States. So ubiquitous has his work been globally that it has earned him the title *Father of Environmental Law*. That honour is evidenced by his numerous writings, the tasks he has undertaken, the scholars he has mentored, research projects he has led and laws he has developed and contributed to. In recognition of this, in 1984 he received the prestigious Elizabeth Haub Award in environmental land and diplomacy and was also honoured by the Attorney General of Brazil.

On 3rd December, 2018 the UN Secretary General issued a report titled "Gaps in international environmental law and environment-related instruments: towards a global pact for the environment."[10] The report contains an independent assessment of the principles and efforts to protect the environment and was prepared following a directive by the UN General Assembly in May 2018.[11] It assesses the progress made in the development of international environmental law and identifies areas that require action moving forward. On 10th December 2018 an international group of experts, issued a note on the Secretary Generals' report.[12] The note is important for this publication for two reasons. First, the group that prepared the note comprised scholars and professionals, a demonstration of the role that they have played in the development of environmental law over the years. Secondly, Professor Okidi has been a key member of the academy that has influenced the

7 The various Sustainable Development Goals (SDGs) are: no poverty; zero hunger; good health and well-being; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduced inequalities; sustainable cities and communities; responsible production and consumption; climate action; life below water; life on land; peace, justice and strong institutions; and partnerships for the goals.

8 UNGA, 'Transforming our World: The 2030 Agenda for Sustainable Development' A/RES/70/1. <http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E> accessed 27 January 2019.

9 ibid.

10 UNGA, 'Gaps in international environmental law and environment-related instruments: towards a global pact for the environment' (30 November 2018) < https://wedocs.unep.org/bitstream/handle/20.500.11822/27070/SGGaps.pdf?sequence=3&isAllowed=y > accessed 27 January 2019.

11 ibid.

12 <https://www.iucn.org/sites/dev/files/noteforunsgenvllawrptdec2018_final.pdf> accessed 27 January 2019.

development of environmental law. Not surprisingly, the scholars dedicated the note to persons that have contributed immensely to the development of environmental law and this included Professor Charles Okidi.[13] The World Commission of Environmental Law, the International Council of Environmental Law and the International Group of Experts coordinated the development of the note for the PACT. Professor Okidi played key roles in both the IUCN and International Council of Environmental Law. He was instrumental in the establishment of the IUCN Academy of Environmental Law (IUCNAEL) and served as a regional vice-chair of IUCN for 15 years.

On 30th November 2018, Professor Okidi retired from the University of Nairobi having served for over 30 years in various capacities. At the valedictory event organized in his honour, his work on capacity building at the University of Nairobi, in Kenya, the African continent and globally was celebrated. It is in the spirit of honouring his work that the editors of this book conceptualized this *festschrift/liber amicorum* (book of friends) to celebrate a great scholar, mentor, patriot and friend. His contribution to the academy and to national, regional and international environmental governance initiatives is a legacy of footprints indelibly etched in the sands of time. The *festschrift/liber amicorum* was initially conceptualized as a 23-chapter book highlighting developments in environmental scholarship and anticipating its future. The idea was to combine a review of the past with a projection into the future so as to demonstrate how Prof. Okidi's scholarship has been engaged in and contributed to environmental governance. It was also to weave in Prof. Okidi's engagements with the themes chosen.

When the call for contributions was made to some of Professor Okidi's colleagues and former students/mentees, the result was overwhelming. As opposed to 23 chapters, the final publication is a total of 27 chapters from scholars from around the world. The chapters explore themes around environmental law that are both germane to sustainable development and have formed part of Okidi's scholarship over the years. Almost all the authors refer to the contribution of Okidi's works in their topic. Several authors also acknowledge the influence that Okidi has had in their scholarship, work and life generally. In sum, the chapters are a testimony to Professor Okidi's legacy as the father of environmental law, not just in Africa but globally.

II. THE FESTSCHRIFT

The first part of the *liber amicorum* deals with the life and work of Professor Charles Odidi Okidi, in whose honour the volume is produced. It comprises three chapters. The first chapter is this introductory chapter by the editors, Patricia Kameri-Mbote and Collins Odote. The Chapter contextualizes the entire *festschrift*, demonstrating in the process, that Professor Okidi's work has had a life-long and impressive influence in the development of environmental law not just in Kenya but also across the entire world. That influence has sought to bridge the gap between development and environment, by demonstrating through scholarship that protecting the environment does not compromise development nor is it inimical to efforts to eradicate poverty. Okidi himself wrote about this relationship thus:

13 ibid.

> At a dinner in New York a few years ago, a group of lawyers were surprised by my explanation of environmental law teaching and research in Africa and the role of the United Nations Environment Programme (UNEP) in promoting institutional developments in this field. As environmental lawyers themselves, they shared the once-popular assumption that African countries were hostile to environmental law because it was inconsistent with their ambitions for development; an assumption originating in the atmosphere preceding the 1972 Stockholm Conference on the Human Environment.[14]

As the quotation above demonstrates, Okidi's life was dedicated to demonstrating that sustainable development is a path worth pursuing. Chapter two of the book titled "Reflections on mentorship for environmental law research, scholarship and policy: Telling my own story" is written by Professor Okidi himself. It traces his life and contribution to environmental law through research, scholarship, teaching and mentorship. Documenting experiences from his early primary school education, secondary school and PhD studies, the chapter demonstrates Okidi's thirst for knowledge, commitment to its pursuit and focus on excellence. Following completion of his university education in the United States of America, Okidi purposed to return to Kenya to contribute to teaching, research and generation of knowledge in environmental law and policy. This task would see him rise to University Professor, establish unique programmes at universities and engage in local, national, regional and international capacity building initiatives. Chapter 3 by Nick Robinson and Jamie Benidickson on "Establishing the Legal Groundwork for Environmental Rights in Sustainable Development: The Pioneering Work of Charles Okidi" further underscores Okidi's role in the development of environmental law. Although they refer to him as the father of environmental law in Africa, they demonstrate that his work is part of the contributions of a cohort of global environmental scholars and jurists, engaged since the 1970s, in the development of environmental law as a specialized field of law. They discuss his influential role within the IUCN, particularly highlighting his role in promoting and popularizing judicial education. In this regard, Okidi chaired the first IUCN's Law Commission's specialized group on the role of judicial education whose deliberations eventually led to the establishment of a Global Judicial Institute on the Environment for continued education of judges on environmental matters. Their chapter, which concludes the introductory section, urges the United Nations General Assembly to adopt a Global PACT on the Environment. It is worth noting that discussions on the PACT have significantly progressed as we go to press.

III. CAPACITY BUILDING INITIATIVES

As a pioneer in the field of environmental law and policy, Okidi set out to expand knowledge and interest in the area. He dedicated his professional life to teaching and training and opted to teach at the university level in Kenya as opposed to pursuing a career in the private sector, despite having received offers of employment upon completion of his studies. His capacity building initiatives went beyond formal teaching at the University to creating awareness and interest in key sectors of

14 Charles Odidi Okidi, 'Capacity building in environmental law in African universities' in Jamie Benidickson, *Environmental Law and Sustainability after Rio* (Edward Elgar Publishing, 2011) 31-46, 31.

society that he considered critical for sustainable management of the environment. Consequently, he designed and undertook capacity building initiatives for the private sector, lawyers and judges amongst other groups. These capacity building initiatives are documented in the second part of the Book. Elizabeth Mrema's article titled "Away from Traditional Project Management: Lessons from the Programme for the Development of Environmental Law and Institutions in Africa (PADELIA)" revolves around the Programme for the development of environmental law and institutions in Africa, a programme designed and implemented by UNEP in furtherance of Agenda 21 after the United Nations Conference on Environment and Development (UNCED). While Okidi was not involved in conceptualizing the project, he became synonymous with it. Okidi inbuilt measures to ensure that capacity was built as part of the project implementation. As Mrema notes, this included, the use of nationals as experts and consultants in all the assignments that were undertaken in the countries where the project operated. Thus, "(t) hrough his tireless and painstaking approach, Prof. Okidi seized every opportunity to continuously and meticulously coach and mentor the national experts identifying problems requiring legal intervention." He avoided and refused the use of 'fly in fly out consultants' arguing that this was neither sustainable nor beneficial to the countries and development of institutions and local capacity. This is an approach that has been sustained and can be emulated in other projects to ensure that endogenous capacity is built.

This theme is carried forward by Patricia Kameri-Mbote in Chapter Five titled, "Building an Army of Environmental Law scholars: Professor Charles Odidi Okidi's Legacy" which discusses Okidi's efforts to expand the number of those teaching environmental law in African Universities. He did this by both interesting many scholars to pursue post-graduate studies in environmental law and dedicatedly championing and leading the formation of the Association of Environmental Law Lecturers in African Universities (ASSELLAU). Okidi's work in establishing ASSELLAU has led to the continued expansion of the teaching of environmental law, increased environmental law lecturers, publication of scholarly works on environmental law by African scholars and the mainstreaming of environmental law in University curricula. In Chapter Six, Jackton Ojwang, a Judge of Kenya's Supreme Court, a Professor of Law and former colleague of Okidi at the University of Nairobi, demonstrates the efforts of Okidi's capacity building efforts on the Judiciary in his chapter titled "Sustainable Development: A Sampling of Contributions by Kenya's Superior Courts in Africa." The Chapter reviews case law from Kenya's courts after the promulgation of the 2010 Constitution and uses this to demonstrate that the Judiciary has played an important role in actualizing the principle of sustainable development. The author argues, that in doing so, Courts have relied on the theoretical scholarship of experts like Professor Okidi.

In Chapter Seve, Kenneth Kakuru, a strong environmental advocate and currently Judge of the Court of Appeal in Uganda focuses on "The Legal and Institutional Framework for Environmental Management in Uganda." Although the chapter discusses key legislations and institutions for the management of the environment in Uganda, the author uses his experience working originally as the founder of an Environmental Non-governmental Organization, Greenwatch, and later serving as a Court of Appeal Judge. He met Professor Okidi in the former capacity where Greenwatch re-

ceived resources to conduct judicial training on environmental law. They carried out the inaugural training of judges in environmental law in Uganda in 2001. As Kakuru notes, Judges in Uganda, like in the rest of the region, preferred to be trained by people qualified to be judges, and Okidi fitted this bill and led the training. This opened the way for more such trainings and contributed to the growth of environmental jurisprudence in Uganda, which influenced developments in other countries in the region.

Nick Oguge's Chapter Eight on "Consolidating Scholarship and Research in Sustainable Development: The Centre for Advanced Studies in Environmental Law and Policy (CASELAP)" concludes the section. It discusses the establishment and contributions of the Centre of Advanced Studies in Environmental Law and Policy (CASELAP). Professor Okidi conceptualized and established CASELAP as a multidisciplinary and post-graduate center at the University of Nairobi to undertake teaching and research on environmental law and policy and served as its founding Director. Oguge traces the history of CASELAP's establishment, discusses the key programmes it offers, its outputs to date and the link of its work to SDGs to demonstrate its place as a center of excellence.

IV. ENVIRONMENTAL GOVERNANCE

Environmental Governance, the interactions between political issues and processes and the management of the environment,[15] formed a key theme in Okidi's teaching and scholarship. In 2008 he co-edited a leading publication on *Environmental Governance in Kenya: Implementing the Framework Law*.[16] This *festschrift* picks up this theme and discusses it through five contributions. Parvez Hassan, who served with Professor Okidi in the steering committee of the IUCN between 1990-1996, starts the discussion on environmental governance in his Chapter Nine "Good Environmental Governance and Judicial Commissions in Pakistan". The Chapter reviews the performance of commissions appointed by superior courts in Pakistan to investigate certain matters relating to the protection of the environment. Despite the fact that the Constitution of Pakistan does not have an article on the right to environment, the courts have, starting from the celebrated case of *Sheila Zia vs Wapda*[17] held that the right to life includes the right to a clean and healthy environment. They have subsequently adopted the use of commissions as innovative tools for mediating environmental disputes. Parvez has led several of these Commissions and discusses their utility in environmental governance based on his experience.

In Chapter Ten, Collins Odote focuses on "Environmental Jurisprudence and Sustainable Development in Kenya: A Theoretical Foundation". He discusses environmental jurisprudence as a science, the role of law in ensuring sustainability and the innovations of the 2010 Kenyan Constitution to promote environmental jurisprudence. Chapter Eleven by Robert Kibugi is titled "Governing Climate Change for Sustainable Development: Legal, Institutional and Policy Perspectives in Kenya". Based

15 J Mugabe & GW Tumushabe, 'Environmental Governance: Conceptual and Emerging issues' in HWO Okoth-Ogendo & GW Tumushabe, *Governing the Environment: Political Change and Natural Resources Management in Eastern Africa* (Nairobi: Acts Press, 1999) 11-38.

16 CO Okidi, P Kameri-Mbote & Migai Akech (eds), *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers Ltd: Nairobi, 2008).

17 PLD 1994 Supreme Court 693.

on international developments in climate change governance, the chapter focuses on legal, policy and institutional arrangements for climate change governance. Kibugi concludes that in responding to the challenges of climate change, Kenya has adopted the methodology of mainstreaming climate change action across various sectors and in an iterative manner. He argues that these efforts would be better supported by the appointment of the Climate Change Council.

Robert Wabunoha lauds the contributions of Professor Okidi in developing an environmental legal regime for Africa in Chapter Twelve titled, "Environmental Law of Africa." Chapter Thirteen on "Measuring the Effectivity of Environmental Law through Legal Indicators in the Context of Francophone Africa" is a joint contribution by Michael Prieur and Mohamed Ali Mekouar. They use the term effectivity to mean real and concrete effects. The chapter is therefore about measuring law in action, leading to what the authors call "unity of law and fact." The basis of the paper is the resolution of 1st International Symposium on Environmental Law in Africa, held in Abidjan in 2013 as reiterated in the second symposium in 2016, in Rabat in Morocco on the development of indicators. The indicators were drafted in 2017 and are intended to make it possible to statistically and mathematically measure the implementation of environmental law at all levels.

V. INTERNATIONAL ENVIRONMENTAL LAW, LAW OF THE SEA AND WATER LAW

International law was largely the fodder of Professor Okidi's scholarship. His PhD thesis was on the law of the sea and his work contributed to the development of the UNEP Regional Seas programme. He continued to pursue this area of scholarship and related themes such as water. To celebrate this, Section IV of the book contains contributions dealing with international environmental law, the law of the sea and water law. Chapter Fourteen by Iwona Rummel-Bulska is titled "International Environmental Law". It canvasses the development, content and import of different international law instruments aand UNEP's contribution to the development of international law. Francis Situma explores the theme on the law of the sea in Chapter Fifteen titled "Kenya and the Law of the Sea: Implementing International Norms". He summarizes Kenya's international obligations relating to the law of the sea and also assesses the legislative and administrative measures the country has taken in efforts to comply with the international obligations. His conclusion is that Kenya's action lacks clarity and has several gaps. Chapter Sixteen by Musili Wambua on "Unbundling the Public Interest Component in International Maritime Law" makes a case for the recognition of the public interest element of maritime law over and above the traditional view of maritime law as a private interest concern only. The chapter sketches the public aspect of maritime undertakings using the sinking of the Titanic in 1912; the 1967 Torrey Canyon oil spill; the hijacking of the MV Achille Lauro in the Mediterranean Sea and the role of international institutions in these events. Chapter Seventeen by Oliver Ruppel and Barbara Varekamp continues the exploration of international environmental law matters and is titled "International and African Legal Protection Mechanisms Against Illegal Wildlife Trade". Chapter Eighteen by Bondi Ogolla, "Multilateral Climate Change Diplomacy from Copenhagen to Paris: Process and Procedure

Matter" is the last chapter in this section. It assesses how parties to international climate change negotiations use procedural and process issues to advance their interests and influence the shape of climate change law.

The last theme under this section is water, canvassed by Stephen McCaffrey, Albert Mumma and Phillipe Cullet. McCaffrey, in Chapter Nineteen, under the topic 'Planetary Stewardship of the Hydrologic Cycle" discusses the uneven distribution of water across the world and the need for redress so as to ensure equitable distribution. He argues for the adoption of what he calls a "planetary trust" to guarantee populations that have scarcity, adequate quantities of water. The challenge of water availability and supply to meet the demands of the population has led to reforms in the water sector in Kenya. The highlights of these reforms include the adoption of the Water Act in 2002 and the consequential institutions, and the subsequent reforms in 2016 to align the laws and institutional arrangement to the 2010 Kenyan Constitution. Albert Mumma assesses the impact of these reforms in Chapter Twenty titled "Kenya's Water Law: A Thirty Year Reform Process". Phillipe Cullet concludes the discussion on water in Chapter Twenty-one on "Water Law and Development: Comparative Perspectives". He argues that despite the progress made in the development of the principle of sustainable development, and the work of scholars like Okidi to integrate environmental law concerns in scholarship on water law, water is still treated by many countries as an economic good.

VI. SELECTED THEMES IN ENVIRONMENTAL LAW AND POLICY

The last part of the book contains selected themes on diverse aspects of environmental law and policy. The first theme is that of mining and minerals development, an area that has gained prominence in scholarship following the discovery of extractives across the continent. This issue is addressed in three chapters. Chapter Twenty-two by Emmanuel Kasimbazi is on "Mining Law and Sustainable Development: Lessons from selected cases in Africa". It discusses key issues in the sustainable governance of the mining sector, which must be included in a law to govern the mining sector. These elements are drawn from a review of the experience and frameworks of selected countries in the African continent. Richard Mulwa in Chapter Twenty-three titled, "You are what you eat: Kenya's probable economic outcomes in light of mineral discoveries", takes an economic approach to the issue of sustainable management of the extractive sector so as to avoid the resource curse. The chapter argues for improved governance and institutional reforms and innovative measures to ensure sustainability. Bulska and Hilda Mutwiri in Chapter Twenty-four also discuss issues related to minerals. Their chapter "Sustainable Mining Practices in Kenya: A Case Study of Titanium Mining in Kwale" draws lessons from a case study of a specific mining venture in a specific location in Kenya.

Chapter Twenty-five by Kariuki Muigua focuses on "Natural Resource Conflicts in Kenya: Effective Management for Attainment of Environmental Justice". He argues that extraction of natural resources engenders conflicts, highlighting the need to design and implement appropriate tools to ensure effective management of conflicts to guarantee, peace, justice and sustainability. In a

world, which is increasingly adopting technology in its processes, the place of science, technology and innovation in environmental governance takes an ever-important role in different fields of scholarship. John Mugabe explores this theme in Chapter Twenty-six titled, "Governing Science, Technology and Innovation in Africa: Charles Okidi's Intellectual Endowment".

Finally, Robert Wabunoha's chapter on "Sustainable Governance of Mountains" completes the chapter contributions making proposals for comprehensive and sustainable frameworks for the governance of mountains. The chapter reverts to Okidi's lasting legacy of scholarship through the author's testimony that Okidi, reading the chapter, would urge him to pursue doctoral studies. This is correct and remains a true testimony to Professor Okidi's legacy as a mentor, institution builder and environmental law scholar per excellence. This is the legacy that this Festschrift celebrates and immortalises.

Chapter 2

Reflections on Mentorship for Environmental Law Research, Scholarship and Policy: Telling My Own Story

Charles Odidi Okidi

I. EARLY YEARS

I was born in Kamwania Village, West Karachuonyo, South Nyanza, (now Homa Bay County) of Kenya on 20 November 1942 and attended Ogenya Primary School in the immediate neighbourhood. I joined Standard One at Ogenya (now called Kanjira) Primary School; sat the Common Entrance Examination (CEE) in 1954 at Kisii in 1954 and joined Ongalo Intermediate School in 1955. I sat the Kenya African Preliminary Education (KAPE) examination in 1958 and passed to join Maseno Secondary School in 1959.

It was a great pleasure receiving word that I was admitted to Maseno Secondary School because the previous year (1958) had been rather difficult. For some reason the government decided that Standard Eight pupils should sit their Kenya African Preliminary Education examination (KAPE) in July rather than at the end of the year. There was no clear programme of activities for students for the remaining six months of the year, even though we were required to report to school.

We would report to school in the morning, engage in all sorts of mischief, which sometimes earned us punishment. In the evenings, we spent the idle time looking around for entertainment since we did not have to study. What we found most attractive was guitar musical entertainment. We particularly enjoyed Congolese music including Mwenda Jean Bosco and Losta Bello. Most popular among the guitarists of the time was Auma Ogango Josy, who played frequently in central Karachuonyo. My classmate John Tolo Otega, whose father was a pastor at Wagwe, went with me and whenever we attended Auma Josy's events, we would not leave until he sang to *Omburo Sabina* and *Debora Nyar Min Okombo*.

Kabasa Olango was another entertainer whose performances we patronised. His favourite song was dedicated to Abolo Orende. The third entertainer who visited our area only once in a while was Olare Ajek, whose performance was rarely interrupted because he met violence with violence. He always had a spear and a panga at his feet when he performed.

II. MASENO SECONDARY SCHOOL

Maseno was a highly coveted secondary school as one of the elite institutions in Kenya and a gateway to national leadership. Admission to the school was, regularly, initially for only two years. I joined Maseno and was enrolled in Heywood House, one of 10 dormitories, all named after the Church Missionary Society (CMS) pioneers who founded Maseno in 1906. The Housemaster was a Rev Roy Stafford, a trained engineer, who taught physics in the school. He took a liking to me when he learned that I had worked as a bicycle mechanic for a year.

I was doing well in my academic work and enjoying the Maseno fraternity but when I was in Form II, my cousin Salome Odero-Jowi obtained for me a scholarship offer to study in the United States of America (USA) as part of the political airlifts programme. I rejected the offer, telling my beloved cousin that I would not leave Maseno in Form II, as it would appear that I had been kicked out of school, thus inviting the mockery of other students.

As students, we discussed among ourselves our future ambitions. My discussions with my friend George Amolo Oriyo influenced me to opt for what we called '**training within industry**' after Form IV rather than pursue Form V at Alliance High School or Kamusinga or take up opportunities to study in Makerere or Dar-es-salaam. In point of fact I desired to have university education, but I was interested in pursuing it in America. The lingering ambition to pursue an American education was alive but the offer from my cousin came before I accomplished the ambition of reaching Form IV at Maseno. In discussions with George Amolo, he suggested that after Form IV we should try to seek employment in the income tax department as junior tax officers. Ultimately, though, I was aware that we had to study diligently in order to pass the Cambridge School Certificate examination, which was due at the end of 1962.

As part of preparation to enable students to face the world, the school had invited a few prospective employers who came to interview us for possible jobs in the open market. Results of the examination would be released in February the following year. So the interviewers were content to take only whatever records were available for any student they were interested in at the interviews. Mr Charles Christopher Sutherland, the school teacher who was acting headmaster in the absence of Mr B.L. Bowers, who was in England on leave, urged the students to take all the interviews.

III. POST-SECONDARY SCHOOL DIRECTION

As I recall, there were only three organizations that came to Maseno to seek prospective employees: Railways, Post Office and the Kenya Police. Both railways and posts wanted trainees in diverse areas ranging from accounts to engineering. Assistant Superintendent of Police (ASP) Allan explained that they wanted as trainees cadets, trainee officers at the rank of sub-inspectors at Kiganjo's senior training wing. I asked Allan about the image of the police as draconian brutes. His response was that we were being recruited to join as officers, taking over leadership from Europeans and with the responsibility to change that image. The main part of our training for six months would be to know the laws of Kenya. My parents were livid when I told them of the prospect of joining the police. I

explained to them that I did not want to float around without a job and I had not secured any other job offer. I would leave as soon as I got another job.

I accepted to sit a second interview with all the three in Nairobi, which was a way of receiving support for my first visit ever to Nairobi. Posta did not have any offer of support for the trip while Railways provided a third-class train ticket. The police gave me a second-class ticket, which I was told was comfortable travel. For railways I was invited to report to the Railways Training School on a specified date for interviews the following morning. I was advised to wear comfortable sports shoes. ASP Allan asked those of us who had passed the interview, namely, John Wanga Ong'udi, Crispo Ongoro Okundi and I to visit his office at Kenyan Police headquarters, Harambee Avenue, Nairobi, on a specified date, which happened to be a day after the Railways interviews. The most pleasant turn of events was that I received the second-class ticket to travel to Nairobi on my very first visit. Whether I would work for the Kenya Police or not was immaterial. I would travel to Nairobi comfortably.

The interview at the Railway Training School started with a cross-country race. I was sure to fail since athletics was not my strong point in Maseno. Moreover, I did not understand how a person who had studied at Maseno School could be expected to compete for a job by running rather than through written and direct questions and answers. I found it demeaning.

The following morning, I reported to ASP Allan's office at the Police Headquarters and found my other colleagues from Maseno seated in the waiting room along with other young men. Allan called us in, one person at a time. He explained the structure of the Police Training School and its six-month course for cadets at the senior training wing. The junior training wing was for recruits or trainee askaris while the higher training wing was for gazetted officers or Assistant Superintendents and above. The Senior Training Wing was for sub-inspectors and full inspectors. Courses of study included the Penal Code and Criminal Procedure Code or simply criminal law, the Law of Evidence, Local Acts, Police Procedure Theory and Practical Police Work, with all classroom courses being examinable. We would also have sessions on how to handle different categories of firearms; teamwork and discipline building through drills.

ASP Allan explained that training for our group was part of the government initiative to prepare Kenya national officers, a new generation to take over from British colonial officers who would leave Kenya at Independence at the end of 1963. Those who started in January 1963, as we did, would be posted to the field in July. We would be paid a monthly salary as soon as we entered the training. We would however do an Internal Law Examination at the end of the course and were expected to sit and pass the Police Law Examination 'A' set by the government once in the field.

I thought very quickly that this opportunity would expose me to the study and practice of law and open the way for professional study later on. That sounded like training within industry, which George Amolo and I wanted. Secondly, I could get the full training within a few years and later leave when a university opportunity became available. Moreover, I would earn a salary immediately. I came back to ASP Allan after a few minutes and accepted the opportunity. He gave me joining instructions and a warrant for travel to Kiganjo on second-class train seat on a specified date in January 1963.

I was in the Kenya Police between January 1963 and July 1967. I resigned to attend university in the United States of America. While in the force, I met a number of people who kept my interest in law alive. These included Menya Midiwo and Amos Onyango Midamba. Midiwo was a dynamic and widely read administrator serving as the District Probation Officer. He was excited to learn that I had ambitions of going to university to study law and become a professor of law. He gave me two books that I have on my shelf to date: **An Introduction to Criminal Law** by Rupert Cross and P. Astrerley Jones, Fourth Edition (London: Butterworths 1959) and **Kenny's Outlines to Criminal Law,** Eighteenth Edition 1962 (Cambridge: Cambridge University Press 1962).

Midamba, on the other hand, was the Industrial Relations Officer of Brooke Bond Tea Company, educated in the United States of America. He had a Bachelor of Arts degree and had, on returning to Kenya, worked as a District Officer until he moved to the tea company. He came from Karachuonyo like me and had good taste in Kendu Bay music. I had serious discussions with Midamba on education in American universities. He had gone to the United States during the famous airlifts. He shared with me that American university education was flexible and students without scholarships could work part time to pay their fees if they were disciplined.

I embarked on applying to different universities. By chance, Midamba hosted Dr Frederick P. McGinis, the President of Alaska Methodist University who was visiting Kenya as part of his tour of the world. He invited me to join them for dinner. Dr McGinnis had many questions about Kenya and that made for very spirited discussions. I seized the opportunity to discuss my interest in studying in the United States and asked McGinnis if he could help me to gain admission to his university, and if so whether there were scholarships available. I explained the level of my education and explained that I wanted a US bachelor's degree in social sciences as a pathway to the study of law, possibly in Britain, up to doctoral level. My interest was to eventually teach law in a university.

In the end, McGinnis facilitated my admission to Alaska Methodist University. They did not have any scholarship programme for which I could qualify. I seized the challenge of going to Alaska without a scholarship. I owe a lot to President McGinnis and of course my friend Midamba, now deceased.

A. Undergraduate studies

I travelled from Nairobi by Pan American Airlines to New York; then by Northwest Airlines to Seattle Tacoma International Airport and finally by Alaska Airways to Anchorage, my destination. I took a taxi from the airport to AMU and found Dorothy Whitmore, the dean of students, and was guided to my room at Gould Hall, the student's residence. My host family was the Ethridges: Mr and Mrs James Ethridge. They invited me to their home on public holidays and I was welcome to their home at any time. The Ethridges were elderly and clearly very well meaning but we had very little to talk about. Mr Ethridge liked talking about South Africa and how the European settlers were helping the natives who were not grateful. From the beginning we disagreed flatly and my visits to their home became very rare.

From the time I arrived different Methodist churches invited me for lectures on different themes especially, on youth and education in Africa. I did not mind these engagements. My academic

work had a core purpose of obtaining a Bachelor's degree in the Liberal Arts context. As a rule, the university assigns every student an academic advisor, and Professor Robert Porter, a very senior professor of Sociology, was my advisor.

I do not remember the full cluster of courses I took in fulfillment of my degree requirements, but I have some memorable term papers with the observations of professors written on them. Term papers are a form of engagement between the student and the respective professors and an indicator of how good the student is. That is why I think the following narrative is good evidence of the education I received at undergraduate level at Alaska Methodist University. My relationship with the professors has coloured my engagement with students in my life as a professor.

Let me tell the story with reference to eight professors and their subject areas:

1. Professor Richard Roda Gay taught religious studies and philosophy. During my early days at AMU he was my role model because I enjoyed his course topics and wrote papers on all of them. The only paper I have been able to trace is entitled 'Ecumenical movements' on which his only comments were "a worthy topic well done. Thank you", and he marked it 'A'.

2. Professor Robert D. Porter of Sociology was also my advisor. I wrote a paper on race relations and focused on the Detroit riots of July 1967 for his course. His comment was, "An excellent paper. Well done. May I have a copy for the Library?" and he gave me an A. I was very deliberate on this paper and included documents I received from US Senator Edward Kennedy who, at my request, sent me senate committee reports on race relations. I was able to include maps of Detroit showing the loci of the conflicts.

3. Professor Hellen D. Beirne was one of the local politicians in whose campaign for State House of Representatives I participated. The Western Inter-State Commission on Higher Education funded one of the areas she covered. She evaluated me on the basis of a report I submitted at the end and her comment was: "Very thorough Reporting. You demonstrate good understanding into the programme", and I earned an A.

4. Dr Nancy Lathcoe was the university's English lecturer. Undergraduates were required to pass a course in English, which entailed exercises in English writing. Dr Lathcoe required us to write a number of short essays but done in the context of learning Zen Buddhism. This was a very interesting approach because writing on a taxing subject area like Zen Buddhism was interesting. I realized that both Dan Okelo in Ongolo Intermediate School and Collin Ramsey in Maseno Secondary School had thoroughly drilled me in English. In all the writing exercises, I scored over 95 per cent.

5. Dr Sibert taught a class on one of the topics I took in sociology. The only reason I have included him in this paper is because he was so poor in terms of content and delivery that I personally wrote a letter to the president of the university to request that he be fired and not be "inflicted on students any more." The letter was published in the student's newspaper on the campus. He awarded me an A in the course he taught, though.

6. Professor Guy Martin was a lawyer and I approached him, as the chairman of Alaska Branch of American Civil Liberties Union over my involvement in students' protests against President Richard Nixon's invasion of Cambodia in 1969. I submitted to him the following four papers.

   a) For the course on American legal institutions, I submitted a paper on "General Elections in 1968 -- reflections" -- His comments were as follows: "A good job, Charles. Since I believe that you will rather know what's wrong rather than hear compliments, let me make a suggestion or two.

      i. Your paper is rather mechanical as opposed to being creative.

      ii. I think you would have benefited from making fewer points in depth rather than making many points without elaboration. A--"

   b) The second paper was entitled 'Juvenile probationers in schools. A survey of anchorage educational institutions', which did not elicit any comments from Prof Martin.

   c) The third paper was 'On Preventive Detention Law', which was a response to the statement by Richard Nixon, the 1969 presidential candidate. that if elected, he would ensure that there was law to refuse bail to any accused persons who had a criminal record to prevent them from committing further offences.

      Professor Martin made elaborate comments on the paper as follows:

      "Your background information lays the foundation for the excellent paper; that is excellent. Your choice of the topic was very good. Other good choices could have been
      - Public defender systems
      - Alcoholism in Alaska

Your material on the constitutional rights to bail is also very good: you have covered nearly every lower court decision. I think the reason that the Supreme Court has never followed the 8th Amendments argument you propose is that only recently has the court been liberal enough to do so, and now the problem is solved by the Bail Reform Act or by cases speaking of excessive bail. So when the court is ready, the cases do not appear.

The Bail Reform Act of 1966 is so strong that the burden is on the prosecution to show why the defendant should not be released on bail.

Your statement on the judicial discretion and its meaning seems to be a real key to American politics for the next few years (and for other nations as well).

Very fine paper, Charles. I would like a copy if you have one. A"

I had several discussions with Prof Martin on my plans to study law after AMU. As I wound up my undergraduate studies and prepared to leave Alaska he gave me the famous international law book:

The Law of Nations: An Introduction to the International Law of Peace edited by Sir Humphrey Waldock (Oxford University Press 1963) sixth Edition). It had his own comments as follows:

> "For Charles, with confidence that you have a great future in the law and with the knowledge that you understand that law is, at its best, peaceful and just relation between men".
>
> Signed
> Guy Martin
> December, 1970"

I still have the book to which I have made many references.

7. Professor Charles Konigsberg taught political science. I took two of his courses. For the course on Modern Political Thought I submitted a paper on theory and application of development of foreign aid in Africa. His observation on the paper was as follows:

> "Dear Charles,
>
> It is a **very good** paper, I'd say better in its own way than your earlier one!
>
> My chief substantive complaint is that you did not deal in depth with how, in a specific case country or realm of development -- you'd have applied your prescriptions on development.
>
> At times you become **too polemical** and you do have a hang up about not using the article 'the'. A C. Konigsberg"

The second course was entitled "Political Ecology" but in its content, was environmental policy. It was in this course that I cut my teeth on Environmental Policy and Law of the Sea. I read some of the early publications on problems of the marine environment and "got hooked." The title of my paper was "An Ocean Regime and Ocean Enterprises." His comments on the paper were as follows:

> "Dear Charles,
>
> This paper is excellent – I think your best to date and offers promise of further worthwhile research and analysis. The thought is systematic and seeks interrelationships. The writing "flows"
>
> At the same time I'm just a bit concerned about aspects/ your style and mode of expression (see editorial comments in the text).
>
> Thank you very much for your presence,
> Charles
>
> Term Paper A
> Final Grade A
> **C. Konigsberg."**

It was actually the experience in this course that steeped me into the study of the environment. One of the issues we dealt with during the course was the problem around the construction of the Trans-Alaska Pipeline from Prudhoe Bay in Alaskan Arctic North to Valdez, an ice-free port in Southern Alaska. Our own Professor Konigsberg led a crusade to block construction of the pipeline as the Chairman of the Alaska Conservation Society.

Digging the ground to lay the pipeline would, in the first place, lead to an unending destruction of the tundra, which in turn would destroy the vegetation. Laying the pipe in the ground would also block the migration routes of caribou and endanger the latter's viability and survival.

The students in the class on Political Ecology supported Professor Konigsberg and helped mobilize Alaskans against blind laying of the pipeline. I, for one, used my familiarity with the library and organized research teams to support the movement. Professor Konigsberg prepared papers and travelled to address the US Congress in Washington DC and this strengthened the objection to the plans for simple laying of the pipeline until the correct level above the ground was found.

There were two consequences: first I believe that the effect of objection by the public and the fact that an acceptable level was found must have influenced the proposal by the congressional committee which, I know, came up with the proposal for action-forcing legal provisions in the 1969 Environmental Protection Act with its provision for environmental impact assessment. The initiatives of Alaska Conservation Society were in 1968 and 1969 -- the period when the congressional committee was at work.

The second consequence was that oil companies, which were constructing the Trans-Alaskan Pipeline, largely from Texas, were furious that their work had been frustrated and delayed because of the action of Professor Charles Konigsberg and his students. Oil companies met with University President McGinnis and told him that if he did not get rid of Professor Konigsberg, whom they referred to as a "communist", they would discontinue their huge financial support to the university. The President of the University immediately informed Professor Konigsberg that his contract would not be renewed and to the latter, the message was clear. It had been communicated to the university community that oil companies had decided not to continue funding the university so long as the university maintained "that communist" on its staff. Professor Konigsberg read the letter on termination of his contract to us in class. That was followed by a quick consultation among students with the conclusion that we must block the expulsion of Professor Konigsberg. The organizing concept was '**Academic freedom for the defender of the human environment'.**

I recall that the students' protests were instant and loud. At one point we arranged for a debate in the university auditorium, between Professor Konigsberg and President McGinnis. We managed to convince the latter that he only needed to explain his position to the students and classes would resume. Professor Konigsberg was very combative, his usual style being polished and caustic. Dr McGinnis was his usual self, while receiving the support of faculty members who were present, somehow the combative submissions by Konigsberg appealed to the students who shouted out that the President must rescind his notice to Konigsberg and renew his contract.

The long and short of it all is that the President reinstated Professor Konigsberg. Thereafter we had a different problem. Our beloved Professor refused to accept the contract arguing that he did not want to continue working under a president who would sacrifice academic freedom for money. My student colleagues left it to me to persuade Professor Konigsberg to accept the contract. It turned out to be a huge task but he signed the contract at about 11 pm when there were only three of us: Konigsberg, his wife and myself. I reported the matter to my colleague students the following morning.

Our protests were based on, first and foremost, the fact that Professor Konigsberg was a good teacher and mentor and should be at AMU for the students' benefit. Second, that it was bad for the university to sacrifice a good professor who was also good for students, the university and for Alaska and its environment for oil companies and their money. Third, discontinuation of Professor Konigsberg was contrary to academic freedom pursued by the American Association of University Professors. Fourth, and this was directed to Professor Konigsberg, the university establishment might want to victimize the students who fought for his contract. He must remain at AMU to fight that battle with them.

Overall, I think my undergraduate life was good education, and most importantly successful. I received my Bachelor of Arts degree graded as **Magna Cum Laude** with grade point average of 3.78 on a four-point scale**.** In a very special way I ended life at Alaska Methodist University on an active note and most significantly, on the subject of environment which was to take a centre stage in my postgraduate education and in my professional life.

B. Preparation for postgraduate studies

My mind was clear, as I prepared to go abroad for education that there should be no chance of my returning to Kenya without postgraduate education. In fact, my vision was set on proceeding to doctoral level and I was determined to keep my eyes steadily on that ball. I applied to selected faculties of law in Britain. My plan was that once I received letters of admission, I would apply for Commonwealth scholarships through Kenya's Ministry of Education.

I applied to King's College, University of London and Warwick University in Coventry. There was no special reason for applying to the University of London. But I applied to Warwick because my contacts told me that their Faculty of Law had a curriculum that offered "Law as Social Science", much like University of Dar-es-Salaam. With my social science background, I thought I would enjoy Warwick. There was also something romantic in my mind that made me want to study law at the University of Edinburgh in Scotland. I received admission to King's College, University of London. and Warwick University and my papers were referred to the University Central Committee on Admission (UCCA -- a clearing house for universities in the UK). I applied for the Commonwealth scholarships.

I also decided to apply for admission to and scholarships in graduate schools, which have reputable programmes in public and international affairs in the United States. I applied to the Woodrow Wilson School of Public and International Affairs at Princeton University where my Professor Charles Konigsberg had received his PhD. I also applied to School of Public and International Affairs, University of Pittsburg and a similar school at the University of Minnesota. All of them granted me admission but without scholarships. Still hoping to get sponsorships, I had discussions about Edinburgh with

Professor Barbara Goldberg, who was from Scotland and who taught Psychology at AMU. She stressed to me how scarce scholarships were for students from abroad to study in Scottish universities. But at her invitation, I had lunch with her and her husband Robert Godlberg, the son of the renowned former Associate Justice of the US Supreme Court Arthur J. Goldberg, and a graduate of Harvard Law School. After listening to my efforts, Robert told me that given the strength of my grade point average I should apply to the Fletcher School of Law and Diplomacy at Tufts University. He explained that the school was administered jointly by Harvard and Tufts universities, taught international affairs but had a very strong and respected international law competence. I promptly wrote, forwarding my impressive academic transcript and the strong letters of reference. I got provisional admission to Fletcher School for two years with a tuition fee waiver subject to passing a personal interview at the school.

As I set out from Anchorage, Alaska, for New York I had four major items in mind. First there was the question of accommodation before I settled for postgraduate work. Luckily, Henry Luke Ouma, my childhood friend, agreed to meet me at John F Kennedy International Airport and accommodate me until I decided on my next move. By chance, my brother-in-law Honourable Joseph Odero-Jowi had earlier arrived in New York a month earlier as Kenya's Permanent Representative to the United Nations. Jowi was very excited to learn that I might be joining The Fletcher School and insisted that I move to live with them at Scarsdale, Westchester County. A Fletcher School student would engage with him on international laws and diplomacy.

I also joyfully found out that my boyhood friend from Ongalo Intermediate School, Andronico Oduogo Adede, had completed his PhD at The Fletcher School and would be staying with Jowi in preparation to travel to Nairobi to take up a position in the Ministry of Foreign Affairs, Legal Division. In addition, Dr Shem Arunga Olende, previously of the Faculty of Engineering, University of Nairobi, had just arrived to take up a position at the Energy Section of the United Nations and had been invited to stay with the family until he found his own accommodation. We would be a good crowd at the Ambassador's residence.

The second issue, and a matter of priority, was to arrange an urgent appointment with the Institute of Development Studies at The Fletcher School in Boston for the interview they required to confirm my admission and tuition waiver. That was quickly arranged. When I got to Fletcher, three people were waiting for me: Professor Robert West, an economist, Professor Arpad Von Lazar, a political scientist, and Dr Robert Stephen, the administrative director. I realized that I had got good preparation at AMU because I was on top of issues raised in the interview. I was admitted as a fellow to the Institute for Development. There were two important conditions left for me to fulfill. The first was sponsorship for boarding and subsistence. The second was that I would be admitted initially for a one-year master's (MA) programme. I was required to excel in my academic work to be allowed to continue to the second year to cover courses for Master of Arts in Law and Diplomacy (MALD).

Further, I would be required to take and pass the comprehensive examination for admission as a PhD candidate after qualifying for MALD. Only after preparing and successfully defending the PhD proposal would I be free to focus on law.

Since I had an admission, albeit provisional, to The Fletcher School, with a tuition waiver, I returned to New York that afternoon extremely happy. I would carry forward the search for support. One day when I visited Ambassador Odero-Jowi's office, I discovered that Mr Ernest Langat, who I had met as the District Education Officer in Kericho in 1966, was now the Education Attache at the Kenya Mission. His attempt to get me a commonwealth scholarship to study in England, which I viewed as an option, was unsuccessful.

I embarked on the search to meet my immediate financial needs. Through Odero-Jowi's contacts, I was awarded the African Graduate Students (AFGRAD) Fellowship. I did not mind the grant condition that it was for one year, after which I would have to present a progress report signed by the Dean of The Fletcher School to receive support for the second year. I was also required to leave the United States after the second year to work in Kenya for a minimum of two years before returning. I resolved that I would cross that bridge when I got to it. Returning to Kenya without PhD was not on my cards.

IV. STUDIES AT THE FLETCHER SCHOOL: SETTING MY MIND TO A NEW DIRECTION

By the time I joined The Fletcher School, it was clear to me that I was unlikely to realize my objective of going to study law in Britain. I had to set my mind to confirming an area of specialization. With my background, I decided to specialize in the subject of environmental policy and law, which I could make my central research area, with the possibility of contribution in the United States and Kenya. This would also keep me on my trajectory of specialization and legal scholarship. Enough law courses would be available for study at The Fletcher School and Harvard Law School to support PhD level research.

A. Commencing studies at The Fletcher School

The Fletcher School took pride in the rigour of their courses as well as the exposure that their students received. My initial priority was to take and pass courses that met the requirements for the Institute for Development Studies (IDS) because my survival into the second year depended on that. Moreover, the courses that met the requirement for IDS also met the requirements for law and development for the two years Master of Arts in Law and Diplomacy (MALD) course. Passing well for MALD was the key to a PhD candidacy. Interestingly and by sheer coincidence, the Director of The Fletcher School's Institute for Development Studies was Professor Robert West, one of the scholars who, with Professor James Coleman, was instrumental in the establishment of IDS at the University of Nairobi in 1965 and another one in Kinshasa, Zaire.

Requirements for IDS included Development Economics, Political Development, Law and Development, and International Law, which was optional. Development economics was my biggest challenge owing to very limited exposure at undergraduate level. We discussed topics like the Harrod-Domar Model, Feis' René and I was lost. Some students seemed familiar with the topics. It was not as bad when we discussed Arthur Lewis' Development with Surplus Labour

or Harris and Todaro's rural-urban migration. I pondered the enormous problem I had on my hands and resolved that I had to pass the course and I did. International Economics was difficult but I caught on fairly fast. Political and institutional issues in developing countries were hardly a challenge. My undergraduate courses had prepared me very well. When Professor Robert Meagher taught us Law and Development, I realized I was very prepared. Topics like Theory and Practice in Law and Development, Land and Land Use Law in Development were fun. Development Role of the United Nations and Regional Organizations; Legal and Institutional Aspects of Development Assistance; and Legal Problems of Trade and Investment were also exciting.

Professor Leo Gross taught International Law. His teaching was based on living through the period of the development of international law. He taught both this course and a second seminar for in-depth discussion. I was very delighted when he gave me an autographed copy of his festschrift: **The Relevance of International Law,** edited by Professors Karl Deutsch and Stanley Hoffmann (1968) at the end of the second course. His words were: "To Charles P. Odidi-Okidi, with warm regards" signed Leo Gross, December 4, 1972. It was a special privilege being Professor Gross' student.

I fulfilled the requirements for the master's degree. The fact that the courses in the first year continued to the second year made the system flow seamlessly. During the second year, I opted for courses that would boost my chances for furthering scholarship in Law of the Sea and in environmental law. The Fletcher School at that time did not have a course on law of the sea or environmental law. I therefore undertook one directed study in law of the sea project supervised by Professor William Barnes. I also took a seminar on the law of the sea taught by Professor Louis B. Sohn at Harvard Law School, and an Advanced Seminar on International Environmental Law by Professor Alfred P. Rubin, who joined The Fletcher School to teach International Law as Professor Leo Gross prepared to retire. I had read Rubin's article on the **Trail Smelter Arbitration** and hoped I would eventually persuade him to supervise my PhD thesis.

Another unique course I took was on regulation of technology under international law, taught at Harvard Law School by Professor Abraham Chayes and Professor Eugene Skolnikoff of Massachusetts Institute of Technology (MIT). The focus of this course was on the emerging technology of remote sensing. International law lovers had a chance to hear lectures by Professor Keith Highet, a very unique and humorous scholar who took pride in having handled the largest number of cases before the International Court of Justice. The gifted scholar also spoke all United Nations languages and he lectured on the settlement of international disputes.

In the autumn of 1973, just after the United Nations Conference on the Human Environment had been held in Stockholm in June 1972, I participated in a one-semester seminar on environmental law. Professor Louis Sohn of Harvard University offered it. He had attended the Stockholm Conference as a legal consultant to US delegation. He had prepared a paper entitled 'The Stockholm Declaration on the Human Environment', already published in *The Harvard International Law*

Journal, Volume 14, November 3, Summer 1973. He had insights on pre-conference initiatives, including the Founnex Report on Environment and Development, which persuaded the Group of 77 (developing countries) to attend the Stockholm Conference.

I took the course on the Law of the Sea twice because when I discussed the matter with the two professors, I ascertained that there would be no duplication. Professor Barnes focused heavily on problems of delimitation of ocean boundaries while Professor Sohn was very particularly interested in settlement of disputes. I chose to write my MALD thesis on the Law of the Sea, focusing on the Indian Ocean area. Other than examining the interests of the coastal states, the thesis also examined the preferential treatment that would be negotiated with land-locked countries with proximate location. The thesis also discussed transit rights as provided for in 1921 and 1965 conventions. I was awarded the MALD degree in June 1973. I had clear options of either returning to Kenya or working on my candidacy for the PhD. I chose to embark on my PhD even after the AFGRAD scholarship expired.

On one occasion when I was visiting Ambassador Odero-Jowi in New York, we went to the United Nations delegates lounge. We met the Australian Permanent Representative to the United Nations, Sir Lawrence McIntire. The Kenyan Ambassador introduced me and said I was preparing for a PhD candidacy at The Fletcher School of Law and Diplomacy. He also added that I needed a scholarship to study law in Britain. After a brief discussion, Sir Lawrence asked me what I studied at The Fletcher School, and whether I would be interested in studying Law in Australia. I responded in the affirmative and he asked his aide, a Mr Mansfield to get my details and send a request to the Ministry in Canberra and to the Dean of University of Sydney Law School. A few weeks later when I had returned to Boston, Ambassador Jowi called me to say that Canberra had sent a letter to Nairobi seeking clearance for my scholarship but the response was that the Government of Kenya had no information about me. Consequently, I was not awarded a scholarship on account of no support from the government.

The post-MALD period was a tough one for me. The African-American Institute that had granted the AFGRAD fellowship expected me to leave the USA and return to Kenya. I was, however, determined to pursue PhD studies and began to work on my PhD proposal. I got a job on campus to support myself. Two of my professors were constructive in their suggestions. Professor Robert Meagher said that he did not have a job but suggested that he could help me get a PhD by re-working my MALD thesis to the PhD level. The second Professor, Arpad Von Lazar offered me a job as a research assistant for his book project on the European Economic Community but warned me that this would be a full-time engagement, for which he would reward me reasonably. That sounded like an excellent offer. I worked on the job by day and studied for my PhD comprehensive examination at night.

By September 1973, I was ready to sit my comprehensive examination and a panel was constituted. I received a letter from the dean a day after being examined confirming that I had passed and

directing that I prepare my PhD research proposal. Passing the comprehensive examination got me provisional candidacy only. That was when I reconsidered Professor Meagher's offer to rework my MALD thesis and enhance it to a PhD thesis. I was however more inclined to veer towards a new area -- sharing of marine resources. I preferred this latter area as it would enable me to also address land. There was abundant evidence that over 80 per cent of pollution of the sea originated from land-based sources. To effectively control degradation of the marine environment, one had to control the sources on land territory. I was convinced that a PhD is a life-long undertaking and one had to be both flexible and diverse. My decision was made even though the hunt for resources to tackle the broad topic scared me.

I identified the topic of possible regional arrangements for regulation of pollution of the world's oceans and requested Professors William Barnes and Alfred Rubin to be my supervisors. They read my draft proposal, and suggested improvements before I presented it to a board of examiners. It was approved and I was registered as a PhD candidate at The Fletcher School to work with the two supervisors to research and produce a competent thesis for review by a board of examiners within five years.

I discussed the technical aspects of marine environmental degradation with the supervisors and the fact that I would need a brief but intensive exposure to the science of the problem. Fortunately, Professor Barnes knew of an initiative by Woods Hole Oceanographic Institute to start a Centre for Marine Policy and Ocean Management near Cape Cod. He introduced me to Dr Paul Fye, the director of this leading marine science institute who agreed to grant me a one-year fellowship, making me one of the few scholars/ fellows of the centre.

Within a short time after the end of June 1993, the African American Institute, who had awarded me the grant to maintain me at The Fletcher School, wrote to me two letters. The first urged that as soon as I completed the MALD, I should get in touch with them so that they could organize my passage to Nairobi. The second warned that since I had not responded to their letter and they believed that I must have completed my master's degree, they would have no option but to forward my particulars, including the last known address to the immigration department and the police to trace me and have me deported, unless they received a written waiver from the Government of Kenya approving my continued stay in the United States and for educational purposes. I set out on a visit to New York with three objectives.

The first was to discuss my immigration predicament with Ernest Langat, the Education Attaché. I carried a letter addressed to him explaining that I had indeed completed my master's degree but I had also within the time of the grant gone through a comprehensive examination and prepared a PhD research proposal, which had been approved by The Fletcher School. The second objective was to look round for possible sources of funds. Third, I wanted to seek a job to support me as I pursued my PhD studies.

Langat made the submission to AAI, who treated it as the position of the government of Kenya. He also commended my hard work for having covered a wider ground than was expected under

the AFGRAD fellowship. He concluded that the Government of Kenya would be pleased to see me complete my PhD. The AAI agreed that I could stay on to research and actually write my PhD thesis after which I needed to get in touch with them when the time came to leave.

I was not successful in my second objective. I did not find any sources of funds. I was nearly successful on the third objective. One day, I was at the delegates lounge with my friend, Dr Arungu Olende, over tea when his Brazilian colleague who worked at the Secretariat called Rigo Montero joined us. After introductions he was a bit excited that I was a PhD candidate in International Law at The Fletcher School, an institution he knew because he studied at Harvard's School of Government. He remarked that in the department where he was working, Trusteeship and Non-Self-Governing Territories would be interested in me. They were looking for someone like me to be secretary to the Council on Namibia, at P4 level. Would I be interested? When I answered in the affirmative, he asked me to wait at the lounge while he discussed the issue with his department's director, Mr Minchin, an Australian. He came back to ask me to accompany him to meet Mr Minchin. An interview was then organized. I faced the panel confidently. They asked me what would happen to my PhD topic on environment if I spent all my time working on Namibia. I said I did not see a problem or strain but if while on the job the strain became strong, I could change the PhD topic to "Administration in Absentia, The case of United Nations and Namibia". Although I did well and was recommended for employment, the personnel department objected to my employment on the basis that the Kenyan quota was already oversubscribed.

Based on that experience I decided that I would not sacrifice my specialization area of Law of the Sea and environmental law for short-term employment. I would trust fate to lead me to a solution on financial support that would be compatible with my goals of studying and eventually being a university professor. Personnel Department of the United Nations blocked that effort and I went back to Boston feeling rather desparate and dejected.

B. Meeting academic Dean Charles Shane

I thereafter asked Charles Shane if he had a scholarship to help support my PhD studies, explaining to him that failure to secure the support would mean that I would return to Kenya without a PhD. He replied, rather innocently, that my best bet would be to return to Kenya, get a job, work and save money to later return to Boston to write and submit my PhD thesis. I explained to him that given the difference between the US dollar and the Kenya shilling, no job in Kenya could earn enough money to save enough to support me in Boston. Unfortunately, he could not help me.

I asked Shane to give me the bundle of brochures announcing scholarships so that I would look through them, just in case something there would be relevant to me. I saw an announcement by Universities Consortium for World Order Studies, which appealed to me. Participants were Havard, MIT, Yale, Princeton and Berkeley. I called the director of the secretariat, a Dr Stephen Pascke. I informed him that although the deadline had passed I would still be sending him a proposal. He asked why I should do so knowing well it was past the deadline. I explained that I had just got to know about the scholarship. However, when I told him that I was a PhD candidate

he quipped that the Consortium did not support PhD candidates. The endowment was for mid-career people who want to conduct studies to propose solutions to a well-recognized international problem.

I responded rather that mine was no ordinary PhD proposal and that I had studied problems of the marine environment for a number of years and knew the range of episodic international agreements concluded to deal with the problems but they were piecemeal and ineffective. Besides, the approach of a universal organization would not work for stated reasons, hence what was needed were regional arrangements. Pascke seemed somewhat impressed and responded that because my enquiry was after the deadline they had committed their funds but that I should, nevertheless forward to him my proposal, my curriculum vitae and a covering letter explaining two points. First, why he should consider my proposal even though it was after the deadline and secondly, why the consortium should consider my PhD proposal contrary to their usual practice.

Three days later he called back to say that the consortium was impressed by my proposal but unfortunately, they had committed their funds. He undertook to check with those who had been awarded - because sometimes awardees return what they do not need. By the end of the week he called to indicate that he could afford $5,000 of what I had applied for. I asked him to send me the letter of offer by courier. While I was waiting for the Consortium cheque, I received a telephone call from Ms Patricia Rambach from Sierra Club, in Philadelphia. I knew Sierra Club as a civil society organization active in environmental matters. She asked me if I would be interested in joining their team as a consultant to the first substantive session of the Law of the Sea to be held in Caracas, Venezuela, in summer 1974.

On reflection I concluded that this offer would be a distraction from my thesis research and create difficulties of scheduling with the consortium. Besides, f I went to Caracas, however, I would meet with the wide range of international community working on law of the sea, including environmental law. I would just be a “Sierra Club man” making it difficult to be recognized as a scholar. In my view it was better that I complete my PhD and be recognized in my own right. Then I could be retained as a consultant.

I therefore focused on the support from the consortium. It enabled me to be a fellow of the five participating universities but I chose Massachusetts Institute of Technology (MIT) Center for International Studies, Sloan’s Building, as my base. My research base was at Harvard Law School where Dr David Smith, Director of International Legal Studies, offered me a cubicle on the fourth floor of their building. I worked closely with Professor Louis Sohn from whon I had taken courses.

I completed the first thesis draft and sent a request to Dr Paschke to kindly give me a grant for six months to complete an acceptable revised version. He called and asked me if I could request my professors who were familiar with what I had done to send to him their professional assessment of the work. As a consequence, Dr Paschke gave me the money.

By August 1975, I requested Professor Barnes and Professor Rubin to allow me to submit my thesis for examination. Whatever cleaning up that they required I did and defended the thesis in October 1975. I graduated in November 1975. I returned the library books and went to the residence of my friend Dunstan Wai at Harvard for a party he had organized for me. The guest speaker was Professor H. Field Havilland, Professor of International Organization at The Fletcher School.

V. FACING THE JOB MARKET

After the PhD I was now ready for the job market. I recalled that in June 1973, when I completed my MALD I met with a staff recruitment team from Chase Manhattan Bank. They asked for me at The Fletcher School and said they had details on me from the school. I said I had not set out for banking in my studies. After further discussions they asked me if I could travel to their offices on Wall Street, New York and at their expense so that they have further discussions with me. They did interview me and I indicated to them that I did not have academic preparation for banking. However, it emerged that all they needed was a person with The Fletcher School education. They would be able to make a banker out of me. They said that if I did not want to take the job immediately, I could contact them at a later date to check if the position was available. They would keep my dossier for a while. The lesson I took from the interview was the unique preparation from The Fletcher School. There seemed to be more value to The Fletcher School than students realized.

I also received an offer from Law of the Sea Institute at University of Rhode Island as a lecturer and I was invited to Dalhousie University to discuss the possibility of joining them to set up a centre of excellence on law of the sea, marine policy and ocean management. Although I travelled to Canada on completion of my studies to discuss this, I declined the offer because I wanted to return to Kenya and join the academy. This was in spite of the fact that they wanted me to be the first director, with funding from the Canadian International Development Agency (CIDA), and were intent on expanding to Africa. My friends did, indeed, establish Dalhousie Ocean Studies Project (DOSP) and invited me to be on the international Consultative Board, which I accepted and on which I served for about a decade.

A. Winding up at Massachusetts Institute of Technology (MIT)

After the expiry of my Consortium grant on 31 December 1975, the end of my research fellowship at MIT, Professor Eugene Skolnikoff offered me a one-month postdoctoral fellowship. I completed a paper on *International agreements for the control of marine pollution from ships*, which was published by the MIT Center for International Studies in their occasional paper series.

B. Outreach and publications

I was convinced that my PhD would make a useful contribution to control of marine pollutions and approached Professor Abraham Chayes at Harvard Law School on the possibilities of bringing my findings to the attention of UNEP. I knew he was one of the advisors to the team, which worked on the Stockholm Conference. He read my study and informed me that he would send a copy to Maurice Strong, the then Executive Director in Nairobi. The response from Mr Strong, which

Professor Chayes shared with me, was that a quick review of the study confirmed that it would be useful to UNEP. They forwarded it to Peter Thatcher, the Director of the Regional Seas Programme in Geneva. He suggested that UNEP would like to meet and talk to the author.

I pursued the publication of my thesis as a book immediately after it was approved. I sent unedited copies to three publishers: Oceana Publications; Preager Publishers; and Sijthoff Publishers. Of the three, Preager declined saying the manuscript was rather technical and therefore unattractive to their market. Oceana accepted and so did Sijthoff. I opted to publish it by Sijthoff as they were more specialized in the subject. It was published[1] in the series edited by Judge and Professor Shigeru Oda, who had been Judge of the International Court of Justice. I also published an excerpt from the same manuscript in North America[2] and another one in an East African scholarly journal[3]as a way of introducing myself to the scholarly community in the two places. The book and the structure and functions of UNEP's Regional Seas Programme show clearly that the regions, under UNEPs Regional Seas Programme, are closely related to the PhD.

C. Heading back to Kenya

During the last six months of my work on my PhD, I wrote to Kenyan institutions. I wrote to the dean of the Faculty of Law and to director of diplomacy Training Programme (the predecessor of the current Institute of Diplomacy and International Studies) but received no response from either. I also wrote to the Ministry of Foreign Affairs and the directorate of government personnel management but also received no reply.

My hopes were to emerge from a very unlikely quarter. A lady called Achola Pala who was studying for PhD in the department of anthropology of Harvard University had returned to Kenya for fieldwork and was based at the Institute for Development Studies. She came for a brief consultation at Harvard and I discussed with her how Kenyan institutions were treating me. I expected leadership in civilized institutions to at least write back to say they did not have vacancies. Achola suggested that I write to Dr Peter Hopecraft, who was acting Director of the Institute for Development Studies (IDS). She said Peter was a person who liked new ideas and, might want me at IDS as a research fellow since I had already received my PhD. I wrote and waited but no response was forthcoming. Achola returned to Nairobi and told Peter that I had not heard from him. In fact, he had written to me asking for an updated curriculum vitae and names with coordinates of three referees. I sent the dossier and in addition asked my brother Jotham to see Dr Hopcraft so that he could follow-up. At that stage I had decided that I would not return to Kenya without a letter of appointment. My elder brother, Jotham followed up until the appointment was made. I signed the letter of appointment and returned promptly. I also received an air ticket for travel from Boston to Nairobi.

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1 Alphen aan den Rijn,Sijnoff and Noordoff , '*Regional Control of Ocean Pollution: Legal and Institutional Problems and Prospects* 1978 (Judge Sigeru Oda (ed) Sijthoff Publications and Ocean Development, Volume 5 series, Netherlands) i.

2 Charles Odidi Okidi, 'Towards Regional Arrangements for Regulation of Marine Pollution: An Appraisal of Options', Ocean Development and International Law: The Journal of Marine Affairs. Vol. 4 No. 1 (1977) at <https://doi.org/10.1080/00908327709545578>

3 Charles Odidi Okidi, 'Review of Recent developments regarding The Rule of Extraterritorial Jurisdiction with Focus on the Control of Marine Pollution' i (1977) East African Law Journal, Volume XII No 2 pp 189-215.

VI. TAKING MY PLACE AT THE UNIVERSITY OF NAIROBI

A. The Faculty of Law

I came to the University of Nairobi in the belief that I was joining a regional premier university. I offered to teach environmental law within the Department of Public Law in the Faculty of Law at the University of Nairobi from September 1979. I proposed a course outline for the master's degree, which I discussed with Dr Sylvester Awuye who was chairman of the department. We agreed to a text, which was processed at the faculty level and eventually approved by senate rather rapidly. That semester I taught five students, one of whom, Francis Situma, has remained loyal to the subject and has reached the level of full professor at the School of Law. I taught this course till 1987. From 1983 I invited Hastings W.O. Okoth-Ogendo to co-teach the course with me. He was already teaching land law in the faculty and I thought he could infuse a bit of environment.

The following year while at the Legislation Branch of the Food and Agriculture Organisation of the United Nations (UN FAO) in Rome, I challenged my friend Dante Caponera to hire Okoth as a consultant on Land Law, and he accepted. He hired Okoth for a consultancy assignment in Guyana and Dante was not disappointed.

In 1985/86, I discovered Dan Ogola Bondi, teaching, I believe, Land Law and labour law. I requested him to join me in teaching environmental law, which he accepted. In 1987, Dan took up a scholarship, which was originally offered to Okoth Owiro, to study for a PhD in France. Okoth rejected the package, which he argued did not have enough money to live on in France. Dan accepted to risk the frugal livelihood and proceeded to complete the PhD. On his return, he taught only briefly before the United Nations Environment Programme in Nairobi employed him as a Legal Officer. Later he moved to the Convention on Biological Diversity Secretariat in Montreal and later to Bonn as the Chief of Legal Division of Convention on Climate Change. He was involved in ushering in the famous 2015 Paris Agreement.

Being at IDS but teaching in the Faculty of Law gave me a chance to work with one more young law lecturer. In 1987, Albert Mumma returned from Yale University with a master's degree in law. He accepted my challenge to take up environmental law as an area of scholarly research and teaching. Without prior study in the area Albert worked gradually on a research proposal in environmental law focusing on wetlands law. He received a grant from the Ford Foundation but while he was on field research he obtained a PhD scholarship to study at Cambridge University. He returned the unused funds to Ford Foundation for use when he returned to Kenya to carry out his PhD fieldwork. Albert moved far enough in his research to present a faculty seminar on his research, leaving his colleagues amused about the topic of wetlands as a subject of legal research. Albert completed his PhD and, today, is a professor and an outstanding environmental law scholar focusing on water law.

B. Activities under the Institute for Development Studies (IDS)

I was fully involved in teaching and administration at the Faculty of Law because IDS did not have

courses of its own. Established practice was that scholars taught in departments/ faculties of their corresponding discipline as I did in the Faculty of Law. At IDS, scholars focused on research, the conduct of seminars and release of working, discussion and occasional papers. From the time I arrived, my record shows that I presented a number of seminars and organised workshops. It was also my practice that whenever I prepared a research paper, I organized a seminar around it so that my paper would be discussed in context. In this way, I mentored young scholars and colleagues in my field of specialization.

My first activity at IDS was to organize a workshop on law and development. The project was actually an initiative of my friend and colleague, Okoth-Ogendo, who had obtained funding for the workshop from the Ford Foundation. This was an international conference highlighting the interaction between law and economics to create equitable development. The end product was published as Occasional Paper No. 29 of the Institute for Development Studies.[4]

My second topic on the management of coastal and offshore resources in Eastern Africa[5] was very satisfying because I prepared three papers to help local scholars understand the issues. The first paper was conceptual, setting out what the agenda for research should be. My second paper elucidated two issues that remained highly contentious historically: territorial sea and the continental shelf. The third paper discussed the new concept of exclusive economic zones (EEZ). Until 1974, this concept was taking shape but still in dispute as African countries led by Kenya's Frank Njenga espoused the EEZ. Tanzania's Joseph Warioba led the debate on the seabed while USA and Europe rejected the concept of EEZ flatly until the Caracas meeting where African and Latin American countries won the argument for 200 nautical miles EEZ.

Being based at the Institute for Development Studies while at the same time chairing the Faculty of Law's research, library and legal publications committee enabled me to mobilize the resources of both institutions to organize an international workshop on law and the public interest. I was, and remain, aware of the fact that a great deal of enforcement of environmental law is through the paradigm of public interest. We were also conscious that a workshop on law and the public interest needed to have broad international participation, if it was to be effective. I requested Professor JB Ojwang and Dr Janet Kabeberi to take charge of the workshop up to and including preparation of the papers for publication and our colleague, AG Ringera, was to chair the workshop.

Out of the nine presentations at the conference, only three were by Kenyans. Professor Okoth Ogendo talked authoritatively on agrarian reform and related public interest implications in sub-Saharan Africa while Dan Ogola made a presentation on public health matters in Kenya. The introduction and discussion of public interest law on comparative basis was good. The materials presented were published as IDS Occasional Paper No. 52.[6]

4 CO Okidi and HWO Okoth Ogendo (eds), *Reflections on Law and Development*, University of Nairobi, Institute for Development Studies, Occasional paper No. 29(1978).

5 CO Okidi, *Management of Marine and Coastal Resources in Eastern Africa,* University of Nairobi, Institute for Development Studies, Occasional paper No. 28, 1977.

6 JB Ojwang and Janet W Kabeberi (eds), *Law and the Public Interest* , University of Nairobi, Occasional Paper, No 52, 1988.

VII. BUILDING AWARENESS ON THE NEED FOR PLANNING ON ECOLOGICAL UNITY BASIS

A. Kenyan basin development authorities

An opportunity arose to get a large number of people to discuss and internalize the imperatives of planning development, which respects an ecological unity. On the 16 Decembers 1978, President Daniel Arap Moi told a political rally in Kisumu that he would initiate a process for the formation of a Lake Victoria Basin Authority to intensify development work in the lake region as well as to harness the waters of all the rivers flowing into Lake Victoria.

It occurred to me very quickly that since I had read about the Tennessee Valley Authority and instances like the Convention on Lake Constance and Mekong Basin, I could be in pole position to build local awareness on two important issues. First, to draft a law creating the Lake Victoria Basin Development Authority, and second, develop approaches to mobilization and planning with natural resources in a manner that respects ecological unity.

I prepared a draft statute creating the Lake Victoria Basin Development Authority and discussed the same, together with an accompanying concept paper with Honourable Oloo Aringo. He took the draft to the Ministry of Planning as well as to the parliamentary draftsman who requested for time to consult until the draft was adopted and passed by Parliament. That same text subsequently influenced the drafting of the Kerio Valley Development Authority, the Tana and Athi Development Authority, and the Coast Development Authority.

The second initiative I took was to propose the planning for management of natural resources within the basin as proposed by the President. I prepared a detailed concept paper describing the boundary of the basin and identifying key natural resources therein, while arguing that the jurisdiction of that authority must extend to the entire catchment of Lake Victoria to include parts of Rift Valley such as Bomet, Sotik, Kericho, Uasin Gishu. This generated considerable resistance. The majority of seminar participants, who actually came from Nyanza Province as it was then, argued that the authority was a gift granted to them by the President and thus resisted the catchment approach. I had to go into fairly detailed explanation about the interconnectedness of the natural resources and the unity of the rivers and water resources before they finally agreed. The final product of the workshop was IDS Occasional Paper No. 34.[7]

Other than the concept paper, I contributed a substantive paper discussing the legal and policy regime of Lake Victoria and Nile basins. My paper was subsequently revised and published in a number of international scholarly outlets, beginning with *Indian Journal of International Law*.[8] Volume 20 No 3 (1980) pp. 395-447.

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7 CO Okidi, *Natural Resources and the Development of Lake Victoria Basin of Kenya*, University of Nairobi, Institute for Development Studies, Occasional paper No 34, 1980

8 CO Okidi, 'Legal and Policy Regime of Lake Victoria and Nile Basins' CO Okidi,20(3) *Indian Journal of International Law*(1980), 395-47.

B. Study and demonstration of basin development carried to other regions

Ecologically based planning and development may be done at the international level as a means of mentoring those who will perform these roles later. I studied what had been done in the basins of two African international drainage basins: Senegal and Kagera. A publication entitled 'Development and Environment in the Senegal Basin under the OMVS Treaty' is available as IDS Discussion Paper No. 283 of June 1986[9] and covers the basin of the Senegal River in Mali, Mauritania, and Senegal. The second one is 'Development and the Environment in Kagera Basin under Resumo Treaty'-- available as IDS Discussion Paper No. 284 of 1987.[10]

After these two original studies I convened, an international conference at IDS, including officers from the foregoing basins and other commentators to give their own views. 'Proceedings of a workshop on development and the Environment in the Management of International Drainages Basins in Africa' was edited and published as IDS Occasional Paper No. 51 of 1988.[11] resulting from a meeting held in Kisumu in the first week of August 1987. These studies yielded some experiences that were not reflected in the foregoing publications. Such lessons were collated in a separate article entitled, 'The State and the Management of International Drainage Basins in Africa' and published as a lead article in *Natural Resources Journal* (University of New Mexico School of Law) vol. 28 pp. 645-670. No. 4 (1988).

Field studies took me to the Niger Basin countries; Senegal, Mali and Mauritania; Kagera Basin countries of Rwanda, Burundi and Tanzania to obtain information for the papers. Ford Foundation provided the funding and actually awarded me personal research grants that did not go through the university. I would carry put part of the trip and after accounting for what I had received, I would get the next tranche until I completed the portion I applied for. There was a shortfall of funds and I simply utilized the grant I received as part of the Elizabeth Haub Prize in Environmental Law in 1985.[12]

In a way, the research and publication I did during this time was an act of defiance. I had applied for promotion to the position of full professor in 1985 and I thought I deserved it. The University of Nairobi simply kept quiet. I did not think I should sit around complaining. The fault was not mine. I thought it would be up to the university, one day to explain why I had not been promoted. For my part, I took advantage of the goodwill and confidence of Ford Foundation and made it difficult for the university to explain why I had not been promoted to the full professorship I had applied for. It was a matter of principle and pride in my mission as a scholar.

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9 CO Okidi, 'Development and Environment in the Senegal Basin under OVMS Treaty (Analysis of Initiatives to Implement a Drainage Basin Treaty)', University of Nairobi Institute of Development Studies, Discussion Paper No. 283, 1987)

10 CO Okidi, 'Development and the Environment in the Kagera Basin Under the Rusumo Treaty (Analysis of Initiatives to Implement a Drainage Basin Treaty', University of Nairobi, Institute for Development Studies Discussion Paper, Number 284, June 1987)

11 CO Okidi, 'Reflections on the Management of Drainage Basins in Africa. Proceedings of An International Workshop on Development and Environmental in the Management of Drainage Basins in Africa', held at Kisumu Kenya, 3 – 9 August 1987(IDS Occasional paper No. 51, 1988.

12 See Presentation, CO Okidi, 'Nairobi Convention: Conservation and Development Imperatives', Environmental Policy and Law. Vol 15 (1985) pp. 43-51

C. The Regional Seas Programme

The Regional Seas Programme of UNEP had designated the Food and Agriculture Organization (FAO) of the United Nations as the executing agency for the development of a Convention on the Eastern African Region. It was FAO that appointed me the lead consultant for the development and conclusion of that convention. The first step was to lead a two-person mission to assess the legal aspects of protecting and managing the marine environment in Comoros, La Reunion, Kenya, Madagascar, Mauritius, Seychelles, Somalia, Mozambique and Tanzania. We produced UNEP Regional Seas Reports and Studies No 49(1984). Thereafter we gleaned only Legal Aspects of Protecting and Managing the Marine in the Region and Produced UNEP Regional Seas Reports and Studies No 38 of 1983.

The latter publication provided the background to the draft agreement that was eventually negotiated between 17 and 21 June 1985 with the Final Act and the Convention adopted on the last day. Details of that agreement were captured in a paper I published.[13]

VIII. CAPACITY BUILDING THROUGH COLLABORATIONS

A. University of Ghent

The origins of this project were in a 1985 meeting between Professor Eddy and Somers of the Faculty of Law, University of Ghent who visited me, having known me through my publications on the Law of the Sea. We discussed the possibility of collaboration between the University of Ghent and the University of Nairobi on training scholars up to PhD level; establishment of a documentation centre and exchange of specialists and students between the two universities. I reduced our discussion into the Memorandum of Understanding that was signed in June 1988. I then moved to Moi University to set up the School Environmental Studies, leaving all systems ready. The Vice Chancellor appointed Dr Kenneth M Mavuti, assisted by Dr Mohammed Jama of IDS and Mr SC Wanjala of the Faculty of Law to coordinate the project.

The computers for the centre were delivered at the end of 1989. The research component never picked up. But the PhD component produced current senior scholars and jurists namely Professor PLO Lumumba, Dr (Justice) Smokin Wanjala and Professor Paul Musili Wambua. I am proud that the project I originated supported such distinguished persons. I still hoped rather desperately that a tutorial fellow from Centre for the Advanced Study of Environmental Law …(CASELAP) could still earn his PhD at the tail end of the project.

B. University of Malta and Dalhousie University

Although I had declined the offer to be the founding director of the Institute of Natural Resources and Environment at Dalhousie, they proposed my name to Professor Elisabeth Mann Borgese to draw up a curriculum and conduct an intensive training on Law of the Sea, with specific reference to the management of Exclusive Economic Zones to mid-career officers from developing countries.

13 CO Okidi, 'Nairobi Convention-Conservation and Development Imperatives', Environmental Policy and Law, Volume 15 (1985).

This was a four-month assignment at the University of Malta at Msida. Thereafter, I was to improve on the curriculum and run a similar course at Dalhousie University.

I ran the Malta course for four months. The participants had an assignment to write reports to reflect what they had learned. I suggested that they work in groups and produced a booklet which they took home for reference. There was provision for a field trip to a location where they would observe activities of the kind they were exposed to. For the Malta course, it had been proposed that I take the group to Monaco because of the marine scientific research there. I disagreed. Instead, I chose to take the group to North-East Scotland for experience in the North Sea. The management of natural resources in the North Sea, particularly oil and gas as well as fisheries, presented just what they needed. The resources in that area are comprehensively managed under the direction of the North-East Scotland Development Authority (NESDA).

I travelled to Dalhousie University on 1 November 1981 and spent five months revamping the curriculum I used in Malta and conducted an intensive course for over twenty mid-career professionals. In June 1981, I was offered a contract to a joint appointment at the Faculty of Law and The Institute of Natural Resources and Environment for three years, renewable. I would teach a course on Law of the Sea at Faculty of Law with Professor Douglas Johnston (now deceased) and be an advisor to the Institute. The main task was to conduct the Law of the Sea course. For field exposure, I took the students to Newfoundland where Hibernia oil fields had been discovered. The terms were exceedingly attractive. For me, I preferred to return to Nairobi for personal and professional reasons, not patriotism. So I returned at the end of that course in September 1981.

C. Lectures at the Defence Staff College

On invitation, I gave lectures on the Law of the Sea and Law of Armed Conflict at the Defence Staff College. I explained maritime boundaries whether opposite or adjacent states to the soldiers and demonstrated different ways in which the maritime boundary between Kenya and Somalia may be drawn. Some of those configurations have recently come to light. What the Somali are proposing and insisting upon as opposed to what Kenya wishes for could probably have been avoided.

I repeatedly urged the generals to advise the office of the President of Kenya to take necessary steps to seek a maritime boundary treaty while President Siad Barre was still in power in Somalia. The relationship between Kenya and Barre's Somalia seemed good and most of us looking from a distance believed that Kenya and Somalia would have signed and even ratified a boundary agreement as Kenya now desires. I explained how Kenya and Tanzania signed a Pemba Channel treaty in 1976 during the tenure of Dr Munyua Waiyaki as Kenya's Foreign Minister.

Even if today's Somalia wished at a later date, to challenge the treaty, Kenya would have been on stronger ground than it is now. The so-called real or dispositive treaties are difficult to challenge. Because that was also the boundary at the time of independence Kenya would have, in addition, invoked the doctrine of *uti posidetis*. African governments tend to respect boundaries as they were at the time of independence. Two legal arguments are better than none.

D. University of Nairobi's environmental studies centre

Dr Josephat Karanja, a former Kenya High Commissioner to London, was the first Kenyan Vice Chancellor of the University of Nairobi. He visited Canada and on his return, told the university Senate that he wanted a special committee set up under the chairmanship of his deputy, Professor Douglas Odhiambo, to conduct a study and make a proposal for the establishment of an environmental studies programme at University of Nairobi. It was apparent that York University had a hand in his visit because as he made the announcement, he said that a Professor Gerry Carrothers, the first Dean of York's institute of environmental studies would arrive in Nairobi soon to provide advice to that committee. I do not remember how it came about but Professor Odhiambo announced in Senate that I would be secretary to the committee.

We worked long hours with Gerry Carrothers giving us guidance based on the York University model. Before long another two professors joined us, once more, as advisors. It soon became clear that our York University visitors were on a mission. The proposal was completed and approved by Senate. But Senate did not address the question of where, within our institutional structure, the institute should be located. What was curious was that the two advisors who came later had ideas where it should be located. Moreover, Dr Karanja had resigned and gone into politics, and so Senate should have given the answer. The two advisors walked around with the proposals between Chiromo Campus and the Faculty of Architecture, Design and Development for a while. When they returned to me they had an idea.

They told me they had been advised to see the Director of National Environment Secretariat, at the time located in Office of the President, who would instruct the university on what to do. I knew our project was in problems. In the university, no one seemed to care about the fate of the institute until it simply vanished. Apparently, Dr Karanja was personally interested in the project but did not properly anchor it in the university. And worse still, it seemed that York University team took possession of the idea and wanted to position themselves within the project. The project simply vanished and our York friends left for Canada.

E. Moi University

In mid-1988 the press carried an advertisement for the position of a full professor at the School of Environmental Studies, Moi University, who would also be the Dean of the School. I read the advertisement but did not feel moved to apply. A week later, the Chief Academic Officer at Moi University, Professor Ole Karei came to the University of Nairobi. He looked me up and among other things, asked me if I had seen the advertisement and if I was interested. I replied that I was actually not in the job market. My reputation in environmental studies was known and Professor Douglas Odhiambo, the Vice Chancellor of Moi University, knew me well. If he was interested in my application, he would make contact. At that stage, the Chief Academic Officer told me that Professor Odhiambo had sent him to talk to me to be interested.

I had written in the field and actually urged for capacity building in the environmental studies. I perceived my role as contributing to building a critical mass of people knowledgeable and

committed in the field. In developing a centre of excellence and continuing my teaching role, I would be supporting a cause I believed in. Further, as I would develop the cadre of knowledgeable people, I would also arm them with the requisite skills to develop appropriate legal and institutional frameworks. If I was being asked to set up a unit in a national university to build capacity in the field it would be blatant irony for me not to express interest. It would not be a matter of promotion. In my view, the University of Nairobi would, at some point sooner or later, promote me. Moreover, I had completed my Ford Foundation funded research project on Rivers Niger, Senegal and Kagera. It would be on principle and I replied that I would express interest in the post, particularly at the request of Professor Odhiambo for whom I had a lot of respect. We agreed on the best schedule for the interview. I attended the interview and felt that I was in command of the floor. There were no major challenges directed at me. Eventually the chairman asked me why, with the good credentials in my record, the University of Nairobi had not promoted me beyond the post of senior lecturer. With the frustration I had suffered I only replied that only the Vice Chancellor of the University of Nairobi would answer the question because they had kept my application for promotion for three years.

The committee decided to award me the appointment. The Vice Chancellor at Moi for some reason, informed his Nairobi counterpart of the appointment that evening. I knew that because the following day, the University of Nairobi Vice Chancellor, Philip Mbithi called me. By the time I got to his office, he had before him my personal file and the dossier of my 1985 application. He told me that he knew from the Vice Chancellor of Moi University that they had interviewed me for the post of full professor and that they would write to me to offer me the appointment. He said though that I should not accept and should instead stay in Nairobi. I asked him why, to which he replied that he had checked and found that the chairman of the University of Nairobi Council who chairs the appointment committee for full professors was unavailable. He would, in that case, convene a panel for Associate Professor the following day and ensure that I was appointed. For full professorship, he would have it minuted that my file would be presented to the appropriate committee within six months and I would be promoted to full professorship without appearing personally. My response was that we should deal with the first thing first, and that I wanted to face his appointment committee and to receive the letter of appointment to associate professorship. That would help me decide on his suggestion.

He observed that there were no letters of reference. Did I have any referee? I responded that my three referees had confirmed that they wrote. One was a professor from Southampton in United Kingdom. The second one was from the Graduate Institute of International Affairs in Geneva, Switzerland, and the third was Professor Okoth Okendo, who was our colleague. The VC asked me if I could ask them to urgently send copies of the letters they wrote to the Vice Chancellor. I observed that it was three years since they wrote. If I ask them to send copies saying that what they sent were lost they would think that the university is either chaotic in conducting its senior promotions or downright devious. I submitted to Professor Mbithi that he did not need references from England or Switzerland to give him an opinion on me. He could, infact write one for me. He

remarked that I should ask our colleague Okoth to quickly prepare a letter of reference for the record.

Frankly, for a change I felt someone wanted me to stay at the university. But why did he not do it earlier? He would have made it just a little difficult to decide to leave. The following morning, Vice Chancellor Mbithi called me to his office. On arrival he told me that the Principal of the College of Humanities and Social Sciences, Professor [Onesmus] Mutungi, had cautioned him that if he convened the appointment committee as he proposed I would appear only to insult them for having delayed my promotion and then walk away to Moi University in Eldoret. My response was that the University of Nairobi owed me promotion and that I would face the appointment committee expecting a full professor level interview, no less. I assured him that I would be fully professional, so he advised me that the committee was scheduled for eight o'clock the following day. I appeared. I was interviewed and when I was asked whether I would stay or go to Eldoret, my response was that I wanted to decide that question when I had both letters in my hand.

My plan was that even if I went to Eldoret, I did not want to leave Nairobi as a senior lecturer. Professor Mbithi's letter appointing me Associate Professor came very speedily and I signed it and returned it promptly. When I had Moi and Nairobi letters in my hand, I did the wise thing. I decided to go to Moi University as a full professor even if im an Associate Professor in Nairobi.

I decided to take up the appointment as professor as well as Dean in the School of Environmental Studies at Moi University. I felt that I was leaving Nairobi, on leave of absence, as an associate professor, which is at least the way I would return. I was mindful that the creation of Moi University was a deliberate process. There was only one university in Kenya in the 1980s. President Daniel Arap Moi thought there should be a second one and he invited a C.B. Mackay, President Emeritus of University of New Brunswick in Canada to chair a Working Party to make recommendations on a Second University in Kenya.

The report, released in September 1981, observed among other things that the country had shown strong awareness of widespread environmental problems and concerns. It observed, however, that concerns with environmental management had not received sufficient intellectual and scholarly backing. The Task Force was deliberate and unequivocal first that the country should strive to be at the forefront in the advancement of environmental knowledge. Secondly, the Task Force stated that the proposed second university should provide Kenya with an opportunity for environmental studies. In other words, as much as Moi University was not established out of political impulse, the creation of the School of Environmental Studies should be first, an integral part of the university, and second, be carefully planned.

As I arrived at Moi University, I did not find a plan or document setting forth the structure of the school. It was clear that the school had not commenced. I knew then that I had the duty to establish the environmental studies of the kind envisaged in the Mackay Report. Drawing on my own insights and experience as well as ideas I had collected from programmes on environmental studies, I prepared a notional development plan for our new school. I knew that there was no environmental

studies' programme in Kenya. Egerton College had a natural resources' management programme as part of their agricultural college. Kenyatta College, on the other hand, had a centre for environmental education for those being prepared for a career in teaching.

The national development plan became instrument for planning, resource mobilization as well as reaching out for collaboration and marketing. I knew that due to limited public resources, I would need to look for funds from development partners to support a crash programme of teaching at masters and doctoral levels. At the same time, I would need to obtain financial resources for staff development. My position was already clear that lecturers for courses at masters and doctoral levels must be holders of PhDs..

1. Curriculum development

What distinguishes an academic institution is the existence of a robust Senate approved curriculum. I took this as my challenge as founder of the School. I collected and studied booklets on programmes of environmental programmes from around the world. Programmes described as 'environmental sciences' were invariably focusing on the scientific fields, physical, biological and health sciences. On the other hand, those that were described as 'environmental studies' were programmes that included socio-economic and legal subjects. I resolved that our new programme would be the School of Environmental Studies. I further resolved that ours would be the best and most suited to Kenya and Africa or perhaps elsewhere. To meet that objective I put together a small team to urgently develop aspects of the curriculum for me to take to the Senate.

The following eight topics were our focus:

1) Physical sciences
2) Biological sciences
3) Environmental health
4) Environmental economics
5) Environmental law
6) Environmental planning and management
7) Human ecology and
8) Cartography and remote sensing.

Drawing on my experience from the University of Nairobi, I ushered the discussion of the course content and regulations that lead to graduates with broad inter-disciplinary preparation with subject specializations. There were three core courses required for all the divisions: environmental law, a course from physical sciences division and one from environmental biology.

I took the curricula for the postgraduate diploma, masters and doctoral degrees to one Senate sitting. I will never forget that occasion. The only contentious question was from Dr PK Ndalut (now late), Chairman of the Department of Chemistry in the Faculty of Science. He sought to know how myself, a non-scientist, would present to Senate proposals with scientific content like the environmental health course. I responded that I had prepared to be 'Dean'. I must say that I really benefitted from my one year at Woods Hole Institution, especially from a Dr Max Blummer,

Marine Biology Laboratory, and Dr David Ross. At the end of that Senate session, the School had ready curricula.

2. Quality of teaching

The effort we went through to be sure that we had a quality curriculum suggested that we must have highly qualified scholars to teach the courses. The simple measure of the standard for teachers in the school was that they must have a PhD. There was only one person, Gordon Wayumba, who taught a course in the Division of Cartography and Remote Sensing who was the exception over the six years when I was Dean of the School.

I was fortunate to have very good relations with senior scholars in Nairobi who came to teach on a part-time basis. I virtually demanded that of scholars like Professor Laban Ogalo who was Chairman of Department of Meteorology; Dr David Mungai who was Chairman of Department of Geography and Gordon Wayumba from Department of Survey, and others. They travelled to Eldoret to teach during the weekend when they could not come during the week.

The implication is that I had to mount quite an extensive staff development programme. Oftentimes ,I hear departmental heads say that they must let non-PhD holders teach courses and I think that is unpersuasive. It is the duty of universities to build up PhD staff. That there are no crash capacity building programmes is a policy weakness of the universities and very particularly the Council for University Education (CUE).

3. Finding resources for the school

One day a European gentleman walked into my office, introduced himself as Dr Ton Dietz from the Faculty of Environmental Sciences, University of Amsterdam in the Netherlands. He told me that he had done scholarly research, including his PhD research, specifically in West Pokot. He indicated that he and his department back home would be interested in collaborating with out new programme, if we had some specific proposals.

I pulled out a copy of the school's Notional Development Plan and asked him to read it and return the following day with a view on whether or not he found it attractive. He came back to say that the concept of the school was very interesting and that some aspects of it would attract funds from Dutch sources. I requested that we go on overdrive and prepare a project proposal for presentation in Amsterdam. I would seek the support of the Vice Chancellor. He went back to his hotel and returned the following morning with a rough draft, which we discussed most of the day, with adjustments.

In his consultations with the units at home Dr Dietz had established that funds might be available under the Netherlands Organization for International Cooperation in Higher Education (NUFFIC). By 18 October 1989, I was at the office of the President, University of Amsterdam, accompanied by Ambassador Kefa Onyoni (now deceased) the Kenya Ambassador to The Hague, for a ceremony to sign the Memorandum of Understanding for a programme of Inter-institutional Cooperation (ICP) between the School of Environmental Studies of Moi University, Eldoret, Kenya and the Faculty of Environmental Sciences of the University of Amsterdam, the Netherlands. Soon

thereafter we received funds to implement the cooperation. We received starting support for 20 PhD scholarships spread over 10 years in the Netherlands.

We also negotiated scholarships for two special and additional PhD scholarships in environmental economics. Frederick Nyang' and Moses Ikiara were recruited to join as research fellows to receive exceptional specialization in environmental economics supervised by some of the best known experts in the field in Europe and for them to subsequently prepare cadres of environmental economists locally. Another special recruitment was Abdirizak Nounow, a tutorial fellow, to pursue a PhD in human ecology. At that time, I had decided that the school should establish a field research station in North Eastern Kenya and a highly qualified Nounow would be in charge of that station. As a way to induce the staff development fellows to return to MUSES at the end of their studies, provision was made for soft-landing funds. The funds were to facilitate hiring of academic staff on contract, to share the teaching load of the returning staff member. This was to enable the latter to engage in academic research and writing for two years so that the new lecturer would qualify for promotion to senior lecturership within two years. During their PhD studies the staff development fellows were encouraged and supported to get involved in international scholarship.

The project funds from Amsterdam would meet the full cost of the PhD, study tours in Europe, participation at international scientific conferences and supervision by selected scholars. It also covered the students' travel to Kenya as well as field research and the purchase of personal computers to enhance their research work. Apart from students financial support, the grant also paid the expenses for our master's degree students to include their field research and cost of supervision. There were also allocations for the local PhD students, whenever MUSES admitted them.

Budget provisions were made for three laboratories. One for physical sciences, one for bio-chemical sciences and a third was a uniquely equipped cartography, remote sensing and Geographical Information Systems (GIS) unit. The Documentation Centre, actually a library, for the school was also funded from the project. Provision was made for 1,500 books and 40 to 50 scholarly journal subscriptions on an annual basis identified globally. The budget also included funds to enable Tirong Arap Tanui, the University Librarian, to travel to the Netherlands to organize the purchase of books identified by the school, and shipment to Eldoret, through Nairobi. The centre was also equipped with a modern photocopying machine, one video and television set, one desktop publishing machine, one scanner, one plotter and three personal computers with software and two printers. The grant also made provision for two four-wheel drive vehicles and one staff vehicle with provision for fueling.

I explained them in regular Senate sessions and the Deans Committee the approaches taken to develop staff and mobilise institutional resource thus keeping them in the know. I went flat out to set up and equip the school in the perfect spirit of the Mackay Report on the Second University in Kenya issued in September 1981.

4. Field research stations

I built up the philosophy that as a school of environmental studies, the whole country was our laboratory. As the founding dean of the school I had the responsibility to identify, justify and secure sites MUSES would use as field research stations. We identified Sabaki and Malindi for pollution of the marine environment from land based sources; Homa Hills Research Station for environmental problems around Homa Hills; Turkwell Gorge Research Station; Isiolo and Northeastern Kenya station; and the Meteorological station.

5. Staffing MUSES

I made it clear that only scholars holding at least a PhD would be responsible for any class in the school. That is why staff development was such an urgent and crucial component of my plans in the school. Since most observers doubted it that I could have in the school PhD holders committed, I set out to ensure I proved them wrong. It was for this reason that someone like Francis Situma, who had been my student in Master of Laws class, could be retained on part time basis and only as my assistant in environmental law class. Further to that was the reason why Godfrey Anyumba, whom I found at the school as a lecturer, had to wear the garb of a tutorial fellow and sent out to the University of Amsterdam for a PhD degree. He had to do that or be ejected from the school.

6. Summary

As I left Moi University in February 1995 at the end of my second term as dean, I was satisfied that I had set up the school with staff, resources, a rich staff development plan and an academic culture of excellence and rigour. As is always the case, it is one thing to attract staff but retaining them depends on the style of the incumbent dean and overall university governance.

The only specific concern I had was with the Environmental Law Division where there was a dearth of expertise nationally and, indeed, worldwide. Through my unique contacts, I was able to attract an exceptionally well-qualified scholar and a non-Kenyan, at that. Fortunately, he was also keen on research and had published two articles in international scholarly journals by the time. I left a good scholar on the ground. My fears were twofold. First, I knew that Dr Kenneth Orie was scheduled to marry a Nigerian scholar, who was teaching at Tulane University in the United States. It was unlikely that he would ask his wife to come to teach in Kenya, given the poor terms of service and the poor response by the government to requests to improve them.

Second, legal scholars in Kenya seem to prefer working in the capital, Nairobi. The consequence is that Moi University may end up with the choice of employing Eldoret-based legal practitioners who are not properly prepared for academic work. There is still an enormous challenge for Kenyan universities to deliberately train more people in environmental law at the PhD level.

IX. OTHER LEADERSHIP ASSIGNMENTS

Providing leadership and guidance in setting up the School of Environmental Studies is one form of community service. But in my life, there have been several occasions when I have been requested to take up responsibilities in public affairs. My most memorable as far as mentorship is concerned include chairmanship of the Governing Council of the Kenya Water Institute, the chairmanship

of the Council of Karatina University, and the chairmanship of Pala Educational Zone Parents Teachers Association.

At the Kenya Water Institute, I initiated a training project by Galilee Institute in Israel focusing on irrigation. The new director and two staff members had visited Israel by the end of my first term. Also, I urged that the institute enter into a Memorandum of Understanding with organizations interested in water management and irrigation that also had enough land for KEWI to train staff.

At Karatina, where I was Chair of the Council, I insisted that only PhD holders be on full time academic staff. By 2016, there were 84 male and 73 female academic staff where tutorial fellows who had made significant progress towards PhD were taken up on permanent and pensionable employment terms. In such cases, the council policy required close monitoring and regular progress reports. My council had discontinued the position of assistant lecturer long before CUE addressed it. Before 2013, the council had noticed that assistant lecturers often became complacent and hardly move to PhD studies.

My position has always been that universities have the duty to develop staff and therefore did not entertain the justification of staff shortage. I found my policies to be popular with academic staff who had PhD or those who were on the way to attaining them. The policies were also popular with members of the university Senate who saw the status of their institution being enhanced.

A. Initiating development of Kenya's framework environmental law

I was concerned that Kenya, home of UNEP, had not taken steps to develop in modern environmental law at national level. There was a reasonable level of public awareness of environmental problems but there was a need to establish national legal and institutional arrangements to address emergent problems.

In 1989, as Dean of MUSES, I developed a comprehensive curriculum on environmental law for Moi University. I thought that teaching the courses would benefit from a national framework law and streamlined sectoral laws. My interest in pushing for a framework environmental law for Kenya became stronger when I was recruited as task manager for a project on environmental law and institutions in Africa. I had a number of discussions with Reuben Mugo, Director of Kenya's national environment law secretariat. He was, very clearly, not interested.

I thought to push the idea through Professor Sam Ongeri, Kenya's Permanent Representative to United Nations Environment Programme. I had a meeting with my friend Bob Munro and gave him the idea that he should arrange a meeting with Ambassador Ongeri and persuade him that it was anomalous that Kenya, the home to UNEP, should be without a framework environmental law. Uganda, after the fall of General Amin Dada, was drafting its framework environmental law. We agreed with Bob that he knew a Kenyan expert who could prepare the law if only UNEP would support it. We also agreed that he should give my name to Professor Ongeri and urge him to take up the matter with Donald Kaniaru, who was then deputy director of the Environmental Law Unit at UNEP.

Professor Ongeri was excited about the idea and on returning to his office asked his Deputy Permanent Representative, Nicodemos Onyango, if he knew me. Fortunately, Onyango was my

mate in primary school and was only enthusiastic to trace and approach me to find out if I would be interested in the project. Of course I was. They readily communicated to my old friend Donald Kaniaru, the deputy director of the environmental law unit.

The recruitment process started with Donald presenting me with the terms of reference. He also informed me of the fee I would be paid for the assignment, which I thought was very small relative to the task. But I accepted the offer readily. I wanted to personally carry out the project. I feared that if I took time to negotiate a better fee, they might read it as a sign of my reluctance and offer the assignment to someone else. Doing the project personally would, certainly be part of my satisfaction, and certainly it had to be the best. Besides, as I set up the institution for capacity building at Moi University, I would also determine how soon Kenya could develop a competent modern legal and institutional framework.

B. Taking the process through the Attorney General's task force

By notice in the official Kenya Gazette, the Attorney General, Honourable Amos Wako, established a Task Force on reform of Penal Laws and Procedures under the chairmanship of retired Justice Benna Lutta. Other members were J.F.H. Hamilton, BK Arap Maiyo, Prof JB Ojwang, Mrs L Masua, Georgiadis, Prof CO Okidi, Bernard Chunga, AR Kapila, Okech-Owiti, Dr Florence Muli-Musiimi, BP Kubo, Noah arap Too, Dr D Gachuki, Dr Philistas Onyango and Amos Kimunya. The Task Force was required to develop and formulate penal laws and procedures on diverse topics including environmental crimes.

At the formal inauguration of the Task Force on 16 March 1993, the Attorney General pointed out, *inter alia* that he expected me to ensure that environmental crimes receive thorough and informed treatment. It is important to explain how the committee ended up with a framework environmental law. We explained that environmental crimes were a small aspect of environmental law and could be effective only if enforced by the authority. In other words, sanctions for environmental offences were to be in-derived. That is how the overall framework environmental law was proposed for detailed drafting by the State Law Office.

I applied all my efforts to the project, with very thorough analysis of the status of national environmental policy. Fortunately, I had participated in some of the discussions on Kenya's environmental policy, which was unfortunately not formally adopted. Somehow, leading Kenya government officials did not like environmental policy. In fact, environmental policy for Kenya was never adopted until Sessional Paper No 10 of 2014 was passed. But for purposes of developing the national framework law, I did an appraisal of the residual policy provisions that existed. Writing up the draft for the Environment Management and Coordination Act (EMCA) was a pleasure because I had read very widely on framework laws or basic laws from different jurisdictions. After preparing the draft, we briefed members of parliamentary committee on environment and natural resources. The briefing was helpful when the Bill went to Parliament. After the bill was introduced to Parliament by the relevant Ministry of Environment and Natural Resources and its supporters were rejoicing, two officers came to see me at UNEP and told me that the Bill

was in trouble. They said that someone malicious had told the powerful secretary that a Bill in Parliament would, if passed, create a director-general with more powers than the chief secretary in the Kenya Government. Accordingly, the permanent secretary in the environment ministry was directed by the secretary to the Cabinet to withdraw the Bill from Parliament. The Bill was however subsequently presented to Parliament, debated and passed.

The report I prepared in fulfillment of that contract is entitled, 'Review of the Policy Framework and Legal and Institutional Arrangements for the Management of the Environment and Natural Resources in Kenya'. To make the report available it was edited by Dr Patricia Kameri-Mbote and myself before being formally published by the African Center of Technology Studies (ACTS) and United Nations Environment Programme (UNEP) in 2001 -- with the newly enacted version of the Environment Management and Coordination Act 1999 (Act No. 8 of 1999) as an Appendix.

X. IUCN- UNDP CONNECTIONS

The International Union for the Conservation of Nature and Natural Resources (IUCN) is often referred to as The World Conservation Union. I first knew about the Commission on Environmental Law in 1981 but I did not know that the two organizations were housed in the same building in Bonn, Germany. I was not invited to IUCN formally as I was for ICEL. In the case of IUNCEL was introduced when I was invited to a Washington DC workshop to prepare the agenda for UNEP activities on environmental Law to be worked at Montevideo in 1982. Once I attended the meeting I received a letter from Wolfgang Burhenne designating me vice chairman of the IUCN Commission on Environmental Law, and appointing me as a member of the steering committee. A member of the technical staff at Environmental Law Centre in Bonn was Wolfgang's wife and professional colleague, Francoise Burhenne-Guilmin.

Sometime in 1994, I received communication on a forthcoming UNEP/UNDP joint project on environmental law and institutions in Africa. My comments on the project were sought as a member of the Steering Committee of IUCN. The day after I relinquished deanship of the School of Environmental Law at Moi University in February 1995, I drove to Nairobi planning to attend a technical meeting at UNEP the following day. I received a call from the Director of Environmental Law Unit at UNEP asking me to kindly see him urgently. I agreed to see him the following day as I would be attending a meeting there, anyway. When I arrived, the Director, Dr Sun Lin, called Donald Kaniaru, his deputy, to join us. Once we were settled, Sun Lin introduced the topic to the effect that there was a project to promote environmental law and institutions in Africa. The Dutch Government was funding it with the World Bank, FAO, United Nations Development Programme, Dutch Government and UNEP constituting the steering Committee. The project would start in seven African countries but could extend to others. The agenda presented to me was that the steering committee had conducted a search and concluded that I should be appointed Task Manager or coordinator of the project. Would I accept?

I considered that I had taught, lectured and published in environmental law. I was being invited to

put all that in practice as an exercise in capacity building in African countries; how could I refuse? I had just relinquished deanship at Moi University after six years and so the timing was ideal. I accepted what was to be a challenging albeit satisfying task for seven years. I was the founding Task Manager at the level of Senior Legal Officer. Besides development of laws at national level, the project conducted thematic workshops for specific professional groups such as judges and magistrates as well as environmental litigation for legal practitioners at regional and continental levels. There were debates as to whether or not more emphasis should be placed on capacity building for judges and magistrates or legal practitioners. Eventually, priority was given to judges who might give ill-informed judgments that become difficult to reverse later. The impact of the project on Africa was immense.

A. Programmes of IUCN and IUCN Academy

Throughout the 1980s, the chairmanship of Wolfgang in the commission on Environmental Law dealt with national and regional environmental law programmes of member states at IUCN. There were also programme matters of IUCN itself. The Commission had responsibility to give guidance to IUCN and member countries on the development and implementation of environmental law. In 1995, when we gathered at the National University of Singapore as members of CEL, who responded to the request to train teachers of environmental law in southeast Asia, led by Professor Koh Kheng Lian, to enhance regional capacity building. During dinner discussions we expressed dissatisfaction with our work. Views were expressed that scholars should develop programmes relevant to their core academic work of research, conferences and capacity building.

That is when the idea of IUCN's Academy of Environmental Law was hatched. We were discreet over how we should distinguish between the work of the academy and the programme matters and how we would legally keep that distinct and establish our Academy's own secretariat. In April 2003, we met at the Rockefeller Centre, in Upstate New York, convened by Professor Nick Robinson who gave a presentation on how our goal would be met. After a lengthy discussion, it was agreed that the first colloquium of IUCN Academy of Environmental Law would be hosted by Shanghai Jiao Tong University in October 2003. Professor Robinson further proposed that since I had made a significant contribution to the idea of the academy, the second colloquium should be held at the University of Nairobi in 2004 and I would be in charge of it. It was agreed that I should seek concurrence of my university and ensure that the Vice Chancellor or his representative attends Shanghai Colloquium to sign a memorandum of understanding with the Academy, undertaking to host the second colloquium. The newly established/ conceived CASELAP would be at the centre.

I thought that was a tall order but agreed. Surely a lot of things were to be done within a short time. Therefore, on arrival in Nairobi after the New York meeting, I prepared a concept paper that I submitted to Professor Crispus Kiamba, the Vice Chancellor, through Professor Isaac Mbeche, the Principal of College of Humanities and Social Sciences where CASELAP was located. I was very impressed by Professor Kiamba's positive reaction. Because there was a staff strike, Professor Kiamba designated Professor Mbeche to sign the memorandum of understanding at Shanghai. We

travelled together since my expenses were covered by the academy. Professor Mbeche's expenses were covered by the University of Nairobi and from that point, Professor Robinson sent out an announcement and invitation of papers.

I resolved that it would be awful to organize such a conference without the participation of African universities. I had to find a formula for maximizing the participation of African scholars. I contacted Elizabeth Mrema, who had succeeded me at the African Environmental Law project at UNEP. I knew there had been consideration of holding a conference of environmental law lecturers from African universities. We agreed that it was feasible to hold the workshop in Nakuru before the colloquium. From Nakuru, the African scholars could attend the colloquium in Nairobi and in that way stretch the UNEP money to cover both conferences.

The Nairobi colloquium was held in October 2004 to allow me time to prepare and present a report on that big event to IUCN at the General Conference in Bangkok, Thailand, in November 2004 -- a month after I travelled to Bangkok, Thailand to report on the Nairobi colloquium.

B. Attorney General's invitation to Rio De Janeiro

While in Bangkok, I met a gentleman who said he was looking for me. Dr Arlindo Daibert was Director of the Legal Department in the office of Attorney General in Rio de Janeiro. He said the Attorney General had been following my work on environmental law up to the global colloquium, which I had just done. He was impressed and wanted to honour me at his office in Rio. He said I would receive an invitation directly from the Attorney General in Rio and hoped that I would accept it. The Attorney General planned to invite environmental law experts from around the world to Rio for a conference to make presentations in my honour. There would be no material award, just the presentations to be published in a book.

The conference was held in May 2008 in Rio. Fifteen scholarly papers from Asia, Africa, and North America and Latin America were presented and published by Belo Horizonte-editor Forum in 2008 in a book entitled *'Direito Ambiental Comporado* which is Portuguese for comparative environmental law, with papers totaling 412 pages. I agreed to the production of the book *"Este livro e' dedicado ao* juriste Professor Charles Odidi Okidi." This was an honour greater than any monetary award.

The following year, in 2009, the office of the Attorney General in Rio once more organized a conference to honour my colleague and friend, Professor Nicholas Robinson from Pace University Law School. I was invited to attend the conference and to introduce Nick Robinson, just like he had introduced me. Apart from attending the conference to honour me, I also attended the fifth colloquium of IUCN Academy of Environmental Law, which was held in Rio that year. I presented a paper on the status of capacity building in environmental law in Africa, 'Capacity Building in Environmental Law in African Universities', which was published in the book *Environmental Law and Sustainability after Rio* as a publication of the IUCN Academy of Environmental Law Series, edited by Jamie Benedickson, Ben Boer, Antonio Herman Benjamin and Karen Morrow in 2011 on pages 31-47. What pleased me most was that I was able to arrange with Professor Jamie

Benediction of Ottawa University Law School to provide financial support for Robert Kibugi to attend the colloquium. Robert had been my Master of Laws student and later project assistant during the preparation and publication of the book on Environmental Governance in Kenya published in 2008. I had canvassed financial support from the University of Ottawa School of Law, through Professor Benedickson for Robert to study for his PhD in Ottawa. Professor Benediction was able to organize financial support for him to attend the colloquium in Rio. Word went round during the colloquium that I was the only professor who had attended the colloquium with his student. Coupled with the fact that Robert was a very active participant, the idea of bringing students became very popular. There were several other students attending subsequent colloquia and Robert organized special activities for them. Thus, Robert has been a huge success for me in mentorship, especially now that he completed his PhD five years ago, and is a senior lecturer at the School of Law and the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) at the University of Nairobi.

XI. LEAVING UNEP FOR THE UNIVERSITY OF NAIROBI

Throughout my tenure at the United Nations Environment Programme I was well- known as a professor from the university who was there to start and drive UNEP/ UNDP Joint Project on Environmental Law and Institutions in Africa or PADELIA. This image was good for me because other staff members at the rank of P-5 did not see me as a competitor for the next possible senior position.

Having joined the UN from the senior position of professor, I was a bit uneasy with the bureaucracy of the United Nations. I was keen to get back to the university system. At the end of five years in UN, I was ready to leave. On 30 October 2000, when I was approaching five years in the United Nations I wrote to the University of Nairobi, giving notice that I was ready to return.

On 20 June 2002, I received a letter from Mrs Elizabeth Ongwae, the administrative registrar, inviting me to an interview for the post of Professor at the Institute for Development Studies on Wednesday, 10 July 2002, at 10 am.

I hurriedly cleaned my curriculum vitae and appeared for the interview, which went very well. Before the end of the interview the chairman, Professor David Wasawo, remarked that I had conceived and started a number of projects on environmental studies. There was none at the University of Nairobi. Could I start one for my new home? Professor Kiamba, the Vice Chancellor, embraced the idea and made the same request.

That was the genesis of the Centre for Awarded Studies in Environmental Law and Policy (CASELAP). I reported to the University of Nairobi on 30 November 2002 having resigned from my United Nations position. I know that someone has been requested to prepare a full paper on CASELAP, for publication in the present volume.

XII. FINAL REMARKS

I was requested to tell my story, as a person in whose honour a book is prepared. But the book, as I understand it is prompted by my role in scholarship and particularly mentorship. I am happy about my choice to work in Kenyan public institutions and to realize my aspiration of pursuing legal scholarship through teaching, research and publications. I have enjoyed the challenge of setting up institutions to perform those functions. I have equally enjoyed revamping institutions that have grown lethargic, such as the Kenya Water Institute. I have similarly and easily identified talent and responded to requests or voluntarily discussed study plans and given whatever direction I deem appropriate to students.

I quite frankly do not know how well, in terms of quality of output, I have done. Whenever I have been challenged for institution building or advice, I have done my part and moved on. I adopt a similar attitude in writing. I tell my students and colleagues that I write for my readers and leave the judgment to others.

I am grateful to my colleagues, Professor Patricia Kameri-Mbote and Dr Collins Odote, who came up with the idea of writing this festschrift/liber amicorum to honour me. I am even more delighted by the overwhelming response from friends and colleagues with whom I have worked over the years who agreed to contribute papers for the book.

Chapter 3

Establishing the Legal Groundwork for Environmental Rights in Sustainable Development: The Pioneering Work of Charles Okidi

Nick Robinson and Jamie Benidickson

Charles Okidi knows the vastness of nature. He knew it as a youth in Kenya and saw it in the Arctic while a college student in Alaska in 1967 to 1970. He has explored humans and nature among the vast grasslands, forests, river and lakes across Africa. He contemplates the expanse of the atmosphere, enveloping all life on Earth. He knows the endless horizons and molecules of seawater that alike constitute the oceans. The receding ice and snows from Kilimanjaro and Alaska's shores remind him, as they do all of us, of the predations humans inflict on nature, and on each other. Earth's humans are aggrandizing to themselves the fruits of the environment, leaving scant space for nature. Okidi knows these trends too. His life's work has been to shape norms and laws that permit humans and nature to thrive together. A forerunner, Okidi leads us all into realms where laws can sustain the environment.

Okidi is a pioneer. He is among the handful of legal minds worldwide that began in the 1970s to guide creation of environmental law as a coherent field of law. Beginning in his days as a post-graduate student, Okidi emerged as the Father of Environmental Law in Africa, and a part of a global cohort of jurists dedicated to defining ethical and legal principles for the trusteeship duties that humans have for nature. This essay celebrates Okidi's remarkable contributions as a legal scholar and advocate for socio-ecologic sustainability.

I. OKIDI'S INTELLECTUAL 'SEEDS', WELL PLANTED, COME TO FRUITION

Charles Okidi was pursuing his PhD at Tufts University when nations began to awake to the destruction of ecosystems and species within Earth's biosphere. In 1972, two seminal events inspired his studies: the Stockholm United Nations Conference on the Human Environment, and the decision of the US Supreme Court in *Sierra Club v. Morton*.[1] The former identified the agenda for international cooperation that created the UN Environment Programme and led to States agreeing

1 *Sierra Club v Morton* (1972) 405 US 727, <https://supreme.justia.com/cases/federal/us/405/727/> accessed 31 October 2018. Although the US Supreme Court turned its back on this ruling, it remains a landmark of legal literature and has been cited by other courts, such as the Supreme Court of India, that accepted the insights of its concurring and dissenting opinions.

on international environmental law. The latter made clear the roles courts could play in defining environmental justice and applying fundamental norms of the right to the environment. Okidi, with rigour and inspiration, explored these initial steps toward a jurisprudence of ecological sustainability.

In this same time frame, legislators also imagined new legal tools. These were the years when a legislature created environmental impact assessment (EIA) in1969,[2] a procedure now enshrined in Principle 17 of the UN Declaration of Rio de Janeiro on Environment and Development, and recognized as customary international law by the International Court of Justice.[3] Okidi would compile all of Africa's national EIA laws in 1996 and write a book on the development of EIA in East Africa, published in 1999. Okidi had the exceptional capacity to envision how legal systems might fashion and extend remedies and legal tools to steer society to sustainably manage nature and natural resources. He had the wisdom to explain this potential and teach us all how our governments might become better stewards of life on Earth.

He foresaw the growing roles of the judiciary. In 2017, the International Union for the Conservation of Nature (IUCN) completed a process that Okidi helped to start in the 1990s. IUCN's Law Commission, of which Okidi was a prominent member who chaired its first specialist group on the role of the judiciary, finally established a Global Judicial Institute on the Environment (GJIE) to conduct continuing judicial environmental education for judges. IUCN's law commission devoted more than two decades of judicial education programmes, and consultations about how to sustain such efforts in dialogue with courts and judges in Africa and other continents with universities and judicial institutes, the European Forum of Judges on the Environment, and through the UN Environment Programme (UNEP), the Asian Development Bank, and the Organization of American States.

At the same time, the volume of court decisions on the environment grew exponentially. Judges from all regions concurred on the need for cooperative, comparative law exchanges. In 2017, IUCN's World Commission on Environmental Law, led by the Chair of the IUCN law commission, Justice Antonio Herman Benjamin (High Court of Brazil), successfully facilitated the establishment, by judges, of a Global Judicial Institute on the Environment to build the capacity of judges to apply and enforce environmental laws.[4] The vision that Okidi first shared with IUCN's law commission has become a reality.

The importance of the courts in ensuring environmental justice is now widely recognized. It is not yet universally acclaimed. In 1998, with his customary insight, and with foresight, Okidi wrote:

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2 National Environmental Policy Act 1970, s. 102(2) (c)

3 *Pulp Mills on the River Uruguay (Argentinå v Uruguay),* ICJ Reports 2010, p. 14 <https://www.icj-cij.org/en/case/135/judgment >accessed October 27, 2018

4 The institute was launched in 2017 at the First World Congress on Environmental Law; for more information see IUCN, 'Judges Establish the Global Judicial Institute for the Environment' (*IUCN,* 8 July 2016)<https://www.iucn.org/news/world-commission-environmental-law/201607/judges-establish-global-judicial-institute-environme> accessed October 27, 2018. It formally begun with the assistance of UN Environment in 2018, IUCN Second International Meeting of the Global Judicial Institute for the Environment (IUCN, 22 May 2017) < https://www.iucn.org/news/world-commission-environmental-law/201705/second-international-meeting-global-judicial-institute-environment> accessed October 27, 2018

> The intervention of the judiciary is necessary for development of environmental law. … Indeed when all else fails, the victims of environmental torts turn to the judiciary for redress. But today's environmental problems are challenging for legislators and judges alike by their novelty, urgency, and dispersed effect. Over the last two decades, many countries have witnessed a dramatic increase in the volume of judicial decisions on environmental issues as a result of global and local awareness of the link between damage to human health and to the ecosystem and a whole range of human activities. In many countries, the judiciary has responded to this trend by refashioning legal – sometimes age-old – tools to meet the demands of the times, with varying degrees of success. … It is vital today that lawyers in all countries keep abreast of the jurisprudence of other countries, in order to appreciate pertinent changes by friends in their own countries. Comparative study of judicial intervention offers a formidable avenue for the enforcement of environmental law and the vindication of public rights.[5]

Okidi understands that a quest for environmental justice is manifest at all levels of governance. It was articulated in Principle 10 of the Rio Declaration of 1992 on environment and development, as "access to justice." Courts are essential for the vindication of environmental rights. The correlative issue is to ensure that people and their government understand the principles that frame the right to the environment. Courts need clear expression of rights in constitutions or in statutes. His comparative legal studies and publications laid the foundation for wider recognition of the principles that underpin environmental law. Okidi's legacy, as a scholar and early advocate for the environmental rule of law, finds vindication in the international negotiations to codify these principles in a 'Global Pact for the Environment', launched by the United Nations in 2018.[6]

Principle 1 of this proposed Global Pact provides that: "Every person has the right to live in an ecologically sound environment adequate for their health, well-being, dignity, culture and fulfillment." This article on "right to an ecologically sound environment" is followed by a second principle: "Duty to take care of the environment." It provides that "Every State or international institution, every person, natural or legal, public or private, has the duty to take care of the environment. To this end, everyone contributes at their own levels to the conservation, protection, and restoration of the integrity of the Earth's ecosystem."[7] This articulation of the basic right to the environment is in the now famous decision of Chief Justice Hilario Davide, Jr in the Philippine Supreme Court's ruling in *Oposa v Factoran*.[8] Okidi published this decision in his first compendium of court cases in 1998. It articulated the right to the environment as an autonomous and fundamental principle, akin to human rights:

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5 Charles O Okidi, 'Compendium of Judicial Decisions on Matters Related to Environment National Decisions' (1998) Vol I UN Environment Programme

6 UNGA Res. A/72/L.51 (2018) GAOR 72nd Session 14

7 Ibid; UNEP 'Concept Note on the Global Pact for the Environment' (Committee of Permanent Representatives Briefing, Tuesday 16 January 2018) <https://wedocs.unep.org/bitstream/handle/20.500.11822/22458/global%20pact%20for%20environment%20concept%20note.pdf> accessed October 31, 2018

8 *Oposa v Factoran*, GR No. 101083 [1993] <https://www.lawphil.net/judjuris/juri1993/jul1993/gr_101083_1993.html> > accessed October 31, 2018

> While the right to a balanced and healthful ecology is to be found under the Declaration of Principles and State Policies, and not under the Bill of Rights, it does not follow that it is less important than any of the civil and political rights enumerated in the latter. Such a right belongs to a different category of rights altogether for it concerns nothing less than self-preservation and self-perpetuation — aptly and fittingly stressed by the petitioners — the advancement of which may even be said to predate all governments and constitutions. As a matter of fact, these basic rights need not even be written in the Constitution for they are assumed to exist from the inception of humankind. If they are now explicitly mentioned in the fundamental charter, it is because of the well-founded fear of its framers that unless the rights to a balanced and healthful ecology and to health are mandated as state policies by the Constitution itself, thereby highlighting their continuing importance and imposing upon the state a solemn obligation to preserve the first and protect and advance the second, the day would not be too far when all else would be lost not only for the present generation, but also for those to come — generations which stand to inherit nothing but parched earth incapable of sustaining life.[9]

The *Oposa* case invited – 'urgently' as Okidi observed – scholars and legislators and judges to elaborate how to apply the right to the environment in different sectors of socio-economic life. Okidi was an active participant in IUCN's signature legal research project to do so, the 'Draft Covenant on Environment and Development.'[10] Undertaken in concert with the International Council of Environmental Law (ICEL), of which Okidi is also a member, beginning the mid-1980s, Okidi and other leading experts from around the world began to respond to a need later identified by *Agenda 21* (1992): the preparation of an integrated framework for international environmental law. Okidi, together with his IUCN/ICEL colleagues produced, and subsequently revised and updated a codification of existing rules as well as progressive development of legal norms and principles. The Draft Covenant aimed to codify rights to the environment, akin to the two United Nations Covenants on Human Rights, on political and civil rights and on economic and social rights. The Draft Covenant would require States to protect the environment, but its principles extend beyond what the Global Pact would recognize. In its Article 2, the Draft Covenant provides that "Nature as a whole warrants respect. The integrity of the Earth's ecological system shall be maintained and restored. Every form of life is unique and is to be safeguarded independent of its value to humanity."[11]

Together with its commentaries, this Draft Covenant provided the basic reference for the legal scholars who drafted the proposed Global Pact for the Environment with the *Club des Jurists* in Paris. Most of the legal experts convened to finalize the Global Pact test in June of 2017 in Paris were members of ICEL and IUCN's World Commission on Environmental Law, and had the benefit of the extensive commentaries for each provision in the Draft Covenant.

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9 CO Okidi (n 5) 22

10 It was launched at the United Nations in New York in 1995 at the UN Congress on Public International Law. See the 5th edition at < https://portals.iucn.org/library/node/46647> accessed 31 October 2018

11 ibid

In the UN General Assembly's debates about the Global Pact for the Environment, the further fruits of Okidi's endeavours will emerge. The General Assembly called for three meetings of an Open Working Group to convene in Nairobi in 2018 and 2019, to determine whether and how to articulate the principles that are part of a right to the environment. Before returning to discuss the Global Pact, it is useful to reflect further on the diligence and tireless work that mark Okidi's entire career among the world's leading exponents of environmental law.

Like all of us in the first generation of environmental law specialists, no university as yet provided any courses on environmental law or policy. Okidi designed the courses he taught at the University of Nairobi's School of Law, and the interdisciplinary studies he designed as the founding Dean of the School of Environmental Studies at Moi University (1988 to 1994). He assembled tremendous law research library collections at both institutions. His personal research library is a landmark in itself. His international collaborations with IUCN, development agencies in Europe, and with UNEP, enabled him to gather an exceptional research trove of hard copy books and other publications in the era before the Internet. He was always at the cutting edge of knowledge about environmental law around the world.

Okidi's renown became apparent in the decision by the Jury of ICEL and the Free University of Brussels to confer upon him the Elizabeth Haub Prize in Environmental Law in 1984. A decade later, Prof Robinson devoted his own Haub Prize award to come to lecture with Okidi at Moi University and in Nairobi. In 2003, the Environmental Law Institute in Washington, DC brought Okidi to ELI as its first William J Futrell Visiting Scholar. The leader of IUCN's law commission, Dr Wolfgang E. Burhenne, had only a score of commission members when the United Nations convened the 1972 Stockholm Conference on the Human Environment. Burhenne soon came to know Okidi and involved him closely in the work of the Commission and the IUCN Environmental Law Centre (ELC) in Bonn, Germany. IUCN was active in assisting States in Africa on the revisions to the African Convention on the Conservation of Nature and Natural Resources. Burhenne, and the head of the ELC Dr Françoise Burhenne-Guilmin, involved Okidi in this Pan-African treaty-making. The African Convention remains the world's leading regional convention on protected areas.

After Okidi completed his PhD at Tufts University in 1975, he arrived back in Nairobi just as the United Nations was establishing the headquarters for the United Nations Environment Programme (UNEP), which became the first UN body to have its headquarters established in a developing nation, in Kenya. The fledgling and as yet untested UNEP could not have expected to attract a world-class expert on law and the environment to Nairobi, but then it did not need to. Prof Charles Okidi was already there! Burhenne and IUCN were strong supporters of this UN decision, and Burhenne began commuting annually to Nairobi for UNEP Governing Council meetings. He became a close intellectual and environmental ally of Okidi. Burhenne learned to love Kenyan tea, which he always brought back to Bonn with him and consumed all his life. Visiting with Okidi regularly, Burhenne relied upon him as an important member of the Commission on Environmental Law, before and after his appointment to the Commission in 1982. IUCN's Environmental Law Programme assisted Okidi whenever he requested legal research assistance.

Okidi served as the Vice-Chair of the Commission from 1991 through to 2000, under the chairmanships of Burhenne, of Dr Parvez Hassan, and of Prof Nicholas A. Robinson. In addition to his leadership in IUCN and in establishing the teaching of environmental law at the University of Nairobi and at Moi University, he became one of the first environmental law experts to serve in UNEP. At UNEP, for the first time internationally, Okidi assembled, edited and published the first compendia of environmental law materials, in multiple books. These books today track the growth of comparative and international environmental law around the world. In the 20th century, these works informed the development of the law, and today chronicle how, in only one-generation, a new field of law was born.[12] Published by UNEP, Okidi's books were the first ever, and laid the groundwork for legal

12 The UNEP publications include: Charles Odidi Okidi, Compendium of Environmental Laws of African Countries Volume I: 494 pages (comprising only Framework Laws and EIA Regulations) 1996 ISBN 92-807-1763-4 (The Cleveland Museum of Natural History 1996); Charles Odidi Okidi, Compendium of Environmental Laws of African Countries Volume II: 362 pages (Comprising only Sectoral Environmental Laws and Regulations) 1996 *ISB*N 92-807-1763-4 (The Cleveland Museum of Natural History 1996); Charles Odidi Okidi, Compendium of Environmental Laws of African Countries Volume III: 365 pages (comprising only Sectoral Environmental Laws and Regulation) 1996' *ISBN 92-807-1763-4* (The Cleveland Museum of Natural History; 1996); Charles Odidi Okidi, Compendium of Environmental Laws of African Countries Volume IV: 394 pages (comprising only Sectoral Environmental Laws and Regulations) 1996 UNEP ISBN 92-807-1763-4 (The Cleveland Museum of Natural History1996); Charles Odidi Okidi, Compendium of Environmental Laws of African Countries Volume V, 424 pages (comprising only Sectoral Environmental Laws and Regulations) 1998 UNEP Publication ISBN 92-807-1898-3 (The Cleveland Museum of Natural History; 1998); Charles Odidi Okidi, 'Compendium of Environmental Laws of African Countries Volume VI: 529 pages (comprising only Sectoral Environmental Laws and Regulations) 1998 UNEP Publication ISBN 92-807-1898-3 (The Cleveland Museum of Natural History 1998)

Charles Odidi Okidi, *Compendium of Environmental Laws of African Countries Volume VII:* 456 pages (comprising only Sectoral Environmental Laws and Regulations) 1998. *UNEP Publication ISBN 92-807-1898-3* (The Cleveland Museum of Natural History 1998)

Charles Odidi Okidi, Compendium of Environmental Laws of African Countries Volume VIII: 463 pages (comprising only Sectoral Environmental Laws and Regulations) 1998'.UNEP Publication ISBN 92-807-1898-3. The Cleveland Museum of Natural History; 1998.

Charles Odidi Okidi,*Compendium of Environmental Laws of African Countries 1997 Supplement to Volume I,* 206 pages (comprising only Framework Laws and EIA Regulations) ISBN 92-807-1763-4 *(*The Cleveland Museum of Natural History 1997)

Charles Odidi Okidi, *Supplement to Volume I,* 125 pages (comprising only Framework Laws and EIA Regulations) UNEP Publication ISBN 92-807-1898-3 (The Cleveland Museum of Natural History 1998)

Charles Odidi Okidi, *Industries and Enforcement of Environmental Law in Africa: Industry Experts Review Environmental Practice - A4 paper size 198 pages - 1998 UNEP Publication ISBN 92-807-1898-3* (The Cleveland Museum of Natural History 1998)

Charles Odidi Okidi, *Bulletin of Environmental Law: Special Issue 1998 - 82 pages UNEP Publication ISBN 92-807-1898-3* (The Cleveland Museum of Natural History 1998)

Charles Odidi Okidi, *Bulletin of Environmental Law: Special Issue 1999 - 86 pages* in *UNEP Publication ISBN 92-807-1881-9* (The Cleveland Museum of Natural History; 1999)

Charles Odidi Okidi *Bulletin of Environmental Law: Special Issues 1997 - 27 pages' ISBN 92-807-1763-4* (The Cleveland Museum of Natural History 1997)

Charles Odidi Okidi,*Compendium of Judicial Decisions in Matters Related to the Environment Volume I - National Decisions - 511 pages ISBN 92-807-1762* (The Cleveland Museum of Natural History 1998)

Charles Odidi Okidi,*Compendium of Judicial Decisions in Matters Related to the Environment Volume II - National Decisions - 347 pages - (2001) ISBN 92-807-2025-2* (The Cleveland Museum of Natural History 2001)

Charles Odidi Okidi, *Compendium of Judicial Decisions in Matters Related to the Environment Volume III - National Decisions - 374 pages ISBN 92-807-2096-1* (The Cleveland Museum of Natural History 2001)

Charles Odidi Okidi, *Compendium of Judicial Decisions in Matters Related to the Environment Volume I - International Decisions - 350 pages ISBN 92-807-1763-4* (The Cleveland Museum of Natural History 1998)

Charles Odidi Okidi,*Handbook on Implementation of Conventions Related to Biological Diversity in Africa (UNEP publication 1999) English - 83 pages ISBN 92-807-1880-0 and French 88 pages ISBN 92-808-1966-1 UNEP Publication*

education in environmental law across Africa and in many other continents. He enabled UNEP, in an era before the Internet, to educate law professors, civil servants, legislators, diplomats and judges about the emerging legal norms for stewardship of nature, for protection of the environment.

Okidi thus became an advocate for the environment not only in Africa, but in many nations worldwide. His studies shaped and in turn were shaped by his collaboration in the IUCN/ICEL work in developing the Draft Covenant on Environment & Development. Okidi was honoured by being named among the early members of ICEL, which had been founded in 1969 in New Delhi by Nagendra Singh and Wolfgang Burhenne. Okidi was also an active participant in the IUCN Law Commission's planning of a new Academy of Environmental Law, to unite the law schools in universities around the world. Okidi lectured in the IUCN-Asian Development Bank programmes in Capacity-Building for International Environmental Law in the Asian and Pacific Region. Professors in those courses identified the need for an annual gathering of environmental law academics to share knowledge and deliberate together. Okidi was among the team who met in New York at the Pocantico Conference Center to agree on a design for the Academy.[13] Okidi contributed to the deliberations and offered valuable recommendations as he had done for many years as a participant in earlier discussions at the National University of Singapore, where the idea of the Academy first emerged in the 1990s.[14]

ISBN 92-807-1881-9 (The Cleveland Museum of Natural History 1999)

Charles Odidi Okidi, *Development and Harmonization of Environmental Law: Volume 1 Legal and Institutional Issues in the Lake Victoria Basin 200 pages* UNEP publication (The Cleveland Museum of Natural History; 1999)

Charles Odidi Okidi, *Development and Harmonization of Environmental Law: Volume 2* in UNEP Publication June 1999 ISBN 92-1804-1 (The Cleveland Museum of Natural History 1999)

Charles Odidi Okidi, *Development and Harmonization of Environmental Law: Volume 3* UNEP publication, ISBN 97-807-1805-3 (The Cleveland Museum of Natural History 1999)

Charles Odidi Okidi, *Development and Harmonization of Environmental Law: Volume 4* UNEP Publication ISBN 92-807-1881-9 (The Cleveland Museum of Natural History 2000)

Charles Odidi Okidi,*Development and Harmonization of Environmental Law: Volume 5*' UNEP Publication ISBN 92-807-1881-9 (The Cleveland Museum of Natural History 2000)

Charles Odidi Okidi, *Development and Harmonization of Environmental Law: Volume 6* UNEP Publication ISBN 97-807-1883-5 (The Cleveland Museum of Natural History 1999)

Charles Odidi Okidi, *Development and Harmonization of Environmental Law: Volume 7* UNEP Publication, ISBN 92-807-1911-4 (The Cleveland Museum of Natural History 1999)

Charles Odidi Okidi, Development and Harmonization of Environmental Law: Volume 8 UNEP Publication ISBN 92-807-1898-3 (The Cleveland Museum of Natural History; 1999)

Charles Odidi Okidi, P Kameri-Mbote, (eds) *The Making of a Framework Environmental Law in Kenya* (Nairobi: UNEP, ACTS 2000)

Charles Odidi Okidi, *Background to Environmental Law and Institutions in Burkina Faso and Sao Tome & Principe ISBN 92-807-2203-7* (The Cleveland Museum of Natural History 2001)

Charles Odidi Okidi, *Studies in Environmental Policy and Law in Malawi,* June 2001 (295 pages)' *ISBN 92-807-2257-7* (The Cleveland Museum of Natural History; 2001)

Charles Odidi Okidi, *Implementation of Environmental Law in Uganda* (93 pages) in *ISBN 92-807-2207-7* (The Cleveland Museum of Natural History; 2002)

13 Nicholas A. Robinson, 'The IUCN Academy of Environmental Law: Seeking Legal Underpinning for Sustainable Development' (2003) 21 *Pace Environmental Law Review* 325

14 The deliberations were part of a preparatory meeting for the IUCN Academy of Environmental Law, Meeting Documents in April 2003, Mimeo

The Academy was founded and launched its annual colloquia series in Shanghai, China. When the Chair of the IUCN Law Commission's Steering Committee, Prof Nicholas Robinson, tabled the question about which universities should initially host the first three annual Colloquia of the Academy, Okidi eloquently persuaded IUCN and his own university to convene the second colloquium in Nairobi, on 'Sustainable Land Use and Environmental Law' in 2004. This important gathering benefitted immeasurably from Okidi's extensive experience with other environmental law networks and institutions, as discussed elsewhere in this volume.

Although it may have seemed unusual to some observers, it was of great significance that the Second Colloquium took place in Kenya, a country then struggling with social unrest, judicial suspensions, political instability and other forms of internal disruption. With 160 environmental law scholars from roughly 40 countries in attendance, Wangari Maathai, founder of the Green Belt Movement, and at the time Kenya's Assistant Minister for the Environment, delivered an opening address in October 2004. Before Academy delegates returned home, she became the first environmental advocate to receive the Nobel Prize for her contribution to "sustainable development, democracy, and peace." Such serendipitous time-tabling has not yet been equaled.

The conference proceedings, *Land Use Law for Sustainable Development*, appeared shortly thereafter, accompanied by a brief foreword in which the co-chairs noted how the volume's themes "illuminate how states can use legal tools to help realize the Millennium Development Goals of poverty alleviation and environmental sustainability."[15] Professors Okidi and Robinson went on to underscore how the collection of papers from all regions of the world, including more than a dozen by African scholars "contributes to the foundations of learning and education about the law of land use for sustainable development."[16] But systematic readers would already have been advised in an introductory message from Kofi Annan, Secretary-General of the United Nations, that:

> Law professors and legal experts can help national and local authorities devise legal regimes that enhance sustainable development instead of hindering it. You can help map out realistic and concrete land law reforms. You can share best practices and successful legal models. And through your teaching you can instill in new generations of legal practitioners an appreciation for the rule of law and its essential place in human affairs.

[17] Apart from the substantive content of the colloquium, the academy gathering facilitated discussions aimed at establishing an African association of environmental law professors, which would provide an ongoing forum for discussion and exchange concerning a shared research and policy agenda encompassing environmental sustainability, food security, and poverty alleviation. In addition, and also benefitting from consultations with Charles Okidi, an environmental law teaching programme for the Academy began to take shape.[18]

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16 ibid

17 Kofi A Annan, Message to the Second Colloquium of the IUCN Academy of Environmental Law, Nairobi, 4 October 2004, in Lin Heng Lye, and John R. Nolon (eds) *Land Use for Sustainable Development* (Cambridge University Press, 2007)

18 Rob Fowler, 'Proposals for the Development of the IUCN Academy of Environmental Law's Teaching Program' October 2004

II. THE ECOLOGY OF CAPACITY-BUILDING: OKIDI AND THE IUCN ACADEMY OF ENVIRONMENTAL LAW

Okidi's leadership at the Academy of Environmental Law's Second Colloquium was characteristic of all his capacity-building endeavours. Prof Jamie Benidickson first met Okidi at the Third Annual Colloquium of the IUCN Academy of Environmental Law in Sydney, Australia, in June 2005. Still in its formative stages following authorizing resolutions from IUCN and a number of early organizational gatherings,[19] the IUCN Academy was then implementing a recent decision to establish the organization's first secretariat at the Faculty of Law, University of Ottawa.

Although Prof Benidickson did not attend the Nairobi colloquium, he travelled instead to Bangkok where the IUCN Commission on Environmental Law was putting in place a decision-making and governance framework for the new organization. His colleague, Prof Nathalie Chalifour, did attend the Nairobi colloquium, returning to a city with which she was already familiar, having worked there on wildlife conservation initiatives a few years earlier. Professors Benidickson and Chalifour were leaders in establishing the first secretariat for the new IUCN Academy, at the University of Ottawa, in Canada.

Okidi visited Ottawa in May 2006 to attend the inaugural meeting of the Academy's governing council. At the time, he was identified as a member of the Institute for Development Studies at the University of Nairobi since the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) had not yet been established. The first session of what was to become the Academy's board of directors following incorporation as a Canadian not-for-profit corporation, was both ceremonial and productive. Practical considerations ranging from membership application procedures through licensing arrangements and potential research funding opportunities were actively discussed from the perspective of the experienced international participants representing IUCN regions around the world.

Leaving no stone unturned -- a characteristic feature of his engagement with any file – Okidi made arrangements while in Ottawa for the governing council meeting to visit the High Commission of Kenya. "Just a courtesy call" as they say, but the session ensured that the High Commissioner was introduced to the IUCN Academy of Environmental Law, which had already convened a significant academic gathering in Nairobi, was aware of the proposed development of CASELAP, and was alerted to opportunities for international collaboration between Kenyan and Canadian universities in the environmental field.

Okidi's talent was evident in his organizing and facilitating a two-week programme for students from the University of Ottawa, who travelled overseas for the January 2007 term to study environmental law in Kenya. One of the participating students, possibly inspired by a Tusker[20] or two following a round of meetings and discussion, described our first day as "the best seminar ever." Benidickson observed, "I would not disagree." Okidi was a seasoned and inspiring teacher.

19 Pace essay; 2003 New York meetings
20 Tusker Lager is a popular alcoholic drink manufactured by the East African Breweries Ltd

Okidi had arranged for several sessions on Day One. The first morning session at the offices of UN Habitat provided students with an opportunity to learn in detail about the challenges and opportunities facing the organization from Alioune Badiane, Director of the Regional Office for Africa and the Arab States. In the afternoon, Achim Steiner, then newly appointed Executive Director of UNEP, welcomed the group to his offices where he and associates from the Division of Environmental Law and Conventions provided a frank and extended briefing on UNEP's current agenda. Participants left with a set of extraordinary insights into the new Executive Director's ambitions and some understanding of the obstacles and pitfalls, as he perceived them, after barely a few months in office. Not a bad seminar at all!

Astonishingly after such a remarkable opening round of meetings, the remainder of the week moved from highlight to highlight. Further sessions, in addition to offering opportunities for student and faculty exchange, involved meetings with Kenyan environmental officials from several agencies, sessions with representatives of the national judiciary, the law society, law reporting services and non-governmental organizations (NGOs) with environmental mandates. On the government side of the roster we had meetings at the National Environment Management Authority (Muusya Mwinzi, Director General), the National Environmental Tribunal (Donald Kaniaru, chairman), and the Public Complaints Committee (Maurice Makoloo, secretary). Opportunities for discussion with civil society organizations included the Institute for Law and Environmental Governance (Benson Ochieng, Director), the African Wildlife Foundation (Nyokabi Gitahi, Legal Officer) and the Kenyan Wildlife Services (Amanda Koech). Francis Okello, Chairman of Barclays Bank, hosted dinner and a wide-ranging discussion of environment-economy relationships that brought the potential of law and sustainable development into practical focus through the lens of banking, investment, employment, travel, tourism, natural resource use and wildlife. There were several further sessions with community groups and opportunities to observe municipal waste operations, wildlife management challenges, damaged or threatened water supply systems, and the dishearteningly difficult living conditions faced by residents of Kibera in Nairobi.

Students, naturally enough, were central to the agenda. In addition to informal exchanges, we had library tours, and meetings with editorial staff from the *East African Law Journal*, for example. The Ottawa students were working on their own January term research assignments covering such topics as women and the environment, wildlife management; water supply and sanitation in informal settlements; and access to justice and public participation in environmental decision-making. So quite a number of individualized interviews and consultations somehow found their way onto the schedule.

Students, it was also clear, were central to Charles Okidi's domestic university ambitions for he was then in the midst of developing plans to establish CASELAP to support graduate studies and research in law, policy and diplomacy. More generally, he clearly derived satisfaction from the opportunity to observe students interacting and learning from each other. Thus, he noted in an elaborate report concerning the January term experience:

> Students from the School of Law, University of Nairobi, or individuals associated with the Institute for Environmental Law and Governance exchanged insights with their Canadian visitors. Central elements of these environmental law discussions included reference to: enforcement and compliance issues; the significance of property rights; the role of the judiciary in promotion of access to environmental justice; public participation in environmental governance and decision-making; the contribution of media attention to legal and environmental protection issues. In each of these areas, the comparative perspective provided by the sharing of Kenyan and Canadian experiences helped to illuminate the other.[21]

Although formal approval of CASELAP from the University of Nairobi council was still some months away,[22] the Canadian visitors toured a prospective building site and began to imagine a hub of activity in the making. Okidi was also anxious to ensure opportunities for outstanding law students from Nairobi to pursue graduate studies abroad and to participate in comparative and advanced research initiatives. Indeed, developments occurred on both those fronts.

Okidi was a leading participant at subsequent academy gatherings, including the 2007 Brazil Colloquium. A vast cobblestone courtyard separating tired travellers and their luggage from the comfort of pleasant pousadas or small guesthouse/ hotels in the coastal town of Parati where we would spend several days presented an interesting logistical challenge. Okidi's knees – already causing him considerable discomfort – did not benefit from the unevenly embedded stonework. The picturesque coastal venue overall offered unique settings for conversation and exchange, including an historic church, a comfortable hotel lobby, and the mercifully stable deck of a small coastal vessel.

Okidi's memorable presentation at the Brazil Colloquium provided a detailed overview of environmental law teaching in Africa from 1978 when a Nairobi Workshop on Environmental Education and Training revealed very limited activity to a point 25 or so years later when a symposium on African environmental law scholarship took place in Nakuru between 29 September and 2 October 2004, an event that was carefully orchestrated to coincide with arrangements for the IUCN Academy of Environmental Law's 2004 Nairobi Colloquium. It is important to note (although perhaps no surprise) that Okidi had been secretary to the Planning Committee and associate secretary for the pioneering 1978 workshop, as well as chair of the 2004 IUCN Academy Colloquium.[23]

Okidi concluded his Brazil paper with insights and observations on capacity building, which he described as "a multi-dimensional phenomenon that gains strength and vitality with application and practice at different levels of rigour." The same is true, he observed, in relation to the development of scholarly competence: "scholarly capacity is enhanced by the frequency and

21 Okidi, Comments from Partner Organizations
22 For information on the background and evolution of CASELAP 'About CASEPAL' (CASELAP, 1 November 2018) <http://caselap.uonbi.ac.ke/> accessed 31 October 2018
23 CO Okidi, 'Capacity building in environmental law in African universities' in Jamie Benidickson, Ben Boer, Antonio Benjamin and Karen Morrow (eds) Environmental Law and Sustainability after Rio (London: Edward Elgar 2011) 31.

intensity of exposure to scholarly discourse and debate. This is why the participation of African environmental law scholars in regional and global conferences is viewed partly as mutual peer engagement in scholarly discourse and partly as an element of the process of enhancing the stock of knowledge and capacity." [24]

Okidi's scholarship was ever premised on building capacity for what came to be understood as sustainable development and accordingly resonated more fundamentally with African aspirations and priorities. Following the 1987 Report of the UN Commission on Environment and Development: Our Common Future (the Brundtland Report),[25] and the 1992 United Nations Conference on Environment and Development with its Rio Principles and Agenda 21, Okidi launched a creative and ambitious initiative known as PADELIA (Partnership for the Development of Environmental Law and Institutions in Africa) under the guidance of a steering group consisting of FAO, IUCN, UNDP, the World Bank, and UNEP with financial support from the government of the Netherlands. PADELIA, for which Okidi provided legal and administrative guidance for a number of years, facilitated collaboration in the form of workshops and symposia -- notably relating to biodiversity -- and gave rise to an extensive range of publications including the Compendium of Judicial Decisions on Matters Related to the Environment and the Compendium of Environmental Laws of African Countries.

At the IUCN Academy's 2010 colloquium in Ghent, Okidi delivered a lecture on marine and ocean law to a tough crowd in a tough venue. It was a tough venue in the sense that conference delegates were gathered for a banquet dinner in a cavernous dining hall of inter-connected cellar rooms where there was simply no possibility that everyone present could see, let alone hear, the Distinguished Speaker. And it was a tough crowd because by the time Okidi spoke all participants had all enjoyed an extended reception and an elegant meal courtesy of our Belgian hosts.

Members of the IUCN Academy of Environmental Law are fundamentally law teachers and scholars, though a good number, like Okidi, have been or will be academic administrators, institution-builders, mentors and policy advocates. But the academics at each colloquium do not always fully appreciate that university priorities for teaching and research not only contribute to, but also depend on, a broader complex legal and social ecology ranging from courts through to libraries, two institutions whose operations would be of limited ongoing utility in the absence of the sometimes taken-for-granted texts, decisions, and documentation that embody the findings, insights, arguments and conclusions. The programme for Prof Benidickson's January 2007 term environmental law students was simply a concentrated exposure to many key elements of the ecology of capacity building to which Okidi's career has so successfully been devoted. The IUCN Academy of Environmental Law concurred. At its colloquium in Indonesia, it honoured Okidi with the Academy's Distinguished Service Award in the Teaching of Environmental Law.[26]

24 ibid 41.

25 World Commission on Environment and Development (Brundtland Commission), Our Common Future (New York: Oxford University Press, 1987)

26 The University of Nairobi reported Charles Okidi's award at Atman Jaya University School of Law, Djakarta, Indonesia, as follows:

It is worth returning to Charles Okidi's concluding observations from the paper he presented at the Academy's Brazil colloquium. If we modestly revise a sentence, by deleting the word African, from his comment on how capacity is enhanced through scholarly discourse and debate:

> *This is why the participation of environmental law scholars in regional and global conferences is viewed partly as mutual peer engagement in scholarly discourse and partly as an element of the process of enhancing the stock of knowledge and capacity.*

For any number of reasons our capacity as researchers, teachers, policy analysts and so on is enriched by exposure to the thoughts, experience and advice of counterparts from other parts of the world. This is just the kind of interaction that IUCN Academy events have so successfully promoted and that encouraged each participant – foolishly perhaps – to consider a subject far-removed from their own national environmental law agenda. Okidi knows well that our exchanges together as fellow teachers enable us to better interpret issues, whether for specific legal questions, such as how the Convention on the International Trade in Endangered Species (CITES) should relate to the trophy hunting of a wild lion after the killing of Cecil, or for broad and global legal issues, such as how States may agree on common principles of environmental law. Ultimately, it is the fundamental principles that will determine issues at all points on the spectrum.

III. THE NAIROBI VENUE FOR THE UN GLOBAL PACT CONSULTATIONS: OKIDI'S HOME

It is perhaps a symbolic testimonial to Okidi's lasting contributions to environmental law that the UN General Assembly will conduct its consultations about the future of environmental law in Nairobi in 2018-19. This was decided at the UN General Assembly on 7 May 2018.[27] Ever since the1972 Stockholm Conference on the Human Environment, states have elaborated the legal principles articulated at that seminal conference, and enabled the articulation of environmental laws in every nation to support sustainable development. Okidi tracked these national environmental laws, which are complemented

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CASELAP Founding Director Professor Charles Okidi was yesterday honoured with a distinguished IUCN Academy of Environmental Law.

The globalization of eminent law scholars awarded Prof Okidi with the Senior Education Award for the Year 2015. This award is given to scholars with dedicated contribution to the teaching of environmental law, and mentorship to allow intergenerational succession, and it is given to a scholar upon nomination by peers. While calling out the name of the 2015 Awardee, the Chairperson of the IUCN Academy Teaching and Capacity Building Committee, Prof Sophie Riley, reported that Prof Okidi received objective review of his nomination by fellow scholars who also continued to pour accolades on a scholar they said is referred as "the father of environmental law in Africa" who "has been instrumental in the setting of environmental law curricula in Kenya, and been at the head of the survey in the design of content and mode of delivery of new environmental law." Scholars present at the award ceremony, in the banquet hall on the 15th Floor of the Justin's Building of the Law Faculty of Atman Jaya in Jakarta, variously noted that "Charles" has overtime "has set the pace on the design of pedagogical approaches in environmental law teaching" and succeeded in "successfully supervising multiple students, over the years, at graduate level (Masters, PhD), with many of his students having become research and university colleagues, and holding distinguished positions across the board." The award was graciously received on behalf of Prof Okidi by Dr Robert Kibugi, who represented the University of Nairobi at the 13th Annual Colloquium of the IUCN Academy, and who now brings back to the University of Nairobi congratulatory messages, and with a distinguished award by the global IUCN Academy of Environmental Law.

CASELAP, 'Prof Charles Okidi Honoured with IUCN Academy of Environmental Law Education Award for Distinguished Service to the Teaching of Environmental Law' (CASELAP 9 September 2015) <http://caselap.uonbi.ac.ke/node/10916 >accessed 1 November 2018.

27 UNGA (n 14)

by a number of international environmental law agreements, such as those for protecting the oceans under the UN Convention on the Law of the Sea, or on combating desertification, sustaining biological diversity, or coping with climate change. Much remains to effectively implement these laws. Since 2015, and the adoption of the Sustainable Development Goals (SDGs), the overarching aim of such implementation is agreed to be attaining the SDGs via the 2030 Agenda.

There are many environmental issues for which law is still lacking, as illustrated by the current UN consultations to progressively develop the international law for the protection of biodiversity in areas beyond national jurisdiction (BBNJ). One-third of Earth's oxygen depends on the marine phytoplankton of the high seas. Laws do not yet manage Earth's nitrogen cycle, which is being destabilized. Wetlands laws are incomplete, and scarcely any states manage peat, where one third of carbon dioxide is sequestered. Invasive species are moving into nations worldwide, with insect-borne infectious diseases in tow. Scientists in every state can identify gaps in their country's legal systems for stewardship of the natural environment. Many states would benefit from capacity-building to enable more effective implementation of their existing environmental laws, and since ecological systems link all UN Member States together in Earth's biosphere, it is in every state's interest to build effective national implementation of environmental laws. This is the proven lesson of the global cooperation to eliminate gases that erode the stratospheric ozone layer, under the 1985 Vienna Convention and 1987 Montreal Protocol, and associated agreements.

Despite the progress that Okidi has recorded in how governments fashion national and international laws for strengthening the 'environmental pillar' of sustainable development, the problems of environmental degradation are increasingly evident in all regions. The consensus among the world's senior environmental law experts is that there is still a missing international norm, the 'right to the environment', whose recognition could unite the application of the diverse environmental laws. States will always organize their governmental agencies around different national priorities, whether for agriculture, industry, urban settlements, or other socio-economic aims. Each sector will incrementally impact water supplies, add to air pollution, produce waste, and aggravate or ameliorate public health and security. No one agency can produce sustainable development. All agencies have a role to play, which is the wisdom recognized by the UN Sustainable Development Goals. The 2030 Development Agenda needs all sectors to unite behind each of the SDGs. They are interdependent.

In 1972, the states gathered at Stockholm articulated this realization in the UN Conference on the Human Environment's concluding statement:

> Life holds to one central truth: that all matter and energy needed for life moves in great closed cycles from which nothing escapes and to which only the driving fire of the sun is added. Life devours itself: everything that eats is itself eaten; every chemical that is made by life can be broken down by life; all the sunlight that can be used is used. Of all that there is on earth, nothing is taken away by life. And nothing is added by life – but nearly everything is used by life, used and reused in thousands of complex ways, moved through vast chains of plants and animals and back again to the beginning.

These are the 'laws of nature'. It has been the role of environmental law to help humans learn to fashion human laws to respect these laws of nature. By doing so, there can be ample water for all, a verdant planet, in short, the 'future we want', which states articulated at Rio+20.

As Okidi's writings and teaching demonstrate, principles of law are essential at both national and international levels in guiding socio-economic undertakings. Most environmental laws around the world reflect substantially the same principles. Because these principles are scattered in different statutes or appear in different forms in multinational environmental agreements, the near universal acceptance of these shared norms is obscured. Restating these principles will be important if the world is to implement the UN Sustainable Development Goals (SDGs) by 2030, as contemplated. The incomplete and fragmented character of environmental law is likely to retard achievement of the SDGs. If states can agree on a common set of principles – most of which they already explicitly embrace – the principles can guide state practice to support the SDGs. Moreover, adhering to these general principles of law can guide conduct in subject areas where treaties or national legislation are lacking. The principles would also guide tribunals and specialized agencies in their decision-making.

What about alternatives to a Global Pact? Okidi's writings suggest ways to think about the need for a global pact. Could coherence either among states' international obligations under multinational environmental agreements or across the diverse duties assigned to ministries in their national governments be sought by means other than by endorsing a Global Pact for the environment? The alternatives would take more time to become agreed, well beyond 2030, and meanwhile environmental degradation trends exacerbate.

For example, a number of experts propose negotiating a 'third Covenant' on human rights for the environment, such as the IUCN/ICEL Draft Covenant on Environment and Development, which Okidi helped to prepare. It is worth recalling that this work is now 20 years old, and since it took nations nearly two decades to codify the Universal Declaration of Human Rights into the two extant covenants, we may not have time for a complex new covenant.

Should the proposed codified principles be merely another declaration of adoption of a new 'soft law' declaration, rather than a binding pact? As with the 2002 New Delhi Principles on Sustainable Development of the International Law Association, even the most well drafted non-binding declarations may not change state practice fast enough. States may avoid soft law norms. The 1992 Rio Principles took more than 20 years to become widely recognized within nations, and their implementation is still mixed.

Alternatively, some states argue that the world has too many environmental treaties, and nations cannot cope with such a large number of the agreements. They urge closer collaboration among the Conferences of the Parties of the Multilateral Environmental Agreements. However, efforts to do so are slow and fragmented. Even the 2010 'Aichi Biodiversity Targets' do not reach all international organizations that guide the management of nature. The UN itself has encountered numerous problems in coordinating the many development programs and organizations at world or regional levels. Principles do not need a bureaucracy. They apply directly, once recognized.

Finally, others urge the Global Pact consultations in Nairobi to take a 'no action' alternative, to let the existing systems go on 'as is'. For all the reasons Okidi marshals throughout his writings, this is not an option at all. The law has yet to effectively guide human society toward sustainable practices. Moreover, inaction betrays the global consensus to implement the SDGs by 2030, as agreed in UNGA Res. 70/1 (25 September 2015). No action undermines SDGs.

Okidi's *oeuvre* of environmental legal scholarship suggests that the UN General Assembly should embrace an agreed and binding framework of principles. The sustainability norm has become recognized as a general principle of law, as Okidi urged. Now the basic right to the environment needs to be equally acknowledged. This principle and others need to be set in a treaty format that binds (*Pacta sunt servanda*). Moreover, clarifying already applicable principles of law in a Global Pact does not require budgets or new commitments. It is a 'least difficult' step in support of the SDGs agreed in UNGA Res. 70/1. As UN Environment, the Organization of American States, and the IUCN World Commission on Environmental Law have explained, the 'environmental rule of law' is a proven pathway for attaining the Sustainable Development Goals.[28]

Observing the principles of law restated in the draft global pact for the environment is essentially a task for national governments. They will individually decide how to observe them, as is the case with other general principles of law. Having an agreed set of principles will 'level the playing field' and encourage cooperation among states, which can be assured that all others have similar outlook. It will enable sharing 'best practices' and foster capacity building. Okidi's use of comparative law analysis confirms this view. Today, more than 170 states have recognized the right to the environment in their national constitutions and basic laws. France's Charter of the Environment provides an instructive illustration.

The content of the first two principles of the draft Global Pact (right to an ecologically sound environment and duty to care for the environment) is thus already accepted law around the world at the national level. The General Assembly has already recognized the right to water, and endorsed the other principles in many different contexts. The principle of resilience, Article 16 in the proposed Global Pact, while implicit in other principles, should be restated independently to encourage states to design resilience into preparations to cope with climatic and other environmental disruptions. In our world of legal pluralism, it is likely that state practice under a Global Pact will witness different legal systems and states developing robust applications of the principles, with innovations that accelerate sustainability objectives.

Arguably, the greatest hindrance to attaining Okidi's vision of ecologically sustainable socio-economic development, now through implementing the 2030 Agenda, is the lack of shared ethical and legal commitment by states to make the 2030 Agenda *the* over-arching priority of finance ministries, education ministries, security ministries, in many states. Regions and ministries understandably focus on their immediate interests. They exist as in a 'silo' and often do not see

28 See for instance, Inter-American Congress on the Environmental Rule of Law Environmental Rule of Law: Trends from the Americas (Department of Sustainable Development 2015) < http://www.oas.org/en/sedi/dsd/environmentalruleoflaw_selectedessay_english.pdf.> accessed 31 October 2018

wider interests. Even when EIA is mandated, as Okidi has demonstrated in his scholarship, states avoid their duties to assess and avoid environmental impacts.

The lack of over-arching legal norms has impeded sustainable development in the past and will undermine the SDGs. Providing a set of common governing principles has the capacity to broaden this focus into a widely shared perspective. The UNGA debate about the proposed principles of a Global Pact will itself promote a shared perspective among nations. The endorsement of a Global Pact will set the stage for making agreement on giving priority to the 2030 Agenda. Each of the Pact's principles can be aligned to different SDGs and their agreed indicators. The right to the environment and other legal principles can also encourage states to align decisions of the Conferences of the Parties under the multilateral environmental agreements in support of the SDGs. These are mutually complementary, not competing, objectives. For human society to thrive in the Earth's biosphere, the laws of states will need to better reflect the laws of nature. It will be a fine capstone to Okidi's leadership when this is embraced.

IV. CONCLUSION

Law may be enhanced simply by greater awareness. That in 2015 the UN General Assembly adopted the SDGs with little rancour reminds one of the remarkable consensus around the adoption of *Agenda 21* in 1992. Domestically, states adopted the recommendations of Agenda 21 as laws. They can do the same for the SDGs. In the world-renowned case of the killing of the lion Cecil, the ensuing global awareness unquestionably delivered increased political action.[29] More broadly, the global demand for potable water and sanitation has made the right to water an acknowledged human right. Environmental non-governmental organisations have been invigorated in pushing for new legal interventions. Climate change is driving this trend also.

Law may be enhanced by strengthened engagement on the part of relevant institutions. To cite but one example, after the killing of Cecil the lion, the Convention on International Trade in Endangered Species (CITES) and the Convention on Biological Diversity (CBD) collaborated for the first time to convene an extensive Africa-wide consultation on lion protection measures. While this is a valuable initiative, where were the other multilateral environmental agreements? This was a valuable initiative. What can it tell us about the SDGs? Will it make implementation of SDG 15 more urgent? How has global opinion brought access to water and sanitation to the forefront as a basic right?

In addition, while law may be enhanced directly in the aftermath of a crisis or a symbolic and galvanizing incident, is it not more apt to ask the deeper question -- how can states codify environmental law to prevent the next crisis or tragedy, or remedy on-going environmental degradation? Can recognizing a right to the environment give teeth to the Precautionary Principle or legal tools such as EIA? Can the perils of climate change impacts motivate governments to take

29 See for instance on-line in hundreds of thousands of Google results for "Cecil the Lion" or in the form of T-shirt wars. CECIL T-shirts are available with the following text or captions: "Remember Cecil: Ban Trophy Hunting;" "Justice for Cecil;" "My heart goes out to Cecil;" "Stop the Poaching;" "Roar for Cecil;" "# I am Cecil."

precautionary as well as remedial environmental measures? Will states recognize that sustainable development does not rest on three pillars, in which environmental protections is a late-comer to join economic and social development, but rather exists only with the Earth's biosphere, which sustains the vastness of life, human and otherwise?

Okidi's work points to the answers for each of these inquiries. Okidi should have the last word as we ponder such questions. His scholarship poses an inquiry central to all environmental law, and indeed to human existence, which the impacts of climate change now call into question. Legal principles and institutions can – indeed 'urgently' must -- prevent harm and restore a damaged environment. In closing we recall Okidi's expectation for the states of Africa. It is the same for all states, everywhere on this one Earth:[30]

Public officials as well as the civil society organizations have shown keenness to participate actively in development and implementation of legal norms in such highly technical areas as biodiversity, biotechnology, climate change, protection of ozone layer, in addition to the traditional fields of environmental law. There is also widespread interest in procedural rights in the environmental field and these are increasingly linked to the quest for democratic governance. Use of judicial mechanisms to address environmental ills in Africa has caught some western industrialists by surprise ... The industrialists found that the old and tired slogans such as the argument that environmental enforcement will hamper development just do not sell well anymore. More examples could be cited from other African countries, particularly from Uganda, South Africa and Tanzania. With increased awareness, information and resources, a critical mass of environmental experts may be built in each African country and their cooperation with the civil society organizations will lead to effective environmental management in Africa.

30 Charles Okidi, 'Foreword' in Beatrice Chanter, Kevin R. Gray, International Environmental Law and Policy in Africa (London: Kluwer Academic Publishers (2003) viii

Part II.
Capacity Building Initiatives

Chapter 4

Away from Traditional Project Management: Lessons from the Programme for the Development of Environmental Law and Institutions in Africa (PADELIA)

Elizabeth Maruma Mrema

I. INTRODUCTION

The Partnership for the Development of Environmental Law and Institutions in Africa (PADELIA as it came to be known) long after the project ended, remains synonymous with the name of Professor Charles Odidi Okidi. The partnership was specifically established to support implementation of Agenda 21, in particular, Chapters 8, 38 and 39 of the post-1992 United Nations Conference on Environment and Development (UNCED). Although Prof Okidi was not part of the team that designed and developed the project, he was instrumental and responsible for its detailed development, execution, management and monitoring from the very beginning to the end of its first phase and early part of the second phase.

The methodology he introduced in the implementation of the project continued to guide it to the end of Phase II, and the same principles and methodology continue to guide the environmental law programme of the UN Environment Programme in Africa and beyond. PADELIA results and impacts continue to influence development and implementation of environmental law issues and work well beyond Africa as a number of regions emulate a number of its sustainability models in guiding their own environmental law and institution building efforts.

II. BACKGROUND[1]

PADELIA, formerly known as the UNEP/UNDP/Dutch Joint Project on Environment Law and Institutions in Africa during its first phase (1994-2000) was solely funded by the Government of Netherlands to the tune of US$5 million -- initially for five years but later extended for a year.

1 A large part of this paper, especially regarding Phase I, is borrowed from the author's earlier paper on the project, Elizabeth Maruma Mrema, 'PADELIA – A Review' (2003) 33 *Environmental Policy and Law* 204.

It was established to support the development and implementation of environmental law and institutional building in Africa. UN Environment Programme, as a global leader in environmental law was given the lead role for the management of the Project, and UNDP with its presence in the countries and expertise in technical assistance was enjoined in the project to support execution of the project activities in the countries. As the project implementation got under way, IUCN-World Conservation Union, Food and Agricultural Organization (FAO), and the World Bank were also joined in the partnership. These partners and the donor constituted the Project Steering Committee tasked to oversee and review its implementation and make policy decisions to guide its operations.

The project assisted countries to reverse negative trends and attain sustainable development by ensuring that effective legal and institutional regimes were established with competent and sustained expertise. The greater part of the work revolved around building and enhancing institutional capacity with a focus on both developing and strengthening institutional infrastructure. Other major activities included development, streamlining and harmonization of crosscutting and transboundary environmental laws, with deliberate efforts to fill glaring gaps in the corpus of national laws as well as development of implementing regulations to enforce principal legislation. Consequently, the project enhanced the capacity of countries for sustainable development and enforcement of environmental law. Countries would work together, share experiences, and where necessary collaborate on transboundary issues.

In addition to carrying out activities that would benefit the entire region, PADELIA principally supported 13 countries during its two phases of operations. Phase I supported only seven countries, namely, Burkina Faso, Malawi, Mozambique, Sao Tome and Principe, Kenya, Tanzania and Uganda.

Work in the first four countries (Burkina Faso, Malawi, Mozambique and Sao Tome and Principe) focused on country-specific environmental law issues of national interest. Work in Kenya, Tanzania and Uganda concentrated on transboundary environmental law and cross-cutting issues directed at harmonization of laws and regulations on agreed subject areas or themes and thus, grouped together to constitute an East African sub-regional project. The grouping of the East African sub-regional project was informed by their common British legal heritage, history of close interaction on legislative and judicial matters, common environmental interests and problems as well as being neighbours and contiguous to one another.

Unlike the first phase, and on the insistence of the sole donor to guarantee additional funders as a condition for its continued support for the project, Phase II of PADELIA under the continued leadership of Prof Okidi was funded by multiple donors to the same tune as Phase I, namely US$5.2 million but with more principal beneficiary project countries. In addition to the Government of Netherlands, Belgium, Germany, Switzerland, Norway and Luxembourg joined in to make a total of six donors for Phase II.

In addition to the four project countries under Phase I, which focused on country specific environmental law issues and covered the one sub-regional project in the three East African countries focusing on transboundary and cross-cutting issues leading to harmonization of laws and

regulations, Phase II included all these countries plus six new countries grouped into two new sub-regional projects. Consequently, Phase II aligned Burkina Faso, a Phase I country, with Mali, Niger and Senegal (new countries) to form the Sahel sub-regional project in West Africa. On the other hand, Malawi, another Phase I country, was aligned with Botswana, Lesotho and Swaziland (new countries) to form the Southern African Development Community (SADC) sub-regional project.

These two new Phase II sub-regional projects emulated and replicated the experiences learnt from the East Africa sub-regional project as the situation permitted. Basically, Phase II supported thirteen countries grouped into three sub-regions, namely the Sahel and SADC sub-regional projects, each comprising four countries, and the East African sub-regional project embracing three countries. In addition, Mozambique and Sao Tome and Principe, all Phase I countries, also continued to receive support under Phase II although they did not fall under any of the above sub-regions and thus focused their activities on national interests and priorities.

The high ambitions in Phase II, with almost the same amount of funds earmarked for activities and almost double the number of project countries and more than twice the number of sub-regional projects clearly came with a number of challenges. Matching the expectations and achievements established in Phase I of the project was a tough call.

III. METHODOLOGY

A number of working principles used in the implementation and execution of the project activities made PADELIA unique and distinctive from many other projects executed by UN Environment Programme at the time. Prof Okidi insisted and emphasized on the need to ensure that endogenous institutional and human capacity was both strengthened and built in the execution of the project activities throughout PADELIA Phase I and beyond. Despite the delays this principle's execution caused, it became the primary objective and motto throughout the life of the PADELIA project.

Under his leadership and role modelling, Prof Okidi ensured that the PADELIA project was country-driven and highly participatory, thus fulfilling its objective by operationalization of the concept of capacity building. National experts and consultants executed specific project activities. Prof Okidi painstakingly and tirelessly used every opportunity to continuously and meticulously coach and mentor the national experts in identifying problems requiring legal intervention. He also ensured they were able to prepare legal review reports and draft laws. He took them through the national consultative review process up to adoption, in accordance with the national legal systems. This approach ensured that all the project outputs were reviewed in participatory and consensus building workshops to enhance acceptability, encourage homegrown solutions and entrench national ownership. This mechanism generated and built national knowledge bases necessary for the enforcement of the laws developed and the capacity to independently develop and undertake similar activities in future, thus guaranteeing sustainability when the project ended. This sustainability element is evident to date.

Prof Okidi was tenacious in ensuring that the project was highly participatory, nationally-owned and thus country-driven, thus allowing countries to move at their own pace to reach concrete and quantifiable results and develop their own institutional arrangements -- with national experts playing a major role in the implementation of its activities. By so doing, he ensured that the project was not used as a tool or mechanism to promote and build the capacities of 'flying in and flying out' foreign consultants or experts who had to depend on and learn from the local experts to provide them with the needed research materials and information on national laws and regulations on the subject matter they had to review. National experts were used throughout the project to undertake all groundwork review and research on thematic environmental laws as well as in drafting environment related laws. Where foreign consultants were required or expected to deal with a difficult subject matter by guiding the national experts, preference was, nonetheless, placed on experts from the region as opposed to international ones from outside Africa.

National legal experts as well as other stakeholders were utilized throughout the execution and implementation of the PADELIA project activities in the countries and/or sub-regions as well as throughout the region. This bottom-up approach succeeded because of the strategy of using national institutions to determine priority areas for environmental legislative reviews and developments, as well as operationalization of the concept of capacity building -- with national expertise being built and enhanced through guided work that produced reports identifying gaps and problems requiring legislative interventions, followed by drafting of appropriate laws. This work at national levels was backstopped and guided by the project management with support and engagement from IUCN and FAO.

Furthermore, in order to ensure that the outputs and products from the project were fully owned by within the country of focus, all reports and draft laws were always subjected to review in a number of broad-based consensus building workshops. In addition, thematic training programmes for different legal and paralegal groups within the project countries, together with engagement of non-project countries' experts were organized and held to develop and implement environmental law. Training materials in the form of a variety of publications were developed during the life of the project to support the development, implementation and enforcement of environmental law. Limited infrastructure was provided to countries to support basic operations for the national project coordination office as part of enhancing institutional capabilities.

Although this methodology was applauded, especially by the countries in the region and satisfactorily executed as planned, it was not without its challenges. Delay in the execution of project activities in a number of countries was a major challenge. Some project countries had few environmental law experts who could be readily deployed or utilized to execute activities. National experts needed to be empowered first and taught before they could be entrusted to lead or undertake the review and development of environmental laws and regulations on their own without being back-stopped by the project secretariat or regional advisers. As a result of the foregoing, the donor, the Government of Netherlands, repeatedly raised concerns about delays in the implementation of various activities under the project.

IV. BUILDING PROJECT OWNERSHIP AND SUSTAINABILITY

A. Building and strengthening national endogenous capacities

Following the basic principle of a country-driven and national-owned project, local legal and paralegal experts were identified through a consultative and consensus building process. Priority issues for the development and implementation of environmental law were identified and institutional capacities were strengthened. Consequently, at national level, each project country had to designate or nominate a lawyer as the national project coordinator(the coordinator) based at the relevant environmental authority or department to play the lead role in the management, coordination and execution of project activities in the country.

The coordinator's functions included: (i) serving as national executive officer of the project, (ii) serving as the secretary of the country team of experts then called National Task Force which, together with the coordinator, became the backbone and the knowledge base for the endogenous capacities being built throughout the implementation of the project, (iii) reviewing, commenting on and completing all documentation emanating from the project activities, (iv) preparing regular reports on the status of execution of national activities, and (v) ensuring regular liaison with the project management team at the UN Environment Programme as well as project partners at the country level, namely, IUCN or UNDP.

To further mainstream national commitment to the project activities and guarantee the involvement of all relevant stakeholders as well as their engagement in the execution of activities, each project country established a broad-based National Task Force composed of up to 20 legal and paralegal experts representing different environmental agencies. This team worked closely with the coordinator to identify priority environmental law and institutional capacity issues to be included and addressed under the project in their country, followed by the preparation of a budgeted and timelines work plan. Once the decision-making body, the Project Steering Committee, approved the work plan a memorandum of understanding (MOU) with details on modalities for the execution of project activities was developed and signed. Funds for the activities were transferred to the country from the UN Environment Programme through the relevant partner -- UNDP or IUCN country office. Unlike in Phase I, the Task Force during Phase II was composed of at least 30 per cent women members to ensure gender equity and representation from civil society.

Since it was a country-driven project, the coordinator and the National Task Force were tasked with identifying and contracting, through their national processes, the national legal experts as consultants or local NGOs to undertake the necessary activities under the work plan. They also had the responsibility for reviewing and making recommendations for improvements to the draft reports, draft laws and regulations, and other outputs prepared by the national experts. The complete draft documents would always be subjected to broad-based national consensus-building workshops, which reviewed and made recommendations for further improvement and finalization.

This methodology was at the core of the national legislative development process, which underlined national ownership and homegrown environmental laws and regulations in various countries

through the involvement and engagement of national experts in undertaking all activities needed and planned. The process ensured that there was a critical mass at national level that was conversant with the legislative development process and products and could defend them in legislature when they were ready for debate. It ensured effective enforcement after adoption and thus build, enhance and promote sustained endogenous capacity of national legal and paralegal experts. Prof Okidi's perseverance and persistence guaranteed that this happened not only in theory, but also in practice".

This approach eschewed the traditional approach of flying in international experts or consultants, unless they were from the region, to review laws and policies and to draft new ones in a deliberate attempt to build and enhance the capacities needed for the national experts. In any case, international consultants had to rely on the national experts to provide them with all the information and data needed to conclude their assignments. This approach guaranteed an in-built capacity enhancement and also operationalized the concept of capacity building by promoting hands-on experience and on-the-job training. This ensured that the laws developed reflected local and national circumstances, policies and social values taking into consideration national priorities and interests. The process further ensured that the project countries had nationals who were familiar with the legislative history of environmental law. These national experts would thus form the core of the national capacity required for the implementation and enforcement of the laws developed and to deal with any other needs to legislate in future.

The use of this methodology was both cost effective and efficient as national experts were trained in the countries and in the region based on the specific identified needs and they would use the outcomes of the courses immediately after for the development and/or implementation of environmental law in their countries. Consequently, it ensured a sustained development and implementation of environmental law and institutional building in the region far beyond the life of the project, an objective Prof Okidi desired to see operationalized, practised and results measured.

B. Development of environmental laws by national experts

PADELIA's programme focused on developing framework environmental laws as well as sectoral laws and regulations. If a similar project were to be initiated today, its focus would certainly be different in view of the emergent legislative developments that have occurred since. Elaboration and improvement of laws and regulations under the project followed a pattern of continuous engagement and involvement of national experts throughout the legislative development process. However, taking into account that each project country is unique, there were variations between different project countries as well as in the sub-regional projects, but by and large, they were complementary to one another. The process included the following steps:

(i) An identified national expert or national consultant hired to undertake a thorough review of a thematic environmental law issue and produce a draft review document with recommendations for the development, amendment and/or improvement of the relevant laws and/or regulations.

(ii) Review of the draft documents by a National Task Force, which made comments for improvement to be considered by the national experts/consultants before finalisation.

(iii) The revised draft documents would then be submitted to the broad-based national participatory and consensus-building workshops to deliberate on the draft review documents and recommendations -- be they development or amendment of the framework environmental laws and/or sectorial statutes.

(iv) Based on the above, another legal expert/consultant would be identified and contracted to work closely with the legislative draftsman in the Attorney General's chambers to develop the framework environmental law or sectoral statute(s).

(v) The draft framework law or sectoral statute would be reviewed by the National Task Force, which would make comments, if any.

(vi) Stakeholders at the national participatory and consensus building workshops would review the revised draft law and make recommendations for improving it before its finalisation and formal presentation to Parliament for debate.

In order to further build and strengthen the capacity of national experts engaged in one or more of these steps, training workshops for the relevant stakeholders, such as legislative drafters, would be undertaken. Some of the workshops would be on Rio Principle 10 of the Rio Declaration on access to information, access to justice and public participation, on environmental impact assessment among others, undertaken at different stages to enable experts to effectively engage in the process for the development of environment laws and their implementation in the future. Targeted awareness raising workshops, for example, for the parliamentarians, especially members of the environment committees, were organized to enhance understanding of the draft law/Bill on a specific issue before it was formally presented to Parliament for debate. This approach ensured that parliamentarians led and championed debate for the review and discussion of the draft laws/statutes when presented to Parliament for review, discussion and adoption.

Although development of the sectoral laws followed almost a similar pattern, there were also implementing regulations emanating from the framework environmental law. These included environmental impact assessments, and clean air or licensing regulations. Majority of the environmental related regulations were normally under specific sectoral laws and would be developed only after such statutes were concluded.

The East Africa sub-regional project took into account its objective, namely, to harmonize environmental laws within the sub-region, and involved a broad-based and consensus building meetings or workshops to review the completed draft national legal reports and draft laws. These meetings would then propose and/or agree on areas or elements for harmonization of the selected environmental law issues. This was followed by harmonization of thematic areas and elements discussed and agreed at the sub-regional workshops. The last step would be the development of

harmonized environmental laws being enacted or amended, and the relevant national laws and/or institutional framework of each sub-regional project country being harmonised.

V. IMPACTS FROM THE PADELIA PROJECT

Over 14 years have elapsed since Phase II of the PADELIA project ended and still its achievements, results and impacts are clearly evident in the environmental law programme undertaken by UNEP, the then project countries, the region and beyond as well as by other partners. These included impacts in the national, sub-regional and Africa-wide project activities.

Impacts in national project countries

1. *Advancing and enhancing endogenous capacity building through the development of environmental laws*

It has been demonstrated how the process of developing environmental laws in the project countries was undertaken by mainly engaging and involving national legal and paralegal experts. National legal and paralegal experts undertook all steps, beginning with the identification of priority environmental law issues, through to the review of laws and institutional arrangements, development of new laws or amendments of laws, and with the full engagement of national consultants, national task teams and consultative consensus building workshops. This approach ensured the development of homegrown and nationally owned environmental laws and institutional frameworks which were then implemented and enforced for the sustainable development of environmental laws in the project countries.

This approach enabled some national experts who had then never worked as consultants in environmental law to learn on the job until they could produce well researched and written draft reports that resulted in the preparation of draft laws/Bills, which were eventually enacted. Consequently, not only did national experts develop the laws through this process, but each project country had developed and produced a cadre of experts with know-how and expertise in environmental law development and implementation, who became instrumental in its enforcement at national level.

2. Building and strengthening national institutional capacities

The PADELIA project set out to institutionalize and enhance endogenous capacity building throughout its two phases in all the activities carried out. This was done through specific national activities to support effective development of environmental laws as well as others necessary for the better understanding and awareness of effective enforcement of environmental laws. Over the years, a cadre of environmental experts emerged from the law-making process, which entailed reviews of national laws through the use of national experts, consultants and stakeholders who were mentored, coached and thus able to determine national priorities requiring external intervention. Likewise, national environmental laws were reviewed, amended and/or updated and new ones developed as necessary. Consequently, several home-grown and nationally owned environmental laws and regulations were developed.

Additionally, several national training seminars, workshops and symposia on specific topics and themes of environmental law and policy targeting enforcement officials and other stakeholders were organized and conducted throughout the life of the project in all countries. For instance: capacities were built and strengthened in Burkina Faso,[2]Malawi,[3] Mozambique,[4] Sao Tome and Principe,[5]Uganda,[6] Kenya,[7] Botswana,[8] Lesotho,[9] Swaziland. [10] Likewise, for every legal report and/or draft law that was prepared, workshops were organized and held to consult stakeholders from the private sector, non-governmental organizations, local communities and others with a view to building national consensus and encouraging national ownership of the ensuing legal products. These workshops similarly served as part of the sensitization campaign on environmental and natural resource management as they were normally widely reported in the media since journalists were among key stakeholders who participated and received training through these events.

Several training courses and workshops were organized and conducted back-to-back, under the East Africa,[11] Sahel and SADC sub-regional projects[12] for the development and harmonization of environmental laws for the specific project countries.

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2 Environmental Law Training, 25-31 May 1997, Ouagadougou, Burkina Faso; Training on the Convention on Biological Diversity, 22-26 June 1998, Ouagadougou, Burkina Faso; Training for Parliamentarians and Decision-Makers on Environmental Law, 17-18 July 1999, Ouagadougou, Burkina Faso; Training Workshop in Environmental Law for the Teachers of Advanced Studies, January 2005, Ouagadougou, Burkina Faso; Training Workshop in Environmental Law for Governors, July 2005, Ouagadougou, Burkina Faso.

3 Workshop on Methodology for the Development of Environmental Standards, July-August 1997, Malawi; Workshop on Environmental Litigation, Zomba, Malawi, 4-6 March 1999, Malawi; Workshop for Judicial Officers on Judicial Intervention in Environmental Causes, 28 February – 3 March 1999, Zomba, Malawi.

4 Workshop on Methodology in Development of Environmental Standards, July-August 1997, April--0May 2006, Mozambique; Training programmes for judges, magistrates and municipal officers in environmental law conducted in collaboration with the Judicial and Magistrates Training Centre between April and May 2006; in collaboration with the same Centre, Seminar on Prevention and Punishment of Environmental Crimes, which endorsed the Draft Regulations on Environmental Crimes.

5 Seminar on Environmental Impact Assessment, 3-9 May 1999, Sao Tome and Principe; Workshop for Parliamentarians in Environmental Law, 14 August 1999, Sao Tome and Principe; Principles of Environmental Law, 14-21 April 1999, Sao Tome and Principe.

6 Workshop on the National Environmental Litigation, 1998 December 7-10, Mbarara, Uganda; Workshop on Environmental Impact Assessment, 1998 October, Uganda.

7 Workshop on the National Environmental Litigation, 1998 December 6-10, Mombasa, Kenya; Workshop on EIA, 26-30 October 1998, Machakos, Kenya; Seminar on the Role of Parliamentarians in Environmental Management, 23 July 1999, Nairobi, Kenya.

8 Workshop on Environment and Environmental Law Awareness for Council Environment Officer, August 2005, Gaborone, Botswana.

9 Capacity Building Workshop for Parliamentarians on Implementation of Biodiversity-related Conventions (CITES, CBD, UNCCD and Ramsar), October 2005, Maseru, Lesotho; Training of the Judiciary and Lawyers in Environmental Law and Litigation, 2006, Maseru, Lesotho.

10 Training Workshop on Awareness Raising of Environmental Law for Stakeholders, November 2005, Manzini, Swaziland.

11 East Africa sub-regional project -- Workshops on EIA Regulations; Environmental Standards; Forestry Regulations; Transboundary Movement of Hazardous Wastes; Wildlife Regulations and; Legal and Institutional Framework for the Protection of Lake Victoria Environment, held in Kisumu, Kenya in February 1998. Meeting of Project Coordinators to review Draft MOU held in Nairobi, Kenya in July 1998; Permanent Secretaries on the Development and Harmonization of Environmental Law on Selected Topics under the East African Sub-regional Project held in Nairobi, Kenya in May 1998; Workshop on methodology for development of environmental standards held in Kisumu, Kenya in September 1996.

12 Workshops to Identify Transboundary and Cross-border Problems requiring Legal Intervention and Solutions held in May 2003 at Mangochi, Malawi and in February 2004 at Maputo Mozambique; Meeting of Experts and National Coordinators on Development and Harmonization of Laws, April 2006 held in Gaborone, Botswana and of Permanent Secretaries and Directors held in Manzini, Swaziland in September 2006

3. Developing national environmental laws

Three types of environmental laws were developed during Phase I and II of the project from engaging national experts and teams. These were: framework environmental laws, sectoral statutes and implementing regulations. Consequently, five framework environmental laws were developed and adopted during Phase I (for Burkina Faso, Kenya, Malawi, Mozambique, Sao Tome and Principe).[13] Several sectoral environmental laws and regulations were also developed and adopted in Burkina Faso – 12 of them[14], Mozambique – 15 laws[15], Malawi -10 laws[16] and in Sao Tome and Principe – five regulations[17].

Impacts in sub-regional projects

Building on Phase I of the East Africa sub-regional project[18] which focused on the developing and harmonizing environmental laws (meaning comparable laws and principles and not necessarily common or same laws) of transboundary nature, two sub-regional projects[19] emulated and replicated the same during the second phase of the project. Implementing activities in the three sub-regional projects provided an opportunity for cooperation, experience sharing, exchange of information,

13 Framework Environmental Law, No. 2/1994; Environment and Management Coordination Act No. 8/199(Kenya); Environment Management Act No. 23/1996 (Mozambique); Framework Environment Law Act No. 97/1997 (MZ); and Framework Environmental Decree No. 10/1999(RS).

14 Draft Village Zones of Wildlife Interests; Draft Environmental Fund Law; Draft Regulations on the Determination of the List of Forest Species Benefitting from Species measures Protection; Draft Regulations on the Determination of Taxes for the Exploitation of Forests for Industrial and Commercial Purposes; Draft Regulations on Modalities for Inspection and Controlling of Dangerous Installations; Draft Regulations on Environmental Taxes and their Sharing between Central Government and Local Authorities; Draft Regulations on Transactions Relates to the Law No. 005/97/ADP of 30 January 1997 creating the Environment Code; Draft Regulations on Modalities for Inspection and Controlling of Dangerous Installations;
Adopted laws include: Hazardous Installations Law Regulation of the Management of Fire in the Rural Areas No. 310/1998; Regulations on Concessions for the Management of Fauna and the Activities of Hunting Guides No 305/1998; Regulations on the Collection, Storage, Transfer, Treatment and Disposal of Urban Wastes No 323/1998; Organization, Mandate and Functions of the National Council for the Environment No. 337/1998; Regulations on Dangerous Establishments and Installations No. 322/1998; Regulations on the Trade in Fish Products No. 308/1998; Regulations on the Creation of Water Perimeters of Economic Interest No. 307/1998; Regulations on Environmental Impact Assessment No. 342/2001; Regulations on the Nomination of Inspectors for Dangerous Installations Decree No. 26/2004.

15 Draft Environmental Crimes Regulations, Draft Decree on Environmental Auditing and Inspection; Draft Decree on the Transit of Toxic Wastes; Draft Regulations on Air Quality and Vehicle Emissions; Draft Regulations for the Creation of Environmental Protected Areas; Draft Regulations for the Control of CFCs; Draft Decree on Environmental Inspection, Monitoring and Auditing; Draft Decree on Inspection and Control of Toxic Waste; Draft Regulations on Territorial Planning Policy and Law; and Draft EIA Regulations for Mining Activities.
Adopted laws included: Framework Environmental Law Act No.20/1997; EIA Regulations No. 76/1998; National Environment Fund Decree No. 39/2000; Forestry and Wildlife Law No. 10/1999; Regulations on Bio-Medical Waste Management Decree No. 8/2003; Coastal Areas Management Zones Decree No. 5/2003, Regulations on Environmental Auditing No. 32/2003, EIA Guidelines for Public Participation Decree No. 45/2004, Regulations on Environmental Standards and Effluents Emissions Decree No. 18/2004 of 2004, Regulations on Environmental Inspection Decree No. 11/2006, Regulations on Hazardous Waste Management Decree No. 13/2006.

16 Draft Fisheries Conservation and Management Regulations, 1998; Draft Fisheries Conservation and Management (Local Community Participation) Rules, 1998; National Parks and Wildlife (Amendment) Bill, 1999 ; Draft Environmental Management (Mountainous and Hilly Areas) Regulations; Environmental Management (Wetland Resources) Regulations; Draft Environment Management (Toxic Substances and Chemicals) Regulations 1999 ; Draft Environment Management (River Banks and Lake Shores) Regulations; Revision of the 1996 Environment Management Act.
Adopted laws included: Environment Management Act No. 23 of 1996; Fisheries, Conservation and Management Act No. 25/1997; and Forestry Act No. 11/1997.

17 Framework Environmental Law No. 10/1999; Urban and Solid Wastes Decree, No. 35/1999; Environmental Impact Assessment Decree No. 37/1999; Marine, Coastal and Fisheries Resources Decree of 2002; Extraction of Inserts, No. 35/1999.

18 Kenya, Uganda and Tanzania formed the East Africa sub-regional project both in Phase I and Phase II.

19 Burkina Faso, Mali, Niger and Senegal formed the SAHEL sub-regional project in the western part of Africa and Malawi, Botswana, Lesotho and Swaziland formed the SADC sub-regional project in the southern part of Africa.

mutual learning and strengthened capacities to the advantage of the project countries.

While the Phase I sub-regional project countries shared the same historical background, socio-cultural traditions, similar commonwealth legal system and shared experience in regional integration and cooperation through the East African Community, Phase II sub-regional project countries were not contiguous. Consequently, selection of the priority transboundary environmental law activities common to the Phase II sub-regional project countries without affecting or impacting non-project countries was a tedious and challenging task. This situation resulted in the consideration of the interests of non-project countries, which benefited from some of the activities.

Seven priority themes[20] for the development and harmonization of environmental laws were identified, agreed and executed for implementation by the East Africa sub-regional project countries during Phase I. Once again, national experts constituted the consultants and teams which, through the national task forces and the national coordinators, undertook all activities planned and agreed in the sub-regional context. First, they undertook national specific activities reflecting the priority national circumstances or situations on the transboundary themes agreed. Two, the national activities resulted in a series of draft legal review reports on the seven environmental law themes for harmonization which were all subjected to sub-regional workshops that reviewed them and agreed on the strategies for harmonizing the sectoral laws and regulations. Three, countries were expected to thereafter develop new or amend existing laws and/or regulations taking into consideration the elements and principles agreed for harmonization. At the end of Phase II, only one new law had been adopted in Tanzania[21], eight in Uganda[22] and three in Kenya.[23] In addition to transboundary environmental law issues tackled under the East Africa sub-regional project, the three countries also implemented a few legal and institutional building activities of purely national interest and focus.[24]

Phase I of the East Africa sub-regional project culminated in the adoption of a Memorandum of Understanding for Cooperation in Environmental Management with the East African Community secretariat as a prelude to a legally binding Protocol under the East African Cooperation Treaty, which was still being negotiated. The East Africa Community Protocol on Environment and Natural

20 These included: Development and harmonization of laws related to environmental standards, environmental impact assessments, hazardous and non-hazardous wastes, toxic and hazardous chemicals, wildlife management and forestry plus legal and institutional issues surrounding the Lake Victoria Basin.

21 Forestry Act No. 7 of 2002

22 Environmental Impact Assessment Regulations, No. 13 of 1998, National Environment (Waste Management) Regulations, No. 52 of 1999; The National Environment (Wetlands, River Banks and Lake Shores Management) Regulations, SI No. 3 of 2000; National Environment (Designation of Environmental Inspectors) Notice, 2002 (UG); Discharge of Effluents into Water or Land Standards Quality, 1998; National Environment (Minimum Standards for Management of Soil Quality) Regulations S.I. 59 of 2001; The Water (Waste Discharge) Regulations, SI, No. 32 of 1998; National Environment (Hilly and Mountainous Areas Management) Regulations 2, 2000 .

23 Environmental Impact (Impact Assessment and Audit) Regulations, No. 56 of 2003; Rules of Procedure for the Kenya Environmental Tribunal (established under EMCA), No. 92 of 2003. Furthermore, Kenya adopted its framework Environmental Management and Coordination Act (EMCA) No. 8 of 1999 developed under the Project but not as part of the East Africa sub-regional project.

24 For instance: Kenya developed laws and regulations for the implementation of the Environmental Management and Coordination Act of 1999, which came into operation in 2000 like Regulations on the Environmental Impact (Impact Assessment and Audit) Regulations No. 56 of 2003 developed to implement EMCA; Rules of Procedure for the National Environment Tribunal established under EMCA No. 92 of 2003,

Resources Management, signed in 2006, thus marked a landmark and momentous milestone for a harmonized framework for environmental management in the sub-region. The Protocol led to the adoption of Environmental Assessment Guidelines for Shared Ecosystems for the East Africa Community in the same year.

Due to the different levels, status and speed of implementation activities, countries completed their agreed harmonized environmental laws, preferring to select national and cross-border priority themes for the sub-regional phase of the project. Consequently, Phase II covered environmental law issues of priority interest at country level while completing the Phase I issues on the agreed elements and principles for harmonization on the environmental themes they had worked on. The period thus saw few more environmental laws and regulations developed and/or completed and adopted as well as other related activities needed for the enforcement of the law developed or amended.[25]

Phase II Sahel[26]and SADC[27]sub-regional projects, on the other hand, replicated as well as drew lessons and best practices from the East Africa sub-regional project, taking into consideration the unique geographical and historical differences. Unlike the contiguous nature of countries in the East Africa sub-regional project, the two sub-regional project countries did not directly border one another. Consequently, both national and sub-regional priority common and cross-border environmental law and institutional building activities requiring common legal interventions and solutions were identified and agreed while ensuring neighbouring non-project countries would not be adversely impacted by project activities.

Common environmental law activities identified and agreed under the SADC sub-regional project for which analytical legal reports were prepared and reviewed through the participatory consensus building and consultative process included: environmental impact assessment, biosafety, and hazardous chemicals and wastes.[28]All of them were, as was the established practice, subjected to sub-regional consultative and consensus building legal review process for the development and harmonization of developed legal reports and draft environmental laws.[29] In addition, each country

25 For instance: A Study Report on the Rules of Procedure for the National Environmental Tribunal of Kenya (under the Environmental Management and Coordination Act, 1999); Guidelines for Preparing Framework Environmental Laws in Africa; 2006 Train the Trainers Manual for the Judiciary; 2006 Legislative Drafting of Environmental Law: Training Manual (in English and French languages).

26 SAHEL sub-regional project comprised of four countries, namely, Phase I country – Burkina Faso plus three new Phase II countries – Mali, Niger and Senegal.

27 SADC sub-regional project composed of four countries, namely, Phase I country – Malawi plus three new Phase II countries – Botswana, Lesotho and Swaziland.

28 Draft Regulations on Waste Management, Sanitation, Toxic Substances and Chemicals; Draft Biosafety Law; Draft Toxic and Hazardous Chemicals (Control and Management) Bill, 2006; Draft Hazardous and Non-Hazardous Waste Management Bill, 2006; Draft Environmental Impact Assessment, Audit and Monitoring Regulations, 2005 as well as developed a simplified version and translated the Environment Act of 2001 into the local language (Sesotho) for use by the public and local community. Draft Hazardous Wastes Bill, 2006; Draft Biosafety Bill, 2005; Draft Regulations on Environmental Impact Assessment, 2005. Draft Regulations on Environmental Impact Assessment, 2005; Draft Biosafety Bill, 2005; Draft Hazardous Wastes legislation as well as developed a simplified version of the Environment Management Act of 2000 and translated it into local language (Swazi) for use by the public and enforcement entities.

29 SADC Sub-Regional legal experts and national coordinators Meeting on the development and harmonization of environmental laws held in Gaborone, Botswana in April 2006 as well as Meeting of Permanent Secretaries and Directors responsible for Environment on the development and harmonization of environmental law held in Manzini, Swaziland in September 2006.

also executed legal activities that were of priority national interest.[30]

Sub-regional legal review reports and draft laws were selected, developed and adopted through the use and coaching of national experts and consultants as well as broad-based participatory, consultative and consensus building review processes. Activities continued to operationalize the concept of endogenous capacity building and enhancement through stakeholder engagement constituted as national task forces and coordinated at country level by national project coordinators. This approach, therefore, augmented acceptability, transparency as well as country driven and national-owned processes of the ensuing legal products.

Africa project-wide activities

PADELIA benefitted principally 13 countries but since it was a partnership project for the development of environmental law and institutional building for the whole of Africa, a number of impactful and result-oriented Africa-wide activities were implemented and executed. The Africa-wide activities were mostly geared towards capacity building and/or enhancement of institutional capacities to effectively feed into the national and sub-regional project activities. They also fed into the regional-wide endogenous capacity building and enhancement for the development and enforcement of environmental laws and institutional building on the entire continent.

1. Enhanced capacities of national legal and Para-legal experts and institutional building

Several activities were undertaken to further enhance the capacity of national experts in a wide range of environmental law subject areas or themes. Such as:

(i) Developed and enhanced capacity of legal experts in the region for the *development and enhancement of their countries' framework environmental laws*[31]as well as other sectoral laws and regulations[32] where such relevant legal tools for creating environmental laws were also developed, published and tested.[33]

(ii) Development of an *integrated and mainstreamed environmental law course and its curriculum* including teaching and research methodology in African universities' law schools

30 Revised Environment Management Act, 1996; Developed and finalized draft regulations on Waste Management, Sanitation and Toxic Substances and Chemicals. Lesotho – Translated and simplified version of the Environment Act, 2001; Draft Nature Conservation Bill. Swaziland – Simplified and translated (into Swazi) version of the Environment Management Act and finalized development of draft bills referred to under footnote no. 29 above. Botswana– Finalized development of the draft bills referred to under footnote no. 29 above.

31 Through the experts meeting for the development and review of the Guidelines on Framework Environmental Law Approach in Africa held in Machakos. Kenya in June 2004.

32 For instance: During Phase I - Workshop on the Incorporation of Conventions Related to Biological Diversity into National Law held in Maputo, Mozambique, June-July 1997; and during Phase II –2nd Training Course in Environmental Law and Policy for African Lusophone countries held in Maputo, Mozambique in October 2005.

33 Study on the Review of Framework Environmental Laws in Africa (2004) as well as Guidelines for the Development of Framework Environmental Laws in Africa (2004).

both at national[34] as well as at regional levels through establishment of environmental law lecturers' networks. Accordingly, environmental law curricula was integrated in the development, compilation and publication of generic environmental law curricula, textbooks and other teaching and research materials for use in African universities.[35] This led to the establishment and launch of the Association of Environmental Law Lecturers in African Universities (ASSELLAU), which is still flourishing, very active, operational and vibrant.[36] The evolution and activities of ASSELLAU are captured in Chapter 5 of this book. It has, in fact, been recently replicated and influenced the establishment of another similar network, namely, the Association of Environmental Law Lecturers for the Middle East Universities (ASSELLAMU).[37]

(iii) *Enhanced the capacities of parliamentarians and their staff* through a series of symposia. The events advanced the roles of parliamentarians in environmental law and governance in view of the fact that all draft laws had to be reviewed, discussed and adopted by national Parliaments hence the need and importance of creating their awareness and understanding of environmental management issues required for the review of draft laws/Bills[38]. Since parliamentarians' tenure in all countries globally is limited and parliaments change every few years, activities for strengthening and creating awareness for environmental law issues in this space continues to date in countries and regions beyond Africa.

(iv) *Judiciaries* are one of the key stakeholders in the implementation of environmental law as well as in the interpretation of laws including national statutes. Hence, empowering judiciaries and enhancing the capacities of judges, magistrates and other judicial officers was an important investment for effective management of natural resource and environmental management. PADELIA pioneered in engaging judiciaries to play an effective role through their judgments in environmental matters and environmental justice. Initially, judges claimed they could not be trained as they knew and interpreted the laws. However, after the very first event for judges' engagement in environmental law matters, they well understood

34 For instance: In Mozambique – Faculty of Law of the University of Eduardo Mondlane introduced, under the project, an environmental law course in 2003/2004 through the development of an environmental law curriculum and teaching materials intended to further enhance the capacity of young graduating lawyers and thus creating further sustainability for the future. The course continues to date. In Burkina Faso – Environmental Law course was introduced in 2002/2003 for similar reasons at the University of Ouagadougou as well as the National Judicial College through the development of curricula and teaching modules on the subject. In Mali – Environmental law curriculum was developed and introduced at the Faculty of Law of the University of Bamako as well as mainstreamed at the National Judicial School in 2006/2007.

35 Symposium of Environmental Law Lecturers from African Universities held in Nakuru, Kenya in September/October 2004 where a Nakuru Declaration for the Development and Mainstreaming of Environmental Law Course and Curriculum in African Universities was discussed and adopted. Furthermore, the project facilitated the participation of environmental law lecturers from to Africa to attend the 2nd Colloquium of the IUCN Academy of Environmental Law held in Nairobi, Kenya in October 2004 whose debated theme was 'Environmental Law and Land-Use Tenure'.

36 For more details on the work and achievements made and activities of ASSELLAU, see Chapter 5 of this book.

37 ASSELLAMU was established and launched at its First 2018 Middle East Environmental Law Scholars' Conference held in Doha, Qatar in November 2018 whereby a Steering Committee was established to work out the detailed operational modalities of the Association to be reviewed and agreed at its 2nd Conference to be held at Casablanca, Morocco in November 2019.

38 Symposium of Parliamentarians from Southern and East Africa on their role in advancing environmental law and governance held in Maseru, Lesotho in October 2006.

their role and became more receptive to future colloquia and symposia, and in fact demanded more such events. Consequently, several region-wide symposia and colloquia[39] were organized and conducted to build and enhance the capacities of judiciaries for effective implementation of environmental law both in their countries and the region. In fact, the judiciary programme has since been replicated in all other regions and is currently one of the major programmes in all regions and globally as it continues to provide an opportunity for judges to share experiences, judgments and legal reasoning in environmental matters as well as learn from each other. These events led to the development of targeted instrumental publications to support the work of judiciaries in dealing with environmental related cases since environmental law was then a new issue to majority of them. As it were, environmental law did not exist as a subject during their legal training at university and/or legal schools.[40]

(v) A number of legal experts and consultants drafted environmental laws for the first time under the PADELIA project. Legislative drafting courses on environmental law[41] were organized and conducted to ensure that *endogenous capacity of legal drafters was built and strengthened* and brought to the same level of competence in legislative legal drafting for laws under the project. Legislative drafting manuals and tools[42] were developed for the legal draftspersons but also included the emerging legislative drafters who continue to be used to date, over a decade since the project ended. The courses created a pool of experts who could be called upon to assist in environmental legislative drafting their countries considering that environmental law was then a relatively new subject not taught in many universities' law schools. This programme ensured that a sustained culture of environmental legislative processes was established and enhanced. It also guaranteed established expertise of a cadre of national lawyers trained on techniques and skills for drafting environmental legislation. Subsequently, national ownership of national environmental legislation and regulations was created through the development of a knowledgeable pool of national experts.

(vi) On the *job-training through attachment* was also used especially during Phase I to further to strengthen and enhance the capacity of national legal experts by providing them with opportunities for hands-on training through attachment for a period lasting up to one month to expose them to the operation of environmental institutions. These national experts[43]

39 For instance: Workshop on Judicial Intervention in environmental causes held in Mombasa, Kenya, October-November 1996; Workshop on Environmental Litigation held in August 1997, Kampala, Uganda; Needs Assessment and Capacity Building Meetings held in Cairo, Egypt in May 2004 on the role of the judiciary in environmental litigation for Arab-speaking Chief Justices and Senior Judges, to mention but few.

40 See: Examples of publications developed for the benefit of judges and magistrates in environmental matters under the section on publications produced under the project later in this Chapter.

41 Two-week Training Course in Legislative Drafting in Environmental Law was prepared and convened for Anglophone countries in October 2004 in Arusha, Tanzania and in 2005 for the Francophone countries.

42 A Manual on Environmental Law Legislative Drafting for Africa, 2005 in English and French; and Procedural Mechanisms for Drafting and Enactment of Environmental Laws, 2005 were developed, published and tested during the legislative drafting courses on environmental law. Furthermore, Analytical Study on Environmental Provisions in the Constitutions of the African Countries had been undertaken and published, 2006.

43 Officials from Burkina Faso, Malawi, Mozambique, Sao Tome & Principe, Tanzania and Uganda received this training by attachment in October 1996 and 1997.

were attached to the UN Environment Programme headquarters in Nairobi as well as at its convention secretariats in Geneva and in Rome where the Food and Agricultural Organization is headquartered. The national legal experts learned the structure and operation of the institutions with which they worked to develop and implement environmental laws. The officials were able to network with fellow participants in the training programmes, and also gained access to useful written materials and verbal information and briefing from the officials of these institutions.

(vii) Similarly, the project *reached out to engage other environmental law stakeholders*[44] and equally built and enhanced their capacities to include environmental considerations in their activities and operations and thus built-in environmental sustainability into their operations. Consequently, private sector[45] as well as civil society organizations[46] also benefited in some of the training programmes where specific tools[47] were reviewed, published and tested during the training courses.

(viii) Through PADELIA's contribution and engagement, the first Africa-wide treaty on environment, namely, the outdated Algiers Convention on Conservation of Nature and Natural Resources of 1968 was completely revised and updated into a new treaty entitled, *Revised African Convention on the Conservation of Nature and Natural Resources* adopted in July 2003 in Maputo, Mozambique.[48]

2. Developing publications to enhance human and institutional capacities

Most of the activities implemented under the project countries or non-project countries were accompanied by the development, preparation and publication of materials, tools, reports and other outputs. In fact, the benefits of all the publications produced reached out not only to the project countries and teams but were always widely disseminated throughout Africa and globally. The publications ensured that there were adequate reference materials and information for continued use for different activities by even those experts who did not directly participate in the different training and awareness programmes. Institutions not represented in relevant events also benefitted. These publications have continued to be useful and relevant for universities and other academic institutions and also for legal and paralegal practitioners. They provide the legislative history and background documents for different legal frameworks. The capacities of governments and legal

44 Seminar on Environmental Law for Lusophone African Countries, April 1998, Maputo and Mozambique.

45 Workshop on Industries on Promotion of Compliance with Environmental Law in Africa, November –December 1997, Kisumu and Kenya.

46 Regional Meeting of African NGOs to Strengthen their Role in Environmental Law was conducted in 2005.

47 For instance: For industries – a publication on Industries and Enforcement of Environmental Law in Africa: Industry Experts Review of Environmental Practice. For NGOs, a Strategy on the Role Played by NGOs in the Development, Implementation and Enforcement of Environmental Law in Africa, 2005.

48 African Union, Revised African Convention on the Conservation of Nature and Natural Resources, African Union <https://au.int/en/treaties/african-convention-conservation-nature-and-natural-resources-revised-version> accessed 10 December 2018.

stakeholders as well as their awareness in the enforcement and compliance of environmental laws has thus been enhanced and increased through these publications.

All the environmental laws, sectoral laws, and regulations reviewed during the life of the project were all published in different legislative series,[49] including others that already existed and had been developed outside the project. Over 30 legal reports prepared as a prelude to the development of different environmental laws were also all published. For the project countries, such as Burkina Faso, Malawi, Mozambique and Uganda, that had enacted environmental framework laws shared their experience of implementing and enforcing them through specific targeted publication.[50]

Additionally, each year during the life of the project, special issue bulletins of environmental law were produced and shared widely to provide information on progress in the implementation of different activities.[51] Different training and awareness raising courses were organized and held at national and regional levels for specific targeted enforcement stakeholders. These trainings were also accompanied by targeted publications that were prepared, tested during the different events and published. Such publications targeted judiciaries[52], environmental law lecturers,[53] legislative drafters,[54] private sector,[55] NGOs,[56] and were useful beyond the short-term need and continue to be used by other experts who may not have attended the courses. Since Internet technology in Africa was in its infancy, and accessibility was low, all publications were produced as hard/paper copies and physically shared in all countries in Africa and beyond.

Each country established a national resource/documentation centre where all materials produced under the project were kept to strengthen the capacity of national legal experts and other relevant

49 (Ten) 10 volumes of Compendia of Environmental Laws in Africa which include Volume 1 of the Compendium of Environmental Laws in Africa plus two Supplements containing texts of Framework Environmental Laws and EIA Regulations. The rest of the 8 Volumes contain texts of sectoral environmental statutes and regulations <www.unep.org/depi/padelia> accessed 10 December 2018, Compendium of Environmental Law of African Countries, Volume I: (2004 Supplement to Volume I of 1996 edition).

50 UNEP, Review of Institutional Capacity Building of Environmental Law and Institutions in Africa, June 2000, ISBN 92-807-1970-X; United Nations, *Guide to the Practice of Environmental Law in Uganda: A Handbook; Guide to Environmental Law in Uganda: A Casebook; Guidelines for the Development of Framework Environmental Law in Africa* (United Nations 2005)

51 Special Issue Bulletin of Environmental Law, 1997; 1998 Special Issue No. 3 Bulletin of Environmental Law; Special Issue Bulletin of Environmental Law, 1999; and Special Issue of the Bulletin of Environmental Law No. 4 of 2005.

52 Four (4) volumes of Compendia of Judicial Decisions on Matters Related to the Environment (3 Volumes on National Decisions and 1 Volume on International Decisions); Environmental Law Handbook and Casebook for Practitioners and Judicial Officers for Uganda, 2003; Manual for Judicial Train the Trainers on Environmental Law and Litigation, 2006; Judges Handbook in Environmental Law; Handbook of Environmental Law.

53 United Nations, *Teaching Environmental Law in African Universities*, (United Nations 2005); United Nations, *Train the Trainers' Manual on Environmental Law*, (United Nations 2006) for teaching lawyers both in Anglophone and Francophone countries.

54 A Manual on Environmental Law Legislative Drafting for Africa (2006) in English and French; and Procedural Mechanisms for Drafting and Enactment of Environmental Laws (2005) were developed, published and tested during the legislative drafting courses on environmental law.

55 For industries – a publication on Industries and Enforcement of Environmental Law in Africa: Industry Experts Review of Environmental Practice.

56 For NGOs -- a Strategy on the Role Played by NGOs in the Development, Implementation and Enforcement of Environmental Law in Africa, 2005 was developed and published.

stakeholders as part of the effort to enhance the institutional capacities of the project countries. The advent of technology and improved Internet speeds in most countries across Africa has made it possible for the published materials to be available in electronic format.

VI. CHALLENGES FACED BY PADELIA

Any project as complex as PADELIA – with several beneficiary countries, different historical and geographical background of different legal systems and levels of environmental law development and enforcement, different status of environmental institutional setup and development as well as different national and international partners managing and monitoring the project implementation – will progress adequately without challenges. For PADELIA, such challenges provided positive lessons and opportunities for identification of solutions for its activities to progress as planned. Nonetheless, some of the major challenges faced by the project included slow takeoff and delays, disparities of payment for national and international consultants, and institutional incongruences.

As had been outlined earlier, and further underscored by its leader at the time, Prof Okidi, PADELIA was a country-driven and highly participatory project. It operationalized capacity building through the use of nationals as experts and consultants, who undertook execution of project activities after training and coaching to enable them to identify legal problems requiring intervention, prepare legal review reports and draft environmental laws. All project outputs were reviewed through consultative and participatory consensus building workshops, which further created the national knowledge base necessary for the enforcement of the laws developed and the capacity to undertake similar activities independently in the future. Despite its good intentions and objectives to ensure sustainability and development of home-grown solutions as well as nationally owned environmental laws, the PADELIA project was confronted by the challenge of the slow pace in implementing national activities because many of the modalities introduced then were new and the uniqueness of the project.

Under Phase II, two new sub-regional projects delayed the commencement of operational activities because the new project countries and national project coordinators took time to get up to speed with the operationalization methodology for executing activities. The project management, underlining the institutionalized approach initiated during the first phase by Prof Okidi, invested time and effort in explaining the *modus operandi* emphasizing that it had already been tested with positive results. In particular, operationalized and institutionalized capacity building through country-led and demand-driven mechanisms permitted countries to move at their own pace, albeit slowly, to achieve results. Nonetheless, since the methodology reinforced capacity building 'by doing', the long-term results and impacts continue to be seen and felt to date.

PADELIA was an inter-agency project managed by UNEP through its project management secretariat – with UNDP as the national implementing agency on one hand and supported by other Project Steering Committee composed of FAO, IUCN, World Bank and the donors on the

other. This project design created inter-agency operational challenges. It took over a year of Phase I of the project for partners to develop and agree on workable methods and modalities for operations between them, especially between UNEP and UNDP on one hand and later between UNEP and UNOPS, which became the operational arm of UNDP. Although UNEP was responsible for the day-to-day management of the project, UNDP and later by UNOPS managed the implementation of activities, operations and expenditures at the national level since UNEP had no direct presence in the countries owing to its normative mandate. With each of these institutions having different operational modalities and internal project and financial management rules and regulations, the project's executions suffered long delays during the initial years.

Delays in the transfer and disbursement of funds from one institution to the other caused serious delays in the implementation of a number of activities in various countries.[57] However, once these challenges were identified and inter-agency partners developed and agreed on appropriate operational and reporting modalities as well as on the communication and operational challenges were overcome, and implementation of activities continued smoothly. During Phase II, the preparation of work plans ensured UNDP country offices were fully engaged. Once they were finalized and adopted, UNEP and UNDP country offices signed legal instruments through which funds were transferred or disbursed to UNDP country offices[58] without going through the UNDP headquarters in New York, as was the case during Phase I.

Inter-agency coordination and cooperation between UNEP, UNDP and IUCN had unique glitches. For instance, unlike the UN entities such as UNEP and UNDP, a non-governmental organisation like IUCN did not share the same operational modalities as the former. IUCN was not staffed and resourced to the same level as the UN entity partners. Its staff time and expenses for managing projects had to be fully compensated through sub-contracts for specific components. Consequently, IUCN had to receive separate, additional funds to cover costs for managing, administering and monitoring the implementation of project activities in Burkina Faso (during Phase I but not in Phase II as it opted to be administered by UNDP country office) and Mali (during Phase II).[59] In such cases, legal instruments were signed directly with IUCN country offices and not UNDP country offices for projects it managed and administered.

57 For instance: During Phase I, over a third of funds for the project were allocated to UNDP country offices for disbursement to project countries. Little did the Project Management know that these funds were further sub-contracted and disbursed to UNOPS as UNDP internal procedures no longer permitted it to directly manage project funds, causing further delay and additional transactional costs. Furthermore, at the time, UNDP overhead costs were paid to UNDP headquarters in New York and not to UNDP country offices, which managed for UNEP project activities at national level -- making it a disincentive for the offices to be committed to the project and causing further delays as they received no monetary compensation for the additional work undertaken for UNEP.

58 Through these legal instruments, appropriate overhead payments or costs were thus paid directly to UNDP country offices and thus created incentives for UNDP to actively engage in the management and implementation of the project activities at national level and thus owned the operations in the countries. Consequently, the direct role of UNDP New York and its operational arm, UNOPS, greatly diminished during Phase II of the project.

59 In fact, unlike UNDP country offices, which were more a conduit to transfer funds to the countries and monitor expenditures in accordance with the approved work plans and thus basically implementing agency, IUCN was an executing agency in Burkina Faso and later in Mali as it played a more substantive role in the execution of project activities in these countries.

Despite UNEP and UNDP being UN entities, each had different internal financial policies on the payment of honoraria or consultancy fees to national experts and/or project staff, thus causing serious delays in the implementation of project activities during Phase I. For example, most UNDP country offices required national experts to resign from their government service during the consultancy period before they could undertake paid consultancy assignments in their countries. This unrealistic requirement would have forced the national experts to be unemployed and to seek jobs after such assignments. It was thus difficult for the project to attract good national experts to undertake consultancy assignments despite making the heavy investment in them and training them through the capacity building activities it had organized and conducted. This defied the key objective of the project to create an in-built endogenous national capacity through the gained enrichment of the legal knowledge of these experts after the trainings to be tested and entrusted to undertake paid consultancy assignments for their governments.

There was a also a great difference between what the UNDP country offices paid national experts as consultancy fees or honoraria from what international experts received. National experts were paid far less, and their remuneration differed from one country to the next, even where they were just as qualified and experienced as their international colleagues.[60] This was despite the fact that the collation, collection and compilation of data on national environmental law and institutional issues depended on national experts. Fortunately, these restrictive financial policies did not apply to UNEP whereby national experts and consultants received consultancy fees and honoraria even if employed by the government and were on the same footing with international experts. UNEP opted to enter into consultancy agreements directly with national experts to avoid the UNDP country offices' restrictive financial rules and policies on hiring national experts and treating them differently from international experts. This approach was equally adopted during Phase II of the project.

Among the commitments expected from the project countries was the governments' commitment to make in-kind contributions by providing a full time national project coordinator with a functional and equipped office. Due to the economic conditions prevailing then in many countries in Africa and specially the project countries, it was difficult for them to fulfill this requirement. The result was that although each project country had appointed a national coordinator, they were not working on the project on a full-time basis. They continued to perform their other duties and responsibilities.[61] This invariably delayed the implementation of project activities in most countries. Likewise, governments were unable to provide the needed equipment (computers, photocopying machines, among others) to the national coordination office, resulting in delays in the execution of project activities. However, when it became impossible for national project coordinators to manage activities, purchase of the needed equipment was authorized through an exceptional approval by the project governing body (the Project Steering Committee), and provided to the coordination offices to operate and manage national project activities effectively.

60 This anomaly was experienced more under the East African sub-regional project, which dealt with transboundary and cross-border environmental law issues that were common to the three countries.

61 Malawi – The Project Coordinator during Phase I doubled also as Cabinet Committee Secretary and even later transferred to another Government department. It took a while for the Government to identify another coordinator, thus causing delays in the project implementation.

The nature and status of national project coordinators differed greatly from one project country to the next, causing difficulties in the implementation of activities at the national level. For instance, most governments took time to release the appointed national coordinators from their regular duties to carry out project activities. Some countries lacked resident lawyers and more specifically lawyers with environmental management background in government departments or ministries responsible for the environment where the project coordination office was domiciled. Non-lawyers were appointed as project coordinators in some countries.[62] This delayed the implementation of project activities as it took longer to train, mentor and coach these coordinators before they could independently manage, monitor and follow up on the implementation of project activities.

Further, turnover among national coordinators as well as those trained and mentored through the project as part of the institutionalized capacity building and empowerment approach saw some better job opportunities as they were in demand and their skills were sought-after.[63] In some cases, project countries hired independent private practitioner(s) to coordinate activities on a part-time basis -- an approach that led to effective management of project activities despite the part-time nature of the arrangement[64] and enhanced the ownership of the project activities also by the private practitioners. Changes in some UNDP country offices as well as weaknesses of cooperating agencies equally slowed down the pace of monitoring and following up of implementation of project activities in some countries.[65] Frequent changes in the composition of national coordinators[66] reduced momentum in the implementation of project activities.

In some project countries, civil service regulations did not permit individual ministries or departments to hire lawyers as the procurement of legal services was centralized and located in the Ministries of Justice and/or Attorney General's Chambers to serve all governments departments from that

62 During Phase I, for instance, all project countries had lawyers appointed as National Coordinators except Kenya and Sao Tome and Principe.

63 For instance: only Uganda and Burkina Faso were able to maintain the same National Coordinators during the entire Phase I of the project. No wonder, Burkina Faso succeeded to develop over 12 draft laws and regulations with a number of them enacted as illustrated earlier on in this paper. The Ugandan National Coordinator was, nonetheless, later hired by UN Environment Programme. Other national experts who benefitted tremendously through the series of national and regional training activities under the project was from Sao Tome and Principe: he was promoted to Director of Environment and later the Minister for Environment, with another trained expert under the project becoming a Prime Minister of the country at one time. In fact, he was personally instrumental in ensuring five environmental laws developed under the project for which he was also trained were all processed and adopted at a go in one parliamentary session. In Malawi, a National Project Coordinator also doubled as Cabinet Committee Secretary who, in the middle of the project implementation, was transferred to the Ministry of Foreign Affairs and later became the country's ambassador in various foreign missions. In Botswana, Malawi and Mozambique, national coordinators went for further studies to specialize on environmental law matters and on their return it was then a guarantee that they would have returned to their roles developed under the project.

64 For instance: Mozambique during Phase I where over 15 draft laws and regulations were developed with a number of them adopted during the same Phase.

65 For example: In Sao Tome and Principe, implementation of project activities delayed even after consultative missions by the Project Manager. In addition, a *coup d'état* in July 2003 resulted in a cabinet reshuffle as well as institutional and personnel changes in the environmental portfolio further delaying implementation of project activities in the country.

66 For instance: In Malawi, the country changed its National Coordinator three times during the life of the project.

one pool.[67] This situation further exacerbated the context for implementing project activities as the workload of individual lawyers was heavy considering that they managed the entire legislative work of all government ministries and departments, civil and criminal matters.

Instability of up to 20 national task forces established in each project country and composed of representatives from the government, non-governmental organisations, the private sector delayed the implementation of activities. In fact, representation in the national task forces had not been consistent as most of them had not been fully designed and acknowledged as full-time members of the task forces thus caused in many cases low turnout in the meetings resulting in inadequate quorum. Several interruptions to task force meetings delayed the review of draft reports as well as draft laws and regulations, which in turn affected the timely organization of consultative national consensus building workshops to further consider the draft reports, draft laws and/or regulations. Lack of incentives or remuneration for the members of the national task forces further exacerbated the problems emanating from turnover, lack of consistency and commitment to the meetings attendance, which inevitably caused additional delays in the execution of project activities.

Inadequate capacity combined with varying time and speed in determining gaps and/or lacunae in environmental law issues requiring priority attention for implementation during Phase I and II, delayed activities. It took time for national experts to determine and identify priority activities for implementation and thereafter development of the costed work plans of activities. During Phase II, for instance, Phase I project countries[68] were quicker in determining their priority needs by building on earlier work. It was not the same for the new project countries[69] in the two sub-regional projects, which took longer.

A number of *wrong* or *incorrect assumptions* were made in the selection of sub-regional project countries in both phases of the project. It was assumed that all countries were on the same level of environmental law development, would move and execute national project activities at the same speed and pace, and thus be able to deal with agreed matters related to harmonization of environmental laws. During Phase I of the East African sub-regional project, participating countries were only allowed to identify sectoral transboundary environmental law issues and not issues of purely national interest or those specific to their country, hence development of framework environmental laws, for instance, was disqualified. It was assumed that project countries had parent laws already in place and the project would focus on developing regulations to implement

67 For instance: In Swaziland and in Tanzania. However, in Tanzania, the National Coordinator was not housed in the Department of Environment but at the Attorney General's Chambers where unfortunately, there was no coordination or link regarding the project activities featured in the structure of the Attorney General's office. Consequently, the Project Coordinator practically managed and undertook project activities on a part-time basis and during weekends. This modality completely slowed down execution of project activities in Tanzania during Phase I and impacted also Phase II as the country moved into it still continuing to implement and complete Phase I activities.

68 For instance: Uganda, Malawi, Mozambique and Sao Tome and Principe which were Phase I countries and already familiar with the project and thus was easier for them to identify their priorities and develop the work plans.

69 For instance: new countries in the Sahel (Mali, Niger and Senegal) and SADC (Swaziland, Lesotho and Botswana) sub-regional project countries. The countries had not been involved in the project during Phase I hence they were unfamiliar with the project's approach and methodology, had to be empowered and learn from the beginning thus inevitably took longer in the development of work plans, thus impacting on the timely implementation of project activities and delivery of outputs.

main statutes,[70] which was not the case and countries found themselves developing subsidiary laws and regulations where no parent legislation existed. The same situation prevailed with the two new Sahel and SADC sub-regional projects.[71] The assumptions were incorrect.

Moreover, although the East African sub-regional project countries shared a historical and colonial background, commonwealth legal heritage and system, environmental challenges and were contiguous to each other, the speed at which agreed common national environmental law activities for harmonization were implemented differed greatly.[72]The Sahel and SADC sub-regional project countries were not contiguous to each other, but identified common environmental law issues instead of transboundary ones. Furthermore, neighbouring non-project countries were impacted by activities in these two sub-regions. This anomaly caused adverse impacts on the harmonization of transboundary environmental laws anticipated under the project; Harmonization was basically not achieved as expected because individual countries implemented agreed activities at their own pace.

Different financial reporting mechanisms for the six different donors supporting the project during Phase II equally posed a challenge. Despite earlier agreement to prepare and produce one financial report based on a common template, donors still demanded independent reports for the component of their funds, thus forcing the project management to prepare and submit different reports based on different donor templates with varying levels of detail. This consumed a lot of time in identifying specific project countries' activities as well as project-wide activities to align and charge percentages of funds for each donor as appropriate, including operational and staff costs.[73]

VII. SUSTAINING AND REPLICATING PADELIA ACHIEVEMENTS AND IMPACTS

PADELIA was implemented for over a decade, specifically 11 years, during its two phases. Its impacts from the many results and achievements continue to be seen and to guide the development and implementation of environmental law in Africa and beyond. In the UN Environment Programme, the Africa environmental law programme is fully integrated into the organization's programme of work for

70 For instance: At the time when the harmonization process begun, only Uganda was then at the final stages of enacting its framework environmental law (later enacted as National Environment Statute, 1995). Kenya had at the time only developed a draft Environment Bill but was yet to undertake consultative and approval processes (later adopted as National Environment and Management Act 1999). Tanzania had not at the time started the process for the development of its framework law (however later done and adopted as Environmental Management Act 2004 when the project was already in its second Phase).

71 For example: For the SADC sub-regional project, Lesotho (then a 2001 Act later amended and updated into a new Environment Act 2008) and Swaziland (Environment Management Act 2002) had then fairly new framework laws. Malawi, on the other hand, intended then to review and update its framework environmental law (latest Environment Management Act 19/2017) while Botswana was then in the process of developing its new framework law. In the Sahel sub-regional project, Burkina Faso had adopted its framework environmental law in 1994 (later revised and a new Environment Code adopted in 2013) while Senegal and Niger enacted theirs in 1996 and 1998, respectively, with Mali planned then to develop its own during Phase II of the project.

72 For instance: Uganda unlike Tanzania moved very fast in the implementation of agreed national activities causing very few national laws and regulations being adopted in Tanzania than Uganda where several of them were adopted during the two phases of the project.

73 For instance: Netherlands, Belgium and Norway funds to the PADELIA project were provided through bilateral partnership agreements with UNEP for implementation of the UNEP programme of work for which PADELIA was a part. Luxembourg, Germany and Switzerland funds supported the project through bilateral agreements with UNEP specifically for the PADELIA project, hence reporting to them was easier than for other donors.

which the sustainability methodology developed and built through PADELIA continues to guide the development and implementation of environmental law and institutional building activities. Thanks to the long-term vision of its then task manager, Prof Charles Okidi, the institutionalized methodology of the operational modality developed over time during the life of the project stands out as an enduring best practice example.

PADELIA contributed tremendously to the development and promotion of national environmental law and institutions in African countries, and especially in the 13 project countries. Legal frameworks for the sustainable management of diverse aspects of the environment have been established across the region. The project has enhanced endogenous capacity of legal and paralegal experts as well as institutional capacities for environmental law making and implementation. It has increased awareness of environmental law through the participation of a diverse range of stakeholders in training sessions developed for different target audiences and thus popularized environmental law in many countries. A generation of information, materials and tools on environmental law has been developed. These achievements continue to be used for the development and implementation of environmental law in many countries in Africa and beyond.

Furthermore, a number of international environmental conferences especially those related to multilateral environmental agreements have benefitted from the implementation of the PADELIA project because of key trained negotiators from the region. Today, Africa is no longer considered a passive negotiator in multilateral environmental debates as used to be the case in the 1990s.

Likewise, the region has seen senior appointments into high-level government positions people who have benefitted from PADELIA activities, such as the former Prime Ministers of Sao Tome and Principe who became instrumental in the adoption and enactment of national laws and regulations developed under the project. The former Minister for Information, Technology and Telecommunication who is currently Minister for Social Security, Reform Institutions, Environment and Sustainable Development in the Government of Mauritius[74] was a beneficiary of a number of project-wide trainings and awareness raising activities under the project. Later during Phase II of the project, he became a regional expert/consultant and an independent African lawyer representing Africa in Project Steering Committee and for the past several years was a member of the Government cabinet holding several portfolios. The current Minister for Legal and Constitutional Affairs in Tanzania[75] is another beneficiary of PADELIA activities who led his country's development of the Environmental Management Act of 2004 no. 20/04.

Soon after Phase I of the PADELIA project ended and its leader, Prof Charles Okidi returned to the University of Nairobi, he continued to teach and research. At the University of Nairobi, he soon thereafter founded and established an independent academic and research institute called the Centre for Advanced Studies for Environmental Law and Policy (CASELAP), which is still vibrant to date.[76]

74 Hon Mr Etienne Sinatambou.

75 Hon Mr Palamagamba Kabudi

76 CASELAP, 'About CASELAP' (CASELAP 1 November 2018) <http://caselap.uonbi.ac.ke/> accessed 31 October 2018.

The UN Environment Programme cooperates and collaborates with different enforcement training institutes to integrate and mainstream environmental law into enforcement educational systems as a result of the sustainability methodology developed under the project. It is hoped that environmental law and management will not only be integrated into the curricula of these training institutes but there will also be a continuous development and training of a cadre of legal and enforcement experts in environmental law. Hence, through the institutes' continuous training and refresher courses offered to different enforcement personnel, further improvement in the development and enforcement of environmental law and management will be sustained and enhanced.

Enhanced and strengthened development of environmental law curricula and teaching is on-going in collaboration with the leadership at the highest level of judicial education and training institutes,[77] police academies, prosecutorial training institutes[78] and customs training institutes[79] for trade-related environmental treaties.

Prof Okidi ensured that the achievements made under the project continued to be sustained and that the beneficiaries continued to promote the development and implementation of environmental law through the establishment of different targeted regional enforcement networks. These networks enabled them to remain in touch and continued their engagement with each other in areas of common interest. Majority of the senior environmental law lecturers and researchers in the region have benefitted from the specific targeted activities on the teaching of environmental law in the universities, which are currently leading the integration and mainstreaming of environmental law courses in the relevant training institutes. Even before the project ended, the Association of Environmental Law Lecturers in African Universities (ASSELLAU) was established and is still very active and flourishing. Its impact and lessons from its success are evident in the recent establishment of the Association of Environmental Law Lecturers for the Middle East Universities (ASSELLAMU).

One of PADELIA's major achievements is its ground-breaking work on the empowerment and strengthening of judiciaries in environmental law issues and environmental justice. From the misconception by judges and magistrates that they could not be trained as they interpret the law and hence know it all, they moved to confessing their need for training and acceptance that they could be empowered to deal with environmental law and management cases as a new emerging

77 The process to integrate and mainstream environmental law into judicial training institutes began with the Anglophone Symposium on Greening the Judiciaries of Heads of Judicial Training Institutes in Africa held in Johannesburg, South Africa in January 2017 whereby an action plan was adopted and Steering Committee to steer its implementation were set up. It was followed by the Francophone Symposium held in Yaoundé, which adopted a Final Communiqué on Judicial Education on Environmental Law. This process culminated into the 2nd Regional Symposium of Chief Justices and Senior Judges as well as Heads of Judicial Training Institutes held in Maputo, Mozambique in August 2018 whereby a Network of Africa Judicial Training on Environmental Law was established and launched.

78 The process to integrate and mainstream environmental crime management education into public prosecution and police training institutes begun with the Regional Forum of Directors and senior officials of Public Prosecution and Police together with Heads of Training Institutes in Africa held in Entebbe, Kampala in January 2018 whereby a five-year action plan was adopted.

79 For instance, the Green Customs Initiative, a partnership between the UN Environment Programme with Interpol, World Customs Organization and trade-related Multilateral Environmental Agreements secretariats works closely with national customs authorities and customs training institutes to integrate and mainstream environmental crimes curricula into their programmes.

field of law. The first ever training course in Africa for senior judges, later always referred to as "colloquia/colloquium or Symposium, etc" to avoid being seen to be training judges and magistrates, was organized under PADELIA.[80] Several other trainings were held thereafter in the region and beyond. A number of judges of the high courts, supreme courts and courts of appeal in the region and beyond have benefitted from the targeted training on environmental justice and their role in environmental management. Short term judicial education and training in environmental law has become a norm in all if not most judicial systems.

These activities, intended to empower and strengthen the role of the judiciary in environmental management, led to several judicial networks being established. Recently, a virtual Global Judicial Institute for the Environment (GJIE)[81] for which UN Environment Programme provides its secretariat was established. UNEP was one of GJIE's co-founders together with IUCN World Commission of Environmental Law and Organization of American States. The work undertaken under the project through the East Africa sub-regional project led to the development of the East Africa Protocol on Environment Management and the establishment of the East African Court of Justice. The latter continues to engage with the UN Environment Programme, among others, to empower its judges on environmental law issues and actively participates and engages in the work of the Global Judicial Institute for the Environment.

PADELIA provided avenues for the exchange of experiences among judges and engagement with judiciaries in other countries. Borrowing from lessons from New South Wales in Australia, Kenya's then Chief Justice established the Land and Environment Court in the country. Moreover, the famous publications developed under the project specifically for judiciaries, the national and international volumes on Compendia of Judicial Decisions on Matters related to the Environment have influenced the development of similar publications in other regions in Europe and Asia. These materials are in use and have been exchanged with different jurisdictions for use as precedents in judgments and legal reasoning for environmental related cases.

VIII. CONCLUSION

It has been observed throughout this chapter that 11 years of implementing PADELIA in the 13 project countries and beyond has been and continues to be sustained. PADELIA has contributed tremendously to the development and implementation of environmental law as we see it today in Africa through the institutionalization of endogenous capacity building for legal and paralegal experts in the region as well as building a much-needed institutional framework. Through the engagement of a wide range of stakeholders in consultative, participatory and consensus building, legal frameworks for sustainable management of diverse aspects of the environment had been set up

80 Workshop on Judicial Intervention on Environmental Cases, October-November 1996, held in Mombasa, Kenya after which most of the project countries organized and held national workshops for their judges and magistrates and soon after replicated in other regions around the world.

81 IUCN, 'Judges Establish the Global Judicial Institute for the Environment' (IUCN, 08 Jul 2016) <https://www.iucn.org/news/world-commission-environmental-law/201607/judges-establish-global-judicial-institute-environment> accessed 11 December 2018

and built endogenous capacity in environmental law and policy throughout the region. Refusal to use of 'fly in/fly out' consultants in the project enabled it to successfully built the region's endogenous capacity in environmental law but also increased awareness of environmental issues especially in project countries and thus enhanced the individual and institutional capacities for environmental law-making and implementation.

Developing different training courses in environmental law at national and regional levels for different targeted audiences including legislators, the judiciaries, policy makers, environmental law lecturers, among others, was a major achievement under the project. These courses have contributed tremendously to enhancing legal and institutional building frameworks for environmental law, which has increased its popularity and teaching in the project countries and beyond. An enduring contribution of the project is the development and generation of information and publication of environmental law materials and tools as well as their dissemination. These materials are still being used by different stakeholders to implement and enforce environmental law.

PADELIA has uniquely succeeded in contributing to the sustained development and implementation of environmental law in Africa through the unique role played by its task manager and role model leader Prof Charles Okidi. He initiated the approach of home grown and national owned development of environmental laws by engaging all relevant stakeholders in a participatory and consensus building approach that waWs adamant on the non-use of non-national or non-regional legal experts/consultants to develop environmental laws for the countries in the region.

It is this approach sustained to date in Africa, which has endowed the continent with rich and abundant expertise of endogenous legal experts in environmental law. Many of these experts do manage environmental and other relevant portfolios in their countries at senior political and policy levels. Legal tools developed under the project are still being utilized widely within Africa and beyond for the sustainable management of the environment. Consequently, the success of PADELIA can only be viewed through the lens of Prof Charles Okidi's vision and his personal contribution to the sustained development and implementation of environmental laws and institutional frameworks in Africa.

Bravo, Prof Charles Okidi! Your personal contribution to the sustained development and implementation of environmental law in Africa will indeed remain in the books of history of environmental law of this continent to infinity.

Chapter 5

Building an Army of Environmental Law Scholars: Professor Charles Odidi Okidi's Legacy

Patricia Kameri-Mbote

I. INTRODUCTION

Universities in Africa have been tremendously affected by social, political and economic factors impacting countries in the region. While access to university education has gone up in the past two decades,[1] it still remains the domain of a very few. This has to be seen within the context of a fast growing population. With economic and political issues plaguing the countries on the continent, investment in higher learning has not kept pace with the demands for accessible, affordable and quality university education. Yet the contribution of higher education to development is now widely accepted.[2] As new areas of research such as environmental law have emerged, the role of universities as engines of highly skilled professionals across a range of disciplines -- including environmental sciences, law and engineering[3] -- have come into sharp focus.

While education is a public good, constraints in funding have necessitated the private sector to invest in education in an attempt to enhance access through liberalization. In this regard, the number of institutions offering legal education has grown immensely. This has affected the quality of teaching and learning in universities.[4] Law, perceived as a low investment course, is one of the disciplines most affected. The manner of teaching law is as important as what is taught for it to attain its objectives. As the range of subjects taught in law schools has grown, faculties have had to make choices on what courses to teach and the methodologies to apply. This is not a value-free exercise and is influenced by broader national laws, policies and goals as well as available human, infrastructural and economic resources. With regard to human and infrastructural resources, there has been growing emphasis on the need for learner-centered education, which demands investment in infrastructure and the capacity of the instructors to ensure the attainment of the stated outcomes

1 Peter Darvas et al, 'Sharing Higher Education's Promise beyond the Few in Sub-Saharan Africa' (2017) World Bank.

2 Association of Commonwealth Universities, 'Building University Partnerships for Sustainable Development' (2011) 2 ACU 1.

3 British Council, 'Bridging the Gap: Enabling Effective UK-AFRICA University Partnerships' (2011) 3 British Council.

4 Mahmood Mamdani, *Scholars in the Marketplace. The Dilemmas of Neo-Liberal Reform at Makerere University, 1989-2005* (African Books Collective, 2007).

in the learning process. In the arena of legal education, the learning process is supposed to imbue the learners with knowledge, skills and attitudes to be technically competent as lawyers. They must also understand the social, political and economic situations in their countries and the role that law plays in these spheres. International, regional, national and local norms are part and parcel of the mosaic of laws that students are expected to interact with at law school.

Prof Charles Odidi Okidi's contribution to the evolution and development of environmental law teaching and research is canvassed within this context. Environmental law was not taught at many law schools until the late 1980s. Even then very few schools taught it. For instance, those of us who graduated in the 1980s at the then Faculty of Law, University of Nairobi, did not study environmental law. Our only dalliance with the subject was as part of land law[5] where we looked at land use planning. Despite environmental law not being taught then, good training in basic law courses such as administrative law; property; constitutional law; land use law; and equity and trusts laid a good basis for the introduction of environmental law later on. This is because environmental law is cross-cutting and requires versatility. Beyond law, however, training in environmental law must be interdisciplinary because economics; science; business; engineering, among others, colour the substance and form of environmental management and regulation.[6]

Interestingly, Professor Charles Okidi had trained a number of graduate students in environmental law in the 1980s, sowing the early seeds for the discipline at the School of Law. He was in a small group of academics that had taken an interest in the subject. Having the United Nations Environment Programme based in Nairobi helped popularize the discipline, with a number of members of staff[7] pursuing doctoral studies on different aspects of environmental law. Professor Okidi took it upon himself to recruit as many people as possible for doctoral studies in environmental law and policy. He never tired of nudging people to join the School of Environmental Studies, which he had founded at Moi University. A meeting with Professor Okidi invariably ended with the question of when one would embark on their doctoral studies. My friend Professor Wambui Kiai and I frequently dodged the Professor in the early 1990s when we spotted him in the main campus of the University of Nairobi. It is interesting that I have become the person younger scholars dodge when they do not want to answer the question on when they would either embark on or be done with their doctoral studies. This is a trait I picked from my engagements with Professor Okidi.

Environmental law peaked up after the 1992 United Nations Conference on Environment and Development.[8] The Faculty of Law offered environmental law as one of the courses in its masters programme but the number of students who took the course were too few to make any meaningful difference. The partnerships initiated by Professor Okidi between European universities and Moi

5 It was taught by the ebullient Bondi Ogolla (as he then was) who went on to work for the United Nations Environment Programme in different stations, including the Climate Change Secretariat, where he was very engaged in the negotiations and finalization of the Paris Agreement in 2015.

6 It is for this reason that lecturers at the School of Law at the University of Nairobi teach environmental law as a service course in different departments of the university.

7 Bondi Ogolla; Albert Mumma; Francis Situma; Otieno Odek and Patricia Kameri-Mbote.

8 UNGA Res A/RES/44/228 (1989) GAOR 85th plenary meeting.

University opened pathways for law lecturers to register for environmental law graduate studies in Europe. While a number did not complete their studies, the partnership with the University of Ghent in Belgium yielded three doctoral degrees in different areas of environmental law in the 2000s.[9] When Professor Okidi left Moi University and joined the United Nations Environment Programme as a task manager for the Programme for the Development of Environmental Law and Institutions in Africa (PADELIA), he continued engaging academics teaching law in different universities to carry out research in environmental law as consultants. He also generously disseminated *Compendia of Environmental Law in Africa* that his programme produced to universities, which provided much needed instructional material. When he left UNEP and returned to the University of Nairobi around 2003, the discipline of environmental law had grown with more people equipped to teach it. At the University of Nairobi, environmental law was offered as an elective subject[10] in the final year of the undergraduate programme and as a thematic area of focus in the masters' programme.[11]

The IUCN Academy of Environmental Law, of which Professor Okidi was one of the founders, chose the University of Nairobi to host the second colloquium on environmental law in 2004.[12] This event was pioneering in a number of ways: the establishment of ASSELLAU; the partnership with the University of Ottawa to train a doctoral candidate in environmental law;[13] and the forging of links among scholars from different African universities and between these scholars and those from other continents. The aim of these initiatives was to enhance the capacity of environmental lawyers through teaching in universities.

This chapter chronicles Prof Okidi's role in building the discipline of environmental law and the capacity of scholars in the field. It is divided into five parts. Part I is the introduction, which is followed by a discussion on the establishment of ASSELLAU in Part II. Part III discusses the consolidation of ASSELLAU through the commissioning of an army of environmental law teachers. Part IV on the deployment of the army in diverse areas beyond integration of environmental law in curricula follows, while Part V concludes.

II. ESTABLISHMENT OF ASSELLAU

The establishment of the Association of Environmental Law Lecturers in African Universities is attributable to initiatives of leading academics in environmental law from around the world coalescing around two organisations: the IUCN Academy of Environmental Law (IUCNAEL) and the International Commission of Environmental Law (ICEL). The IUCNAEL organised colloquia on environmental law starting from 2003 and provided a good space for networking and exchange

9 Hon Justice Dr Smokin Charles Wanjala (now a Judge of the Supreme Court of Kenya); Professor PLO Lumumba and Professor Paul M Wambua.

10 It was introduced in the1989's major curriculum review at the then Faculty of Law.

11 It had been taught as one of the courses in the master's programme since the late 1970s and was incorporated as one of the 10 thematic areas in the major master of laws (LL.M) curriculum review in 2003.

12 The first colloquium was hosted by Shanghai Jao Tong University in China in October 2003.

13 Dr Robert Kibugi completed his studies in 2011 and joined the teaching staff at the University of Nairobi.

of ideas for scholars to forge global and regional alliances. The colloquia also facilitated linkages between international, regional and national environmental law. The second IUCNAEL colloquium was held in Nairobi in 2004 providing an opportunity for many Africans to attend. Professor Okidi decided that this would be an opportune time to bring African scholars and practitioners on environmental law together and organized, with the help of UNEP, the first Symposium of African Environmental Law Lecturers just before the colloquium. Using his extensive network and working closely with UNEP, he scouted around the continent to see what universities were offering environmental law, generating an impressive list of participants from all parts of Africa.[14]

The symposium was held from 29 September to 2 October 2004 in Nakuru, Kenya, with two main objectives:

- To deliberate on modalities of mainstreaming environmental legal education into universities' curricula; and
- To identify and search for African environmental solutions to the region's environmental problems.

Thirty-five (35) scholars from 23 universities in Africa attended this meeting. They decided to establish ASSELAU and chose interim champions for the association.[15] Many African scholars participated in and presented papers at the IUCNAEL colloquium. The product of the colloquium, a book edited by representatives from different continents including Africa and published by Cambridge University Press in 2007, includes chapters on environmental law from different African countries.[16]

The University of Nairobi, under Prof Okidi's leadership, took up the responsibility of getting ASSELLAU off the ground. I was appointed the interim chairperson with the responsibility of formally establishing the association and enlisting more members. ASSELLAU's second meeting in Entebbe, Uganda, in October 2006 crystallized the foundation of the association. The constitutive instrument was concluded and representatives from all regions of Africa appointed.[17] The main issues that ASSELLAU set out to address were research, scholarship and capacity building. Since 2004, the ASSELLAU membership has grown and the capacity of the academics has been greatly enhanced as members have gone up the academic ladder -- with some becoming professors of environmental law. From the original concern with the dearth of environmental law teaching at African universities, the commitment of African scholars has resulted in many initiatives that have

14 This included old and new universities from around Africa.

15 University of Nairobi School of Law and the Centre for Advanced Studies in Environmental Law and Policy to be core; representatives from Central Africa (Yaounde); East Africa (Makerere); West Africa (Ahmadu Bello University) and Southern Africa (Cape Town).

16 Patricia K. Mbote, 'Land Tenure, Land Use and Sustainability in Kenya: Towards Innovative Use of Property Rights in Wildlife Management', N. Chalifour et al. eds., *Land Use for Sustainable Development* (Cambridge University Press 2007).

17 Patricia Kameri-Mbote, Chair working closely with Prof Okidi; Alexander Patterson Southern Africa; Mohammed Ladan – West Africa; Christopher Tamasang – Central Africa; Emmanuel Kasimbazi – East Africa.

generated research results.[18] Significantly, a core group of scholars who met in Nakuru in 2004 and in Entebbe in 2006 have remained engaged in ASSELLAU.

The attempt to register ASSELLAU as an international non-governmental organization in Kenya in 2007 was unsuccessful. A meeting with officials from the Ministry of Foreign Affairs to start the process of establishing an intergovernmental organization clearly illustrated that this was going to be an uphill task. Moreover, securing and sustaining the human, infrastructure and financial resources was a daunting task that would remove the drivers at the University of Nairobi from their core business of research and teaching. Prof Okidi and I chose to continue the teaching and research path of ASSELLAU and to use the readily available communication infrastructure at the University of Nairobi to keep the network together. ASSELLAU has since then remained a virtual organization. The absence of physical offices and other form did not dim the vision of the leadership, which continued to rally environmental law scholars at different times to discuss critical environmental questions facing Africa. As the chair of the association, I have immensely benefitted from Prof Okidi's wise counsel, guidance and encouragement. His unwavering support has ensured that ASSELLAU remains alive and active, supported by staff of the University of Nairobi as part of their general scholarship. While volunteerism is not common among lawyers, Prof Okidi has set an example of commitment to a cause that has drawn a following from lawyers around Africa. With minimal financial resources, we have managed to hold research symposia and publish books that have given African scholarship global visibility. As an academic who has grown under the mentorship of Prof Okidi, I have felt immense responsibility to emulate his focused attention to scholarship and mentorship of younger academics. By training and nudging younger scholars and practitioners to leadership in research, Prof Okidi has literally grown an army of environmental law scholars, practitioners and researchers. Happy to let his mentees take the lead while he works with them to navigate the tough tackles, Prof Okidi has ensured that there are many growing at his feet. Unlike other scholars who would rather remain the only leading lights in a discipline and feel threatened by the emergence of younger scholars, Prof Okidi has worked to grow the competition as he encourages them to take on new areas of research in environmental law. This has resulted in immense growth of the discipline of environmental law in Africa. Indeed, Prof Okidi is known in all parts of Africa as the Father of Environmental Law.

My leadership of ASSELLAU over the years has drawn from Prof Okidi's encouragement. He has spurred me to keep the ASSELLAU light burning over the years. His good relationship with UNEP has secured us a great partnership. UNEP supported the first ASSELLAU meeting and continues to provide support for our initiatives. ASSELLAU has become a family where people have forged enduring friendships and bonds as academics. Many members of ASSELLAU interact in spaces outside of it, making the association's reach broader. Such spaces as the IUCNAEL colloquia, different global, regional and national environmental law meetings have brought members together and resulted in greater commitment to the original objectives of the association. Prof Okidi has constantly challenged us to:

18 These include participation in IUCN Academy of Environmental Law colloquia and governance; The Montevideo Programme on the Development of Environmental Law among others.

> [S]trengthen the bonds that bind … together as academicians in the environmental law field … by creating a system where participants and members could communicate with one another on a continuing basis … to facilitate scholarly growth as members … exchange papers between conferences.[19]

ASSELLAU meetings have not been as frequent as one would like. For instance, after the 2006 meeting in Entebbe, the next one was held in Nairobi in 2009 and a subsequent one in 2015. The response by members to calls for papers for scientific conferences has continued to be very impressive despite the lag between meetings. This was the case when we called for the Fourth Symposium and Third Scientific Conference in Nairobi in 2015 after a six-year hiatus. It is encouraging to note that members of the association have risen to the call to volunteer for tasks without expecting payment. A good example is when we hosted the Fourth symposium and Third Scientific Conference in Nairobi in 2015 with minimal resources from UNEP. I was guiding and assisting our school administrator, Antoinatte Mzungu, to put the materials for the participants together on the Sunday preceding the meeting at the Kenya School of Law in Karen. I recall vividly the arrival of Professor Alexander Paterson (Sandy) of the University of Cape Town. We had not met for six years but when he arrived, we bridged the gap between our meetings in seconds and immediately joined in the preparation of materials without any prompting. When Ms Mzungu protested, I was quick to tell her that Sandy was acting in true ASSELLAU spirit. The hostels at the Kenya School of Law were not palatial, and there were problems here and there, but none of the participants complained. This is in stark contrast to what had happened in 2004 when the original ASSELLAU group travelled from Nakuru to attend the Second Colloquium of the IUCN Academy of Environmental Law, which was at the then Grand Regency Hotel in Nairobi. The participants requested to directly receive money for their accommodation, hoping to secure cheaper lodging and save some money. Prof Okidi patiently listened to the request and then firmly told the participants:

> We have accommodation for you here at the Grand Regency but you are free to go source for and pay for the alternative accommodation. We will not give you any money for accommodation. Should the alternative accommodation not measure up to your standards, your room at the Grand Regency is available as long as the conference is in progress.

The grace with which the message was delivered and the gentleness and finality of Prof Okidi's tone ended the demands for accommodation money. As a chair of both the nascent ASSELLAU and the Second IUCN Academy of Environmental Law Programme Colloquium, the members' demands rattled me. I observed the respect the members accorded Prof Okidi and was the beneficiary of that respect then and on many other occasions.

As pointed out above, Prof Okidi leveraged UNEP financial support for ASSELLAU. Many of the papers presented by ASSELLAU members were published in the Cambridge University

19 Prof Okidi's opening remarks at the 2015 Scientific Conference in Nairobi.

Press book titled, *Land Use for Sustainable Development* in 2007.[20] This book, which included contributions from all over the world, put the work of ASSELLAU members on a global platform. The contributions include: 'Is Conservation a Viable Land Usage? Issues Surrounding the Sale of Ivory by Southern African Countries'; 'Climate Change Adaptation and Mitigation: Exploring the Role of Land Reforms in Africa'; 'Community Rights to Genetic Resources and Their Knowledge: African and Ethiopian Perspectives'; 'Land Tenure, Land Use, and Sustainability in Kenya: Toward Innovative Use of Property Rights in Wildlife Management'; 'The Development of Environmental Law and Its Impact on Sustainable Use of Wetlands in Uganda'; 'From Bureaucracy-Controlled to Stakeholder-Driven Urban Planning and Management: Experiences and Challenges of Environmental Planning and Management in Tanzania'; 'Strategies for Integrated Environmental Governance in South Africa: Toward a More Sustainable Environmental Governance and Land Use Regime'; 'The Role of Administrative Dispute Resolution Institutions and Processes in Sustainable Land Use Management: The Case of the National Environment Tribunal and the Public Complaints Committee of Kenya'; 'Environmental Impact Assessment Law and Land Use: A Comparative Analysis of Recent Trends in the Nigerian and US Oil and Gas Industry'; 'Managing Land Use and Environmental Conflicts in Cameroon: EIA Legislation and the Importance of Transboundary Application'.[21]

Other members have subsequently provided and leveraged resources for association meetings. Dr Rose Mwebaza, then of the Institute for Security Studies, and Prof Oliver Ruppel of the Climate Policy and Energy Security Programme for Sub-Saharan Africa (CLESAP) at the Konrad Adenauer Stiftung provided the resources for hosting the third symposium and second scientific conference in 2009 as well as the fifth symposium and fourth scientific conference in 2018, respectively. The proceedings of the 2009 symposium yielded a book, *Climate Change and Human Rights in Africa,*[22] and plans by NOMOS in Germany to publish the 2018 symposium proceedings in a volume, *Environmental Law in Africa,*[23] are at an advanced stage. In both cases the resources made available for the symposium included expenses for publishing the books. The editors are drawn from different regions to ensure balance. While, for instance, the *Climate Change* book was edited by members from the eastern and southern Africa region, the volume on environmental law in Africa included editors from eastern, central, southern and western Africa. This demonstrates the members' commitment to the work and to ASSELLAU, which is a part of Prof Okidi's legacy.

Prof Okidi has attended three of the symposia and conferences. He was slated to attend the Yaoundé

20 N Chalifour, P Kameri-Mbote, LLHye & J Nolon (eds) *Land Use for Sustainable Development* (Cambridge University Press, New York 2007).

21 Scholars from ASSELLAU related universities who contributed to this book include Professors Charles Odidi Okidi, HWO Okoth-Ogendo, Bibobra Bello Orubebe, Willemien du Plessis, Mekete Bekele, Patricia Kameri-Mbote, WJ Kombe, Albert Mumma and Louis J Kotze Muhammed, Tawfiq Ladan, Ed A Couzens, Emmanuel Kasimbazi, Nchunu Sama and Michael Kidd

22 The book was edited by two members of ASSELLAU -- Louis Kotze and Rose Mwebaza -- from the University of the North in South Africa and Makerere in Uganda respectively and published by the Institute for Security Studies (ISS) in Nairobi.

23 This book is edited by Patricia Kameri-Mbote; Alexander Paterson; Oliver Ruppel; Emmanuel Kam Yogo; and Bibobra Orubebe -- all members of ASSELLAU from different parts of Africa and published in the *Recht und Verfassung in Africa; Law and Constitutionalism in Africa*, NOMOS Publishers, Germany.

meeting and make two presentations: one was his signature opening remarks for ASSELLAU symposia – to encourage and mentor members -- and a paper on the Lake Turkana basin. He was unable to travel due to health reasons. His absence did not deter him from nudging us along. I considered it my responsibility after the meeting to brief him on the proceedings. He is waiting with bated breath for the outcome – the book on *Environmental Law in Africa*. He has been buoyed by the fact that many younger scholars have joined the environmental law fray in Africa. News that the book includes more than 30 chapters from African scholars, with seven chapters[24] coming from Kenyan scholars, has made him very happy and is credit to his catalytic role in building an army of environmental law lecturers and teachers. He was particularly interested in the chapters on water and especially on the Lake Chad basin.[25]

As a person who has carried out research in other emergent areas such as gender and the law, I have frequently heard people say that we should do for gender what Prof Okidi did for environment. The Director of the African Women's Studies Centre (AWSC) at the University of Nairobi, Professor Wanjiku Kabira, has acknowledged Prof Okidi as one of the people who challenged and encouraged her to push for the establishment of AWSC as a graduate institute in the university's statutes. Indeed Prof Okidi's undaunted quest for the establishment of the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) as a multidisciplinary graduate institute remains a point of reference for many scholars keen on institutionalizing specialized studies in universities. His contribution clearly points the direction for old and established universities in moving from undergraduate to postgraduate teaching, scholarship and research. The need for advanced studies in various disciplines cannot be overstated. An audit carried out by the Commission for University Education (CUE) in 2016[26] revealed big gaps in the required skills to sustain established universities and their programmes. At a national level, concerns continue to be raised about the skewed training at universities relative to national development needs. In his own way, Prof Okidi has done 'his little thing' in the words of Nobel Laureate Prof Wangari Maathai, whose work in environmental conservation is immortalized in many ways -- including a Centre at the University of Nairobi. His insistence not only in establishing CASELAP but also demanding that only those with PhD level qualification would teach at the centre, has spurred continued growth of scholars as people are challenged to acquire PhD qualifications in environmental law.

The need for more competent scholars in the field of environmental law continues to grow as the discipline evolves. Prof Okidi's work has laid a firm basis for a trajectory of growth, multiplication

24 Odhiambo, 'Regulatory preparedness for non-motorised transport in Nairobi'; P Kameri-Mbote, 'Wildlife conservation and community property rights in Kenya'; A Mumma, 'Access and benefit sharing: beyond the Nagoya Protocol and its ideals'; C Odote; 'The role of the Environment and Land Court in governing natural resources in Kenya'; K Muigua, 'Utilising Kenya's marine resources for national development'; E Gachenga, 'Kenya's Water Act (2016): real devolution or simply the "same script, different cast"?'; and N Were, 'The conflict between privatisation and the realisation of the right to water in Kenya'.

25 Emmanuel K Yogo, 'The Lake Chad Basin Water Charter: strengths and weaknesses', Patricia Kameri-Mbote; Alexander Paterson; Oliver Ruppel; Emmanuel Kam Yogo & Bibobra Orubebe (eds) *Environmental Law in Africa*, (Nomos Publishers, 2018) (Forthcoming November 2018) 573-590.

26 Commission for University Education (CUE), *Full Report on Quality Audit of University Education* (2016) (This report is on file with the author.)

and diversification. His foresight in getting ASSELLAU established has made the linkage between environmental law and other disciplines clear and underscored the need to mainstream environmental studies into universities' curricula. ASSELLAU members have engaged in global discourses such as Rio+20; and meetings of conferences of parties to international environmental law treaties such as the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity. Some of them have been engaged in negotiations for protocols to these treaties and in the crafting of global agreements such as the Paris Agreement on Climate Change. Some members have participated in the drafting of scientific documents informing these agreements[27] and in discussions on the future of environmental law.[28] Going forward, global policies such as the UN's *Transforming Our World – The 2030 Agenda for Sustainable Development* (containing the post-2016 SDGs)[29] and regional blueprints like *Africa's Agenda 2063: The Africa We Want*[30] put capacity building and training in environmental law and policy at the centre of development.

ASSELLAU members have over the years responded timeously to developments in environmental law as reflected in the themes canvassed in scientific conferences. The first Scientific Conference in Entebbe in 2006 focused on 'New Horizons in Environmental Law, Natural Resources and Poverty Eradication' while the second one in 2009 addressed issues around 'Governance and Climate Change in Africa' exploring both the linkages between governance and climate change and climate change and Human Rights in Africa. The third scientific conference held in 2015 addressed 'Environmental Rule of Law and the Extractives Industry in Africa' while the fourth scientific conference in 2018 looked at the broad theme of 'Environmental Law in Africa'. The quality of the papers presented at the scientific conferences has been very high and the 2009 and 2015 papers have been published in books edited by ASSELLAU members as noted above.

It is worth pointing out that whereas the first scientific conference had proposed that a secretariat be established, this has not materialized. With the benefit of hindsight, the establishment of a secretariat would have placed enormous responsibilities on the University of Nairobi and required decisions at the level of top university organs. The absence of a secretariat has not prevented the association's members from meeting and exchanging ideas. Members have innovatively utilized platforms outside of the association to cement their relationships, as well as carry out and disseminate their research. Opportunities that have arisen at ASSELLAU meetings to share and publish research by the members have greatly bolstered the capacities of individuals and universities in environmental law. Many members have risen through the academic ranks from junior lecturers and researchers to full professors in the lifespan of the association. Some members who were

27 For instance the Intergovernmental Panel on Climate Change-Global Earth Observation Systems of Systems and Advanced Environmental Options.

28 The Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme) is aimed at the progressive environmental law development. For more details see UN Environment<http://www.unenvironment.org/fr/node/1167>accessed 1 November 2018.

29 UNGA Res. A/RES/70/1 (2015) GAOR 17th session 15,116.

30 African Union Commission, *Africa's Agenda 2063: The Africa We Want*, (African Union Commission 2015).

students when ASSELLAU was founded have earned doctorates in diverse areas of environmental law and are teaching the subject in universities. Some universities have established specialized centres on environmental law such as the University of Nairobi[31] and Makerere University.[32]

ASSELLAU has now come of age and the members have significantly contributed to the growth of environmental law research and scholarship. There is need for further research and capacity building in environmental law in Africa. The need for continued networking and sharing among environmental law lecturers in Africa is still necessary as the discipline evolves.

The books published after ASSELLAU scientific conferences have contributed to the database of teaching resources and to policy development in African countries. The books are not the only resources that have emanated from ASSELLAU. The association's members have published very many books and papers in in diverse forums.[33] This is in line with Prof Okidi's commitment to availability of teaching resources through his publications and the Compendia of Environmental Law resources that he developed when he worked at UNEP. I have been privileged to co-publish two books with Prof Okidi: *The Making of a Framework Environmental Law in Kenya*[34] and *Environmental Governance in Kenya: Implementing the Framework Law*[35] as well as benefitted immensely from his mentorship. He had really wanted to publish a sequel to the latter book, and even prepared a concept for it, but this has not materialized. It is however a credit to his mentorship that a book titled *Environmental Governance in Kenya: Implementing the Constitutional Framework* is under preparation, and is edited by two Kenyan ASSELLAU members[36] and has

31 The Centre for Advanced Studies in Environmental Law and Policy (CASELAP), founded in 2008.

32 Environmental Law Centre, founded in 2015.

33 For instance, Emmanuel Kasimbazi, Kibandama Alexander, *Environmental Law in Uganda (*Kluwer Law International, 2011); Patricia Kameri-Mbote, et al (eds) *Water is Life* (Weaver Press 2015); Patricia K-Mbote, Charles O Okidi *The Making of a Framework Environmental Law in Kenya* (ACTS-UNEP 2001); Albert Mumma, 'Legal Aspects of Cultural Landscapes Protection in Africa', *Cultural Landscapes: The Challenges of Conservation*, World Heritage Papers, UNESCO World Heritage Centre, (2003) vol 7 (1) Kenya J. Sci. and Tech. (B) 23-28 ; Kibugi , Legal Options for Mainstreaming Climate Change Disaster Risk Reduction in Governance for Kenya, R Kibugi, KhengLian, Koh, Rose-Liza Eisma Osorio., Ilan Kelman (eds) *Adaptation to Climate Change: ASEAN and Comparative Experiences* (Singapore, World Scientific, 2015); Louis J Kotzé; Alexander R Paterson (eds) *The Role of the Judiciary in Environmental Governance: Comparative Perspectives* (Wolters Kluwer Law & Business 2009).

34 *ACTS Press, Nairobi 2001*

35 CO Okidi, Patricia Kameri-Mbote, M Akech (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African publishers Nairobi; 2008).

36 P Kameri-Mbote & R. Kibugi, *Environmental Governance in Kenya: Implementing the Constitutional Framework*, International Development Law Organization & School of Law University of Nairobi (Forthcoming 2019)

chapters[37] from current[38] and potential ASSELLAU members. The main objectives of this book are to appraise environmental governance in Kenya within the context of a changed constitutional context; to provide knowledge and analytical insights into areas critical for effective environmental governance; to provide an avenue for collaborative research work through contributions of various scholars, researchers and practitioners drawn from across disciplines, institutions and jurisdictions; and to provide high quality scholarly content through a book to become a primary point of reference on environmental law and governance in Kenya. This book is expected to be out by early 2019.

III. COMMISSIONING THE ARMY OF ENVIRONMENTAL LAW TEACHERS: CONSOLIDATION OF ASSELLAU

As ASSELLAU turns 15, there is need to consolidate the gains that have been made over the years and ensure that there are more young scholars joining the association. The initial objective in coming together was to popularise environmental law teaching in African universities. While more ground is still to be covered in this regard, success has been realized in getting environmental law into the undergraduate and graduate curricula in many universities and in developing the discipline. There is need to continue holding periodic scientific conferences at which environmental law scholars share research findings and publish the outcomes of these conferences in order to institutionalize the gains made. Beyond these, it is also necessary to venture into specialized training of trainers to equip lecturers with innovative and diverse pedagogical approaches in environmental law. IUCNAEL has been training trainers as a way of nurturing environmental law champions, and have been very successful in the Asian region. A similar initiative is needed in Africa. ASSELLAU developed and implemented a concept on 'Enhancing Environmental Governance and Sustainability in Africa: Training Law Lecturers in Different Pedagogical Approaches for Effective Delivery', bringing together environmental law lecturers from different universities in Africa who currently teach or wish to teach environmental law. The programme sought to develop and refine existing

37 The list of chapters: 'Environmental ethics, culture and traditional knowledge and norms for realization of sustainable development'; 'The political Economy of Environmental Governance; Constitutional foundations of environmental law and evolving jurisprudence (e.g. including rule of law, effective institutions and *trias politica* in environmental governance)'; 'A specific focus on implementation and enforcement of the right to a clean and healthy environment'; 'Devolved environmental governance'; 'Environment and Land Court: Law, practice and jurisprudence'; 'Assessing the experience, and state of play in implementation of the framework environmental law in Kenya'; 'Fulfilling socio-economic rights and environmental governance'; 'Theory and process of environmental law and policy making in Kenya'; 'Assessing the experience and current practice of Kenya's approach to international environmental governance mechanisms'; 'Land tenure rights and security implications for environmental governance (also addressing community land rights, and indigenous peoples rights)'; 'Land Use, Physical Planning and Development Control'; 'Law, Policy and Practice in Resettlement Safeguards during Compulsory Acquisition of Land in Kenya'; 'Environmental assessment, monitoring and audit as tools for compliance and enforcement'; 'Environmental governance issues: Biodiversity, access and benefit sharing'; 'Environmental governance issues in Biotechnology and biosafety in Kenya'; Implications of ICT in environmental governance; Renewable energy in Kenya (upstream and downstream elements)'; 'Cultural and natural heritage governance'; 'Water resources management'; 'Water services governance'; 'Wildlife management in Kenya'; 'Governance of forestry resources'; 'Environmental governance of the extractives sector in Kenya'; 'Dispute resolution mechanisms for environmental governance'; 'Environmental governance and industry/business in Kenya (profit motive for compliance; and strategies for compliance, compliance assistance, enforcement, etc.)'; 'Governance and mainstreaming of climate change'; 'Mainstreaming human rights and biodiversity conservation/environmental law'; 'Pollution control and waste management (including waste management, cyclic ecological production etc.)'; 'Gender mainstreaming in environmental governance'; 'Environmental law of Uganda (some emphasis on constitutional approaches, human rights and biodiversity)'; 'Environmental governance under the East African Community'; 'International law perspectives on human rights and environmental law'.

38 Patricia Kameri-Mbote; Robert Kibugi; Collins Odote; Kariuki Muigua; Andrew Mumma; Edna Odhiambo; Peter Munyi; Emmanuel Kasimbazi.

environmental law curricula by incorporating innovative pedagogical approaches that enhance delivery of substantive environmental law knowledge to students while focusing on the learners in devising the expected outcomes. UNEP and the Kenya office of the International Development Law Organization financed the training. The specific objectives of the programme were to:

- enhance understanding of the key role played by environmental education ethics, philosophies and values in the design and delivery of environmental law education at the university level;
- appraise the status of, and review the key tenets of, environmental law education at the university level;
- provide for practical and integrated engagement for environmental law lecturers in framing and designing innovative curricula, teaching approaches and forms of assessment for environmental law education; and
- enhance opportunities, through ASSELLAU, for professional networking, teaching and research linkages among legal professionals engaged in environmental law education.

The facilitators were drawn from the ASSELLAU membership and worked with the staff of the Open, Distance and e-Learning department at the University of Nairobi to develop the training materials. The materials were uploaded on the multimedia portal for ease of access by ASSELLAU membership as well as to facilitate continuous improvement and refinement in real time as new areas and teaching/research approaches emerge.

Training of trainers is a critical step towards consolidating ASSELLAU and commissioning an empowered army of environmental law scholars. The aim in the training is to recruit more members into ASSELLAU and build their capacity to teach and carry out research on environmental law. It is expected that the members will establish nodes in different parts of Africa to coordinate further training and research activities in those regions. The East African regional node will remain at the University of Nairobi, which will continue to steer ASSELLAU's continental activities as a Centre of Excellence in environmental law research and training. This *festschrift* in honour of Prof Charles Odidi Okidi is part of the documentation of the evolution of the centre of excellence and the multiplier effects that the work of this iconic environmental law scholar has had in African countries and universities. The retirement of Prof Okidi from the University of Nairobi at the end of 2018 is an opportune time for this consolidation and documentation. The publication of the *festschrift*, which includes contributions of old and young environmental law scholars from around the world, will signify the passing of the baton to the next generation of scholars, document where we have come from and developments in environmental law in Africa, and point the direction for the future of ASSELLAU. This process will build on the main themes that ASSELLAU has pursued: modalities of mainstreaming environmental legal education into universities' curricula; identifying and searching for African solutions to the region's environmental problems.

It is worth noting that ASSELLAU is currently working with UN Environment to develop a Natural Resources Governance (NRG) Framework in Africa in response to calls by the African Ministerial Conference on the Environment (AMCEN) for the development of such a framework to harness and sustainably manage the natural resource capital that the continent is endowed with. AMCEN is concerned about the mobilization of internally generated finance from natural capital to achieve sustainable development of the continent; strategic use of overseas development assistance to Africa to ensure financial resilience, sustainability and wealth creation using its natural capital; and adoption of strategies to reverse the financial flows arising from the illicit exploitation of its natural capital. ASSELLAU is also in discussions with the African Development Bank about the possibility of training for the institution's staff and clients on environmental sustainability to assist them in their work on diverse issues, particularly the extractive sector. The choice of ASSELLAU to work on these assignments demonstrates two things: one, that Africa has immense capacity in the environmental law field and, two, that there is value in working in a network like ASSELLAU to pool intellectual resources for deployment on the continent. These initiatives clearly demonstrate that ASSELLAU's objective of identifying and searching for African environmental solutions to the region's environmental problems, which we considered daunting in 2004, is increasingly being realized.

ASSELLAU has been requested to share experiences with African Judicial Training Institutions in forming a network for capacity building. Under the leadership of the South African Judicial Education Institute (SAJEI), the judges came up with the Greening the Judiciary in Africa initiative that mainly focuses on building the capacity of judges in applying and enforcing environmental laws, and promoting the environmental rule of law. The aim is to create an African judicial network on environmental law education to: provide opportunities for exchanging information; create partnerships for collaboration; strengthen capacity; and provide research and analysis on environmental adjudication, court practices, and environmental rule of law. Towards this end, a regional symposium on 'Greening the Judiciaries in Africa' was held in August 2018.

ASSELLAU is also working with Middle East Environmental Law Scholars to start an organization similar to it for Middle East and North Africa. A conference to launch the association is scheduled for 4 and 5 November 2018 at Hamad Bin Khalifa University in Doha, Qatar.

IV. DEPLOYING THE ARMY BEYOND INTEGRATING ENVIRONMENTAL LAW INTO LAW SCHOOL CURRICULA: OPPORTUNITIES AND CHALLENGES

More law schools will be established and the discipline of environmental law will continue to evolve. ASSELLAU's relevance in years to come is guaranteed. It is therefore imperative that the members pick up the cue from Prof Okidi and build on the solid foundation that he has laid. The ASSELLAU Hub in Nairobi and the nodes in the regions must ensure that they are equipped to carry out the following activities:

a. Continued popularization of the teaching of environmental law;
b. Carrying out research in environmental law;

c. Publishing environmental law research;
d. Training the teachers of environmental law;
e. Carrying out training in selected environmental law topics;
f. Providing space for networking among environmental law teachers;
g. Contributing to environmental diplomacy, law and policy making; and
h. Mentoring upcoming environmental law teachers and researchers.

Environmental law must move from a silo approach and integrate other related disciplines such as economics, human rights, geography, philosophy, ecology, and architecture, to name a few. Opportunities for collaboration are increasingly arising as evidenced by the book, *Environmental Governance in Kenya: Implementing the Constitutional Framework*.[1]

Some of the challenges that we have faced include: getting a core group of committed, passionate academics to act as champions and run with the ASSELLAU work without expecting to be paid; maintaining momentum of the association between meetings; sharing responsibilities among members with regard to fundraising and organizing the association's activities; and ensuring intergenerational succession so that the army of environmental law scholars continues to grow.

V. CONCLUSION

ASSELLAU has come a long way since 2004. The membership has grown and the range of its activities has expanded. More universities are now offering diverse courses on environmental law. Many members of ASSELLAU are engaged in international, regional, national and local environmental law and policy initiatives. This is in addition to their scholarship and teaching at the university.

We have learnt some valuable lessons over the years. One is that to sustain a network requires a core of committed scholars. Prof Okidi and the University of Nairobi have provided the leadership and steered ASSELLAU firmly in this regard. Two, a network like ASSELLAU works because of the nexus between its activities and the core business of universities -- teaching; research; and publication. Members of ASSELLAU are keen to publish and engage in research because that facilitates their ascent up the academic ladder. This has ensured that ASSELLAU publications have willing contributors. Three, having a partner or partners sharing the vision of a network enables the network to leverage human, financial and technical resources for its activities. As pointed out above, UNEP has been with ASSELLAU all along. This has raised the interest of other organizations such as IDLO in the work of ASSELLAU. It has also made the work of members keen on supporting ASSELLAU such as ISS and KAS easier. UNEP has challenged us to grow and it is their prodding that has made us think about increasing the membership and deepening the impact of ASSELLAU through the training of trainers. It is also credit to our partnership with UNEP that we have been able to identify champions in different parts of Africa, a critical factor in growing and sustaining our network. Finally, we have learnt that a network such as ASSELLAU can run and thrive without a fixed institutional form as long as there are committed champions. Having a selfless taskmaster like Prof Okidi has inspired volunteerism from champions across Africa.

1 Authors include geographers; land planners; regulators; lawyers; and sociologists.

Chapter 6

Sustainable Development: A Sampling of Contributions by Kenya's Superior Courts

Jackton B. Ojwang

I. INTRODUCTION

The concept of sustainable development, notwithstanding its open-ended coverage of diverse aspects of human life, has been adopted in more specific, normative depiction under the constitutional law and other laws. Thus in the Constitution of Kenya, 2010, the people proclaim in the preamble their respect for "the environment, which is [their] heritage, [and which they are] determined to sustain…for the benefit of future generations". This declaration is taken further in the "national values and principles of governance:"[1]

> The national values and principles of governance…bind all State organs, State officers, public officers and all persons.

And "[t]he national values and principles of governance include…*sustainable development*".[2]

It is clear that the breadth of the concept has been the basis of interdisciplinary inquiries, generating progressive principles, concepts and analyses. The concept has been thus depicted:[3]

> This concept refers to the objective of continuing to develop the economies of the world while protecting the environment for the benefit of all present nations of the world, and all future generations. The next generation should not have to pay the bill for the activities of its ancestors.

The evolving norms of sustainable development, quite naturally, have crystallised as part of the *constitutional-judicial agenda* upon which falls the day-to-day task of dispute resolution.

The human being seeks security not only in the affirmation of current institutional gains, such as lend themselves to definition by law, but also by conceiving that the encapsulating environment will

1 Constitution of Kenya 2010, Article 10(1).

2 Article 10 (2) (d).

3 Rosalind Malcolm, *A Guidebook to Environmental Law* (London: Sweet & Maxwell, 1994), p. 12.

remain strong and supportive, capable of sustaining humanity's continued survival. The underlying principle is that all the safeguards for known rights under the law, can themselves only stand if the surrounding medium is stable, invigorated and self-enhancing.

Our concern for sustainable development, therefore, boils down to *environmental safety,* which scholars of all disciplinary sub-segments ought to continue exploring. To environmental economists, devolves the task of appraisal upon wise and sustainable resource utilisation. To ecological experts, falls the task of counselling upon the balances of nature, and the recreative processes leading to environmental stability. To the political scientist, rests the task of advising on rational governance trajectories, such as will sustain security.

Environmental law arises in the foregoing context and, necessarily, bears a broad span, of which two scholars, Ernst Brandl and Hartwin Bingert[4] have thus written:

> Environmental law, the goal of which is to conserve and protect the environment, is not a strictly defined area of law that can be distinguished easily from other discrete areas of the law. For example, *environmental protection provisions appear in criminal, property, construction, and water law*. Therefore, commentators have declared that protection of the environment is *a problem-oriented, cross-disciplinary task, and environmental law is a cross-disciplinary law*.

They further affirm that:[5]

> In the light of the overlapping nature of law, it seems logical to consider the *constitutionalization of environmental goals*. Foremost, environmental protection in a Constitution offers several advantages over statutory law. *Constitutional implementation enables environmental protection to achieve the highest rank among legal norms,* a level at which a given value trumps every statute, administrative rule, or court decision. For instance, environmental protection might be considered a fundamental right retained by the individual and thus might enjoy the protected status accorded other fundamental rights.

That environmental law is a sphere of knowledge and practice *aligned to the broader scenario of sustainable development,* is clear from other works of scholarship as well. Andrew Waite and Tim Jewell have thus written:[6]

> A possible definition which may commend itself is the law relating to the protection of public health and man-made surroundings.

4 Ernst Brandl and Hartwin Bingert, 'Constitutional Entrenchment of Environmental Protection: A Comparative Analysis of Experiences Abroad', *Harvard Environmental Law Review*, Vol. 16 (1992), 1, at pp.3-4 (emphases supplied).

5 Ibid.

6 Andrew Waite and Tim Jewell, *Environmental Law in Property Transactions* (London: Butterworths, 1997), p.3.

Environmental law thus perceived, according to the two authors, has existed from time immemorial, but for not being viewed in its totality and in the proper context:[7]

> [I]t was important long before the word 'environment' became fashionable. The law of nuisance played its role in protecting owners against the worst local environmental problems since the origins of the common law in the twentieth century. During the medieval period and after, the Crown tried to control air pollution in London by limiting imports of 'sea coal'. Shakespeare's father was prosecuted for allowing a dung heap to collect outside his house in Stratford-upon-Avon in the sixteenth century. Of course, *in modern times, the ambit of environmental law is much wider –'from the street corner to the stratosphere'....*

They duly observe that the overall scope of environmental law has expanded phenomenally: there are national environmental laws, regional transitional laws, guidelines and codes, and "a growing mountain of literature on the subject"[8] as well as international treaties and directives on the environment.[9]

The conceptually expansive, interdisciplinary and universal aspect of the environmental phenomenon has been the subject of devoted scholarship, and Professor Charles Okidi has been a leading contributor in this respect.[10] His overriding concern for the vital dimensions of environmental safety is abundantly clear from his numerous publications, as well as his role in the establishment of environmental-learning institutions. Worthy of note in this regard, is his leading role in the establishment of Moi University's School of Environmental Studies, and the Centre of Advanced Studies in Environmental Law and Policy (CASELAP) at the University of Nairobi.

Within such an outline of principles, this study focuses upon the emerging judicial stance in Kenya, as an exemplification of the motions of the environmental question. The rationale emerges clearly from the place of judicial authority in effectuating the beneficent ends of justice, in terms of

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7 Ibid

8 Ibid.

9 Ibid., p. 4.

10 See, for instance: CO Okidi, *Regional Control of Ocean Pollution: Legal and Institutional Problems and Prospects* (The Hague: Sijthoff Noordoff, 1978); CO Okidi, 'Management of Natural Resources and Environment for Self-Reliance', *Journal of Eastern African Research and Development*, Vol. 14 (1984), pp. 92-111; CO Okidi, 'Reflections on Teaching and Research on Environmental Law in African Universities', *Journal of Eastern African Research and Development*, Vol. 18 (1988), pp. 128-144; CO Okidi, 'The State and Management of International Drainage Basins in Africa', *Natural Resources Journal*, Vol. 28 (1988); CO Okidi, 'International Environmental Law and National Interest', Vincente Sanchez and Calestous Juma (eds.), *Biodiplomacy: Genetic Resources and International Relations* (Nairobi: ACTS Press, 1994). See also: Armatya Sen, *The Idea of Justice* (Cambridge, Mass: The Belknap Press, 2009), p. 48, 248-250; CM Jariwala, 'The Directions of Environmental Justice: An Overview', in SK Verma and Kusum (eds.), *Fifty Years of Supreme Court of India* (Oxford: Oxford University Press, 2000), pp. 469-494; A Hellum, I Ikdahl and P Kameri-Mbote, 'Turning the Tide: Engineering the Human Right to Water and Sanitation', in A Hellum, P Kameri-Mbote and B Van Koppen (eds.), *Water is Life: Women's Human Rights in National and Local Water Governance in Southern and Eastern Africa* (Harare: Weaver Press, 2015), pp. 32-80; Migai Akech, *Administrative Law* (Nairobi: Strathmore University Press, 2016), pp. 239-277; World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987); Calestous Juma and JB Ojwang (eds.), *In Land We Trust: Environment, Private Property and Constitutional Change* (Nairobi & London: Initiatives Publishers & Zed Books, 1996).

the *constitutional mandate*. The Constitution of Kenya, 2010 thus prescribes the said mandate:[11]

> In exercising judicial authority, the courts and tribunals shall be guided by the following principles –
>
> (a) justice shall be done to all, irrespective of status;
>
> (b) justice shall not be delayed…
>
> (c) …
>
> (d) justice shall be administered without undue regard to procedural technicalities; and
>
> (e) the purposes and principles of this Constitution shall be protected and promoted".

The courts are enjoined to interpret the terms of the Constitution in a manner that:[12]

> (a) promotes its purposes, values and principles;
>
> (b) advances the rule of law, and the human rights and fundamental freedoms in the Bill of Rights;
>
> (c) permits the development of the law; and
>
> (d) contributes to good governance.

The constitutional and legal norms are, by nature, not always self-activating, or self-enforcing: and hence *the court's word becomes the binding operational edict*. And on this account, it enhances the environmental theme in humanity's agenda, to gain insight into the *judicial role*. The judicial role, on a more significant note -- and by its case-to-case orientation -- so readily serves the broader cause of sustainable development, in precious service to mankind.

II. ENVIRONMENT, LAND-USE, AND CONSTITUTIONAL RIGHTS: PUBLIC-AGENCY ACTION, AND THE COURT'S STANDPOINT

The courts, as the constitutional agency for pronouncing the solemn stand on matters of contestation, speak on a case-by-case basis, proceeding from an objective ascertainment of the factual setting attendant upon an emerging dispute. It is apposite, therefore, to perceive the motions of the environmental phenomenon in the *concrete case:* to the intent that a clearer view be gained on the operation of the law relating to the environment, in its day-to-day significance. Following is an account from selected case law, appropriately exemplifying the judicial contribution to the environmental factor in today's social, economic and political setting.

11 Article 159 (2), The Constitution of Kenya, Kenya National Council for Law Reporting.

12 Ibid, Article 259 (1).

In the case, *Abdalla Rhova Hiribae and 3 Others v The Attorney-General and Six Others*,[13] the petitioners moved the High Court, contesting the actions of several public agencies giving approval for a set of environmentally-related processes: shrimp and prawn farming; sugar-cane growing; and titanium extraction — all in the Indian Ocean delta of the Tana River. The petitioners claimed that the approvals were contrary to law, as they were not supported by the requisite land-use plan; that no comprehensive land-use master plan had been taken into account; that no environmental impact assessment had been undertaken as a basis for the approval; and that the approval was itself a violation of the petitioners' constitutional rights. The petitioners claimed that their environmental entitlements were safeguarded by certain norms of international law, and that the respondents were in breach of Kenya's Constitution, certain articles[14] of which incorporated the terms of the conventions of international law.[15] The petitioners claimed that the actions taken by the respondents amounted to a violation of their *rights to a safe and secure environment*, and to *life* itself; and they sought orders prohibiting the projects in question, and requiring the respondents to initiate the formulation of a comprehensive environmental master plan for the Tana Delta.

The High Court's response is notable, firstly, for its *impartiality;* and secondly, for its percipience as to the *broad texture of environmental norms,* which mitigates against *doctrinal orientations:* it vindicates Lord Wright in his affirmation that *"law is not an exact science".*[16] Lady Justice Mumbi Ngugi made her determination on beacons of principle as follows:

> I am not inclined to prohibit the continuation of the projects before a comprehensive master plan has been done in the light of my findings that there are in existence plans prepared in accordance with existing statutes, the inadequacy of which has not been demonstrated... I am convinced, however, that it is in the interests of the communities that a re-valuation of the long-range plan prepared by the 3rd respondent, and of any short-term or long-terms for the Tana Delta, be carried out prior to the commencement or resumption of the projects that gave rise to this dispute.[17]

The learned judge considered the interplay between the environmental question and the constitutional framework of governing principles, before specifying final orders, as follows.[18]

> Article 23 of the Constitution empowers the Court to frame appropriate relief in order to vindicate fundamental rights and freedoms of citizens. This

13 *Abdalla Rhova Hiribae & 3 Others v AG & Another*, Civil Case No. 14 of 2010; [2013] eKLR (Nairobi High Court).

14 Article 2(5), (6), Constitution of Kenya (Kenya National Council for Law Reporting).

15 Notably the Convention on Biological Diversity, 1992: see Charles O Okidi, 'Concept, Function and Structure of Environmental Law', in CO Okidi, P Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law* (Nairobi: East African Educational Publishers Ltd., 2008), pp. 42-43.

16 The Right Hon Lord Wright, 'In Memoriam: Lord Atkin of Aberdovey, 1867-1944', *The Law Quarterly Review*, Vol. 60 (1944), 332, at p. 333.

17 Para. 69, *Abdalla Rhova Hiribae & 3 Others v AG & Another* , Civil Case No. 14 of 2010; [2013] eKLR.

18 Ibid, Para. 70.

jurisdiction is wide but must be exercised judiciously… In the circumstances of this case, the orders that commend themselves to the Court … are as follows:

(i) that the 3rd and 6th respondents do furnish the petitioners and other stakeholders within 45 days… [with] the existing plans that they are required by statute to prepare or obtain in respect of the utilisation of the land and resources of the Tana Delta;

(ii) that the 3rd respondent is hereby directed to re-evaluate its short-term, medium-term and long-range plans for the Tana Delta in [consultation with, and the participation of] the petitioners, the communities in the area, and all state and private entities involved in the projects in the Tana to ensure that they comply with the requirements of Articles 60 and 69 of the Constitution;

(iii) that the 3rd, 6th and 7th respondents facilitate periodic monitoring of the projects that have already commenced, to assess their impact on the Tana Delta wetlands and the interests of the communities which derive a living from the Tana Delta.

III. WATER-RESOURCE ACCESS RIGHTS: THE COURT'S STANDPOINT

Water, as a crucial sector in the endowments of the human environment, is a vital subject in the exercise of the court's remit. It is all clear from the High Court decision in *Republic v Lake Victoria South Water Services Board and Another*.[19]

The respondent had initiated a project of conveying water from Migori County's River Oyani, through pipes and processing tanks to Migori town, some 10 kilometres away. Aggrieved persons who were from the water-source community made accusations that the respondent had not adhered to the pertinent terms of the Constitution, the Environment Management and Co-ordination Act[20] and the Water Act,[21] in planning and implementing the project. The applicants also accused the respondents of contravening Article 69 (1) (a) of the Constitution, which imposes an obligation upon the State to involve *public participation* in the management, protection and conservation of the environment. They contended that they had not been involved in the project planning and implementation. The applicants, and one of the interested parties, contended that the 1st respondent had proceeded with the water project without complying with the requirement[22] of obtaining an environmental impact assessment licence. It was also contended that the respondent had violated the terms of Section 25

19 Misc. Civil Application No. 47 of 2012.

20 Act No. 8 of 1999, Laws of Kenya.

21 Water Act 2002, No. 8 of 2002, Laws of Kenya.

22 Section 58, Environment Management and Co-ordination Act Cap. 387 (Rev 2018).

of the Water Act, by not obtaining a permit from the Water Resources Management Authority; and it was further stated that a violation of Section 57(5) of the Water Act was involved, the respondent not having undertaken a process of consultation with members of the public.

Due inquiry on fact led the trial judge to the "finding that the project is being undertaken *in contravention of the law*". He held that "[the] project is… being carried out illegally". The question left was as to the requisite orders, in such a case; he asked:

> Is illegality a ground for judicial review or an order for prohibition for that matter?

The learned judge did not favour a *doctrinaire approach* to this question. He proceeded by reviewing the *larger question* of the claims of the environment, and of the concept of sustainable development. He proceeded thus:

> For sustainable development to be realised, there must be a *balance between economic development and environmental sustainability*… Sustainable development requires mediation between the *interests of current generations and those of future generations* as well as *competing interests of the current generations*. [I] have been asked by the 1st respondent to consider the positive aspects of the project which I have been told would contribute to Kenya's achievement of its Vision 2030 and Millennium Development Goals. On the other hand, I have the applicants who are faced with *soil erosion, air pollution, water pollution, destruction of fauna and flora, communicable diseases, reduced amount of water, reduced amount of land for cultivation* among other negative social and environmental impacts of the project. *I have to balance these competing interests* in arriving at my ultimate decision in this matter.

The court had to take into account not only the environment-relevant criteria, but also the *general principles of the Constitution,* with a bearing on *good governance.* In the judge's words:

> I also have to consider the conduct of the parties, more particularly whether they are in accord with our *national values and principles of governance* set out in Article 10 of the Constitution of Kenya, 2010 which *includes democracy and participation of the people, the rule of law, human d*ignity, social justice, human rights, good governance and accountability.

In that context, the judge brought into account the fact that the respondent was proceeding with the water project without an environmental impact assessment licence from the 1st interested party, and without a permit from the Water Resources Management Authority – which are mandatory as a *matter of law*. The court's stand was thus taken:

> The 1st respondent's conduct… falls short of the aspirations contained in our national values and principles of governance set out in Article 10 of [the]

> Constitution which should be observed by our institutions and citizens. We are in *a new Kenya which is governed by the rule of law*.

The final determination, in the light of the foregoing guiding principle, was thus expressed:

> … I am not inclined to exercise my discretion in favour of the respondents … by refusing to grant the order sought. The applicants and the interested party have made out a case for a prohibitory order to issue, and there are no factors that militate against granting [such an] order. I will however, not stop the project permanently, because it has been demonstrated that if carried out in a lawful manner, it will have some positive impact both on the local communities and on their neighbours in Migori Sub-County. The respondents should be at liberty to proceed with the project in the event that they comply with all the legal requirements. I therefore issue forthwith an order of prohibition prohibiting the 1st and 2nd respondents from continuing with, undertaking or completing the Migori Water Supply and Sanitation Project from Oyani River in Uriri Sub-County to Migori until they comply with all the requirements…

IV. ENVIRONMENT, TREE-HARVESTING, TIMBER-EXPLOITATION: THE COURT'S STANDPOINT

The integrity of forests, as vital elements of the environmental panorama, has repeatedly been compromised by the *economic goals* of individuals, as well as commercial outfits that exploit the constituent units in the shape of trees, to respond to timber-market demands. The courts' perception on the pertinent concerns for the environment and for sustainable development, is illustrated in the case, *Joseph Leboo and 2 Others v Director, Kenya Forest Service and Another*.[23]The court's standpoint also bears consistency with the principle stated in Article 69(1)(b) of the Constitution, which provides that "The State shall… work to achieve and maintain a tree cover of at least 10 per cent of the land area of Kenya…)

The applicants in that case moved to court seeking orders that the respondents, whether by themselves or their agents, servants or anyone claiming through them, be restrained from harvesting timber and fuel material in some eight blocks of Lembus Forest of Baringo County, pending the hearing and determination of the suit. The grounds in support of the application were as follows: (i) the respondents had authorised illegally-approved, and unqualified saw-millers to harvest timber and firewood material in Lembus Forest; (ii) the respondents had failed to comply with the relevant procedures under the Forests Act[24] and the Forest Management Rules, 2009; (iii) the respondents had not involved the local communities in the decision-making process as required under the law governing the harvesting of timber and firewood from the forests; (iv) the saw-millers had harvested trees for which they lacked the requisite approval; (v) the applicants stand to suffer irreparable loss if such unlawful tree-harvesting continues.

23 No. 273 of 2013 Eldoret, Environment and Land Court; [2013] eKLR,

24 Cap. 385, Laws of Kenya.

The court, after considering the status of the evidence, pronounced itself on the relevant principles of environmental management, as follows[25]:

> The issues raised by the applicants... question the manner in which the respondents and Kenya Forest Service conduct their affairs. They not only raise weighty issues of the sustainable management of forests, but also question the integrity of the whole process leading to the harvesting of trees. These are not light issues. The respondents must clearly demonstrate that they are operating above board and within the confines of the law. The issues raised are... critical to the proper and sustainable management of forests.

The court's statement of principle adverted to the place of forestry within the Constitution's framework for sustainable development:[26]

> *Forests* are so important... that the Constitution has given them a special mention. It is the target of the country, which is stated in the Constitution (Article 61(1) (d)), to attain a forest cover of 10 per cent of the land of Kenya. This cannot be attained unless the respondents... demonstrate that a proper management plan is in place for every forest. I am alive to the principle of sustainable development, and [to the fact] that the harvesting of trees is not necessarily the equivalent of destruction of forests. However, for the principle of sustainable development to work, ... [there must be] a strict adherence to the Constitution, and [the relevant] statutory principles [must be observed].

Such principles indeed guided the court to make a finding in favour of the applicants, and against the respondents, as follows:[27]

> [In] the circumstances of this case, I am of the view that the applicants have placed before this Court substantial material that questions whether the respondents, as custodians of forests, have been abiding by their constitutional and statutory duties. I have no doubt that the applicants have demonstrated a *prima facie* case with a probability of success ...

In an instructive mode, such as further illumines the judicial disposition on the question of sustainable development, the learned judge thus spoke:[28]

> It was argued that the trees are over-mature and therefore loss of revenue may be occasioned. But no material was given... to show when the trees were planted, their optimum harvest period, or when they were set to be harvested. In any event, trees ought not to be considered purely on the basis of their commercial

25 Para. 47, No. 273 of 2013; [2013] eKLR.

26 Ibid, Para. 48.

27 Ibid, Para. 49.

28 Ibid, Para. 51.

> value: that is a narrow way of looking at an important resource such as trees. Trees sustain biodiversity and are important carbon sinks. Their value to the environment far surpasses the narrow view of trees as being purely commercial in nature— and that applies too in the case of plantation forests.

With the judicial position thus taken *on the side of the environment,* the pragmatic call of commerce had lost out, the learned judge thus pronouncing himself:[29]

> Assuming that I am wrong…, the balance of convenience still tilts in favour of the applicants…, rather than of the saw-millers or the respondents. Where the interests of environmental protection and those of private individuals are weighed, interests of environmental protection far outweigh those of private individuals. There is need to exercise caution; and *it would be far better for one to exercise caution and err on the side of protecting the forests, than on the side that may well [be inviting] an environmental catastrophe.*

The outcome was an injunction against the respondents, granted in the following terms:

> Pending the hearing and determination of this suit, the respondents and their agents/assigns and any person authorised by them, or by the Kenya Forest Service, are hereby restrained from harvesting trees or timber or removing any tree materials from Sabatia, Maji Mazuri, Kiptuget, Chemususu, Naivasha, Koibatek, Chemurgok, and Esegeri Blocks of Lembus Forest.

V. INTEGRITY OF THE ENVIRONMENT: THE COURTS AND THE CRIMINAL SANCTION

It is to be appreciated that the integrity of the environment is a definite priority in the national social interest; in governance engagements; and in legitimate political ordering. Such a question, as is to be expected, readily becomes an item in the *criminal process* agenda under the state machinery.

It is already clear that inclinations and temptations abound towards extracting from, or compromising the environmental endowment. As the perpetrator is invariably the *person*, whether individually or corporately, the public-governance recourse is frequently the *penal sanction:* "a legally authorized post-conviction deprivation suffered by a human being through governmental action."[30]

In *Peter K. Waweru v Republic,*[31] the applicants and interested parties, had been charged with two offences: (1) discharging raw sewage into a public water source and the environment contrary to

29 Ibid, Para. 52.

30 *Black's Law Dictionary*, 8th Ed. (Bryan A. Garner) (St. Paul, MN: West Group, 2004), p. 1368.

31 High Court at Nairobi, Misc. Civil Application No. 118 of 2004; [2006] eKLR, available at http://kenyalaw.org/caselaw/cases/view/14988/

Section 118 (1) (c) of the Public Health Act,[32] and (ii) failure to comply with the statutory notice from the public health authority contrary to Section 120(1) of the said Act.

Section 118 (1) (e) of the Act thus defines 'nuisance' as:

> ... any noxious matters or waste water flowing or discharged from any premises... into any public street, or into the gutter... of any street, or into any... water course, irrigation channel or bed thereof not approved for the reception of such discharge.

It is provided that if a person upon whom a notice to remove a nuisance has been served fails to comply within the specified period, the medical officer of health shall cause a complaint to be made before a magistrate, who then issues summons to the person concerned.

It was averred that the applicant had been charged directly without first being served with summons to appear before the magistrate's court. The applicant resorted to the Protection of Fundamental Rights and Freedoms of the Individual (Practice and Procedure) Rules[33], and sought orders for a hearing before the High Court, which established that the required notice had not been given, and that such notice as had been given "did not stipulate the time within which the requirements [specified] were to be met".

The significance of this case, then, is not so much the motions of the criminal process as the court's stand on issues pertaining to the environment, and to the larger theme of sustainable development.

The court, as it reaffirmed the applicant's liberty, thus remarked:

> This being a matter concerning health and environment, *the public health officials should have taken a broad view of the matter* because at the end of the day it will take all the property owners and residents, including the local authority and the Water Ministry, to solve the problem. Picking on a few in an arbitrary manner is in our view discriminatory, and the charges framed cannot stand ...

The court sounded intimations on its stand on the claims of the environment in the following terms:

> It has been contended by the applicants that they cannot comply with the health requirements concerning waste water, and that the cost of having treatment works in their respective plots would be out of reach [for] the individual property owners... We [are] unable to accept this argument: firstly because *sustainable development has a cost which must be met by the developers*, and secondly, because they have not stated that they have thought of *other alternatives which could be more environmentally-friendly* ...

32 Cap. 242, Laws of Kenya.

33 L. N. 133 of 2001, laws of Kenya.

An element in this case that merits attention is that the High Court's stand was an *intermediate* one, as between environmental offence on the one hand, and perfect innocence in law, on the other hand; and this was primarily in deference to the *environment's compelling call for conservation*. Such a perception emerges clearly from the very wording of the judgment:

> Finally, we are concerned that the quashing and prohibition of the preferred charges *might lead the applicants to the erroneous conclusion that they have won and that they need not do anything further. Nothing could be further from the truth*....
>
> The Court is concerned that if the Kiserian Township is located ... on a water table and the structural developments have been approved by the relevant authorities, and the accused are emptying effluent ... into Kiserian River, the matter raises very serious environmental issues and challenges. We are told that the Kiserian River is used by other persons [and] their livestock downstream and for this reason, *the issue of environmental justice looms large in this case*. The people's right to a clean environment, although a statutory right under Section 3 of the Environment Management and Co-ordination Act, raw sewage or waste water does threaten the lives of the users of water downstream wherever they are located along the river ...
>
> "As regards the township itself, this Court is concerned on whether or not, in the circumstances described, the development is ecologically sustainable...[34]

Such a *sense of intermediacy* is clearly reflected in the High Court's final orders:

> ...Orders of *certiorari* and prohibition shall forthwith issue as prayed, and the proceedings [in the magistrate's court] are hereby ... quashed; and we further reiterate that an Order of *mandamus* shall ... issue to compel the Ministry of Water... and Olkejuado County Council to construct sewerage treatment works ... *[T]he... treatment works must be installed within a reasonable time-frame.*[35]

VI. CONCLUSION

Notwithstanding the broad manifestation of the environment as a phenomenon, which renders it largely policy-and-principle-oriented, the courts have still contributed to its safeguard: by way of proportionate appraisals that are by no means alien to the *broad principles of the Constitution* itself. At times, the courts have accommodated the narrower path of conventional safeguards, more suited to instances in which the stable rind of the law secures the more-precisely defined environmental scenarios. Even as they expound the Constitution's broader principles regarding

34 Ibid, Emphases supplied.

35 Ibid, Emphases supplied.

sustainable development, the courts have also, now and again, applied the specialised rules, as in the *Peter K. Waweru*[36] case. Such a duality of approach has dictated that the courts walk a case-to-case pathway, though always in the context of broader principles. The vital juristic object, of course, remains the binding effect of the judicial edict.

As is to be expected, the guiding principles have mainly been articulated, in the first place, at the level of *unlimited inquiries, theoretical propositions, and interdisciplinary scholarship*. The law's success in availing environmental fulfilment for society, thus, has arisen from the dual path taken by *the scholar* and *the jurist*. And for the scholar's part, we are distinctly in the debt of devoted endeavours of academics of the distinction of Professor Charles Okidi and his associates. These scholars have liberally opened up the dimensions of sustainable development; and the same has then informed the more specific environmental questions, which are the subject of occasional court intercession, culminating in lawful judicial edict. So in this way, the scholar and the judge have worked to common cause: that of safeguarding ecological integrity.

36 High Court at Nairobi, Misc Civil Application Number 118 of 2004, available at http://kenyalaw.org/caselaw/cases/view/14988/.

Chapter 7

The Legal and Institutional Framework for Environmental Management in Uganda

Kenneth Kakuru

I. INTRODUCTION

When the Ugandan Constitution came into force in 1995, one of the key principles that it articulated under its national objectives and directive principles of state policy was the need to promote sustainable development and public awareness of the need to protect the environment.[1] However, there were hardly any organisations working on environmental law issues in Uganda.

Greenwatch,[2] an environmental rights advocacy organization was born in May 1995 with the objective of promoting public participation in the management of the environment and in the enforcement of the right to a clean and healthy environment. Prior to this, the National Environment Action Plan was developed in 1994 and followed in 1995 by the National Environment Management Policy to provide a framework for environmental management in Uganda. Greenwatch was engaged in these processes. By then the Water Act,[3] National Environment Act (1995),[4] and the Land Act[5] were some of the laws in place to address environmental matters. However, despite the existence of these laws, there remained the challenge of lack of effective enforcement to enhance the quality of the environment in Uganda.

The judiciary plays an important role in the enforcement of environmental law and promotion of sustainable development.[6] The challenge for Uganda was that at that time there were very few lawyers trained in environmental law. An even bigger task was bringing the judicial officials at all

1 Constitution of the Republic of Uganda

2 Greenwatch Uganda, 'Overview' (*Green Africa Directory*) <http://www.greenafricadirectory.org/listing/greenwatch-uganda/> accessed 5 November 2018

3 Water Act 1997

4 National Environment Act 1995. This law is currently under review along with its attendant regulations. The first draft has been presented before the Natural Resources Committee of Parliament before Cabinet.

5 Land Act 1998

6 D Kaniaru, L Kurukulasuriya and C Okidi, 'UNEP Judicial Symposium on the Role of the Judiciary in Promoting Sustainable Development', (Fifth International Conference on Environmental Compliance and Enforcement, Monterey, California, USA, November 1998)

levels to appreciate the issues of environmental law, an area where a few received training in law school. A regional training workshop for lawyers from Uganda, Kenya and Tanzania organized by Greenwatch in 2000 sought to train them on environmental law and access to justice. This was made possible with a grant from the United States Agency for International Development (USAid) through the Environmental Law Institute (ELI) of Washington, United States of America. One of the key recommendations from this regional workshop was recognizing the need to train judicial officers in environmental law and management and equipping them with tools to effectively adjudicate environmental matters brought before them.

In 2001, Greenwatch in partnership with ELI approached the judiciary to conduct the inaugural training for judicial officers in environmental law in Uganda. However, judges were very reluctant to be trained by lawyers and required that the training be conducted and facilitated by people more qualified to be judges. A process of sourcing knowledgeable and resourceful people to handle the training was then commenced. Prof Charles Okidi was identified as the most suitable person to handle the task. The choice was communicated to Justice J.W.N. Tsekooko of the Supreme Court of Uganda who was in charge of judicial training at the time, detailing Prof Okidi's previous record of work at the United Nations Environment Programme (UNEP), among others.

In the meantime, Prof Okidi together with ELI put up a team of very competent and knowledgeable persons on the subject -- including Prof John Ntambirweki, who at the time was a Senior Lecturer of environmental law at the School of Law, Makerere University; John Pendergrass, Director of Africa Programmes at ELI, Carl Bruch, Senior Attorney at ELI, Dr Donald Kaniaru of UNEP and Dr Palamagamba Kabudi of the University of Dar-es Salaam, among others. Justice Tsekooko accepted the team.

The team (in collaboration with Greenwatch) developed a training manual on environmental law,[7] which would later be reviewed to incorporate new and emerging issues. Prof Okidi also donated to Greenwatch materials like the *Compendia on Environmental Law for African Countries* and *Compendia of Judicial Decisions on Matters Related to Environment,* which are part of works he developed at UNEP under the Environmental Law and Institutions in Africa programme. These compendia were a rich resource on environmental jurisprudence elsewhere and a key reference material for the judicial officers during the training symposia.

Prof Okidi's charisma made the judicial officers appreciate the training. His simple, yet firm style of embracing such a technical subject while at the same time delivering and ensuring that all officers were on board was a plus. His fondness of the subject matter and great skill at handling the judicial officers earned him warm hearts and great respect.

The presence and stature of Prof Okidi further gave confidence to the donors and other partners to further support the programme, whereupon more training workshops were held for the appellate judges who had not trained before. Consequently, more environmental matters have been

7 National Environment Management Authority (Uganda), United Nations Environment Programme *Guide to the Practice of Environmental Law in Uganda: A Handbook* (National Environment Management Authority, 2004)

adjudicated upon and the substance of the decisions has greatly improved, creating environmental jurisprudence in Uganda and the region.[8] For instance, in 2001, Greenwatch sued the government for failure to disclose the contents of the Power Purchase Agreement (PPA) for the construction of Bujagali Hydro-Electric Power Dam. The court ruled in *Greenwatch vs Attorney General and the Uganda Electricity Distribution Company*[9] that the PPA was a public document, which should be accessed by all. This decision enabled the public to review the potential risks of the project, and resulted in a recommendation by the World Bank that AES Nile Power provides changes to the PPA.

Prof Okidi has since been a great resource, offering immense support in conducting subsequent training for judges of the East African Court of Justice, other judicial officers, and state prosecutors, among others. This chapter reviewing the legal and institutional framework owes a great deal to his support to the development of environmental law and jurisprudence in Uganda.

A: HISTORICAL BACKGROUND

Prior to 1986, Uganda had no institution specifically responsible for environmental management. The capture of power by Yoweri Museveni and the National Resistance Army (NRA) on 25 January 1986 ushered in a new era in Uganda. It marked a promise of restoration of democracy in Uganda as indicated in the NRA's 10-point programme at the time.[10] The National Resistance Movement (NRM) pledged to establish legitimate and effective political institutions within the subsequent four years.

The new government created the Ministry of Environment Protection, charged with the responsibility of coordinating and enhancing natural resource management, harmonizing the interests of resource users, monitoring pollution levels, and advising the government on policy and legislative reforms to ensure sound environmental management. The ministry had two divisions: one dealing with physical resources (e.g. water, minerals, and energy) and the other biological resources (e.g. forestry and biological diversity). The ministry was later absorbed into a Ministry of Water, Energy, Minerals and Environment Protection, which in 1993 became the Ministry of Natural Resources. Later in the late 1990s, it was named the Ministry of Lands, Water and Environment. Environmental management was later put under the Department of Environment Protection (DEP).[11].

In November 1988, the Constitutional Commission Act[12] was passed in Uganda. This Act was essential in establishing a body -- the Constitutional Review Commission in December 1988 to draft a new constitution for Uganda. The commission's roles among others included making proposals

8 Some of the notable environmental decisions from Ugandan courts include: *Greenwatch v Uganda Wildlife Authority & Attorney General* Misc. Application No. 92 of 004, *Greenwatch & ACODE v Golf Course Holdings Ltd.* HC. Misc. Applic. No. 390 of 2001

9 *Greenwatch v Uganda Electricity Transmission Company Ltd.* HCT-00-CV-MC-0139 of 2001

10 The NRM 10 man-points is a roadmap that was proposed under the chairmanship of President Yoweri Museveni for a political programme that could form a basis for a nationwide coalition of political and social forces to transform Uganda.

11 This department has since been turned into the Directorate of Environmental Affairs, which comprises the Wetlands Management Department, Department of Natural Resources and the Department of Climate Change.

12 The Constitutional Review Commission was charged with the responsibility of developing a new Constitution.

for the enactment of a national Constitution; formulating and structuring a draft constitution that would form the basis for the country's new Constitution. The inclusion of environmental provisions in the Constitution of Uganda can be traced to the recommendations of the Uganda Constitutional Review Commission. Reflecting on a constitutional history that entailed the non-respect for human rights and the absence of democratic values, the Odoki Commission – named after its chairman Benjamin Odoki -- pointed out that "*the fundamental freedom of expression and the right of every person to information are vitally important rights, at the centre of the struggle for the defence of human rights and democracy*".[13]

Between 1990 and 2000, the government pursued an economic policy supported by the World Bank, the International Monetary Fund (IMF), the International Finance Corporation (IFC) and international donor agencies of structural adjustment, liberalization of the economy and privatization coupled with an aggressive foreign investment programme. The World Bank's Structural Adjustment Programmes placed emphasis on the integration of environmental issues in development programmes and supported the development of national laws, among which was legislation to govern the environment and other natural resources.[14]

In 1994 the government launched the National Environment Action Plan (NEAP). It was intended to provide a framework for integrating environmental considerations -- broadly defined to include natural and manmade environments -- into the country's overall economic and social development.

Because the demand for ecosystem services from environment and natural resources has outperformed the ability to supply these life-sustaining services, the environment in ways has been impacted to levels that threaten human survival, security, health, and livelihoods. The need to regulate resource use and exploitation to ensure sustainability was therefore important. The country has developed laws and regulations in addition to putting in place management strategies to achieve a sound environmental regime. A regulatory infrastructure has also been put in place, with various agencies and institutions established to act as focal points for environmental management. At the international level, issues of environmental concern were included in the global agenda. In 1992, a conference was held in Rio de Janeiro that focused on the impact of developmental activities on the environment. One of the issues that resonated at the conference was the need to combat desertification in Africa.

In 1994, the government endorsed the National Environment Management Policy (NEMP). This policy set out the objectives and key principles of environmental management while also providing a broad framework for harmonization of sector and cross-sectoral policy objectives. A comprehensive legal and institutional framework was then designed out of this policy. The policy, through legislation, has created new capacity building needs in environmental planning, information generation and dissemination as well as the use of environmental tools in managing the environment. The enactment of constitutional guarantees and other legal measures that ensure the protection and sustainable management of natural resources is one of the outcomes of the NEMP.

13 Government of Uganda, *Report of the Uganda Constitutional Commission* (Government Printer, 1992) (Odoki Commission)

14 International Monetary Fund-Uganda, 'Enhanced Structural Adjustment Facility Policy Framework Paper, 1997/98–1999/2000' (1997) <https://www.imf.org/external/np/pfp/uganda/uganda.pdf > accessed 5 November 2018

Since 1995, the Government of Uganda has carried out extensive awareness programmes about the importance of the environment to mankind. In addition, all legal and institutional frameworks for the protection of the environment and natural resources is in place and functioning. However, implementation remains a challenge.

The laws discussed hereunder were majorly enacted after 1995 and progressively address the concept of sustainable development.[15] In addition, some related sectoral laws have been developed and others amended to include environmental aspects. Under the various laws and regulations, there are lead agencies charged with the responsibility of contributing to sustainable environmental management and promoting public awareness in their respective sectors.

This paper looks at the different policies, legislation and their respective lead agencies that address environmental issues. It also discusses the challenges in enforcement, implementation and compliance within the legal and administrative set up.

II. THE LEGAL FRAMEWORK

A: The Constitution

In October 1995, a new Constitution came into force in Uganda. The Constitution is the supreme law in Uganda and sets out in the national objectives and directive principles of state policy, among others the promotion of sustainable development and public awareness of the need to manage our environment.

Chapter 4 of the Constitution sets out a detailed Bill of Rights, particularly, the right to a clean and healthy environment as a human right under Article 39, enjoyable and enforceable as any other human right. The Constitution recognizes the importance of the environment and health as inseparable from all other human rights. Every right has a corresponding duty, thus Article 17(1) (j) states:

> *... It is the duty of every citizen of Uganda to create and protect a clean and healthy environment.*

Article 50 of the Constitution provides for the enforcement of the rights provided under Chapter IV and, for the first time in history of Uganda and unlike in many other jurisdictions, the Constitution provides a right of standing for any aggrieved person. The person enforcing the right does not have to be one personally or physically affected by the violation.

Article 50(2) states:

> *Any person or organization may bring an action against the violation of another person's or group's human rights.*

15 Sustainable development as defined in *Our Common Future*, also called the Brundtland Report, is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Article 137(2) states:

Any person who alleges a violation of the Constitution may petition the Constitutional Court.

The framers of the Constitution must be given great credit for including this provision as it clearly manifests the power of the people under the Constitution. Whereas in many jurisdictions the courts have gone to great lengths to interpretively provide for *locus standi* for citizens, in Uganda, it is expressly provided.

The overall government policy on natural resource conservation is enshrined in the Constitution,[16] which in its national directive principles of state policy in regard to the environment:

Objective XIII provides that the State shall protect natural resources such as land, water, wetlands, minerals, fauna and flora on behalf of the people of Uganda, and

Objective XXVII provides that the state shall create and develop parks and reserves to protect the biodiversity of Uganda.

Objective XXVII states:

(i) The State shall promote sustainable development and public awareness of the need to manage land, air, water resources in a balanced manner for the present and future generations.

(ii) The utilization of natural resources of Uganda shall be managed in such a way to meet the development and environmental needs of the present and future generations of Ugandans and in particular the State shall take all possible measures to prevent or minimize damage and destruction to land, air and water resources resulting fro population pressures and other causes."

The Constitution provides for the Public Trust Doctrine in Article 237 (2)(b). The Article provides;

Notwithstanding clause (1) of this Article, the Government or a local government as determined by Parliament by law, shall hold in trust for the people and protect, natural lakes, rivers, wetlands, forest reserves, game reserves, national parks and any land to be reserved for ecological and touristic purposes for the common good of all citizens.

This must be read together with Article 237(1), which provides that land in Uganda belongs to the citizens of Uganda, and shall vest in them in accordance with the land tenure systems provided for in the Constitution. In other words, while all the land belongs to the citizens of Uganda, the land under natural resources is held and protected by Government on behalf of or in trust for the people.

16 Constitution of Uganda,1995

The Constitution further imposes a duty on the State to protect important natural resources including land, water, minerals, oil, fauna and flora on behalf of the people of Uganda. Article 245 provides that Parliament shall by law provide for measures intended to protect and preserve the environment from abuse, pollution and degradation; to manage the environment for sustainable development; and to promote environmental awareness. Through the enactment of the National Environment Act, the Water Act, the Land Act, the Wildlife Act, and the Local Government Act, Parliament has ably achieved this objective.

B: The National Environment Act

The enactment of the National Environment Act (NEA) in May 1995 was the starting point for the establishment of the legal and institutional framework for environmental management in Uganda. When the NEA was enacted, emphasis was placed on protection.

Implementing the NEA has not been a smooth ride. Whereas successes were registered in some instances, challenges emerged from poor institutional coordination between agencies whose work complements that of NEMA. For instance, NEMA, which is mandated to coordinate, monitor and oversight sustainable natural resource management, implements activities that would otherwise be carried out by NFA, UWA, local governments or WMD. Under Article 237 (2)(b) of the Constitution, the government has an obligation to protect and preserve wetlands, among others, which is further articulated under the NEA.

There were also shortcomings in some of the legal provisions, for instance, the law did not incorporate emerging issues like management of electronic waste, and oil and gas issues. There were incidences of breach of the public trust by government officials and local governments by performing their jobs with impunity.

Currently, the NEA is being amended to strengthen compliance and enforcement provisions (environmental enforcement orders, improvement notices, enforcement by environmental inspectors and other authorized persons, administrative measures, e.g. express penalty) as well as put into consideration aspects of strategic environmental assessment and environmental issues together with concerns associated with the petroleum sector. The draft Bill (National Environment Bill) has incorporated some new aspects such as community service as reparation to serve as a deterrent for people who pay their way out when environmental fines are imposed on them. The Bill also introduces the creation of an Environmental Tribunal to fast-track the adjudication of environmental crimes and disputes. This could go a long way in having speedy trials and disposition of environmental disputes that have hitherto taken long to be heard in courts of law.

1. Enforcement through EIA under The NEA

The law provides for an Environment Impact Assessment (EIA) to be undertaken for projects that may or are likely to harm or have harmed the environment. The law provides for public participation and ensuring that the parties likely to be affected are involved in the process.

Developers have however abused this process by producing false Environment Impact Statements in the quest to ensure that their projects are approved and presented affected persons with 'gifts' as a means of discouraging them from raising objections, especially during the public hearing. During the public hearings for the Bujagali Hydro-Power Project,[17] for example, sections of the affected communities were offered money to affirm their support for the proposed dam development. Project Affected Persons (PAPs) from the communities could not give honest testimonies during the public hearing and insisted that *twenda damu*, literally meaning: We want the dam, yet civil society relied on the testimonies of theses PAPs to challenge the development. With the about-turn, other strategies had to be devised to prevent its construction.

2. The use of criminal law

Criminal law provides many opportunities for the exercise of judicial discretion in ensuring minimum conditions for environmental integrity.[18] It establishes violations, provides penalties and imposes fines, imprisonment term, and sets out alternative sentencing options. The Penal Code has many provisions that deal with environmental violations and therefore can be employed to prosecute offenders. However, in practice greater reliance was placed on civil as opposed to criminal sanctions in environmental conservation and sustainable use. As a result, there was an increase in the annual cost of environmental degradation; estimated at about US$157-480 million in 1991.[19] The degradation has been registered across all sectors.

For instance, there has been a decline in the natural forest cover, receding at a rate of 24 per cent in 1990 to 11 per cent in 2015.[20] With respect to the wetland resource, land cover for wetlands reduced from 37,575 km^2 (15.6%) in 1994 to 20,673.9 km^2 (8.6%) in 2015 -- showing a loss of 16,901.6 km^2 (accounting for 7%). Wetland resources are being lost at 804.9 km^2 each year and it is estimated that by 2025, over 8,048 km^2 of the wetland will be lost, leaving only 12,625.6 km^2 (5.3%) if no intervention is made.[21]

This environmental degradation would translate into an environmental debt burden of about US$1 billion to US$4 billion today if exploited at the government's opportunity cost of capital of 12 per cent per annum. This would present a big burden to environmental management, with the attendant institutional weaknesses and constraints.

Uganda can hardly afford to add this additional but hidden debt to its official indebtedness to external and domestic creditors. The severity of this environmental problem is compounded by the

17 This dam was to be built at Bujagali Falls, situated on the River Nile, to expand the existing dam and supplement the national electric power production.

18 Winston Anderson, 'Environmental Law Enforcement. The Role of the Judiciary' (Sixth International Conference on Environmental Compliance and Enforcement, San Jose, Costa Rica, International Network for Environmental Compliance and Enforcement, Proceedings 15-19 April 2002) 370

19 G Slade, G., and K Weitz 'Uganda: Environmental issues and options' (1991) Centre for Resource and Environmental Policy Research Working Paper 91-3, School of Forestry and Environmental Studies, Duke University

20 Ministry of Water and Environment, 'Water and Environment Sector Performance Report 2016' <http://envalert.org/wp-content/uploads/2016/09/spr-2016_final.pdf>(2016) accessed

21 Wetlands Management Department- Directorate of Environmental Affairs.

fact that the livelihoods of many Ugandans intimately depend on the environment, both as a source of subsistence and as a basis for production. The NEA put in place the institutional framework that established the National Environment Management Authority (NEMA), the principal agency responsible for the coordination and management of the environment in Uganda. In addition, several pieces of subsidiary legislation -- including National Air Quality Standards, Access to Environmental Information Regulations, Lakeshore, Riverbanks Management Regulations, Wetlands Management Regulations -- were promulgated under NEA as protections for the environment. Little attention was given to the use of criminal provisions of environmental laws or traditional criminal law.

In the case of *Byabazaire v Mukwano Industries* **(**High Court Civil Suit No. 486 of 2000**),** the plaintiff sued Mukwano Industries for polluting the environment. Mukwano factory, located adjacent to residential homes, was emitting noxious fumes that compromised the health of residents in the neighbouring area of Kibuli on the outskirts of Kampala. However the civil remedies of enforcing environmental protection had many hindrances in form of costs, delays, confusion and ineffectiveness. The National Environment Bill seeks to expand these to include other measures such as forfeiture and vacation of fragile ecosystems.

The National Environment Act and sectoral legislation like the Water Act Cap 152,[22] the Land Act Cap 227, the Investment Code, the Wildlife Act, Cap 200,[23] the Mining Act 2003,[24] and the National Forestry and Tree Planting Act, 2003[25] also establish violations, provide penalties and impose fines, imprisonment terms and set out alternative sentencing options.

The NEA also uses social and economic incentives to promote compliance with environmental standards. Such incentives include an environmental levy imposed on second-hand motor vehicles[26] and used pare parts[27] older than eight years. The 2007/8 Budget Speech imposed a ban on importation production and manufacture of plastic bags (commonly known as "*kaveera*") of less than 30 microns. The ban was to take effect from 1 July 2007 and imposed an excise duty of 120 per cent. This gave way to the development of regulations to manage carrier plastic bags use.

However, the ban has not been enforced and has instead been tarnished with political meddling and a strong push from the private sector to lift it because the plastic industry provides employment to many Ugandans. In spite of the progressive developments from neighbouring countries like

22 Water Act 1997 provides for rights in water, planning for water use, control of the use of water resources, water easements and control over water works and water use, among others.

23 Uganda Wildlife Act 1996 provides for sustainable management of wildlife, consolidates the law relating to wildlife management, and establishes a coordinating, monitoring and supervisory body for that purpose.

24 The Mining Act 2003 vests the ownership and control of all minerals in Uganda in the Government and provides for the acquisition of mineral rights and other related rights.

25 The National Forestry and Tree Planting Act 2003 provides for the conservation, sustainable management and development of forests for the benefit of the people of Uganda.

26 In the 2006/2007 Financial Year, Government imposed a 10 per cent levy on second-hand clothing and second hand motor vehicles. The Finance Act 2009 increased this levy to 20 per cent of CIF and prohibited importation of used freezers, computers and Television sets.

27 In the 2007/08 Budget Speech, a 10 per cent levy was imposed on used motor vehicle spare parts.

Rwanda, Kenya and Tanzania on the ban of plastic carrier bags, enforcement in Uganda still remains a big impediment to sustainable natural resource governance.

3. Environmental monitoring

The Environment Impact Assessment Guidelines spell out two monitoring systems: -

- Self monitoring, during which the developers are encouraged to monitor the impact of their activities by themselves and;
- Enforcement monitoring, done by government agencies such as NEMA through environmental inspectors (s. 23(2)).

Self-monitoring can be one of the options for ensuring adequate environmental monitoring. Consequently, industry should be encouraged to carry out self- monitoring and self-reporting.

Section 19(1) of the Investment Code, for instance, makes it an implied term and condition for every holder of an investment licence to take necessary steps to ensure that the operation of their business enterprise does not cause any injury to the ecology or the environment. In some instances, the law has been actualized. The NEA lists in its Third Schedule activities for which an EIA is mandatory, and failure to submit one constitutes an offence.

4. Use of environment restoration orders and improvement notices

This is a clear case of the application of the liability approach both in terms of fault-based liability and strict liability. Where a person's activities affect the environment and natural resources, the National Environment Authority or a court may issue a restoration order; and an environmental inspector may issue an improvement notice for any of the following purposes:

(a) preventing the person from taking or continuing any action which would or is reasonably likely to do harm to the environment;

(b) requiring the person to restore the environment as near as it may be to its original state, including the replacement of soil, the replanting of trees and other flora and the restoration, as far as may be, of outstanding geological, archaeological or historical features of the land or the area contiguous to the land in issue.

(c) requiring the person to remove any waste or refuse deposited on land in issue.

(d) requiring the person to deposit waste in a place specified in the restoration order.

The restoration order may also:

(a) award compensation to be paid by the polluter to other persons whose environment or livelihood has been harmed by the action which is the subject of the restoration order;
(b) levy a charge on the polluter, which represents a reasonable estimate of the cost of any action taken by an authorised person or organisation to restore the environment to the state in which it was before the pollution or degradation.

Enforcement of restoration orders may create both civil and criminal liability. Enforcement may be undertaken through auctioneers or private agents. Costs of enforcement may be recovered either directly by the auctioneer demanding payment from the violator, or by the auctioneer giving notice of intention to sue for the amount. The authority can recover costs by summary action in court. NEMA may also institute a civil suit or commence criminal action through the police where direct enforcement fails or is delayed.

Enforcement of improvement notices may give rise to criminal liability. Legal action is then taken by recourse to police, i.e. filing a complaint and making a statement. At this point and as the case progresses, documentary, video and other evidence may be submitted to the police file. Police will also take a statement from the suspect. Upon compiling of the file, the consent of the Director of Public Prosecution (DPP) to prosecute may be sought. Industrial plants that, for instance, produce highly dangerous or toxic substances and therefore have significant adverse impacts on the environment may be required to deposit bonds as security for good environmental practice.

The same orders can be issued by court under s.71. There is a right of appeal to court against a restoration order issued by NEMA.

Nothing in the law stops NEMA from issuing a restoration order where criminal proceedings have been instituted and are still pending against the offender.

5. Use of compliance agreements

This is one method to promote voluntary compliance. Compliance agreements are signed with developers to guide in the level of compliance required and specifying the timeframe for the compliance and action that will be taken in case a compliance schedule is not complied with. NEMA enters into compliance agreements with the intent of achieving obedience without necessarily using assertive approaches.

6. Environmental audits

Audits occur after the project has commenced and may lead to prosecution of offenders. Audits may also lead to the redesign of a project or the re-modeling of its operations.

NEMA carries out continuous audits (S. 22) with the help of inspectors, to ensure that industries comply with the requirements of the NEA.

7. Easements, performance bonds and incentives

An environmental easement may be enforced by anybody who finds it necessary to protect a segment of the environment, although he may not own property in the proximity of the area subject to the easement. With respect to performance bonds, environmental levies are imposed on second-hand clothing and used motor vehicles. In the 2006/2007 financial year, the government imposed a 10 per cent levy on second hand clothing and motor vehicles older than eight (8) years.

The Finance Act, 2009, increased the levy on motor vehicles (excluding goods vehicles) older than eight years to 20 per cent of Cost, Insurane and Freight (CIF). In the 2007/08 Budget Speech, a 10 per cent levy was imposed on used motor vehicle spare parts. The legal instrument to operationalize this provision is, however, yet to be created.

8. Management of transboundary aspects

The legal framework for managing the environment in Uganda takes into consideration transboundary resources such as shared lakes and rivers, aquatic biodiversity and the migratory species of wild animals and their attendant issues and or problems. Uganda is a signatory to a number of international treaties that protect her sovereign territory from the illegal transportation, dumping of wastes or toxic materials in addition to the illegal trade in genetic material, wildlife and trophies like ivory, and pangolin scales.

These include the Convention on Biological Diversity and its protocols on biosafety and biotechnology (Cartagena, Nagoya, Kuala Lumpur), Access to Genetic Resources and Benefit Sharing (Nagoya), the United Nations Framework Convention on Climate Change (UNFCCC, 1992) and its Kyoto Protocol, the Convention on Fishing and Conservation of the Living Resources of the High Seas (1958), the African Convention on the Conservation of Nature and Natural Resources (1968), Convention on Wetlands of International Importance Especially as Waterfowl Habitat (RAMSAR) of 1971, the Convention for the Protection of the World Cultural and Natural Heritage (1972), and the Convention on International Trade in Endangered Species of Wild Fauna & Flora(CITES), 1973.

C. The National Forestry and Tree Planting Act 2003

The National Forestry Authority was created under this law. It was established to address the conservation, sustainable management and development of forests for the benefit of the people of Uganda and to promote tree planting.

The law also provides for the protection of trees for their ecosystem functions and collaborative forest management with adjacent communities. For any person that intends to undertake an activity or project that may or is likely to have a significant impact on a forest, an EIA is mandatory.

D. The Wildlife Act 1996

The law was enacted in 1996 to provide for sustainable management of wildlife, and establish a coordinating, monitoring and supervisory body for that purpose, in addition to the protection of rare, endangered and endemic species of wild plants and animals. It also established the Uganda Wildlife Authority (UWA). It provides for the creation of conservation areas to manage wildlife. UWA's main functions include: ensuring the sustainable management of wildlife conservation areas; developing and recommending policies on wildlife management to the government; establishing policies and procedures for the sustainable utilization of wildlife by and for the benefit of the communities living in proximity to wildlife; and controling and monitoring industrial and

mining developments in wildlife protected areas.[28]

E. The National Oil and Gas Policy (NOGP) 2008

When oil and gas resources were discovered in the Albertine region in western Uganda in 2006, there was need to put in place a legal framework to address issues related to exploration, development and production of the resource. The NOGP was therefore developed with the underlying principles of ensuring that the oil and gas resource is efficiently developed and managed to benefit society in a transparent and accountable manner that takes into consideration environmental protection and biodiversity, in addition to cooperating with relevant stakeholders.

The NOGP provides for the creation of institutions like the National Oil Company and the Petroleum Authority of Uganda. The NOGP provides for the establishment of a Petroleum Authority mandated to monitor and regulate the exploration, development and production of the oil and gas resource. In addition, it is charged with refining, gas conversion, transportation and storage of petroleum in Uganda. It was established by the Petroleum Exploration, Production and Development (PEPD) Act of 2013, and has recently been operationalized.

The Uganda National Oil Company (UNOC) has recently been established a**s** stipulated in the PEPD Act of 2013. UNOC is mandated to handle the state's commercial interests in the oil and gas sector and ensure that the resource is exploited in a sustainable manner. It has facilitated the development of a register for various service providers in the oil and gas sector.

F. The Petroleum (Production, Exploration and Development) Act 2013

This law was developed in 2013 to deal with aspects of petroleum exploration, production and development. It provides for compliance with environmental principles, including petroleum waste management (s.3), and separation of licensees from petroleum waste handlers, among others. Part 12 and 10 provide for health and safety precautions to be taken during petroleum operations.

G. The Petroleum (Waste Management Regulations), 2016

This law regulates the management of waste produced by petroleum developments and provides, among others, for compliance with environmental principles in addition to vesting responsibility for waste handling, use of good environmental management practices, and a waste management system.

H. The Mining Act 2003

This law vests the ownership and control of all minerals in Uganda in the government and provides for the acquisition of mineral rights and other related rights. It provides for EIA, environmental protection standards, environmental restoration plans and environmental performance bonds in accordance with the Environment Act (s.108 – 112).

I. The Local Government Act, Cap 243

28 Uganda Wildlife Act 1996 s.2

This law was derived from the decentralization policy and provides for the devolution of governance from the centre to the districts and lower levels. The District Council (DC) is the highest level of governance at sub-national level. One of its roles is to ensure the integration of environmental issues in the development planning process. The DC has direct linkage with the District Support Coordination Section in NEMA, which provides guidelines for the establishment of district environment committees in consultation with the district councils. Environment committees are established at sub-county, parish and village levels, although the lowest level of government is the sub-county.

The Second Schedule of the Local Government Act puts the responsibility for the environment on the local government. Emphasis should be on the need for collaborations or linkages with different stakeholders.

J. The Water Act, Cap 152

The Water Act is one of Uganda's environmental legislations, which stipulates fundamental provisions aimed at enhancing sustainable development. It provides for the use, protection and management of water as well as its supply as well as sewerage management.

The Water Act provides for important aspects including:

(a) **Right in water**: All rights to investigate, control, protect and manage water are vested in the Government of Uganda, which is accordingly better placed to ensure that water resources are used sustainably.

(b) **Planning for water use**: The law establishes a Water Policy Committee, an intersectoral body whose function, among others, is to coordinate the preparation, revision and keeping up to date of the comprehensive action plan for the investigation, control, protection, management and administration of water for the nation. Such planning may specify types of activities, development of works, which may not be done without the prior approval of the policy committee.

(c) **Control on the use of water resources**: The Act provides for the use of permits to use and supply water. A person who has to construct or operate any works or engage in the business of constructing boreholes needs construction and drilling permits respectively as provided in the Water Resources Regulations, 1998. Discharge of effluent is also regulated under the Discharge Effluent Regulations of 1999. The permit system ensures that the use of water is environmentally friendly and promotes sustainable development. These controls also ensure that water is not treated as a free good but as a good with a value to be paid for. This economic valuation of water is an important incentive for its conservation.

(d) **Water easements**: An easement is the right of a person over the land of another. Under the Water Act and Water Resources Regulations, an easement may enable a holder of a water abstraction permit to bring water to or drain water from his land over land owned or occupied by another person. In the same way, an easement may enable

a holder of a waste discharge permit to drain waste from his land over land owned or occupied by another person. The works for which an easement is granted have to be maintained and repaired so as to comply with development that is sustainable.

(e) **Control over water works and water use**: An authorized person may enter land for the purposes of inspecting works for the use of water. He may take samples and make tests to find out whether water is being wasted, misused or polluted, or whether the terms of a permit are being met. Non-compliance is an offence. All these aspects in the Water Act have the objective of ensuring that water resources are sustainably used. Waste, misuse and pollution resulting in unsustainable use of water are also prohibited.

K. The Land Act, 2008

The Land Act,[29] enacted three years after the promulgation of the Constitution and in conformity with it, emphasizes the government's role as a trustee of natural resources. It provides for the tenure, ownership and management of land.

The Land Act enshrines the Public Trust Doctrine and provides that natural resources are held in trust by government for the people of Uganda.[30]

The law provides in detail the land tenure systems and how they operate. How individuals may acquire, sell, transfer otherwise deal with land. It also provides how government may compulsorily acquire land for public use. Under the Land Act, all owners and occupiers of land are required to manage it in accordance with the NFT Act, the Mining Act, National Environment Act, Water Act and the Uganda Wildlife Act.

Section 43 of the Land Act requires all owners and occupiers of land to manage it in accordance with the Forest Act, the Mining Act, the National Environment Act, the Water Act, the Uganda Wildlife Act, the Town and Country Planning Act and any other law.

The Investment Code

Section 19(1)(d) of the Investment Code makes it an implied term and condition of every holder of an investment licence to take necessary steps to ensure that the operations of their business enterprises do not cause any injury to the ecology or the environment.

III. THE INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT IN UGANDA.

A. The Ministry of Water and Environment

The Ministry of Water and Environment is composed of directorates and departments charged with environment and natural resources management and protection. They act as lead agencies in project development with the duty to review EIA reports, conduct environmental audits and compliance monitoring, in addition to inspecting facilities and issuing improvement notices where applicable.

29 The Land Act of Ugand, 1998

30 ibid s 44

Government agencies have gazetted environmental inspectors who, under s. 79 of the NEA are vested with powers to enter any land, or premises and inspect them to determine compliance, among other issues. Hindering or obstructing an environmental inspector, or failure to comply with a lawful order, such as an improvement order issued by an Environment Inspector, is an offence attracting a term of imprisonment of not less than 12 months or a prescribed fine.

1. **The Directorate of Environmental Affairs**

   The directorate is responsible for environmental policy, regulation, coordination, inspection, supervision and monitoring of the environment and natural resources as well as the restoration of degraded ecosystems. It also monitors mitigation and adaptation to climate change. DEA is comprised of three departments, namely Department of Environmental Support Services (DESS), Forestry Sector Support Department (FSSD) and Wetlands Management Department (WMD). DEA works in collaboration with NEMA, NFA and the Uganda National Meteorological Authority.[31]

2. **The Directorate of Water Resources Management**

   The Directorate of Water Resources Management is responsible for managing and developing the water resources of Uganda in an integrated and sustainable manner in order to provide water of adequate quantity and quality for all social and economic needs for the present and future generations. The directorate comprises the department of water resources monitoring and assessment, the department of water resources planning and regulation, the department of water quality management and the department of international transboundary and water affairs. DWRM was established in July 2007 after the restructuring exercise of the new Ministry of Water and Environment.[32]

B. The National Environment Management Authority

NEMA was established through an Act of Parliament with the mandate of coordinating and monitoring environmental activities in the country.

NEMA's other roles include strengthening the capacity of lead agencies and other enforcement agencies to carry out day-to-day compliance monitoring and enforcement. NEMA is empowered to issue environment restoration orders requiring a person who has damaged or is about to damage the environment, to restore it, not to do the act that may result in damage, or to compensate for damage already done.[33] The same orders can be issued by court under s.71 of the NEA. There is a right of appeal to court against a restoration order has been issued by NEMA.

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31 Ministry of Water and Environment 'Directorate of Environment Affairs' (*Ministry of Water and Environment*) <http://www.mwe.go.ug/directorates/directorate-environmental-affairs> accessed November 5, 2018

32 Ministry of Water and Environment 'Directorate' (*Ministry of Water and Environment*)<http://www.mwe.go.ug/directorates/directorate-water-resources-managemen > accessed November 5, 2018

33 National Environment Act s 67, 70

C. The National Forestry Authority

NFA was established under s.52 of the National Forestry and Tree Planting Act and launched on 26 April 2004. NFA is mandated to manage central forest reserves on a sustainable basis and to supply high quality forestry-related products and services to the government, local communities and the private sector. NFA envisions contributing to a sufficiently forested, ecologically stable and economically prosperous Uganda.[34]

D. Local governments

Natural resource management in Uganda was decentralized in 1998 whereby local governments are supposed to implement decentralized functions. The District Environment Officer (DEO) and the Natural Resources Department are the principal agencies charged with this duty. The NEA Cap 152 empowers to the DEO to stop any activity that is likely to degrade the environment. However, due to inadequate facilitation, local governments are very weak in implementing environment policies and decisions because they lack capacity and resources.

E. The Judiciary

The courts have power to issue orders such as injunctions as and, when appropriate, to dispose of cases related to environmental crimes.

S.163 of the NEA provides that a court on convicting any person:

(a) for an offence under the Act, may order that person, within a time specified in the order, to do any act the person had failed, refused or neglected to do;

(b) for offences related to fragile ecosystems, may, in addition to any other penalty it may impose, order that person, within a time to be specified in the order —

(i) to vacate the fragile ecosystem;

(ii) to restore the fragile ecosystem to its original state and function; or

(iii) to remove from the fragile ecosystem anything that he or she may have placed in the fragile ecosystem.

Under s.84 of the NFTA, courts are empowered to convict persons or order forfeiture of forest produce in respect of an offence committed; or one found in possession of illegal forest products. Vehicles, machinery and weapons used to commit offences such as timber logging can also be forfeited and persons found in possession of such vehicles punished.

S85 of the NFTA also empowers court to order compensation for any person convicted of an offence liable for any loss or damage caused or be ordered to pay to the state, in addition to any penalty imposed by court for the offence, an amount of compensation for that loss or damage.

Uganda's judiciary has benefited from capacity and skills enhancement training workshops on

34 National Forestry Authority, 'What we do' (*National Forestry Authority*) <http://www.nfa.org.ug/index.php> accessed 5 November 2018

access to justice and enforcement of environmental law delivered by Greenwatch. The training sought to promote judges' and magistrates' participation in the process of ensuring access to environmental justice as well as promoting judicial activism.

As a result of the training workshops, there has been an improvement in the substance of judicial decisions handed down on environmental crimes brought before courts of law. For instance, successful eviction of forest encroachers was registered in the cases of Buhungiro CFR, Matiri CFR in Kyenjojo District, Omier CFR in Nebbi District. Although significant progress has been registered in this field, there are instances where environmental matters have not received the attention they deserve and have been thrown out of court with orders that instead promote further decimation of natural resources. This has been observed in instances where judicial officers with no prior training in environmental law handle such matters. Attempts to challenge these decisions have been futile as they are usually dependent on legal technicalities, sometimes with costs slapped on the enforcement agency, which is implementing its mandate. Such decisions have watered down efforts to fight environmental crime through courts of law.

IV. CHALLENGES

One of the biggest challenges facing environmental governance in Uganda is a poor compliance culture and impunity, coupled with the lack of respect for established environment laws and standards. Poor coordination among environment and natural resources sector institutions perpetuates bureaucratic inefficiencies, undermines timely action and shifts responsibility from one institution without any of them taking full responsibility for failure.

NEMA is mandated to play the role of coordination, monitoring and supervision for purposes of sustainable natural resource management but it is implementing activities that would otherwise be carried out by NFA, UWA, local governments or WMD. Under Article 237 (2)(b) of the Constitution, the government has an obligation to protect and preserve wetlands, which is further articulated under the NEA.

Like in forestry and wetlands, the Ministry of Lands, Housing and Urban Development, the Uganda Land Commission and District Land Boards have continued to issue land titles to developers who have continued to destroy wetlands. This has caused confusion and perpetuates natural resource degradation.

The Environmental Protection Force that was instituted to support agencies to curb degradation of the environment has been marred with operational challenges, hence making its functionality difficult.[35]

Regulatory institutions have been constrained in enforcing the law. As a result, implementation of environmental laws in Uganda is still a big challenge. Most of the population is uneducated; and people seem to take heed only when the enforcement systems act as a deterrent. Enforcement in

35 Christine Aiello, NEMA in a presentation on managing environmental challenges in Uganda.

different areas needs to be improved, as well as compliance monitoring. Sometimes, environment related offences/crimes are poorly investigated, resulting in the loss of evidence.

Addressing these challenges therefore requires deliberate effort to harmonize roles, responsibilities and clarify mandates in order to facilitate effective dialogue.

The judiciary, for instance, should be equipped with knowledge on contemporary issues such as climate justice and to embrace judicial activism to handle the emerging questions. Civil society actors, on the other hand, must ensure that new information is regularly shared with and disseminated to judiciary to enable judicial officers to acquire skills and knowledge on handling emergent issues. Civil society actors in environmental governance should continuously lobby power centres and people of influence to engage and demonstrate interest when confronted with environmental challenges. This should be coupled with the use of evidence-based research to advocate proper governance of environment and natural resources.

Chapter 8

Consolidating Scholarship and Research in Sustainable Development: The Centre For Advanced Studies in Environmental Law and Policy (CASELAP)

Nicholas O. Oguge

I. DISCOURSES ON ENVIRONMENTAL SUSTAINABILITY

Planet Earth has rich and diverse natural resources that form the basis of human development and wellbeing. These resources are finite, and while global consumption is increasing, the Earth requires about one and a half years to regenerate what we use in a year.[1] Anthropogenic pressures on the Earth's environment have already exceeded the planetary boundaries in several dimensions, thus threatening the stability of the global environment.[2] This challenge of stewardship, where humans are a primary driver of environmental change, has been termed the Anthropocene Epoch. Environmental as well as socio-economic challenges bring to the fore the need to meet fundamental human needs while preserving the life-support systems of Planet Earth. The need for intervention was first documented about five decades ago in a 1972 report titled 'Limits to Growth' by the Club of Rome that indicated the need to tackle resource depletion and pollution.[3] The idea of sustainable development then emerged in the early 1980s from scientific perspectives on the relationship between nature and society.[4]

A holistic approach to resource management, in contrast to sustainable exploitation of a resource, had earlier emerged in the 1970s as the science of ecosystem management (EM) though conceptualized in the 1930s.[5] This embraced a broader view of resource exploitation by combining human activities with the preservation of entire ecosystems despite the normative term lacking

1 A Wilkman & K Skanberg, 'The Circular Economy and Benefits for Society: Jobs and Climate Clear Winners in an Economy Based on Renewable Energy and Resource Efficiency' (2015) A study report at the request of the Club of Rome with support from the MAVA Foundation <https://www.clubofrome.org/wp-content/uploads/2016/03/The-Circular-Economy-and-Benefits-for-Society.pdf > accessed 28 October 2018.

2 J Rockstrom et al., 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity' (2009) 14(2) Ecology and Society 32.

3 ibid.

4 RW Kates et al., 'Sustainability Science' (2001) 292(5517) Science 641, 642.

5 Sara Söderström, Kristine Kern, Magnus Broström and Michael Gilek, 'Environmental governance and ecosystem management: Avenues for synergies between two approaches' (2016) 17(1) Interdisciplinary Environmental Review 1.

a clear definition. This may have contributed to the increasing estrangement of the science and technology community from the preponderantly societal and political processes that were shaping the sustainable development agenda during the late 1980s and early 1990s.[6]

Clear principles for the management of natural resources were developed during the fifth Conference of the Parties of the Convention of Biological Diversity (CBD), a body set up in 1992. Key characteristics included the inclusion of the human element, acceptance of societal utilization of the ecosystem and its services, emphasis on multiple-use and intergenerational sustainability, acknowledging the importance of high quality science, stakeholder participation and learning, hence adaptive (co-) management.[7] This necessitated a paradigm shift in the understanding of the fundamental character of interactions between nature and society.[8] It also presented an opportunity for multidisciplinary approaches to addressing environmental sustainability challenges to attain sustainable development.

In parallel to this emerged the idea of linking environmental, social and economic issues in the 1970 United Nations International Development Strategy and the 1972 UN Conference on the Human Environment in Stockholm. This formal beginning of sustainable development as a concept was precipitated in the 1980s by several important policy documents, primarily the World Conservation Strategy[9] and that of the World Commission on Environment and Development (WCED) (commonly referred to as the Brundtland Report), *Our Common Future,*[10] which defined sustainable development as: "… development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

This concept has now formed an integral part of the agenda of governments and corporations as well as the mission of educational and research programmes worldwide.[11] World leaders from 195 countries agreed to pursue sustainable development under Agenda 21[12] at the Rio Earth Summit in 1992. Other multilateral environmental conventions on biodiversity[13] and climate change[14] (among other arrangements) were concomitantly concluded. This international commitment was a major global drive in environmental governance and was embraced by most African countries, including Kenya, as evidenced by successive national development plans.

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6 Kates et al (n 4) above.

7 Reviewed in Söderström et al (n 5) above.

8 Kate et al (n 4) above.

9 IUCN-UNEP-WWF, World Conservation Strategy: Living Resource Conservation for Sustainable Development (IUCN: Gland-Switzerland, 1980).

10 World Commission on Environment and Development, *Our Common Future* (Oxford University Press: Oxford, 1987) 8–9.

11 LMA Bettencourt & J Kaur, 'Evolution and structure of sustainability science' (2011) 108(49) PNAS 19540.

12 United Nations, United Nations Conference on Environment & Development Rio de Janerio, Brazil, 3- 14 June 1992, Agenda 21.

13 United Nations, Convention on Biological Diversity 1992. <https://www.cbd.int/doc/legal/cbd-en.pdf > accessed 18 November 2018.

14 United Nations, United Nations Framework Convention on Climate Change 1992. <https://unfccc.int/resource/docs/convkp/conveng.pdf > (accessed on 18 November 2018)

While environmental challenges are assuming a more global character, environmental governance -- policy, rules and norms, institutions, procedures and financing mechanisms – is becoming more dispersed.[15] That is, it addresses who makes decisions, how decisions are made and carried out, the scientific information needed for decision-making, how the public and major stakeholders can participate in the decision-making, the kind of information that should be available and how processes and systems are reviewed.

Despite this international commitment, indicators reviewed in subsequent summits (Rio + 5 (1997)[16], Rio + 10 (2002)[17] and Rio + 20 (2012) [18]) suggest disappointing progress. This is based on the tracking of changes in the state of the environment since their implementation.[19] A fresh global sustainability policy was inevitably put in place in 2015 to succeed and expand on the Millennium Development Goals through improved social, economic and environmental links to generate the 17 Sustainable Development Goals.[20] In Africa, the state of the environment shows deterioration in environmental indicators. This is particularly evidenced by the decline and loss of biodiversity that is reducing nature's contributions to people, impacting daily lives and hampering socio-economic development.[21] This is attributable to weak environmental governance, poor enforcement of environmental laws and policies, and lack of participatory planning and implementation. There is therefore need for capacity development to improve development and implementation of sound environmental policy.

The incorporation of environment into the governance agenda in Africa mirrored the trends at the global level that commenced after the landmark United Nations Conference on the Human Environment in June 1972; encouraged by the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992; and buttressed by the Johannesburg Plan of Implementation of 2002. This led to the realization that there was need to create expertise in policy, legal and institutional frameworks to regulate natural resource use and waste management in order to achieve intra- and inter-generational equity.

Although many legal instruments existed that were relevant in addressing environmental matters in the late 1990s, they remained inadequate and capacity for their implementation and

15 Nora Smedby, 'Local Environmental Governance: Assessing proactive initiatives in building energy efficiency' (2016) Lund University. < http://portal.research.lu.se/ws/files/3707301/8852086.pdf > accessed 18 November 2018.

16 United Nations, Special Session of the General Assembly to Review and Appraise the Implementation of Agenda 21 New York, 23-27 June 1997. <http://www.un.org/esa/earthsummit/index.html > accessed 18 November 2018.

17 United Nations, World Summit on Sustainable Development 2002. <https://earthsummit2002.org/resolution.pdf > accessed 6 December 2018.

18 United Nations, Resolution adopted by the General Assembly on 27 July 2012. <http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E > accessed 6 December 2018.

19 M Howes, et al., 'Environmental Sustainability: A Case of Policy Implementation Failure?' (2017) 9(2) Sustainability 165.

20 ibid.

21 E Archer et al, ,Summary for policymakers of the regional assessment report on biodiversity and ecosystem services for Africa of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' (IPBES: Bonn, Germany, 2018).

enforcement was extremely low, practically in all African countries.[22] It was further recognized that good governance in these technical areas required advanced studies and training to ensure a critical mass of expertise. This was envisaged to provide a pedestal for the development of sound natural resource policies, laws and institutions with requisite expertise to implement them and to ensure sustainable development on the continent. This need was particularly urgent in Kenya following the enactment of the Environmental Management and Co-ordination Act, 1999,[23] a sophisticated framework environmental law that required development of diverse expertise to implement.

In the mid-1990s to early 2000, the most renowned programme on the continent on environmental capacity building was the Partnership for the Development of Environmental Law and Institutions in Africa (PADELIA), located at the United Nations Environment Programme (UNEP) in Nairobi. This programme was, however, limited to assisting African countries to develop national laws. A total of 13 countries were covered between 1995 and 2001, i.e. Botswana, Burkina Faso, Kenya, Lesotho, Malawi, Mali, Mozambique, Niger, Sao Tome and Principe, Senegal, Swaziland, Tanzania and Uganda. The project was coordinated by Professor Charles Odidi Okidi, who purposed to encourage the introduction of environmental law courses in seven (Burkina Faso, Kenya, Malawi, Mozambique, Sao Tome and Principe, Tanzania and Uganda) of the 13 countries between 1995 and 2000. The outcome was poor, notably due to shortage of knowledgeable and committed staff to formulate dedicated and intensive courses at advanced degree level.

Having identified this cognate gap on the need for capacity development on environmental governance in Africa, Professor Okidi developed a concept note[24] in November 2002 for the Faculty of Law and the Institute for Development Studies. The paper proposed the establishment of a centre committed to excellence in environmental governance at local institutions of higher learning. The Vice-Chancellor of the University of Nairobi at the time, Professor Crispus M. Kiamba, in his 11 February 2003 letter to Professor Okidi described the venture as "…an important initiative … fully support the idea …" In view of the urgent need and support from the university authorities, the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) was proposed for establishment at the University of Nairobi in October 2003 under the sponsorship of the Institute for Development Studies (IDS) and the Faculty of Law (currently the School of Law). The joint committee to support the development of the centre included faculty from IDS (Professor Jama Mohamud, Dr Walter Odhiambo and Dr Joseph Onjala) and School of Law (Professor Albert Mumma). The proposal to set up CASELAP was duly passed by the University of Nairobi Senate on 24 December 2004. On the 20 September 2007, the Governing Council of the University of Nairobi approved statute provisions establishing CASELAP as a faculty-level unit of the university.

The centre was proposed to be fundamentally interdisciplinary, with the aim of developing capacity in environmental governance. This would enable the tackling of environmental problems that are

22 CO Okidi, Proposal for the Establishment of the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) Unpublished, 26.

23 Act No. 8 of 1999.

24 CO Okidi (n 22 above) 3.

often complex and cannot be satisfactorily addressed within single disciplines. Its interdisciplinary nature allowed the centre to focus on the development of policy, law and diplomacy arrangements in the realm of environmental resources and sustainable development. A revised concept paper for CASELAP took cognizance of existing environmental training in the region within institutions of higher learning and in international organizations. [25] This joint paper by Prof Okidi and Prof JB Ojwang' noted that existing environmental studies programmes in public universities lacked intensity and focus on environmental governance as expressed in environmental policy, law and diplomacy. CASELAP was therefore developed to occupy a special niche in multidisciplinary capacity development in environmental management.

Against this background, this chapter discusses the conceptualization and development of the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) as a response to the need for capacity development to address environmental issues in sustainable development in Africa. It stems from discourses in global environmental challenges and interventions for over four decades, which culminated in international agreements and conventions. This commenced with the science of ecosystem management, the concept of sustainable development and culminated in the 2030 Agenda for Sustainable Development -- one of the most ambitious and important global agreements in recent history. At the heart of the agenda are the 17 Sustainable Development Goals (sometimes referred to as the Global Goals) and their 169 targets. The chapter highlights the challenges inherent in research and practices in environmental governance. It finally discusses CASELAP's contribution to the global transformational frameworks focusing on SDGs through education, research and external leadership through a conceptual framework.

II. MULTIDISCIPLINARY APPROACHES KEY TO KNOWLEDGE GENERATION AND TRANSFER IN ENVIRONMENTAL GOVERNANCE

The dispersed nature of environmental governance means that the multiplicity of levels -- global, regional, national and local regimes, norms, and regulatory mechanisms -- are linked into a complex institutional architecture.[26] Such multi-stakeholder environmental governance processes emphasize participation, collaboration, and learning that are essential to realize social and ecological outcomes.[27] This necessitates polycentric decision-making involving individuals, civil society, the state and other actors, and invariably addresses questions of economic efficiency, environmental effectiveness, equity, and political legitimacy.[28] These four criteria of environmental governance are constitutive of the economic, social, and environmental dimensions of sustainable development. In

25 CO Okidi & JB Ojwang', 'Centre for Advanced Studies in Environmental Law and Policy (CASELAP)' (2003) A concept paper for the Faculty of Law and the Institute for Development Studies, University of Nairobi Unpublished, 7.

26 J Balsiger & B Debarbieux, 'Major challenges in regional environmental governance research and practice' (2011) 14 Procedia Social and Behavioural Sciences 1.

27 R Plummer R et al, 'How do environmental governance processes shape evaluation of outcomes by stakeholders? A causal pathways approach' (2017) 12(9) PLoS ONE e0185375.

28 W Neil Adger et al, 'Governance for sustainability: towards a `thick' analysis of environmental decision-making' (2003) 35 (6) Environment and Planning A: Economy and Space 1095.

the global arena, this has generated debate with regard to the advantages and disadvantages of an increasing fragmentation of environmental governance structures.[29]

Historically, environmental decisions studies were supported by different disciplines in the natural, physical and social sciences, with experts in the different disciplines acting independently in silos. The knowledge systems were also divided between scientific knowledge that advocated an organized and systematic way of finding answers to questions, and local and indigenous knowledge that is dependent on the development of know-how, skills and practices passed on from generation to generation.[30] Since disciplines tend to have their own concerns and epistemological differences, barriers to multischolar and inclusive forms of knowledge governance and dialogue across and between subject specialisations often emerged. The dichotomous nature of the disciplines led to a tendency for scholars to address environmental challenges from the safety of their home domain, leading to further specialisation and emergence of even narrower subdisciplines such as environmental economics, environmental anthropology and environmental philosophy, to name a few.[31] It soon became clear that analysis of and response to environmental concerns inevitably required interdisciplinary approaches. Further, whilst disciplinary studies focus on subsets of the four criteria of environmental governance, institutional dynamics and heterogeneity may lead to governance dilemmas.

This limit of disciplinary specialisation has spurred the evolution of interdisciplinary research and action to address knowledge integration and transfer of environmental governance through synthesis of empirical knowledge or data and theoretical knowledge synthesis in different forms. Unlike knowledge production through research, knowledge integration and synthesis have to grapple with less developed epistemological and methodological approaches. The dichotomous nature of natural and social sciences, key in environmental governance research, means that researchers approach the subject from different philosophical worldviews or paradigms. These philosophical positions and methodological approaches lead to a preference for particular research methods or tools on the grounds of appropriateness within specific methodological orientations.[32] The theoretical perspective (the theory of science) shows a conceptual relationship among assumptions concerning the nature of reality (ontology), views on truth and legitimate knowledge (epistemology), and the aims and principles of scientific investigation (methodology). In this relationship, ontology defines epistemology, which in turn defines methodology, which then determines applied methods.

The two key research approaches, quantitative and qualitative, are derived from two different traditions of scientific philosophy, and are fundamentally different based on ontological and epistemological perspectives. The quantitative approach stems from positivism, which is premised

29 J Balsiger & B Debarbieux (n 26) above.

30 E Lofmarck & R Lidskog, 'Bumping against the boundary: IPBES and the knowledge divide' (2017) 67 Environmental Science & Policy 22.

31 W Neil Adger et al. (n 28) above.

32 Lisa Slevitich, 'Qualitative and Quantitative Methodologies Compared: Ontological and Epistemological Perspectives' (2011) 12 Journal of Quality Assurance in Hospitality & Tourism 73.

on objective realism, while the qualitative approach is based on subjective realism (interpretivism). Since the ultimate difference between qualitative and quantitative inquiries lies in the logic of justification, other than methods as techniques, it has been argued that subscribing to the philosophy of one approach does not preclude employing the methods of another.[33] This gives rise to mixed methods or approaches that provide a window for synthesis research in multidisciplinary approaches. It has been suggested that the appropriate methodological approach for environmental governance commences from an interdisciplinary approach, and this would be followed by integration, leading to a transdisciplinary study area that uses a mixed methods research approach.[34]

Due to conceptual tensions and analytical complications in multidisciplinary research on environmental governance,[35] frameworks have emerged for concepts that permit structured, interdisciplinary reasoning about complex problems in social-ecological systems.[36] Such complex environmental problems include climate change, biodiversity loss, resource scarcity, and resource degradation. Resource scarcity and degradation affect critical resources such as water, energy, and minerals, and their relevance in both the scientific and policy communities is constantly increasing.[37] The need for a Centre of Excellence to develop local and regional capacity on multidisciplinary studies to address environmental governance, and therefore sustainable natural resource use, is apt. Such institutions exist in different contexts, such as the Socio-Ecological Synthesis Centre at the University of Maryland, USA. In Kenya, the Centre for Advanced Studies in Environmental Law and Policy (CASELAP) is one such institution.

III. CONCEPTUAL FRAMEWORK FOR CASELAP AS A MULTIDISCIPLINARY CENTRE OF EXCELLENCE IN ENVIRONMENTAL GOVERNANCE

The Centre for Advanced Studies in Environmental Law and Policy (CASELAP) was established as a graduate centre of excellence for capacity building in environmental governance, comprising environmental law, policy and diplomacy. CASELAP has since developed focused programmes aimed at providing sustained and advanced level capacity building in environmental governance at national and regional levels. This will urgently fill an important gap in environmental governance that is key to ensuring sustainable development. The principal components of environmental governance, which constitute the three academic divisions of CASELAP, are Environmental Policy, Environmental Law and Environmental Diplomacy.

33 ibid.

34 L Tacconi, 'Developing environmental governance research: the example of forest cover change studies' (2011) 38(2) Environmental Conservation 234.

35 AK Salomon et al, 'Democratizing conservation science and practice' (2018) 23(1) *Ecology and Society* 44.

36 CR Binder, J Hinkel, PWG Bots & C Pahl-Wostl, 'Comparison of frameworks for analyzing social-ecological systems' (2013) 18(4) Ecology and Society 26.

37 ibid.

It is now well accepted in the case of Africa that an effective mobilization of national and transnational resources is essential to the continent's sustainable social and economic development.[38] It is also recognised that in order to attain this goal, sound natural resource management is essential. The recognition has led to the formulation of varied laws on the environment, often with the support of donor countries and agencies, in many African countries.

CASELAP initiative was therefore designed to focus on and intensify advanced studies in environmental law and policy, while mainstreaming the two in the general graduate programmes. These programmes are unique and without parallel in Africa. CASELAP provides opportunities to assist capacity development on the African continent.

Good governance in these technical fields requires advanced studies and training, which ensures a critical mass of expertise in each country, including Kenya. Without that scope of capacity, there will be inadequate or poorly designed policies, leading to flawed laws and their implementation, with the result that the natural resources, which form the basis for development in Africa, will be endangered and sustainable development put in jeopardy.

Shortage of expertise and institutional capacity is prevalent at the levels of legislation, implementation, institutional design and expertise. Hence, the need to create a critical mass of environmental governance experts in Africa, and Kenya, which is famed for its rich diversity of natural resources. Thus, as a Centre of Excellence in teaching and research in environmental law and policy, CASELAP is an example to other African countries. CASELAP currently offers four academic programmes. These include Master of Arts in Environmental Policy, Master of Arts in Environmental Law, Philosopher's Degree in Environmental Policy and PhD in Environmental Law.

The Centre of Excellence (CoE) concept here refers to CASELAP's competencies in providing a platform for interdisciplinarity engagement with the industry and government in a triple-helix relation, having attracted talent to achieve its core mandate.[39] CASELAP is striving to overcome capability gaps in research and practice in environmental governance through the training of a critical mass of knowledgeable and committed scholars. In this respect, 39 scholars have graduated with different postgraduate degrees since its inception. This includes 19 Master of Arts in Environmental Policy, 16 Master of Arts in Environmental Law, and five PhDs in Environmental Policy; while 175 students are pursuing master's degree programmes, and 62 candidates are being trained at the PhD level.

CASELAP is also increasing its research fund portfolio and international collaborations. Three recent examples may suffice. (1) First, is the Pan-African Research College on Sustainable Cities in collaboration with the School of the Built Environment (University of Nairobi), University of

38 E Archer et al (n 21) above.

39 T Hellstrom, 'Centres of Excellence and Capacity Building: from Strategy to Impact' (2018) 45(4) Science and Public Policy 543.

Ghana (Accra, Ghana), the United Nations University Institute for Natural Resources in Africa (Accra, Ghana), the University of Cape Town (Cape Town, South Africa), and the University of the Witwatersrand (Johannesburg, South Africa) -- which is funded by the Robert Bosch Stiftung (Euro 1 million) from 2018 to 2020. (2) Second, is the project on Green and Circular Innovation for Kenyan Companies (GECKO) in collaboration with Technical University of Denmark (Lyngby, Denmark), Kenya Industrial Research and Development Institute (Nairobi, Kenya), Kenyatta University (Nairobi, Kenya) and Ruaraka Business Community (Nairobi, Kenya). This project is funded by the Danish Development Agency, Danida (DKK 3,665,091) from 2018 to 2020. (3) Third, is a study assessing the effect of exposure to air pollution on children's health and daily mortality/morbidity, and the effect of heat stress on workers' health. The collaborating institutions include Addis Ababa University (Addis Ababa, Ethiopia), Makerere University (Kampala, Uganda), University of Rwanda (Kigali, Rwanda), and the University of Southern California (USA). This project is jointly funded by National Institutes for Health (USA) and International Development Resource Centre (Canada) (US$653,150) from 2018 to 2020.

The conceptual framework in the context of CASELAP as a Centre of Excellence entails a concise summary in words and illustration on how CASELAP will align itself to global transformational frameworks, including Africa's Agenda 2063, the Sustainable Development Goals (SDGs) and the Aichi Biodiversity targets. To provide one example, a conceptual framework is provided that depicts key opportunities the SDGs offer to the knowledge communities and CASELAP's core competencies to support the country and region towards achieving these Global Goals.

IV. ELEMENTS TO LINK CASELAP PROGRAMMES TO SDGS

CASELAP's contribution to SDGs (and indeed to other global and regional transformational frameworks) is in education, research and external leadership. In education, CASELAP has developed curricula for graduate programmes addressing sustainable development. It also has short course programmes for sustained professional development. CASELAP capacity development on research focuses on interdisciplinary and transdisciplinary approaches. CASELAP also provides external leadership through public engagement and policy development.

CASELAP's principal focal areas of research, capacity development, consultancy and outreach are on adherence to norms, procedures and institutional arrangements for the provision of sustainable development, as well as a clean and healthy environment at all levels. To achieve this, the centre has consciously recruited an interdisciplinary team of scientists, economists, lawyers and social scientists with a strong capacity to support the development of appropriate[40]regulatory frameworks that integrate principles of green economic growth to key sectors. Owing to its different competencies, this team is pooled into three thematic areas: Environmental Policy, Environmental Law and Environmental Diplomacy. CASELAP also has a deep pool of other subject specialists

40 S Hallegatte, G Heal, M Fay & D Treguer, 'From Growth to Green Growth: A Framework' (2011) Policy Research Working Paper 5872. The World Bank Sustainable Development Network Office of the Chief Economist, 40.

within the University of Nairobi who have been internally coopted to deliver on various technical areas on a need basis. The respective capacity of the sub-teams among CASELAP staff and coopted associates from the School of Law are detailed in Table 8.1.

Currently, CASELAP offers the following four programmes, approved by the University of Nairobi Senate:

1. Master of Arts in Environmental Policy
2. Master of Arts in Environmental Law
3. PhD in Environmental Policy
4. PhD in Environmental Law

Environmental policy and environmental law are two key areas of the innovative curricula.

A. Environmental policy programmes

Most countries around the world continue to face serious environmental challenges related to different levels of socioeconomic development. As these challenges increase and become more complex, there is urgent need for environmental managers to provide solutions to ensure sustainable development. Such skilled expertise is available through well-designed and executed learning programmes in environmental policy. The programmes are innovative and grounded in both theory and practice. Graduates from this programme include among others: Dr Jane Nyakang'o (Director, Kenya Cleaner Production Centre (KNCPC)), Dr Kelvin Khisa (Senior Research Scientist, Kenya Industrial Research and Development Institute (KIRDI)), Dr Mwenda Makathimo (Executive Director of Land Development and Governance Institute), and Dr Juliana Mutua (Deputy Director, Ministry of Lands and Physical Planning), and Dr Angela Mungai (Lecturer, Masinde Muliro University of Science and Technology). They meet the increasing need for competent environmental managers to guide the formulation and implementation of environmental policies for sustainable development. The programmes blend various core subjects in environmental studies to enable a learner to be properly grounded in the principles, concepts and techniques in environmental governance.

There are two programmes addressing policy formulation: Master of Arts in Environmental Policy and PhD in Environmental Policy. These programmes encompass the identification of environmental problems, providing guidelines, objectives and action plans towards promotion of sustainable development.

The specific objectives of the Master of Arts in Environmental Policy Programme are to:

a) enable students to have good knowledge of environmental policy and equip them with hands on and advanced skills in environmental governance;

b) demonstrate the relationship between environmental policy and science by facilitating dialogue among the two specializations and thus promote efficacy in environmental governance;

Table 8.1. Distribution of faculty in three thematic areas at CASELAP and staff co-opted from the School of Law (SoL) in 2018

Thematic area	Faculty	Competencies
Environmental Policy	Nicholas O. Oguge, PhD (Professor)	Science-Policy Interface, Climate Change, Renewable Energy, Water Resources, Biodiversity and Ecosystem Services.
	Dr Jones Agwata (Senior Lecturer)	Climate Change, Natural Resource Use Conflicts, Environmental Assessment.
	Dr Richard Mulwa (Senior Lecturer)	Environmental Resource and Economics, Environmental Valuation, Economic Modeling
	Dr Stephen Anyango (Senior Lecturer)	Environmental Health, Energy & Development, Environmental Management
Environmental Law	Charles Okidi, PhD (Professor)	International Environmental Law, Environmental Governance
	Dr Collins Odote (Senior Lecturer)	Extractive Industry, Land Law, Environmental Governance
	Dr Kariuki Muigua (Senior Lecturer – SoL)	Conflict Management, Environmental Justice, Natural Resources & Energy Law
	Dr Robert Kibugi (Senior Lecturer – SoL)	Land Use, Climate Change, Water Resources & Services
	Dr Iwona Bulska (Senior Lecturer – SoL)	International Environmental Law
	Monday Businge (Tutorial Fellow)	Climate Change Law, Municipal Natural Resources Law, Human Rights
	Edna Odhiambo (Lecturer – SoL)	Climate Change Law, Land use Law, Biodiversity Law
	Valentine Ataka (Lecturer – SoL)	Natural Resources Law
Environmental Diplomacy	Dr Elvin Nyukuri Lecturer	Climate Change, Environmental Diplomacy, Natural Resource Conflict
	Benson Ochieng' (Part-time Lecturer)	Natural Resources Law, Environmental Treaty Negotiations, Law, Policy and Sustainable Development

c) prepare senior policy makers and corporate leaders with skills to mainstream environment and natural resources policy into their respective fields to promote sustainable development;

d) promote knowledge and insights for protection of the threshold of sustainability in utilization or enjoyment of the environment and natural resources sustainably;

e) prepare natural resources managers for informed interventions or other forms of avoidance and/or settlement of disputes on environmental matters; and

f) offer quality training that prepares those aspiring to pursue scholarship at doctoral, research or teaching levels and thus ensure inter-generational succession of management experts.

The specific objectives of the PhD in Environmental Policy programme include to:

a) develop exemplary scholarship, research competencies and analytical skills in environmental policy;

b) provide advanced training that will build and strengthen individual capacity to undertake advanced research on environmental policy issues and design appropriate intervention strategies;

c) impart advanced knowledge and skills to mainstream environmental considerations into development policies, programmes and plans to promote sustainable development;

d) prepare students to undertake advanced research and submit a PhD thesis; and

e) prepare students to teach in institutions of higher learning and conduct research in research institutions and in the private sector.

B. Environmental law programmes

As a result of increasing environmental challenges facing the world, there is increased need for innovative and well-designed responses. An array of tools has been developed at national, regional and global levels to ensure structured and deliberate responses to these environmental problems. Law is one such tool, whose importance in providing an orderly framework for implementing actions to conserve the environment, avoid harm, and deal with the consequences of deleterious impacts on the environment is well recognised worldwide. However, the design of appropriate regulatory tools is complex largely due to the technicalities of the environmental field. Moreover, the fact that new and more advanced developments take place frequently requires continued adaptation and innovation of strategies for ensuring compliance with and enforcement of new environmental norms. To respond to these demands, the CASELAP developed and is implementing multi-disciplinary, innovative and practically relevant advanced courses in environmental governance.

The programmes in environmental law focus on developing the capacity of professionals in the field of development and implementation of environmental regulations, norms and institutions. Such professionals are anticipated to advise policy makers, administrators and actors in environmental governance, and to participate in resolving disputes in the environmental field.

The design of the programmes responds to a need both within universities and the country for specialist experts in the field of environmental law, expertise that is imparted through a rigorous and relevant PhD programme. The programmes in environmental law complement those of environmental policy and promote the capacity building of critical environmental thinkers capable of developing, interpreting and applying environmental rules in an integrated and multi-disciplinary context. As an example, Dr Kelvin Khisa, who graduated from this programme in 2016 is currently leading a thematic area in an international partnership for the development of Green and Circular Economy measures at the Ruaraka Industrial Zone in Nairobi. This partnership includes the Kenya Association of Manufacturers (KAM), Kenya Industrial Research Development Institute (KIRDI), Kenyatta University, Ruaraka Business Community (RUBICOM), Technical University of Denmark, and the University of Nairobi.

Specific objectives of the Master of Arts in Environmental Law programmes is to:

a) provide students with good knowledge of environmental law and equip them with hands-on and relevant skills in environmental governance;

b) provide specialised training for those interested in practising environmental law as a specialised discipline either as drafters, legal advisers, corporate lawyers or legal practitioners;

c) develop a cadre of professionals with skills and expertise to incorporate environmental considerations in all planning and legal instruments;

d) promote knowledge and insights for protection of the threshold of sustainability in the utilization or enjoyment of the environment;

e) prepare managers for informed interventions, avoidance and/or settlement of disputes on environmental matters; and

f) offer quality training to prepare those aspiring to pursue scholarship at doctoral, research or teaching levels to ensure inter-generational succession of environmental management experts.

Specific objectives of the PhD in Environmental Law are to:

a) develop world-class and exemplary scholars with innovative research and analytical competencies in environmental law;

b) equip students with advanced, relevant and cutting edge knowledge on environmental norms, regulations, procedures and institutional arrangements within national, regional and global contexts;

c) inculcate a multi-disciplinary approaches culture to learning, designing laws and linking legal and policy prescriptions in addressing environmental challenges; and

d) prepare students to teach in institutions of higher learning.

CONCLUSION

Historical perspective of sustainable development in Kenya included the endorsement and adoption of Agenda 21 (1992); ratification of most of the international agreements, treaties, conventions, and protocols resulting from the first Rio conference, that are considered to be in harmony with the country's plans for sustainable development; and putting in place institutions to address climate change, biological diversity and combating desertification. The dearth of requisite multidisciplinary expertise to develop and ensure compliance and enforcement is problematic. Hence, despite the constitutional provision that anchors Sustainable Development in Kenya, there remains challenges for effective implementation of progressive policies and laws. Other challenges include (i) tendency to make laws not anchored on evidence-based policy frameworks, and (ii) economic policy framework that does not take into account intrinsic values of the natural capital. These challenges emanate from low human resource capacity and lack of meaningful participation in generating development agenda that requires leadership in environmental governance. Appropriate capacity, as is being developed at CASELAP, would consist of multidisciplinary experts to provide leadership and direction reorienting development trajectory to allow genuine societal advancement and sustainability.

Part III.
Environmental Governance

Chapter 9

Good Environmental Governance and Judicial Commissions in Pakistan

Parvez Hassan

I. DEDICATION

In May 2001, I delivered a keynote address titled, 'Elements of Good Environmental Governance' at the Asia Pacific Forum on Environmental Governance and Sustainable Development at the United Nations University in Tokyo, Japan.[1] One of the main thrusts of the address was the activist role of the judiciary in developing countries in leading good environmental governance through innovating remedies against environmental degradation. I shared my success in the internationally-acclaimed *Shehla Zia*[2] case in which I had persuaded a full bench of the Supreme Court of Pakistan that the right to a clean and healthy environment is inherent in the rights to life and dignity guaranteed as fundamental rights in the Constitution of Pakistan.

Charles Okidi, my good friend and my vice-chair and colleague on the steering committee of the IUCN World Commission on Environmental Law, 1990-1996, was particularly pleased with my success in the case. His comment on the "professional literacy" of counsel was encouraging:

> National and international courts recognize the role of scholars in contributions to determination of the rules of law ... This fact enjoys clear testimony in the opinion of the Supreme Court of Pakistan in Shehla Zia v WAPDA, where the profuse citation of scholarly literature confirms the readiness of the national courts to draw on research results from various countries to support their decision. But it underscores one additional point, namely that the quality and wide acceptability of court decisions may also reflect the quality of the plaint and professional literacy of the counsel for the plaintiff. The easiest task for the courts is to follow precedents. However, it is the compelling quality and arguments in a plaint that may leave a court with no option but to set new precedents. In the above case, the counsel for the plaintiff assisted in the progressive development of environmental law.[3]

1 The address was published as Parvez Hassan, 'Elements of Good Environmental Governance' (2001)6(1) Asia Pacific Journal of Environmental Law 1 <http://www.pja.gov.pk/system/files/4%20-%20Judicial%20Commissions%20and%20Climate%20Justice%20in%20Pakistan%20%28Feb%202018%29%20-%20Dr.%20Parvez%20Hassan.pdf > accessed 19 November 2018; also in Donna G Craig, Nicholas A Robinson and Koh Kheng-Lian, *Capacity Building for Environmental Law in the Asian and Pacific Region – Approaches and Resources*, Volume II (Asian Development Bank, 2003) 985.

2 PLD 1994 Supreme Court 693.

3 C.O. Okidi, "Training the Trainers' Programme at the National University of Singapore', (1999) 4(2) Asia Pacific *Journal of Environmental Law* 175, 181.

Pakistan has a remarkable story in its efforts for environmental protection, sustainable development and climate justice. Beyond the outstanding leadership provided by Pakistan as chair of G77 at the Earth Summit in Rio de Janeiro, Brazil, in 1992,[4] its superior judiciary has been the centre-piece for providing direction and a national compass. The judiciary did this with innovative interpretation and totally undeterred by the lack of the right to the environment as a fundamental right in the country's Constitution. It has progressed from an ownership of the precautionary principle in the *Shehla Zia* case in 1994[5] to a bold declaration of environmental justice and climate justice in the *Asghar Leghari* case in 2018.[6] It has done so with the support of judicial commissions and implementation bodies that it now routinely appoints in complex environmental issues. I have been appointed to head 12 of these – ranging from examining the degradation of water quality by coal-mining activities, to solid waste management, clean air, smog, heritage public park, hospital waste, Islamabad's environment, climate change, houbara bustard and child care.

I have already told my story about the *Shehla Zia* case.[7] The role of judicial commissions in the resolution of environmental disputes in Pakistan is the subject matter of this story. I dedicate this story to Charles Okidi in acknowledgment and admiration of his stellar leadership and scholarship in regional and international environmental law.[8]

II. CONSTITUTIONAL FOUNDATIONS OF FUNDAMENTAL RIGHTS

The Constitution of the Islamic Republic of Pakistan, 1973 (the "Constitution"), includes a catalogue of 'Fundamental Rights' for the enjoyment and protection of which any person can directly approach the High Court under its Article 199. The Constitution affirms that this justiciable character of fundamental rights "shall not be abridged" (Article 199(2)). The fundamental rights include Article 9,[9] which deals with the right to life and Article 14,[10] proviings for the dignity of man.

Article 184(3) of the Constitution even empowers the Supreme Court of Pakistan to directly take up matters involving the enforcement of any of the fundamental rights if it considers that such enforcement involves a question of public importance.

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4 See, generally, Parvez Hassan, (1) UN Summit on Environment: The Rio Declaration, *The Nation*, 15 May 1992, (2) Rio '92 – Prospects and Challenges, *The Nation*, 9 June 1992, (3) Environment: Time for Action, *The Dawn*, 24 August 1992, and (4) The Rio Summit: An Assessment, *The Nation*, 25 August 1992.

5 See (n 2) above..

6 *Lahore High Court Writ Petition 25501 of 2015.*

7 Parvez Hassan *Shehla Zia vs. WAPDA:* Ten Year Later (2005) Pakistan Legal Decisions Journal 48; also published in International Environmental Law Committee Newsletter of the American Bar Association's Section on Environment, Energy and Resources 13-19 (May 2005).

8 This story has drawn from my paper: Parvez Hassan, 'Judicial Commissions and Climate Justice in Pakistan' presented at the Asia Pacific Judicial Colloquium on Climate Change: Using Constitutions to Advance Environmental Rights and Achieve Climate Justice held at Lahore, Pakistan, on 26-27 February 2018. This presentation is also a part of the author's book, *Resolving Environmental Disputes in Pakistan: The Role of Judicial Commissions* (Pakistan Law House, 2018).

9 Constitution of the Islamic Republic of Pakistan, sec 9. Security of person. No person shall be deprived of life or liberty save in accordance with law.

10 ibid, sec 14. Inviolability of dignity of man ,etc. (1) The dignity of man and, subject to law, the privacy of home, shall be inviolable ...

There is no Article in the Constitution that frames the "right to the environment" as a fundamental right. The reference to "environmental pollution and ecology" in Item 24 of the Concurrent Legislative List enabled both federal and provincial legislative competence. But the Concurrent List was deleted under the 18th Constitutional Amendment in 2010, leaving environmental matters almost solely within provincial domains.

III. TREND IN APPOINTING COMMISSIONS IN PUBLIC INTEREST ENVIRONMENTAL LITIGATION

The Pakistani judiciary has, in the past over 25 years, developed a dense jurisprudence of public interest environmental litigation (PIEL) to enforce the constitutionally protected Fundamental Rights of the public.[11]

The need, rationale and justification for developing the PIEL jurisdiction has been explained by Justice Tassaduq Hussain Jillani in *State v. MD WASA*:

> The rationale behind public interest litigation in developing countries like Pakistan and India is the social and educational backwardness of its people, the dwarfed development of the law of tort, lack of developed institutions to attend to the matters of public concern, the general inefficacy and corruption at various levels. In such a socio-economic and political millieu, the non-intervention by court in complaints over matters of public concern will amount to abdication of judicial authority.[12]

In the landmark PIEL decision in *Shehla Zia v WAPDA*,[13] the Supreme Court of Pakistan held that the right to a clean and healthy environment was part of the Fundamental Right to Life guaranteed by Article 9 and the Right to Dignity guaranteed by Article 14 of the Constitution. In this case, the Supreme Court also introduced the Precautionary Principle of environmental law, included in the Rio Declaration,[14] into Pakistani jurisprudence.

Over the years, in dealing with environmental cases, the superior courts of Pakistan have adopted a unique and innovative approach of appointing commissions to investigate issues that are the subject of a court case and to make recommendations for the court's consideration. This pioneering *corpus* of practice has come mostly from the vision of Justices Saleem Akhtar and Tassaduq Hussain Jillani (we environmental lawyers call them 'green' judges) of Pakistan. In 2011, the Chief Justice of

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11 For a detailed survey of public interest litigation in Pakistan, see Werner Menski, Ahmad Rafay Alam and Mehreen Raza Kasuri, *Public Interest Litigation in Pakistan* (Pakistan Law House, 2000); Mansoor Hassan Khan, 'The Concept of Public Interest Litigation and its Meaning in Pakistan' (1992) PLD Journal 84; Parvez Hassan, 'Judiciary Leading the Way' (1998) 15(1) *The Environmental Forum* 48. For a general review of trends, in respect of public interest litigation in the region, see Parvez Hassan and Azim Azfar, 'Securing Environmental Rights Through Public Interest Litigation in South Asia' (2004) 22 Virginia Environmental Law Journal 215. Jona Razzaque, *Public Interest Environmental Litigation in India, Pakistan and Bangladesh* (New York: Kluwer Law International, 2004) provides a seminal overview of this subject.

12 2000 CLC 471 (Lahore).

13 See (n 2) above.

14 The Rio Declaration on Environment and Development was adopted at the 1992 United Nations Conference on Environment and Development.

Pakistan, Iftikhar Muhammad Chaudhry, led a bench of the Supreme Court to endorse the practice of looking to commissions/committees in mediating environmental disputes.[15] And, in a yet more recent case, in 2015, Justice Mansoor Ali Shah, the then Green Judge of the Lahore High Court, received international attention when he appointed a Climate Change Commission to facilitate the implementation of the National Climate Change Policy.[16] He followed this by appointing the Houbara Bustard Commission,[17] the Smog Commission[18] and the Child Care Commission.[19]

I have had the privilege of being associated with most of the important environmental cases in which judicial commissions and implementation bodies were appointed in Pakistan. The following cases highlight this historical development since 1991.

A. The Asphalt Plants Case (1991)

The first appointment of a commission in the field of environment in a public interest litigation was most probably in *United Welfare Association, Lahore v Lahore Development Authority*[20] (Writ Petition No. 9297 of 1991) before Justice Khalil-ur-Rahman Khan of the Lahore High Court. The intervention of the court was sought for getting certain asphalt plants removed from the petitioners' sites in Lahore on account of serious health hazards the plants were posing for the residents. Dr Justice Nasim Hasan Shah commented thus about the case:

> The anxiety felt by the Court on hearing this complaint is manifest from the order it passed on 15 October 1991. Herein after noticing the contention of the petitioner it not only called upon the Lahore Development Authority to answer the allegations contained in the petition but also requested a renowned environmentalist namely, Dr Parvez Hassan, Advocate, to visit the area "to verify the complaint made and then suggest to the Court the measures to be adopted".[21]

I visited the area, with technical support from the Pakistan Council of Scientific and Industrial Research (PCSIR), and reported to the Lahore High Court that:

> The air-borne pollutants, from the operational activity of the plant, are dispersed over a large area ... [and that these pollutants were emitting] toxic substances like sulphur dioxide, nitrogen oxides, hetrocyclic compounds and hydrocarbons besides colossal quantities of air-borne fine dust emitted through the crush unloading at the site and during its processing at the plant.

15 Parvez Hassan & Ahmad Rafay Alam, 'Public Trust Doctrine and Environmental Issues before the Supreme Court of Pakistan' (2012) *Pakistan Law Journal* (Magazine) 44.

16 <https://www.dawn.com/news/1207489 > accessed 19 November 2018.

17 <https://nation.com.pk/16-Jun-2017/commission-to-probe-threat-to-houbara-bustard > accessed 19 November 2018.

18 <https://nation.com.pk/22-Sep-2018/punjab-govt-to-set-up-commission-to-control-pollution-smog > accessed 19 November 2018.

19 <https://tribune.com.pk/story/318295/protecting-the-future-govt-plans-to-establish-commission-on-child-rights/ > accessed 19 November 2018.

20 Writ Petition No. 9297 of 1991.

21 Nasim Hasan Shah, 'Environment and the Role of the Judiciary' (1992) PLD Journal 21,27.

I recommended to the court that:

> The continued operation of these plants is inconsistent with the rights of the adjoining residential areas to a clean and healthy environment. The residents are continually exposed to the obnoxious fumes and the potential health hazards unleashed by these asphalt plants. These should be removed from the site and relocated to areas where there is no danger to the environment. Even at the reallocated sites, the activities of the plants should be monitored with a view to minimize the impact of their environmental degradation.

As a result of this report, the Director General, Lahore Development Authority, issued orders for the asphalt plants to shift.

B. The Shehla Zia Case (1994)

In the *Shehla Zia* case, in which I was counsel for the petitioner, the Supreme Court was presented with a unique petition by some residents of a residential area of Islamabad regarding the construction of a high voltage grid station by the Water and Power Development Authority (WAPDA). The residents, led by Ms Shehla Zia, apprehended that the electro-magnetic radiation of the grid station could be harmful to their health.

In adjudicating this case, the Supreme Court pioneered the use of judicial commissions in Pakistan to tackle complex environmental issues and to present suitable options. In its order, the Supreme Court gave significant relief to the petitioners by staying the construction of the grid station until further studies were carried out to establish the nature and extent of the threat posed by electro-magnetic radiation emitted by power plants. Drawing on the experiences of the Indian courts, the Supreme Court set up a commission of experts to study the technical dimensions and to submit a report in this respect:

> 16. In the problem at hand the likelihood of any hazard to life by magnetic field effect cannot be ignored. At the same time the need for constructing grid stations, which are necessary for industrial and economic development, cannot be lost sight of. From the material produced by the parties it seems that while planning and deciding to construct the grid station WAPDA and the Government Department acted in a routine manner without taking into consideration the latest research and planning in the field nor any thought seems to have been given to the hazards it may cause to human health. *In these circumstances, before passing any final order, with the consent of both the parties, we appoint NESPAK as Commissioner to examine and study the scheme, planning, device and technique employed by WAPDA and report whether there is any likelihood of any hazard or adverse effect on health of the residents of the locality…* as suggested above (emphasis added).[22]

The public utility concerned was also directed to make a public-friendly administrative approach a norm in its future work. The *Shehla Zia* case unleashed a new paradigm in public interest litigation

22 See (n 2) above 715.

on environmental issues in Pakistan as the superior courts grew more receptive to appointing commissions to progress environmental rights.[23]

C. The Salt Miners Case (1994)

In 1995, the Supreme Court appointed a commission, with me as the chairman, in *General Secretary, West Pakistan Salt Mines Labour Union (CBA) Khewra, Jhelum v Director, Industries and Mineral Development, Punjab, Lahore,*[24] to visit the site of extensive mining activity and to recommend remedial measures. The commission had powers to inspect, record evidence and examine witnesses under the Civil Procedure Code.

The commission visited the site in Khewra, Jehlum, held public meetings and made several recommendations which were adopted by consensus to the acquiescence of the Supreme Court.[25]

As counsel for the petitioner in the *Shehla Zia* case, and the commission chairman in the *Salt Miners* case, I had a hand in shaping the orientation of the Pakistani courts to the use of judicial commissions in public interest environmental litigation. The basic approach that was followed was to recommend to the court how commissions in other countries have helped provide science/technology-based solutions that lie outside the expertise of the courts. Apart from providing the court expert guidance, the other limb of this approach was to highlight the importance of a non-adversarial, public-private partnership model for handling the most intractable civic problems.

The pattern of appointing court-empowered expert commissions with the broad participation of stakeholders, involving site visits and public hearings and 'consensus' recommendations adopted in this case was to impact on future environmental commissions in the country.

D. The Solid Waste Management Commission (2003)

In 2003, in an intra-court appeal, *City District Government v. Muhammad Yousaf,*[26] challenging the use of a site for dumping solid waste, a division bench of the Lahore High Court appointed the Solid Waste Management Commission to review the suitability of Mahmood Booti as a site for solid waste disposal. The court also directed the commission to advise on the optimal environmentally appropriate manner for the disposal of solid waste in Lahore as well as to recommend other sites for the disposal of solid waste as per Lahore's requirements.

I was appointed the chairman of the commission comprising, on my recommendation, a broad section of representatives from both the public and private sectors, including government officials and city administrators such as the District Nazim (the mayor of Lahore); the District

23 See generally Parvez Hassan (n 7).

24 [1994] SCMR 2061.

25 Order of the Supreme Court dated 8 July 2002 in HRC No. 120 of 1993 included the direction that: … recommendations of the Commission shall be complied with in letter and spirit by the lease holder of the mines and no violations shall take place on the respective sites.
In April 2015, the Supreme Court, through its order dated 7 April 2015 in HRC No. 120 of 1993, appointed another Commission to verify the implementation of the recommendations of the earlier 1994 Commission.

26 ICA No. 798 of 2002 filed before the Lahore High Court.

Coordination Officer; the Director, Solid Waste Management, Government of Punjab; Director General, EPA, Punjab; Secretary, Health; Punjab, academics and scientists; parliamentarians; specialists; environmentalists; and members of civil society (representatives of IUCN Pakistan and WWF-Pakistan). The commission set up a sub-committee for hospital waste disposal under the Provincial Secretary, Health, who was in charge of all the public-sector hospitals. As a reflection of the public-private sector partnership and harmonious working of the commission, the City District Government Lahore was persuaded to arrange and finance the Environmental Impact Assessment (EIA) of Mahmood Booti by NESPAK, a consultancy firm chosen by the commission.

As in the *Salt Miners* case, the commission was successful in orchestrating a consensus of the members of the commission in their final recommendations, which were accepted by the High Court.[27]

On 23 March 2005, Lahore inaugurated the construction of its first integrated compost and landfill plant at Mahmood Booti, and the plant was commissioned one year later with private sector participation on a build, operate and transfer basis. According to *The News*, "Lahore's first compost plan will transform around 20 per cent of the city's solid waste into 250 tonnes of organic fertilizer on a daily basis".[28] The Solid Waste Management Commission moved with dedication and resolved to provide a model environmentally appropriate solid waste disposal regime for Lahore, hopefully to be replicated in other parts of the country.[29]

E. The Lahore Clean Air Commission (2003)

In *Syed Mansoor Ali Shah v Government of Punjab,*[30] the Lahore High Court appointed in July 2003 a Lahore Clean Air Commission, co-chaired by the Advocate General, Punjab, and I to recommend measures for the improvement of Lahore air quality. This commission, on my request, similarly included representatives from both the private and public sectors including the City District Government Lahore. It set up sub-committees with respect to (1) clean fuel, (2) rickshaws, (3) public transport and (4) coordination with local councils. The Rickshaws sub-committee, for example, worked under the chairmanship of the Provincial Secretary, Environment, and the Clean Fuel sub-committee worked under the chairmanship of the District Coordination Officer, Lahore. Syed Mansoor Ali Shah, the coordinator of both this and the Solid Waste Management Commission, chaired the sub-committee on public transport and held public hearings at the City Government conference room. All the oil companies were invited by the Clean Fuel sub-committee to assist the work of the commission.

The commission finalized its report on 21 May 2005 with a developed consensus of all stakeholders, including the manufacturers and users of public transport and rickshaws. These recommendations, including one on four-stroke engines for rickshaws and CNG use, were filed in the Lahore High

27 Order of the Lahore High Court dated 25 January 2005 in I.C.A No. 798 of 2002.

28 Aoun Sahi, *The News on Sunday* (9 April 2006).

29 It was a measure of the gratitude of the city of Lahore for the work and role of the Solid Waste Management Commission that the speakers at the commissioning of the plant acknowledged the pivotal role of the Commission in forging a science-based consensus on an acrimonious issue and thereby avoiding long years of litigation and appeals.

30 Writ Petition No. 6927 of 1997 filed before the Lahore High Court.

Court. In 2006, the Secretary, Transport, Government of Punjab, joined in supporting the recommendations of the commission before the Lahore High Court.

The Lahore High Court adopted the recommendations of the commission. It went further: In order to ensure the implementation of the commission's recommendations, Justice Hamid Ali Shah directed the establishment of a Standing Body of the Commission, with me as chair, to remain operational till the implementation of the recommendations of the commission.[31] In this manner, the court also provided a means for ensuring compliance and enforcement of PIEL judgments.

F. The Lahore Canal Road Mediation Committee (2011)

In May 2006, the Traffic Engineering and Planning Agency (TEPA) of the Lahore Development Authority began preparations to cut down trees along the Lahore Canal Road in order to widen it for the purposes of reducing congestion. The move was resisted by a civil society organization -- the Lahore Bachao Tehreek (LBT). LBT's activism secured an EIA of the road widening project. The LBT challenged the approval given to the EIA by the EPA, Punjab, but the case remained pending in the Lahore High Court. In 2009, when the provincial government sought to proceed with the road widening project, the Supreme Court – acting *suo motu* -- took notice[32] of the environmental harm that would result in the felling of trees. On 14 February 2011, the Supreme Court appointed me as the mediator between the LBT and the Government of Punjab, with powers to associate others for the purposes of the mediation.

By now, I had developed a successfully-experienced criteria for the appointment of commissions. One, it must include the highest level of governmental functionaries who will ultimately be responsible for the implementation of the proposals of the commission. Two, a member of the provincial legislature or National Assembly elected from the area under consideration adds to the focus of the commission. Three, experts must be included from universities or have well-recognized specializations. Four, representation from civil society organizations active in the field helps the work of the commission in their respective fields. I have always included IUCN Pakistan, WWF-Pakistan, Sustainable Development Policy Institute (SDPI) and LEAD Pakistan in most commissions that I have headed. I have held leadership positions in each of these organizations in the past and receive utmost cooperation and support from them. Five, a well-regarded member of the media helps in disseminating the work of the commission. But above all is the consideration that each member of the commission must bring unchallenged integrity to his work. I used this criteria to request eight eminent citizens, elected representatives, and government officials, representing the cross-section of stakeholders to participate as committee members.

The committee held its four meetings in an open and informal manner at the Beaconhouse National University (BNU) and the Lahore University of Management Sciences (LUMS) in Lahore to enable their students and faculty to participate in a dispute resolution effort impacting on the city of Lahore. Resultantly, the participants at these meetings included students and faculty

31 *PLD 2007 Lahore 403, at 422.*

32 *Suo Motu Case No. 25 of 2009.*

members not only from LUMS and BNU, but also from Kinnaird College, Lahore, and the Lahore School of Economics. Comments from the public were also invited. Mian Amer Mahmood, a former Nazim (mayor) of Lahore, participated in the public hearings. Moreover, the committee made a site visit, which extended from Jallo Mor on the Canal to Thokar Niaz Beg so as to give the committee members an opportunity to view and appreciate the entire stretch of the canal.

The commission also involved eight experts in its work. The experts helped the committee, among others, to develop an understanding of the botanical and horticultural characteristics of the natural environment along the canal as well as the international standards of road safety.

The report of the committee was finalized on 14 May 2011. The committee approached its mandate with a view to protecting and sustaining the heritage of the Lahore Canal. The committee felt responsible for preserving this heritage for future generations. It was mindful of the jurisprudence of the superior courts wherein the Doctrine of Public Trust[33] has been applied to public spaces and was inspired by the experiences of protecting public spaces in other jurisdictions. The committee held up the common man as the centrepiece of its concerns and attention in order to promote social equity. The 'consensus' report included 18 recommendations, the most important of which included the declaration of the Lahore Canal area as a Heritage Urban Park, re-engineering of the junctions along the Canal Road, ecosystem preservation and people-centric planning. The committee also proposed a draft of the Lahore Canal (Heritage Urban Park) Act, 2011. The Supreme Court accepted the commission's recommendations in their entirety.[34] And, pursuant to the recommendations of the committee, the Lahore Canal Heritage Park Act, 2013, was passed by the Punjab Assembly on 7 January 2013.

G. Islamabad Environmental Commission (2015)

In 2011, several writ petitions were filed before the Islamabad High Court in respect of the environment in which grievances relating to the inaction and non-performance of the statutory duties by the federal environmental protection agency and the Capital Development Authority (CDA) were raised. It was contended in the petitions that certain actions and omissions of the federal EPA and the CDA had adversely affected the environment of Islamabad.

On 20 February 2015, the Islamabad High Court constituted the Islamabad Environmental Commission, and appointed me as commission chair to investigate the grievances raised in the petitions and make recommendations to prevent the further 'destruction' and 'degradation' of the environment of Islamabad.[35] I was also given powers to associate others in the commission. Accordingly, government officials, a cross-section of stakeholders, civil society organizations, public representatives, representatives from the media and the academic/scientific community were requested to become a part of the 13-member commission.

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33 See, generally, *Sindh Institute of Urology and Transplantation v Nestle Milkpak Limited*, [2005] CLC 424 (Karachi) and *Muhammad Tariq Abbasi v Defence Housing Authority* [2007] CLC 1358 (Karachi).

34 See, *Cutting of Trees for Canal Widening Project, Lahore* (Suo Motu Case No. 25 of 2009), [2011] SCMR 1743. See also, *Lahore Bachao Tehrik v Dr Iqbal Muhammad Chauhan*, 2015 SCMR 1520.

35 By its order dated 20 February 2015 in *Shiraz Shakeel v CDA*, Writ Petition No. 1276 of 2011.

The commission held six meetings. It formed six sub-committees to look at the various environmental and regulatory issues, including air and water pollution, encroachments, solid waste management and the legal and regulatory framework. The sub-committees were empowered to co-opt members from in and outside the commission.

In as much as the major complaints related to changes in the Master Plan of Islamabad, the commission turned to the expert guidance of the nationally prominent urban planner, Arif Hasan, and requested his presence as a 'special invitee' at one of its meetings. On the aspect of the major issue of hospital waste, the commission benefited from the guidance of another 'special invitee', Dr Javed Akram, Vice Chancellor, Pakistan Institute of Medical Sciences (PIMS), the largest hospital in Islamabad.

The commission also requested the public to give comments. A public hearing was also held and was attended by over 150 persons.

Along with some members of the commission, I also met with the representatives of several hospitals, including Dr Javed Akram, Vice Chancellor, PIMS, in Islamabad on 6 October 2015 at the Ministry of Climate Change. Valuable feedback was received during this meeting, which helped in the formulation of recommendations, particularly regarding hospital waste management in Islamabad.

The Report of the Islamabad Environmental Commission was finalized on 19 October 2015. The report contained a total of 23 recommendations developed with the consensus of all the members and stakeholders. These recommendations, including safeguarding the Master Plan of Islamabad, solid and hospital waste management, and better coordination of environmental agencies, were filed in the Islamabad High Court on 20 October 2015.

The Islamabad High Court directed the appointment of an Implementation Committee.

H. Climate Change Commission (2015-2018)

In *Asghar Leghari v Federation of Pakistan*,[36] the Lahore High Court was approached by the petitioner for the enforcement of his fundamental rights under Articles 9 and 14 of the Constitution. The petition contended that the increased heat trapping of carbon dioxide (CO_2) and other greenhouse gases in the atmosphere was increasing the global temperature which, in turn, was adversely affecting the climate of Pakistan. The petition further submitted that to combat the threat of climate change, the Government of Pakistan, through the Ministry of Climate Change, had introduced the National Climate Change Policy, 2012 (the Policy) and the Framework for Implementation of Climate Change Policy (2014-2030) (the Framework), but that no implementation of the policy and the framework had taken place.

1) On 14 September 2015, the Lahore High Court constituted the Climate Change Commission and appointed me as the chair with powers to associate others and to facilitate the effective

36 See (n 6) above.

implementation of the policy and framework. As the Lahore High Court enabled the commission to co-opt other members, the commission exercised draw participation from governmental ministries, departments and agencies, as well as civil society organizations, the media and the academic/scientific community.

2) Accordingly, the 30-member commission comprised me as the chair, Arif Ahmed Khan, Secretary, Climate Change (vice-chair), and several federal secretaries (including of Finance, Water and Power, National Food, and Research and Planning, Development and Reform) and the secretaries, Government of Punjab (including of Irrigation, Agriculture, Food, Forest, Health, and Environment Protection), civil society organizations, universities and media representatives.

3) The Commission held 12 meetings during 2015-2018. The framework specifies strategies for the implementation of the policy, which are time-bound as follows:

   i) Priority Actions (within two years);

   ii) Short term (within five years);

   iii) Medium term (within 10 years); and

   iv) Long term (within 20 years).

I proposed, at the outset, that the best course of action would be to focus on the priority actions because if these were implemented in their entirety, a substantial part of the framework would have been implemented. Further, this would serve to form the foundation for the other Short Term/Medium Term/Long Term actions.

During its second meeting on 17 October 2015, the commission appointed six implementation committees to review the implementation of the Priority Actions under the Framework. These were (1) Water Resources Management, (2) Agriculture, (3) Forestry, Biodiversity, and Wildlife, (4) Coastal and Marine Areas, (5) Disaster Risk Management, and (6) Energy. The chair of each of the implementation committees was empowered to coopt other members from within or outside the commission.

The Climate Change Commission, largely facilitated by the work of its implementation committees, submitted a report on 16 January 2016. The report contained 16 recommendations, which had the consensus and backing of all the stakeholders. These recommendations, among others, included climate change awareness and monitoring, financial allocation, food security and protection of ecologically sensitive habitats and species. Also, a proposal to set up a Climate Change Authority was discussed in the commission. This was later included in the Climate Change Act, 2017.

The Lahore High Court accepted all the recommendations of the commission and to ensure the effective implementation of these recommendations, on 18 January 2016, Justice Syed Mansoor Ali Shah directed that:

3. I have gone through the Findings and Recommendations of the Commission. The Commission has done wonderful work and each member of the Commission has meaningfully contributed under the able leadership of the Chairman. It is clear that the Policy, as well as, the Framework were almost untouched till the Commission was constituted by this Court, resulting in mobilizing the government machinery. Since then there has been modest progress in achieving the objectives and goals laid down under the Policy and the Framework. The Report submitted by the Commission deals with priority actions under the Framework and reveals that the priority actions which were to be achieved by 31 December 2015 have not yet been fully achieved.

4. The Commission shall ensure that the priority items under the Framework, as far as the Province of Punjab is concerned, are achieved latest by June 2016. The Commission is additionally tasked to look into the short term actions under the Framework and come up with a workable and achievable timetable for the same.[37]

In its report dated 16 January 2016 to the Lahore High Court, the commission had reported on the progress in the implementation of the Priority Areas (PAs) upto 31 December 2015. On reviewing this report, the Lahore High Court ordered, on 18 January 2016, that the "Commission is additionally tasked to look into the short term actions under the Framework and come up with a workable and achievable timetable for the same."

The Supplemental Report dated 24 February 2017 responded to the order of the Lahore High Court dated 18 January 2016. It included the reports of six (6) implementation committees, giving an update on their actions on the Priority Actions. Overall, of the 242 Priority Areas given in the Framework, the six implementation committees reported progress on 144 PAs -- that is about 60 per cent of the total Priority Areas. The progress on 144 PAs is uneven and at various stages of progress, and many will need more time and resources for completion.

The recommendations of the commission in the Supplemental Report were adopted, on 28 February 2017 by (now) Chief Justice Syed Mansoor Ali Shah:

I. Climate Change Order-19

Chairman, Climate Change Commission **("Commission")** has tendered appearance and placed on record Supplemental Report dated 24.02.2017 making the following recommendations:-

Recommendations

The Commission recommends that the Secretary P&DD should submit plans for initiation of remaining about 100 PAs and also compile a quarterly report on completion of work on ongoing 144 PAs.

37 Order of the Lahore High Court dated 18 January 2016 in Writ Petition No. 25501 of 2015.

Priority Projects in ADP 2016-2017: Since the last submission, the Commission has helped some GOPb departments prioritize 15 'climate smart' projects, of which 13 were finally approved by P&DD for inclusion in the ADP 2016-2017. The Commission learnt that the financial value of these projects was relatively miniscule in percentage terms of the total development budget of the province.

The Commission recommends that in the next FY, this number should ramp up substantially and that this allocation should include specific budget lines for social and softer components – and not just the infrastructural investments. The Commission, if requested by the Departments, will be pleased to review and guide on selected projects….

1. The Framework for Developing and Assessing Climate-Smart Projects under Annual Development Plans be used/piloted by each GOPb department to develop their requests for ADB allocations. The preparations for the next ADP have just begun and the timing is perfect. If requested, the Commission can assist with capacity building of the concerned officers in the province.

2. Each GOPb Department should develop its plans of action, giving a list of priority projects/areas of investment. The Commission can assist them in developing their plans of action and determine their strategic priorities for the next two to three years' ADPs.

3. P&DD needs to develop a template/criteria that could guide the decisions on the requests from the departments. The Commission can work with the officers at the P&DD to develop such a template and operationalize for the next years' ADP."

Considering that these recommendations are an outcome of the deliberations of the commission, which includes members of the Government, therefore, I make these recommendations part of this order and direct the concerned Ministries/Departments of Federal, as well as, Provincial Governments to implement the same.

The chair of the commission together with the secretary and the chairs of the implementation committees met with the chairman, Planning and Development, Government of Punjab, on 17 April 2017, to facilitate the mainstreaming of climate change in the policies and upcoming budget of the Government of Punjab. In this meeting, the commission chair made many suggestions, including the following:

1. The Framework approved by the Commission can help the process of mainstreaming climate compatible development. The Commission recommends that the Framework should be used for designing and developing projects for upcoming ADP, at least for some projects by select departments. We recommend that each department should be advised to apply the framework and two to three projects from each department should be selected for their application of the Framework.

2. Each GoPb department should develop an action plan, outlining a list of priority projects/areas of investment for mainstreaming climate considerations. The commission can provide assistance in this regard.

3. P&DD should develop a template/criteria that could guide the decisions on the requests of departments (and not restricting decisions only to the financial or other such considerations). Again, the commission can work with officers of P&DD to develop such a template and operationalize it for the next years.

The chairman, P&D, GoPb, responded well to the work and suggestions by the chair of the commission and this highlighted the growing impact of the judiciary-backed contribution of the commission to the climate change agenda in Punjab in particular and the country in general. This presents an exciting first experience of a direct interface between the consultative processes of commissions appointed by the court with the highest decision-making body in Government.

The work and effectiveness of the commission was immeasurably enhanced by the regular listing of this case before the Lahore High Court with the full attendance of concerned governmental functionaries, both federal and provincial, and the numbered Climate Change Orders passed at each hearing. These orders were promptly published on the court's website.

The commission held its last meeting on 20 January 2018 and submitted its Final Report to the Lahore High Court on 25 January 2018. The Chief Justice of the Lahore High Court, Syed Mansoor Ali Shah, just before his elevation to the Supreme Court, passed judgment in the case in February 2018.[38] The court appreciated the work of the Commission in supporting 66 per cent implementation of the Priority Actions of the National Climate Change Policy, and, on dissolving the commission, the High Court set up a Sanding Committee on Climate Change with me as the chair and five members, including government representatives to facilitate the future work on climate change. The judgment moved the jurisprudence of the superior courts well beyond *Shehla Zia* to a robust formulation of environmental justice and climate justice. Equally welcome, the Lahore High Court took an important initiative in the implementation of the National Climate Change Policy.

J. Houbara Bustard Commission (2017-2018)

Pakistan has, over the past several decades, developed a practice of issuing permits to Arab dignitaries (including from the United Arab Emirates. Saudi Arabia, and Qatar) to hunt the Houbara Bustard in areas allocated to them. This migratory bird winters in several areas of Pakistan and the Arab Shaikhs falcon-hunt it every year in specific areas allocated by the Government. The hunting permits are handled by the Ministry of Foreign Affairs, highlighting their importance in the country's relations with the Arab dignitaries. A typical permit includes important conditions of hunting in terms of the timing and bag limits. It is noted that the permits allow hunting only through falconry. Guns and the use of firearms are not allowed.

38 <sys.lhc.gov.pk/appjudgments/2018LHC132.pdf > accessed 19 November 2018.

Owing to the 'vulnerable' status of the Houbara Bustard, the courts of Pakistan have been repeatedly drawn to protect them against the grant of these permits and illegal hunting. This public interest litigation has involved the High Courts of Sindh, Balochistan and the Punjab and even the Supreme Court of Pakistan. Some judgments have moved to ban the issuance of the hunting permits to others that require regulation over such hunting.[39] None of these judgments required or used population surveys to determine whether the hunting was sustainable. They relied generally, instead, on the status of the Houbara Bustard under the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES), Convention on the Conservation of Migratory Species of Wild Animals (CMS), other international declarations and national laws.

The Chief Justice of the Lahore High Court, in *Naeem Sadiq v Government of Pakistan* (Writ Petition No. 32 of 2014), appointed the Houbara Bustard Commission with me as its chair. The terms of reference included "field Surveys to assess whether hunting of the Houbara Bustard is a sustainable activity in Punjab" and "to assess whether the said hunting is beneficial to the local community". The commission, including my recommendees, comprised 11 members.

The Houbara Bustard Commission held its first meeting in my office on 15 July 2017 and recommended, as a first and preliminary measure, the conduct of a survey in four districts frequented by the migratory Houbara Bustard. This was approved by the Lahore High Court to be held between the second week of December 2017 and the second week of January 2018. The commission developed a methodology for the surveys in consultation with the expertise available in and outside Pakistan. The commission also facilitated the capacity-building of the staff and officers of the survey teams.

The Houbara Bustard Commission conducted population surveys of the Houbara Bustard through three separate teams in December 2017 in the districts of Rahim Yar Khan, Rajanpur and Bhakkar in Punjab. The Report of the Commission, based on the survey reports of these teams, was unanimously approved by the Houbara Bustard Commission at its meeting on 23 January 2018 and submitted to the Lahore High Court in the same month.

K. Smog Commission (2017-)

By his Order dated 19 December 2017 in *Walid Iqbal v Federation of Pakistan*, Writ Petition No. 34789 of 2016, the Chief Justice of the Lahore High Court appointed a Smog Commission, among others, to "formulate a holistic Smog Policy for Punjab which identifies the root causes and prescribes a plan to protect and safeguard the life and health of the people of Punjab". The author has been appointed chairman of the Smog Commission, which is to include the secretaries, Government of Punjab, of (a) Environment, and (b) Health, and leading civic and professional leaders. The commission has so far held two (2) meetings and set up specialized sub-committees.

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39 See, e.g., *Province of Sindh v Lal Khan Chandio*, [2016] SCMR 48; *Government of Punjab v Aamir Zahoor-ul-Haq*, PLD [2016] SC 421; *Tanvir Arif v Federation of Pakistan*, [1999] CLC 981 (Karachi); *MD Tahir, Advocate v Provincial Government,* [1995] CLC 1730 (Lahore); *Society for Conservation and Protection of Environment (Scope) Karachi v Federation of Pakistan*, [1993] MLD 230 (Karachi).

L. Child Care Commission (2017-)

On 22 December 2017, the Chief Justice of the Lahore High Court, in *Syed Miqdad Mehdi v Government of Punjab*, Writ Petition 107273/2017, constituted the Child Care Commission with the author as the chairman and with detailed terms of reference including the "shifting from a segregated system of education for special needs children to a system of inclusive education, designed to meet Pakistan's commitments under the Convention on the Rights of Persons with Disabilities, 2006, and the Convention on the Rights of the Child, 1989", and to address several enumerated requirements of 'special needs children'. The membership of the Child Care Commission includes the secretaries, Government of Punjab, of (a) Special Education, (b) School Education, and (c) Health, as well as prominent lawyers and recognized experts. The commission has held only one meeting so far.

IV. MY EXPERIENCE IN CHAIRING COMMISSIONS

It is likely that no person has had the privilege and pleasure to head as many commissions constituted by the superior courts of Pakistan as I have. I am humbled by this opportunity to make a small contribution to environmental protection in Pakistan, a mission that I singly started in my country in the 1970s. It has been a remarkable journey since then and the opportunities offered in shaping and progressing judicial environmental commissions have been immensely gratifying. So is the fact that the full recommendations of each commission were adopted by the courts without any exception. This success was enhanced by some courts even appointing Implementation Committees/Standing Bodies to implement the recommendations of the commissions (Lahore Clean Air Commission, Islamabad Environmental Commission and the Climate Change Commission). The courts, additionally, facilitated the interim recommendations of the Climate Change Commission and the Houbara Bustard Commission.

With the commissioning of the Compost Plant in Lahore, it was remarkable that the public and private sector partnership reflected in the membership of the Solid Waste Management Commission facilitated this success and demonstrated the value to civil society of avoiding protracted, contentious, divisive and adversarial proceedings before the courts of Pakistan. The model, instead, was to resolve complex issues by the use of science, technology and dispassionate technical advice with the willing co-operation and support of the City Government. Each metropolis is unique but it is hoped that the experience of the Solid Waste Management Commission in Lahore may provide some useful lessons for urban environmental management in Pakistan. Equally useful would be a consensus-building approach of the Lahore Clean Air Commission, the Lahore Canal Road Committee, the Islamabad Environmental Commission, and the Houbara Bustard Commission.

The use of court-appointed commissions to resolve complex environmental issues in Pakistan has already shown promise. Moving away from an adversarial ethos of a courtroom to a more informal round-table of a commission by itself promotes dialogue and discussion between the stakeholders. Moreover, when care is taken toward an all-inclusive process of enabling all the

stakeholders from both the public and private sectors to be represented in the commission, the credibility of its work and success is significantly assured. It is particularly important to include in the commission those departments or ministries of the government that would ultimately be responsible for the implementation of the commission's recommendations. Eminent scientists and experts drawn from universities and academia can anchor the work of the commission by providing 'neutral' and state-of-the-art technical and science-based advice on the complex issues before the commission.

For a chairman, the biggest challenge is in picking the members of the commission. If they are to be from the most effective decision-makers in the government, from civil society, from academia, from the legislatures and the media, each of them would be pro-occupied with his/her other commitments and may not readily find time for the commission.

On appointing me as the chairman of the commission, the court always offered that it could include in its Order any membership that I suggested to it. But I found it more effective, beforehand, to reach out personally to each person that I thought could bring value to the work of the commission. I would typically request about 60 hours of the person's time for the work of the commission in the next four to six months and would recommend to the court the inclusion of that person in the commission only if I got that commitment. The larger appeal for the person was the possibility of contributing to a cause of the community or the city or the nation that the commission was expected to serve. In many cases, the person was already familiar with my work in the environment and invariably agreed to my request to join the commission. This brings me to my grateful and proud statement that nobody ever refused my request to join a commission I headed.

Selecting members for the commission becomes all the more challenging when the chair insists on handling all the work, as I invariably did, on a pro bono basis. No member of any commission that I headed received any remuneration and yet I am grateful for the prolific support that each member gave for the work and result of the commission. The commissions improvised their own methods of financing their work requirements. In the Solid Waste Commission, for example, the District Nazim (mayor), Lahore, a member of that commission, undertook to finance the costs of an EIA directed by the commission. Similarly, in the Islamabad Environmental Commission, IUCN Pakistan, a member of that commission, on the request of the chair, paid the travel costs of Arif Hasan, urban planner in Karachi, to attend a meeting as a special invitee of the commission in Islamabad.

In the hearings of the commissions, we also included those stakeholders that may be adversely affected by our recommendations. Thus, vehicular traffic was an important consideration in the Lahore Clean Air Commission. When we considered proposals for the improvement of air quality through improved vehicular traffic, we specifically reached out to Qingqi, the motor cycle rickshaw company that is an important player in this field, and tried to carry it in our recommendations. We similarly reached out to the car and motor cycle manufactures and assemblers.

The role of the chairman can also be important in the impartiality and fairness with which he conducts the proceedings of the commission and enables public participation and hearings to

factor different points of view. The success of the chairman lies ultimately in persuading the members of the commission and other participants to move away from the narrower mindset and language of 'I', 'you', 'mine' and 'yours' to a more appropriate 'we', 'us' and 'ours'. Only when this central aspect of a common ground for the needs of a city or civil society is recognized and realized can a commission succeed in the important tasks entrusted it by the courts.

But the use of judicial commissions is by no means a panacea as the technique can only work effectively where expert opinion is not divided[40] and there is a fair chance that a consensus can emerge from among the diverse group of stakeholders. The greatest strength that a commission can have is the unanimity or consensus on its recommendations. I have been particularly fortunate in developing a consensus in each commission that I have headed. The courts see the quality of the membership of the commission and the unanimous/consensus voice with which the commission speaks following an open, inclusive and participative process of public hearings and site visits to fully endorse the recommendations of the commission.

With the high level/status membership of the commissions, many judges expressed surprise at the regular attendance of the members of the meetings of the commission. The response has been a very good fortune in the leadership I provide to each commission. It has to do with my involving the members in the work of the commission, in shaping the process of our work, in developing their ownership of what we did, and in fixing the meetings of the commission to the convenience of the maximum members. In one case, the appointing court had directed the attendance of the members at the meetings of the commission. But I requested the court that it is not necessary to coercively (through orders of the court) secure the attendance of the commission members and that, instead, I would rather have them do so voluntarily out of their own commitment to their responsibilities on the commission and to the respect that they may have for its leadership. This proved a far more effective means of building team spirit and a sense of ownership in the commission members.

It may reflect on the measure of the success of commissions appointed by the courts in environmental matters that the Government of Punjab has, through its Secretary, Environment, appointed, on 11 December 2017, an Advisory Committee with broad-ranging terms of reference including for the "protection of environment and ecological stability of the Environmentally Sensitive Areas of Murree, Kotli Sattian and Kahuta". The author has been appointed as the chairman of the committee with secretaries, Government of Punjab, of (a) Environment, (b) Forest, Wildlife and Fisheries, and (c) Law and Parliamentary Affairs, as members. Also included as members of the committee are Commissioner, Rawalpindi, prominent academics, and representatives of civil society and professional organizations.

40 In the Indian dam case, *Tehri Bandh Virodhi Sangarsh Samiti v State of UP* (1992) Supp 1 SCC 44, the Supreme Court held that it did "not possess the requisite expertise to render any final opinion on the rival contentions of the experts. In our opinion the Court can only investigate and adjudicate the question as to whether the Government was conscious to the inherent danger as pointed out by the petitioners and applied its mind to the safety of the dam. We have already given facts in detail, which show that the Government has considered the question on several occasions in the light of the opinions expressed by the experts. The Government was satisfied with the report of the experts and only thereafter clearance has been given to the project."

V. CHIEF JUSTICE SYED MANSOOR ALI SHAH ON ENVIRONMENTAL COMMISSIONS

The Chief Justice of the Lahore High Court, Syed Mansoor Ali Shah, recently commented on the role of commissions in the environmental jurisprudence of Pakistan:

> The fusion of fundamental rights and international environmental law principles resulted in the development of an interdisciplinary and inquisitorial brand of justice, also referred to as environmental justice. The Courts realized that they required skills including in environmental science, economics, natural science, and technology to adjudicate upon environmental issues. The Courts reached out to, none else but Dr Parvez Hassan, to steward this new brand of justice … And so begins the story of the Commissions. From a mere fact-finding body, the Commissions evolved into broad-based fora comprising technical experts, government and members of the civil society to propose sustainable solutions to environmental issues….
>
> Constituting a Commission by the Court is easy but managing the Commission, harnessing the dissenting voices, building consensus and finding a sustainable solution requires ability and leadership par excellence. A Commission is as good as the Chair that heads it. Dr Hassan and his remarkable leadership have made these commissions a success, which in turn have played a pivotal role in the development of our environmental jurisprudence.
>
> This … records the journey of our environmental jurisprudence, highlighting for the first time, the role of the Commissions – the real engines of change.[41]

VI. LIMITATIONS ON THE WORK OF JUDICIAL COMMISSIONS

Even though the advent of public interest litigation and innovative procedural pathways such as judicial commissions threaten to obliterate the law/policy divide, the successes of the new approach in India and Pakistan have been welcomed by a public that has long been used to an apathetic legislature and a weak executive.[42] As long as environmental protection remains a low priority item for the political establishment and the state machinery, courts in Pakistan will increasingly be called upon to give practical significance to the fundamental rights guaranteed under the Constitution. However, it should be borne in mind that the activism of the courts is not a substitute for proper policy making and implementation as judicial intervention is by its very nature reactive and hemmed in by the procedural pathways that are peculiar to the legal

41 From the Preface to the author's book, see (n 8) above.

42 See Ashok Desai & S Muralidhar, 'Public Interest Litigation: Potential and Problems' in BN Kirpal et al., (ed.) *Supreme But Not Infallible: Essays in Honour of the Supreme Court of India* (New Delhi: Oxford University Press, 2000) 159, on the appeal of public interest litigation in India despite the lingering questions about its constitutional legitimacy. For the Pakistan overview, see generally Hassan & Azfar (n 11) 216-217.

process. The countries of South Asia are still in the early stages of environmental consciousness[43] and although public awareness of environmental issues is improving with each passing year, prioritizing environmental concerns in national planning and steady implementation of laws and policies is of paramount importance. Happily, this has started happening in Pakistan.

43 The dissemination and easy availability of information is crucial to any public attempt to improve environmental consciousness and activity. Jona Razzaque notes that "in India, Pakistan and Bangladesh, there is no right to environmental information or right of public participation in decisions-making …There should be a specific Act or guidelines to deal with the availability of environmental information, outlining which information is available and how to go about asking for it from the government, from private individuals and companies". See Jona Razzaque 'Human Rights and the Environment – National Experience' (2002) 32 Environmental Policy and Law 99,107.

Chapter 10

Environmental Jurisprudence and Sustainable Development in Kenya: A Theoretical Foundation

Collins Odote

I. INTRODUCTION

In 2010, Professor Charles Okidi invited me to his office on the fifth floor of Gandhi Wing at the Main Campus, University of Nairobi. He requested that I accompany him to lunch in town. Having been my PhD supervisor, I knew that any time Professor requested you to meet him over a meal, he had an important issue to discuss with you. This time he wanted to discuss the progress in the establishment of the Centre for Advanced Studies in Environmental Law and Policy (CASELAP). Professor wanted me to participate in designing the curriculum for the masters in environmental law course, which I gladly did.

One of his pet subjects for that curriculum was a course he called environmental jurisprudence. He tasked me with the duty of not only developing the course content but also teaching it to the inaugural group of students. None of them would ever know that course was being offered at the University of Nairobi for the first time. In my undergraduate days, I had taken courses in both environmental law and jurisprudence but not in environmental jurisprudence.

I sought counsel from Professor Okidi who, in his usual manner, indicated that he had the confidence that I would design the course and teach it. He gave me broad pointers on the discourse on jurisprudence, the necessity for sustainable development and the role of law in protecting the threshold of sustainability. In his view, a sound legal framework was an important component of sound management of the environment. Consequently, students of environmental law and policy needed to be aware of the legal framework. However, laws developed without appreciating their context would not be successful in delivering their intended outcome. His favourite analogy was that people on Harambee Avenue were more likely to listen to your legislative and policy proposals if you made an economic argument, hence his insistence that the course had to include studies in environmental economics. With that guide, he advised that the course on environmental jurisprudence eschew a legalistic focus. I was also reminded that the students of the courses at CASELAP would come from multiple disciplines.

My first reading was an article that has continued to form the subject of the course since then. The article, 'Why I Hate Jurisprudence and What One Can Do about It',[1] contextualized the challenges

1 JG Riddall, *Jurisprudence*, 2nd Edition (Butterworth, Lexisnexis 2002) 1-16.

of a course in jurisprudence. Its technical nature, reliance on complex philosophical words and expressions, and the historical context of its discourse made it inaccessible. However, a reading of Professor Ojwang's chapter in the book, *In Land We Trust,*[2] provided the solution for the course content. He argued that "the ultimate concerns of environmental law are two-fold: to provide a regulatory framework for those human activities which may undermine the vital natural assets that support normal economic and social life; and to provide appropriate legal theory to explain and guide the path of the law in environmental management".[3] This second limb would form the content of the course on environmental jurisprudence and whose core elements in the context of Kenya forms the focus of this paper.

The paper argues that the realization of the dictates of sustainable development requires the existence of a sound legal, policy and institutional arrangement. To be effective, such regulatory arrangements should not just be judged by their content but also their context. A critical determinant of success is the theory which influences the choices made in developing the regulatory arrangements and subsequently the manner in which the rules developed are implemented. In advancing this argument, the chapter reviews the choices made in the Kenyan context. The chapter is divided into seven sections. Following this introductory paragraph, section 2 conceptualizes environmental jurisprudence and highlights the relevance of the key schools of jurisprudence to environmental management. The section also clarifies the theoretical distinction between jurisprudence as science and jurisprudence as the emerging arguments and reasoning by courts of law. Section 3 discusses the distinction between anthropocentrism and ecocentrism and their jurisprudential foundation for sustainable development as the core organizing principle in modern environmental discourse. In section 4, the chapter briefly discusses the role of law in ensuring sustainability and challenges in developing an effective legal framework for sustainable management of the environment.

Section 5 provides an analytical frame for assessing Kenya's laws for sustainable development, demonstrating that there is tension between modernity and traditional practices deriving from customary rules and ethos. The section provides possible parameters against which these tensions can be reconciled. This is followed by Section 6, which assesses the extent to which the rules for reconciling the otherwise conflicting jurisprudential positions have been incorporated in the 2010 Constitution and the implications for sustainability. Section 7 concludes the chapter.

II. CONCEPTUALIZING ENVIRONMENTAL JURISPRUDENCE

Discussions on environmental jurisprudence derive from the general challenges that jurisprudence faces as an area of inquiry. On the one hand are concerns that laws are clearly written in constitutions and statute books, and the rules of interpretation are also settled. Consequently, any

2 C. Juma and JB Ojwang, *In Land We Trust: Environment, Private Property and Constitutional Change*, (Initiative Publishers, 1996)

3 JB Ojwang, 'The Constitutional Basis for Environmental Management' *In Land We Trust: Environment, Private Property and Constitutional Change*, (Initiative Publishers, 1996) 39-60 at page 39

attempts at discussing jurisprudence are of little practical relevance. Secondly, it is argued that a study of dry abstract theories does not impact on the day-to-day work of a lawyer whose principal preoccupation is to solve practical and not abstract problems. This position is buttressed when one considers that jurisprudence is defined broadly as an abstract, general and theoretical study of law as opposed to the study of actual rules of law.[4] In addition, the hard-headed and pragmatic attitude of common lawyers to the law and the absence of any philosophical tradition informing legal education or the practice of law in common law countries have tended to provoke skepticism towards theory among judges, legal practitioners and even academic lawyers.[5]

Despite the above skepticism, studying jurisprudence is essential for understanding the nature of law and its workings in society. It enables the design of appropriate legal tools to solve the world's problems. Society is influenced by the obtaining ideology in the choice of tools. To understand why some choices have been made, one needs to ask the question as to what the underlying considerations and value judgments were. This is the proper province of jurisprudence, which involves the study of general questions about the nature of laws and legal systems, the relationship of law to justice and morality, and the social nature of law.[6]

The original theoretical discussions about the nature of law (jurisprudence) revolved around the source of law and the link between law and morality. This was the point of departure between the natural law school of thought and the positivist school of thought. For naturalists, law is universal, eternal, unchanging -- and there is only one source of law whose enforcer is God.[7] While it has gone through transformation, its essential character has remained the fusion between law and morality. This contrasts sharply with the view of positivists. The idea behind positivist legal philosophy is that law is 'posited' or imposed by people.[8] It attempts to explain law as it is rather than as it ought to be.[9] However the attempt to argue for a pure separation between law and morality is admittedly inaccurate. Latter-day positivists, like Professor Hart have had to concede that some moral considerations are necessary in answering and defining the law as it exists.[10]

There have been subsequent developments in jurisprudence, including the emergence of American realism, Scandinavian realism, Critical Legal Studies, Anthropological Jurisprudence, Sociological Jurisprudence and Feminist Jurisprudence. A critical and enduring debate throughout has been whether jurisprudence is a general or a specific science. The answer to this was given by Austin,[11] who divides jurisprudence into the general and the specific. According to

4 Bhalla, *Concepts of Jurisprudence* (Nairobi University Press, 1990), page 1

5 MFBA Freeman, *Lyod's Introduction to Jurisprudence*, (9th Edition, Sweet and Maxwell, 2014) page 1

6 Ibid, page 2

7 JP Omony, *Key Issues in Jurisprudence: An In-Depth Discourse on Jurisprudence Problems* (LawAfrica, 2013), page 17.

8 P Boulot, 'A New Legal Paradigm: Towards a Jurisprudence Based on Ecological Sovereignty' 8(1) *Macqaurie Journal of International and Comparative Environmental Law* 1-15(2012) at page 2

9 Ibid, page 3

10 HLA, Hart, 'Positivism and the Separation of Law and Morals' (1958), 71(4) Harvard Law Review, 593-629

11 J Austin, *The Province of Jurisprudence Determined* (1st edn., Cambridge Univ. Press, 1832) page 5

Austin, general jurisprudence includes such subjects as are common to all mature legal systems, while specific jurisprudence refers to the study of any particular system of law or any portion of it.[12]

From the above exposition environmental jurisprudence is particular and specialized. However, it derives from the general theories of jurisprudence. In applying to the environmental field, jurisprudence must focus on legal theories that explain and guide the law in environmental management.[13] The point of departure between generalized jurisprudence and environmental jurisprudence is one of focus. One of problems of the general is that it was formulated at a time when ecological concerns were unknown and resources were abundant.[14] We have moved to a situation where environmental challenges are fully appreciated. Issues like climate change, which were the subject of heated scientific disagreements, are now fully accepted as real and attributable to human action. It is now accepted that legislation must imbue conservation imperatives so as to reflect this new reality of increased environmental challenges. Ecological principles must also be incorporated into jurisprudence,[15] hence the emergence of environmental jurisprudence as a destiny area of inquiry.

III. ANTHROPOCENTRISM AND ECOCENTRISM

The underlying jurisprudential debate is the focus of and rationale for the development of environmental law. While modern discussions revolve around sustainable development, the initial controversy revolved around what Okidi characterized as preservation and conservation, and what I later learnt is the discourse on anthropocentrism and ecocentrism.

Ecocentrism is about valuing nature for its own sake,[16] while anthropocentrism derives from the word many first encountered in early discussions about the evolution of human beings. Anthropocentricism captures the relationship between man and nature and focuses on the benefit that nature provides to human beings.[17] According to the concept, therefore, the conservation of the environment is justified on the basis of its relevance and benefits to human beings.[18]

Both approaches have implications on the design of regulatory tools for environmental management as they help to explain why different societies and members in those societies obey rules seeking to conserve the environment. It is about asking the question of incentives for management. This

12 Ibid

13 JB Ojwang, 'The Constitutional Basis for Environmental Management' *In Land We Trust: Environment, Private Property and Constitutional Change*, (Initiative Publishers, 1996) 39-60 at page 39

14 JB Ojwang and Calestous Juma, 'Towards Ecological Jurisprudence', Calestous Juma and JB Ojwang, *In Land We Trust: Environment, Private Property and Constitutional Change*, (Initiative Publishers, 1996) 309-330 at p 323.

15 Ibid, page 329

16 Suzanne C Gagnon Thompson and Michelle A Barton, 'Ecocentric and Anthropocentric Attitudes Towards the Environment' 14 Journal of Environmental Psychology (1994) 149-157, at 149

17 Barbara MacKinnon, *Ethics: Theory and Contemporary Issues*, (5th edn., Wadsworth, 2007) California

18 Suzanne C Gagnon Thompson and Michelle A Barton, 'Ecocentric and Anthroprocentric Attitudes Towards the Environment' 14 Journal of Environmental Psychology (1994) 149-157, at 149

debate, about incentives, was popularized by Garett Hardin.[19] Speaking about the dangers of common resources, which he confused for open access resources, Garett justified the need for private property rights so as to avoid over-use and eventual destruction of open access resources.[20] His article alluded to environmental management and is relevant to the discourse on ensuring sustainability in two respects. First, he gave the example of pollution as one of the ways to explain his theory of the tragedy. He posited that while the rationale for misuse is similar to the instance where one derives benefits from a common resource, in the case of pollution of the commons, the utility is based on the fact that the cost of discharging waste into the commons is less than the cost of cleaning it up, since this latter burden is borne not just by the polluter but by all members of society.[21] Garett posits that "[S]ince this is true for everyone, we are locked into a system of 'fouling our own nest', so long as we behave only as independent, rational, free-enterprisers."[22] His second example relates to the oceans, which also "continue to suffer from the survival of the philosophy of the commons."[23] With every nation viewing the ocean as having inexhaustible resources, their exploitation brings the majority of ocean species to near extinction.[24]

From the foregoing, the distinction between ecocentrism and anthropocentrism is not always about whether to conserve the environment but the philosophy behind the relationship with the environment and subsequent conservation of the environment. As Gagnon and Barton[25] have stated, "(b)oth ecocentrics and anthropocentrics express environmental concern and an interest in preserving natural resources, but their motives for this interest are distinguishable."[26] The incentives for anthropocentrics in supporting conservation of the environment is "human comfort, quality of life, and health can be dependent on the preservation of natural resources and a healthy ecosystem."[27]Ecocentrics, on the other hand, while not disagreeing with anthropocentrics on the importance of nature to human beings, are convinced that, "nature is worth conserving regardless of the economic or lifestyle implications of conservation"[28] due to its "transcendental dimensions".[29] This stresses the "connectedness between humans and other aspects of nature (such as ecological settings and animals) that transcends the ability of natural

19 Garett Hardin, 'The Tragedy of the Commons' Vol 162 Number 3858 (1968) pages 1243-1248. Reproduced in 1(3) Journal of Natural Resources Policy Research (2009) 243-253.

20 Ibid

21 Ibid

22 ibid) page 247

23 Ibid.

24 Ibid.

25 Suzanne C Gagnon Thompson and Michelle A Barton, 'Ecocentric and Anthropocentric Attitudes Towards the Environment' 14 *Journal of Environmental Psychology* (1994) 149-157.

26 Ibid 149

27 Ibid.

28 Ibid, page 150.

29 Ibid, page 150.

resources to satisfy human material or physical wants."[30]

The ecocentric approach has continued to contend with the anthropocenrtic approach. It influenced the celebrated article by Christopher Stones, 'Should Trees Have Standing',[31] which argues for man viewing himself as just part of nature and consequently granting rights to nature and natural resources so that they can be conserved for their own sake. This approach, though sounding strange when originally conceptualized, formed the basis for the development of subsequent principles of environmental law, and was captured by environmentalists who pushed for the World Charter for Nature in 1982. It also formed the basis of court decisions in both Uganda and Kenya in cases involving chimpanzees and translocation of Hirola gazelle respectively.

As Stone noted:

> A radical new conception of man's relationship to the rest of nature would not only be a step towards solving the material planetary problems; there are strong reasons for such a changed consciousness from the point of making us far better humans. If we only stop for a moment and look at the underlying human qualities that our present attitudes toward property and nature draw upon and reinforce, we have to be struck by how stultifying of our own personal growth and satisfaction they can become when they take rein of us.[32]

IV. THE ROLE OF LAW IN SUSTAINABLE DEVELOPMENT

Balancing ecocentric and anthropocentric approaches influenced the development of environmental law and led to the emergence of the concept of sustainable development as the tool for environmental management in modern times. Although societies have had rules for managing the environment since time immemorial, the existence of an international legal framework to govern the management of the environment is of very recent origin. As Professor HWO Okoth-Ogendo elucidated:

> But while civilization is replete with evidence of scientific, philosophical and practical appreciation of environmental phenomena, until recently the organization and transformation of that awareness into a social and political ideology has not always been evident.[33]

The development of international environmental law is traceable to the first international conference on environment, held in Stockholm, Sweden, in 1972, titled the United Nations Conference on the Human Environment. It pitted the developed and developing countries against

30 Ibid, page 150

31 Christopher D. Stone, 'Should Trees Have Standing: Towards Legal Rights for Natural Objects' 45 (1972) *Southern Carolina Law Review* 450-501

32 Ibid, page 495

33 HWO Okoth-Ogendo,, ,The Juridical Framework of Environmental Governance', in HWO Okoth Ogendo and Godber W Tumushabe, *Governing the Environment: Political Change and Natural Resources Management in Eastern and Southern Africa,* 41-62 at 43.

each other due to their different philosophical views of the challenges facing the environment and hence the required solution. The conflict was between economic development and environmental protection.[34] Developed countries argued that the current pace of development was leading to large-scale pollution, natural resource destruction and putting unbearable pressures on the environment and thus required to be stopped. Developing countries on the other hand, saw poverty as the greatest challenge facing them and hence argued for more latitude to exploit their environment and natural resources so as to reach the same level of development as the developed countries. To them, pollution was not a problem as it was, in their view, at a minimal scale and in any case a necessary by-product of the development process.

In the end, the Stockholm conference ended without full agreement on how to deal with this divergence of opinion. It however resulted in the adoption of two documents that formed the basis for the development of international environmental law; The Declaration on the Human Environment[35] and The Action Plan for the Human Environment.[36] It also led to the establishment of the United Nations Environment Programme (UNEP).[37]

Part One of the Stockholm Declaration[38] captured the tensions between developing and developed countries, and also the overriding anthropocentric approach of the conference by focusing on the role of human beings in environmental management and qualifying the environment with a view of it as the 'human environment'. It proclaimed that:

> Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights -- the right to life itself.[39]

It also captured the tension between developed and developing countries, a tension that would only later be resolved through the adoption of the principle of sustainable development. The declaration pointed out, on this issue, that:

> In the developing countries most of the environmental problems are caused by under-development. Millions continue to live far below the minimum levels required for a decent

34 ibid

35 Declaration of the United Nations Conference on the Human Environment, 11 ILM 1416 (1972). See also LB Sohn, The Stockholm Declaration on the Human Environment' (1973) 14 Harvard International Law Journal 423.

36 11 ILM 1421 (1972).

37 BJ Preston, 'The Role of the Judiciary in Promoting Sustainable Development: The Experience of Asia and the Pacific', 9(2 &3) *Asia Pacific Journal of Environmental Law* (2005) 109-212 at Page 115

38 n35

39 n35 part I (1)

> human existence, deprived of adequate food and clothing, shelter and education, health and sanitation. Therefore, the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. For the same purpose, the industrialized countries should make efforts to reduce the gap between themselves and the developing countries. In the industrialized countries, environmental problems are generally related to industrialization and technological development.[40]

The concept of sustainable development that emerged to reconcile the tensions between the different approaches to managing the environment was first explored in the run-up to the 1972 Stockholm conference by a group of experts. The experts from government, academia and non-governmental organizations met in Founex, Switzerland, and discussed the conflicts. They developed a conceptual framework for reconciling environmental protection and economic development.[41] The report recognized that environmental protection and economic development are mutually supportive and should be pursued in harmony.[42] It formed the basis for the eventual development and adoption of the Principle of Sustainable Development. At Stockholm though, of the principles adopted, the most far-reaching was Principle 21, which provided that:

> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.[43]

The concept of sustainable development acquired popularity in the preparations leading to the convening of the 1992 United Nations Conference on Environment and Development held in Rio.[44] Indeed, the convening of the conference was out of the need to implement the recommendations of the Report of the World Commission on Environment and Development,[45] popularly known as the Brundtland Commission, after its chairperson, Gro Harlem Brundtland. That report had defined sustainable development as development that satisfies the needs and interests of the present generation without jeopardizing the interest of future generations to enjoy the same.[46]

The United Nations Conference on Environment and Development held in Rio de Janeiro was organized following a resolution by the United Nations General Assembly and was based on

40 Ibid, Part I (4)

41 Edith Brown Weiss, ‚The Evolution of International Environmental Law', 54 Japanese Year Book of International Law 1-27 (2011) at page 4.

42 Miguel Ozorio de Almeida, 'The Founex Report On Development and Environment' (Carnegie Endowment for International Peace 1972) <https://books.google.co.ke/books/about/Environment_and_Development.html?id=8vtXMQAACAAJ&redir_esc=y> accessed 18 November 2018.).

43 n35 Principle 21

44 United Nations Conference on Environment and Development was held at Rio de Janeiro in Brazil between 3-14 June 1992.

45 United Nations, The Report of the World Commission on Environment and Development *(WCED), Our Common Future*, (New York, Oxford University Press, 1987).

46 Ibid.

the World Commission on Environment and Development report. Its mandate was "to devise integrated strategies that would halt and reverse the negative impact of human behaviour on the physical environment and promote environmentally sustainable economic development in all countries."[47] The conference produced five important international environmental law and governance documents: the Rio Declaration on Environment and Development,[48] the United Nations Framework Convention on Climate Change,[49] the Convention on Biological Diversity[50], the United Nations Convention to Combat Desertification, and Agenda 21,[51] the programme of action by states. The Rio Declaration detailed a set of 27 Principles to govern the management of the environment. These formed the basis for the development of international environmental law. At its core was the principle of sustainable development. The first four Principles of the Rio Declaration on Environment and Development address the importance of sustainable development. Principle 1 provides a link to the overall philosophy of Stockholm and its anthropocentric approach by stipulating that "(h)uman beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."[52] This phraseology captures two important things. In the first instance it places human beings in a unique place as regards environmental management capturing both the benefits that human beings are entitled to derive from the environment but also their responsibility in protecting the same environment. Consequently, it has both elements of anthropocentricism and ecocentrism. This is further underscored by its recognition of the principle of sustainable development. Principle 2 is similar to Principle 21 of the Stockholm Declaration on liability for harm. In Principle 3, the right to development is recognized, but with the caveat that in its pursuit, it must "equitably meet the developmental and environmental needs of present and future generations." Thereafter Principle 4 captures the essence of sustainable development, being integration. Sustainable development requires that both environmental imperatives and developmental objectives be integrated and balanced so as to ensure sustainability. As captured in Principle 4, "In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it."[53]

Law is an important tool for promoting sustainable development. Specifically, it prescribes the threshold of sustainability of the environment and natural resources. Its core function is to ensure inter and intra-generational equity. Science is critical to help determine the levels by which the environment and natural resources need to be maintained to ensure a healthy ecological balance.

47 United Nations, The United Nations Programme of Action from Rio (United Nations Department of Public Information, (New York: 1992) 3.

48 Rio Declaration on Environment and Development, *Report of the United Nations Conference on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (1992).

49 United Nations Framework Convention Climate Change (UNFCC), (adopted 21 May 1992) 30822 UNTS Vol. 1771, p. 107).

50 Convention on Biological Diversity,(adopted 5 June 1992) 30619UNTS Vol. 1760 p. 79

51 United Nations Conference on Environment and Development, Agenda 21, U.N. Doc. A/CONF.151/26/Rev.1 (1992).

52 n48at Principle 1

53 n48 Principle 4.

Law has introduced the concept of environmental impact assessment (EIA), environmental audit, environmental monitoring and environmental risk assessment as tools for protecting the threshold of sustainability of the environment and natural resources. This facilitates their sustainable and rational use. The law of sustainable development requires that in the process of development, the threshold of sustainability is assured and protected.

The discourse on environmental jurisprudence enables us to analyze the role of law in promoting sustainability. It is an interrogation of the meaning of law as applied in environmental management. HLA Hart's book on *The Concept of Law*[54] explores the nature of law and its role in society. He argues that, "Law is a social construct. It is a historically contingent feature of certain societies, one whose emergence is signaled by the rise of a systematic form of social control administered by institutions."[55] Professor Okidi has written extensively on environmental law, its development and functions in society.[56] His favourite analogy is to compare environmental law to the African elephant being touched by a group of seven blind men,[57] who -- depending on the part of the elephant they touch -- believe that they have the totality of the environment and thus the law relating to the environment. However, environmental law, according to Okidi, "comprises rules and doctrines arising from common law; provisions from constitutions; statutes; general principles (otherwise called soft law); and treaties that deal with the protection, management and utilization of natural resources and the environment."[58] He defines the environment as "the total natural context within which all natural resources exist and interact but also incudes those physical infrastructures constructed by man to facilitate socio-economic activities and human settlement."[59] From this definition, the purpose of environmental law is to "prescribe the threshold of sustainability of the environment and natural resources"[60] and therefore "the tool by which Our Common Future is realized."[61]

Learning environmental jurisprudence is about appreciating this function of law in promoting sustainable development and balancing the rights of the current generation with those of future ones, tasks captured by the twin concepts of inter-generational and intra-generational equity. Environmental law has two essential purposes: to "provide a regulatory framework for human activities, which may undermine the vital natural assets that support normal economic and social life and, secondly, to provide appropriate legal theory and explain and guide the law in

54 HLA, Hart, *The Concept of Law,* 3rd Edition, (Oxford University Press, 2012)

55 Ibid, page xv.

56 See, for example, Charles O Okidi, ‚Concept, Function and Structure of Environmental Law' In CO Okidi, et al, *Environmental Governance in Kenya, Implementing the Framework Law* (EAEP,2008) 3-60.

57 Ibid, page 4

58 Ibid, page 6.

59 CO Okidi, ‚The Role of Environmental Law in Sustainable Development in Africa', unpublished paper presented to Commonwealth Law Conference in Auckland, New Zealand, April 1990 (on file with author).

60 n 56 at page 6

61 Ibid.

environmental management."[62] Jurisprudence, on the other hand, is about the second function of environmental law as elucidated by Professor JB Ojwang, in the quoted passage.

V. BALANCING MODERNITY AND TRADITIONAL PRACTICES

Environmental law is a fairly modern discipline of law, whose emergence is traceable to the 1972 Stockholm Conference. There is consequently debate about the importance of traditional and customary practices in the management of the environment. This debate at once reignites the historical development of law in Kenya. A critical component of this debate is what teachings on social foundations of law in Kenyan universities refer to as the reception clause. That clause captures the date on which English law was received into Kenya -- being 12 August,1897. This date is important as it marked the beginning of the disregard of customary laws. The clause made customary laws, which had hitherto been the main source of laws, to be the least important and applicable only to the extent that "they were not repugnant to justice and morality."[63]

In realizing sustainable development, however, to ignore traditional practices would be problematic. Rules must be society specific. Most African societies had rules governing the management of the environment. However, when English law was adopted in Kenya through the reception clause of 12 August 1897, customary laws were subjected to the Western standards of morality and justice for them to be applied. Consequently, as modern rules on environmental management have developed, with the reception clause focused on disregard of cultural practices, conflict has arisen between application of modern rules and traditional practices. This has led to a rethink of this approach. The end result has been an acknowledgement of the importance of culture and traditional practices in sustainable management of the environment. This has been in line with the sentiments of Justice Werramantry, a former Vice President of the International Court of Justice, who quipped that:

> There are some principles of traditional legal systems that can be woven into the fabric of modern environmental law. They are especially pertinent to the concept of sustainable development, which was well recognized in those systems. Moreover, several of these systems have particular relevance to this case, in that they relate to the harnessing of streams and rivers and show a concern that these acts of human interference with the course of nature should always be conducted with due regard to the protection of the environments. In the context of environmental wisdom generally, there is much to be derived from ancient civilizations and traditional legal systems in Asia, Middle East, Africa, Europe, The America, The Pacific, Australia, in fact the whole world. This is a rich source which modern environmental law has largely left untapped.[64]

62 n 13

63 Section 3 (2), The Judicature Act CAP 8 (Rev 2016), Laws of Kenya

64 *Gabčíkovo–Nagymaros (Hungary v Slovakia)* [1993] ICJ, ICJGL No.92 (ICJ). Reprinted in UNEP, 'Judicial Decisions on Matters Related to the Environment', International Decisions, Volume 1 (1998) 255-344 at 301.

Tapping that rich source of knowledge requires Africa to retrace its culture and traditions. As Professor Wangari Maathai argued, "the importance of Africa's cultural heritage to their sense of who they are still isn't recognized sufficiently by them, or there."[65] Yet culture gives people a sense of self-identity and character, allowing them to be in harmony with their physical spiritual environment.[66] Wangari Maathai identifies agriculture, systems of governance, heritage and ecology as dimensions of culture.[67] Consequently, recognizing, protecting and applying cultural rules are an important aspect of promoting sustainable development.

The Constitution recognizes the importance of traditional practices in the management of the environment. It obligates the State as part of its duties of protecting the environment, to "protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of communities."[68] The Article recognizes that indigenous knowledge is key for conservation of the environment and requires to be protected. In addition, Article 11 recognizes the importance of culture in national processes and obligates the State to protect culture.

VI. THE 2010 CONSTITUTION AND THE FUTURE OF ENVIRONMENTAL JURISPRUDENCE

A. Property rights and natural resource management

In the discourse on environmental jurisprudence in Kenya, the Constitution plays a pre-eminent role. As the principal tool for distributing power within the state and regulating how such power is exercised, its role in environmental management is particularly important. The development of environmental law in many jurisdictions is now based on one or the other of two premises.[69] First, is the doctrine of police power, which power is an incident of sovereignty. Under that power, the state has a residual duty to regulate the use to which land is put so as to protect the public interest and avoid harm to public welfare.[70] In addition, the environment and its protection is expressly provided for in the Constitution of a country. Kenya has since 2010 used both approaches in environmental management. However, since both are captured in the Constitution, they have essentially fused into an environmental jurisprudence, which is anchored in the Constitution. First, the Preamble of the Constitution commits the country and all its peoples to sustainable management of the environment, underscoring respect "of the environment"[71] as part of the country's heritage and committing to "sustain it for the benefit of future generations."[72] The

65 Wangari Maathai, *The Challenge for Africa, (*Arrow Books, 2009) page 160.

66 Ibid.

67 Ibid.

68 Article 69 (1) (c), Constitution of Kenya, 2010, National Council for Law Reporting.

69 HWO Okoth-Ogendo, ,The Juridical Framework of Environmental Governance' in HWO Okoth-Ogendo and Godber W Tumushabe, *Governing the Environment: Political Change and Natural Resources Management in Eastern and Southern Africa,* 41-62 at 52.

70 Ibid.

71 Preamble, Constitution of Kenya 2010,National Council for Law Reporting.

72 Ibid.

Constitution then has elaborate provisions on the environment,[73] including making environmental rights a constitutional right[74] within the Bill of Rights and detailing responsibilities of the state in the realization of that right.[75] The Constitution also recognizes the importance of sustainable development and makes it one of the national values and principles of governance under Article 10, requiring that all governance processes of the country have to adhere to the principle of sustainable development.

The Constitution recognizes the central role that natural resources play in the country's development landscape. It encapsulates Joseph Sax's Public Trust Doctrine[76] and calls for the conservation of natural resources so as to ensure sustainability. This requires that such resources be treated as a public good. It requires that society avoid the past focus on privatization, an approach that changes the environment to fit human beings' conception of property. As David Hunter has written:

> (w)e have fenced, plowed and paved. The environment has proven malleable and to a large extent still is. But there is a limit to this malleability, and certain types of ecologically important resources … can no longer be destroyed without enormous long-term effects on environmental and therefore social stability."[77]

This approach is inimical to sustainability. It is for this reason that he calls for an ecological jurisprudence.[78] Such an approach holds that laws and values cannot continue to ignore the restraints placed on human activity by the natural environment.[79] This philosophy is included in the Constitution in several respects. First, the Constitution guarantees to every person the right to a clean and healthy environment, which includes "the right to have the environment protected for the benefit of future generations through legislative measures, particularly those contemplated in Article 69 …"[80] Secondly, Article 69 obligates the state to "ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources …"[81] and " eliminate processes and activities that are likely to endanger the environment."[82] In addition, the Constitution captures the state's power of development control or police power, which enables it to regulate the use of land. The state is empowered to regulate the use of any land, in the "interest of

73 Collins Odote, ‚Kenya: Constitutional Provisions on the Environment' 1(2012) IUCN Academy of Environmental Law, E-Journal 136-145.

74 Article 42, Constitution of Kenya, 2010, National Council for Law Reporting.

75 Ibid,Article 69.

76 Joseph Sax, ‚Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention', 68((3) Michigan Law Review 471-566(1970).

77 David B Hunter, 'An Ecological Perspective of Property: A Call for Judicial Protection of the Public's Interest in Environmental Critically Resources', 12 Harvard Environmental Law Review 311-383 at 315.

78 ibid

79 Ibid, page 311.

80 Article 42,Constitution of Kenya

81 Article 69(1)(a),Constitution of Kenya 2010,

82 Article 69(1)(g), Constitution of Kenya.

defence, public safety, public order, public morality, public health or land use planning."[83] This last reason for the exercise of police power is important for guaranteeing sustainability as it addresses issues that can result in environmental degradation in the use of land.

The discourse of environmental jurisprudence, arising from the exercise of police power by the state necessarily deals with property rights and their regulation in the Kenyan context. The institution of property is one of the most enduring phenomena of human societal existence.[84] It is a core component of societal development. Each phase of human society – from the primitive societies, through the feudal systems to the modern industrial and commercial societies – has given its own content to the notion of property.[85] Indeed, property relations and other elements of social order such as political groups and economic policies largely constitute the substructure on which social order of any community rests.[86]

Consequently, property rights are an important aspect of environmental jurisprudence in Kenya. Property is a conglomeration of social, moral, economic, political and legal factors.[87] One can easily describe it as a mirror of a society's socio-economic and legal developments.[88] Property is critical as it regulates the relations between individuals and ascertains their relations with reference to objects as well.[89] The institution of property implies the existence of ordered relations, which means the existence of norms to regulate human activities.[90] These human activities impact on the environment hence the relationship between property rights and environmental management. Consequently, a discourse on environmental jurisprudence is incomplete without appreciating property relations and property rights in society.

There are several theoretical stipulations on property rights in the world. The earliest formulation was the perception of property that derives from the natural school of jurisprudence. Based on the works of Aristotle, who conceived of property rights as being inherent in the moral order,[91] this theory focused on private property rights. Furthering the natural school of thought, John Locke developed the labour theory of property as an aspect of the natural law school of thought, advocating property rights as deriving from the labour that one expends in a thing.[92] This conception gave way

83 Article 66(1), Constitution of Kenya.

84 See also; Collins Odote, "Regulating Property Rights to Ensure Sustainable Management of Wetlands in Kenya", Unpublished PhD Thesis, University of Nairobi, 2010(On file with author).

85 Bhalla, R. S. "Property Rights, Public Interest and Environment", In Juma, C. and J. B. Ojwang (Eds) *In Land We Trust: Environment, Private Property and Constitutional Change* (Nairobi and London, Initiative Publishers and Zed Books, 1996) 61-81 at p. 61.

86 Collins Odote, n83

87 RS Bhalla, *The Concepts of Jurisprudence*, (Oxford University Press, 1990), 111.

88 Ibid

89 Ibid, page 113

90 Ibid

91 Aristotle, *The Politics,* Book 5 (Stephen Everson ed., 1988) 25-29.

92 John Locke, *The Second Treaties of Government* (Thomas P Reardon ed., Liberal Arts Press 1952) (original 1690) section 27 at 17.

to Blackstone's view that property rights were rights in a thing, and holding that property was "that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe."[93]

By the beginning of the twentieth century, the Blackstonian conception began to wear.[94] Based on the works of Wesley Hohfeld, particularly his analysis of rights[95] and AM Honore's incidents of ownership,[96] property began to be viewed as a bundle of rights. This theory is known as the social relations theory, and views property as defining the relationship between people concerning a thing in a social system.[97] It therefore defines social relations.[98] Under this conception, property rights derive from society and reflect the agreement of society to enable the holder of the rights to act in a particular manner without any interference from other members of society as long as the manner of acting is one that is not excluded from the content of one's rights.[99]

The Constitution recognizes and protects property rights. It defines property to include land, goods and personal property, intellectual property, choses in action or negotiable instruments.[100] While there are several categories of property, land remains the most important form of property in Kenya. It is the principal source of livelihood and material wealth, and invariably carries cultural significance for many Kenyans.[101] The Constitution requires that in holding, using and managing land, one of the essential conditions to be met is that of sustainability,[102] pointing to the link between land rights and environmental management. Consequently, in addition to the police power of the state to regulate property rights in land (captured in Article 66), the Constitution also includes the regulatory power of eminent domain,[103] by which the state can compulsorily acquire land for public purposes and in the public interest, subject to payment of compensation.[104]

B. Gender and environmental management

Another critical issue covered by the Constitution, which is germane to environmental jurisprudence, is gender. Gender discourses are encapsulated within feminist jurisprudence. Feminist jurisprudence arose from the belief that society, and necessarily the legal order, is

93 Blackstone, n5

94 Abraham Bell and Gideon Parchomovosky, ‚A Theory of Property' 90 Cornell Law Review 531-616 (2004-5) at 544.

95 NW Hohfel, Fundamental Legal Conceptions as Applied in Judicial Reasoning and other *Essays* 67 (Walter W Cook Ed., 1923)

96 AM, Honore, 'Ownership' In *Oxford Essays in Jurisprudence* 107 (A.G. Guest Ed, 1961)

97 Collins Odote, n82

98 Ibid.

99 Ibid

100 Article 260, Constitution of Kenya 2010.

101 Republic of Kenya, Sessional Paper Number 3 of 2009 on National Land Policy (Government Printer, Nairobi, August 2009), para 33.

102 Article 60(1), Constitution of Kenya 2010.

103 See generally, Ellen Frankel and Paul, *Property Rights and eminent Domain* (Transaction Publishers, 2009).

104 Article 40(3), Constitution of Kenya, 2010

patriarchal.[105] Consequently, the focus is on looking at things through a male lens oblivious to the perspectives of women in society. To redress this, feminist jurisprudence seeks to contribute to the analysis of the role of law in constructing, maintaining, reinforcing and perpetuating patriarchy. It also looks at ways in which this patriarchy can be undermined and ultimately eliminated[106] so as to ensure development of laws and processes that reflect the interests of both men and women. Necessarily, therefore, gender dynamics and implications in environmental management are a critical jurisprudential line of inquiry. They explicate the relationship between men and women and affect how each is able to access and enjoy the benefits derived from the environment. With regard to environmental resources, women's access to and control over forests, water and wildlife has come into sharp focus as it has become clear that the performance of women's day-to-day chores is anchored on these resources.[107]

Law plays a critical role in dealing with gender issues relating to the environment. It can empower or disempower its subjects in the quest for access to resources.[108] Due to the plurality of legal systems and rules, women are often disadvantaged in the protection and enjoyment of their rights. In most cases, there seems to be a conspiracy to deny women the full enjoyment of their rights -- even when these are guaranteed in law.[109] Consequently, exploring both legal and practical mechanisms to address this inequality is critical for scholarship. As part of that process, strategies must be designed to ensure that the process of sustainable development is equitable. This is because feminists opine that women are marginalized in the production system.[110]

The Constitution provides a sound basis for engendering environmental management. First, it recognizes that land is critical to sustainability and livelihoods, and based on this recognition, seeks to redress past discrimination of women in access to and ownership of land and land-based resources.[111] For that reason, the Constitution requires equity[112] in land access and the elimination of gender discrimination in law, customs and practices related to land and property in land.[113] By encouraging public participation[114] in the management of the environment and including both

105 Leslie Bender, 'A Lawyer's Primer on Feminist Theory and Tort' (1988) Journal of Legal Education v38 page 3

106 Michael Freeman, *Llyod's Introduction to Jurisprudence* (Thomas Reuters, 2014).

107 Patricia Kameri-Mbote, ,Women, Land Rights and the Environment: The Kenyan Experience' 49(3) Development (2006) 43-48 at 43.

108 Ibid.

109 Patricia Kameri-Mbote, ,'Fallacies of Equality and Inequality: Multiple Exclusions in Law and legal Discourses' Inaugural Lecture, University of Nairobi, 24 January 2013. Available at http://www.ielrc.org/content/w1301.pdf.

110 Estter Boserup, (1970), *Women's Role in Economic Development* (New York, St Martin's Press).

111 Patricia Kameri-Mbote, ,The More Things Change The More they Stay Constant: Okoth's Contribution to Gender Equality and Non-Discrimination in Land Matters' Patricia Kameri-Mbote and Collins Odote(eds), *The Gallant Academic: Essays in Honour of HWO Okoth Ogendo*(School of Law, University of Naiobi, 2017) 223-242; Agnes Meroka, ,Gendered Land Question and the Marginalization of Maasai Women' in Patricia Kameri-Mbote and Collins Odote(eds), *The Gallant Academic: Essays in Honour of HWO Okoth Ogendo* (School of Law, University of Nairobi, 2017) 243-262.

112 Article 60(1)(a), Constitution of Kenya 2010.

113 Article 60(1)(f) Constitution of Kenya 2010.

114 Article 69(1)(d), Constitution of Kenya 2010.

non-discrimination and sustainable development as part of the Principles of Governance,[115] the Constitution clearly addresses gender considerations in environmental management. This is crowned by the overall equality and non-discrimination clause in Article 27 of the Constitution.[116]

C. The role of courts

One of the main contributors to the realism school of thought was Oliver Wendell Holmes. Holmes played a fundamental role in bringing about a changed attitude to the law.[117] He saw law as predictions of what the courts will decide.[118] This necessarily brought to the fore the role that courts play in making and interpreting law. Consequently, discussions on jurisprudence are sometimes seen within the confines of court decisions. While court decisions can accurately be referred to as jurisprudence, it is inaccurate to see jurisprudence within the limited lens of what the courts decide. Environmental jurisprudence, while comprising decisions from courts on various environmental matters, is much more than this.

Judiciaries the world over balance the interests of society with economic development, environmental sustainability, and the competing interests of persons and entities.[119] Not surprisingly, the judiciary has been called upon to enforce sustainable development policies owing to its traditional role in dispute resolution and interpretation of laws.[120] The judiciary in Kenya did not historically play a positive role in the promotion of sustainable development as most environmental cases were dismissed on technical, and not substantive, grounds.[121] The 2010 Constitution reorganizes the framework of governance. It is the basis of a new dispensation, which represents well-based hopes for an experience of democratic governance.[122] Kenya has now pioneered a substantive green Constitution, with new institutions, such as the Environment and Land Court.[123] When it was established, there was expectation that the court would develop sound jurisprudence on environment and land matters and address the many challenges facing the country.[124] Already, the court is contributing to sustainability through its decisions and reasoning.[125] A continued review of the role of the Court and jurisprudence emerging from it is an

115 Article 10, Constitution of Kenya 2010.

116 Article 27, Constitution of Kenya 2010.

117 n5 [824].

118 Ibid.

119 Patricia Kameri-Mbote and Collins Odote, ‚Courts as Champions of Sustainable Development: Lessons from East Africa' 10 (2009), Sustainable Development Law and Policy31-38; 83-84 at 31

120 Ibid.

121 Collins Odote, ,'The Role of Environmental and Land Court in Governing Natural Resources in Kenya' in Patricia Kameri Mbote and others(Eds),*Law, Environment and Development*(Nomos, Germany, 2019) 335-356.

122 Jackton B Ojwang, 'Ascendant Judiciary in East Africa: Reconfiguring the Balance of Power in a Democratizing Constitutional Order', (Strathmore University Press, 2013).

123 Donald W Kaniaru, ‚Environmental Courts and Tribunals: The Case of Kenya' 29 Pace Environmental Law Review 566-581 (2011-2012) at 581.

124 Collins Odote, 'Kenya: The New Land and Environment Court' 4 IUCNAEL E- Journal (2013) 171-177 at 177.

125 n 121.

important aspect of the environmental jurisprudence discourse, since the role of the judiciary in relation to the law of sustainable development is of the greatest importance.[126]

VII. CONCLUSION: TOWARDS AN ECOLOGICAL JURISPRUDENCE

Theoretical explorations of environmental management are critical areas of inquiry in the quest for ecologically sustainable development. Through such an inquiry the content and relevance of rules put in place by the country will continue to be explored. Additionally, how such rules are applied in practice, which is about the engagement of various actors in the process, starting from the levels of awareness by citizens and the balance between enjoyment of the right to a clean and healthy environment are relevant. Moreover it is also about living up to the obligations that are a concomitant part of the jural correlatives and opposites that the Hohfeldian matrix of rights encapsulates.127 In this process, many agencies come into play, including the legislature that continuously makes and amends laws so as to determine their compliance with and promotion of the principle of sustainable development, the executive, which develops policies and implements laws and the Judiciary whose role it is to interpret provisions on sustainable development. Non-government organizations and the media also have a role to play.

In understating the role of law in promoting sustainable development, traditional doctrines of jurisprudence, especially those of the natural and positivist schools of thought are woefully inadequate. This is because they impose a reductionist legal hegemony on the planet, which fails to recognise that natural systems are interdependent and interconnected.128 It is important that in developing and applying laws, the need to align them to nature is recognized. This will yield jurisprudence that recognizes ecological sovereignty.129 Such jurisprudence must appreciate the interdependence and interconnectedness of the environment internationally. This in turn raises the need for universal rules to govern the shared environment. At the same time, though, it has to be infused within the Kenyan context including customary rules.130 As noted earlier, communities have traditionally lived with nature and evolved rules and practices based on knowledge accumulated over the years.[131] This is a call to and expectation of the Supreme Court, under the 2010 Constitution, to develop an indigenous jurisprudence.

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126 Brian. J. Preston, ,The Role of the Judiciary in Promoting Sustainable Development: The Experience of Asia and Pacific' 9(2) Asia Pacific Journal of Environmental Law 109-212(2005) at 212.

127 Wesley Newcomb Hohfeld, 'Some Fundamental Legal Conceptions as Applied to Judicial Reasoning' 23(1) Yale Law Journal 16-59(2013).

128 Peter Boulot, 'A New Legal Paradigm: Towards a Jurisprudence Based on Ecological Sovereignty'. 8(2) Macquarie Journal of International and Comparative Environmental Law 1-15 at 2.

129 Ibid.

130 Collins Odote, 'Retracing our Ecological Footsteps: Customary Foundations for Sustainable Development and Implications for Higher Education in Kenya' 8(1) University of Nairobi Law Journal (2015) 55-71 <http://uonlj.uonbi.ac.ke/sites/default/files/media/vol_8_2015_unlj.pdf>

131 Book Review: Peter Orebech et al., 'The Role of Customary Law in Sustainable Development' (Cambridge: Cambridge University Press, 2005)' Environment and Development Journal (2007), p. 82, available at <http://www.lead-journal.org/content/07082.pdf>.

Chapter 11

Governing Climate Change for Sustainable Development: Legal, Institutional and Policy Perspectives in Kenya

Robert Kibugi

I. INTRODUCTION

According to Kenya's 2013-2017 National Climate Change Action Plan (NCCAP),[1] climate change is the most serious global challenge of our time. This view is endorsed by Sessional Paper No. 5 of 2016 on National Climate Change Framework Policy, which notes that Kenya's continuing vulnerability to climate change poses significant threats to achieving long-term national development goals.[2]

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as the state of the climate that can be identified (e.g. using statistical tests) by variabilities in its (climate) property, and this change persists for an extended period, typically decades or longer.[3] According to the IPCC definition, this refers to any change in the climate over time, whether due to natural variability, or as a result of human activity.[4] Another definition is provided by the United Nations Framework Convention on Climate Change (UNFCCC),[5] which defines climate change as a change of climate which is attributable directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.[6] The two definitions consider both natural variability

1 Republic of Kenya, National Climate Change Action Plan (Nairobi: Ministry of Environment and Mineral Resources, 2013) 1.

2 Republic of Kenya, Sessional Paper No. 3 of 2016 on National Climate Change Framework Policy (Nairobi: Government Printer, 2017), para 1.3.2.

3 RK Pachauri & A Reisinger (eds.), *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva: IPCC, 2007) 30.

4 ibid.

5 United Nations (UN), *United Nations Framework Convention on Climate Change [UNFCCC]* (New York: Treaty Series, vol. 1771, 1992)107. <https://treaties.un.org/doc/Publication/UNTS/Volume%201771/v1771.pdf> accessed 12 October 2018.

6 ibid article 1.

and human activity as contributing to climate change, but the UNFCCC definition places human activity as the primary or key cause of the change in climate, in addition to natural variability.[7] Kenya's Climate Change Act, 2016 (CCA),[8] like the UNFCCC, defines climate change as a change in climate caused by significant changes in the concentration of greenhouse gases as a consequence of human activities and which is in addition to natural climate change that has been observed during a considerable period.[9] This definition of climate change, which magnifies the roles of human activities in contributing to the adverse impacts, is important. It demonstrates that human action, through law, policy and strategic choices, is important in instituting corrective behaviour to reduce Greenhouse Gas (GHG) emissions and take up adaptive behaviour to reduce vulnerability.

Kenya, like other countries in the region, is bearing the brunt of climate change impacts and associated socio-economic losses.[10] This is a challenge because Kenya's economy is highly dependent on natural resources, making it highly vulnerable to climate variability and change.[11] The 2016 National Climate Change Framework Policy pointed out that the adverse climate change impacts on natural ecosystems have resulted in a decline in environmental quality that brings social and economic hardship to the people who depend on these ecosystems.[12] This in turn increases contestation and the likelihood of conflict over diminishing natural resources, and also creates a window for invasive species, new pests and diseases.[13]

While agriculture is the backbone of the Kenyan economy directly contributing 24 per cent of the Gross Domestic Product (GDP) and accounting for 65 per cent of informal employment in rural areas, Kenya continues to face major food security challenges due to over-dependence on rain-fed agriculture for food production.[14] Extended periods of drought erode livelihood opportunities and community resilience in these areas, leading to undesirable coping strategies that damage the environment and impair household nutritional status, further undermining long-term food security.[15] Kenya's tourism industry, which is largely nature-based, is highly susceptible to the adverse impacts of climate change on biodiversity.[16]

Climate hazards have caused considerable losses across the country's different sectors over the years. For instance, smallholder farmers, (and pastoralists) are highly vulnerable to climate

7 Pachauri & Reisinger (n 3) 30.

8 Climate Change Act No. 11 of 2016.

9 Climate Change Act No. 11 of 2016, sec 2.

10 Republic of Kenya, *Intended Nationally Determined Contribution* (Nairobi: Ministry of Environment and Natural Resources (2015) 1.

11 Republic of Kenya, *National Climate Change Response Strategy* (Nairobi: Ministry of Environment and Mineral Resources, April 2010) 9.

12 Republic of Kenya (n 2). 9.

13 ibid.

14 Republic of Kenya (n 1) 4 and.

15 ibid.

16 ibid 5.

hazards resulting from extreme weather events as their options for diversifying their resources and income sources are limited.[17] According to the 2018-2022 Draft National Climate Change Action Plan (NCCAP),[18] the 2008-2011 drought was estimated to have cost the Kenyan economy Ksh. 968.6 billion, with Ksh. 64.4 billion accounting for the destruction of physical assets and Ksh. 904.1 billion for losses in the flows into the economy.[19] Along with other internal and external shocks, the severe droughts between 2008 and 2011 contributed to the reduction in Kenya's GDP growth rate from an average of 6.5 per cent in 2006/2007 to an average of 3.8 per cent between 2008 and 2012.[20] Thus, on average, the main climate hazards include droughts and floods, which cause economic losses estimated at 3 per cent of the country's GDP.[21]

As evidenced by the data in the foregoing paragraph on the economic cost of extreme weather events, climate change and its adverse impacts pose one of the greatest challenges in Kenya's quest for sustainable development. The country's economy is highly dependent on climate sensitive sectors, including agriculture, tourism, and energy.[22] This is an important concern for Kenya because of a national constitutional commitment to sustainable development. Article 10 of the Constitution sets out sustainable development as one of the national values and principles of governance, which must be adverted to by public officers and all other persons when applying the Constitution, making or applying any law, or making public policy decisions. In addition, Article 69(2) of the Constitution places a duty on every person (natural and legal) in Kenya to cooperate with each other, and with the State, in order to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. It is within the context of the impact of actions taken to deal with climate change on Kenya's commitment to sustainable development that the discourse on climate change governance in the country should be undertaken.

II. THE GLOBAL CLIMATE CHANGE GOVERNANCE FRAMEWORK AND THE IMPACT ON KENYA

The overall global legal framework on climate change is the 1992 UNFCCC, whose key objective is the stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.[23] Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable

17 J Ochieng, L Kirimi & M Mathenge, 'Effects of climate variability and change on agricultural production: The case of small-scale farmers in Kenya' (2016) 77 Wageningen Journal of Life Sciences 71.

18 Republic of Kenya, Draft National Climate Change Action Plan 2018-2022 (Nairobi: Ministry of Environment and Forestry, 2018) <http://www.kcckp.go.ke/download/NCCAP-2018-2022_draft_5July2018.pdf> accessed 14 October 2018.

19 ibid16.

20 ibid.

21 Republic of Kenya (n 10) 1.

22 Republic of Kenya (n 1) .

23 United Nations (n 5) article 2. <https://unfccc.int/resource/docs/convkp/conveng.pdf> accessed 13 November 2018.

manner.[24] Kenya ratified the UNFCCC on 30 August 1994.[25]

Parties to the UNFCCC adopted the Paris Agreement in December 2015 with the objective of strengthening the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty. They also sought to increase the ability of parties to adapt to the adverse impacts of climate change and foster climate resilience and low GHG emissions development.[26] The Paris Agreement was ratified by Kenya on 26 December 2016,[27] under section 9(1) of the Treaty Making and Ratification Act,[28] and entered into force in Kenya on 27 January 2017. According to Article 2(6), as read with Article 94(5) of the Constitution of Kenya (2010), the Paris Agreement now forms part of the law of Kenya.[29]

The Paris Agreement is aimed at strengthening the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty.[30] This is to be achieved through, among other means, increasing the ability to adapt to the adverse impacts of climate change and fostering climate resilience and low GHG emissions development in a manner that does not threaten food production.[31] Further, the Paris Agreement aims to make finance flows consistent with a pathway towards low GHG emissions and climate resilient development.[32] These approaches are consistent with the objectives of the national climate law and policy, as discussed in the next section.

All state parties to the Paris Agreement are required, under article 4, to submit Nationally Determined Contributions (NDC)[33] as the commitment of domestic GHG emissions targets that the country intends to achieve in the context of common but differentiated responsibilities (CBDR) and respective capabilities. In 2015, Kenya submitted its NDC to the UNFCCC, pledging to reduce its GHG emissions by 30 per cent by the year 2030 relative to the Business as Usual (BAU) scenario of 143MtCO_2 equivalent, in line with the national sustainable development agenda.[34] This national commitment by Kenya, as a developing country with insignificant historical, and current low levels of GHG emissions, to take action to reduce national GHG emissions is consistent with a

24 ibid.

25 UNFCCC Status of Ratifications as at 19 October 2018 <https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=IND&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en> accessed on 19 October 2018.

26 Article 2.

27 United Nations, Kenya: Paris Agreement Ratification Depositary Notification CN 979.2016.TREATIES-XXVII.7.d (New York, 3 January 2017).

28 Treaty Making and Ratification Act No. 45 of 2012.

29 Although Article 2(6) provides that treaties ratified by Kenya form part of the law under the Constitution – Article 94(5) provides that the only institution with legal authority to make national law is Parliament. Hence enactment of the Treaty Making and Ratification Act to provide a procedure that gives Parliament (National Assembly) the authority to ratify and therefore make a treaty part of national law as required by Article 94(5) of the Constitution.

30 Paris Agreement, Article 2.

31 Paris Agreement, Article 2(1)(a).

32 ibid Article 2(1)(b).

33 ibid Article 4.

34 Republic of Kenya (n 10) 2.

hybrid approach to the CBDR principle under article 4(3) of the Paris Agreement:

> 4(3). Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

This hybrid CBDR moves away from a binary allocation of responsibilities on the simple basis of developed versus developing countries, to a system advocating contributions by all countries in reducing GHG emissions.[35] This is however done in light of national circumstances, and reflecting the respective national capabilities.[36] Thus, under article 4(5) of the Paris Agreement, countries that make NDC commitments are entitled to receive financial support (article 9), technology transfer and support (article 10), as well as capacity building support (article 11). Kenya's NDC, developed in the context of the hybrid CBDR principle, provides that "as a minimal contributor to global GHG emissions, Kenya places significant priority on adapting to the effects of climate change."[37]

It is important to note that the primary national legal mechanisms for implementing the Paris Agreement in Kenya is the Climate Change Act, which adopts various legal tools, including the NCCAP, as specified under section 13 of the climate law. By interpretation, Kenya's NDC is to be implemented through the NCCAP, which sets out the specific mitigation actions for GHG emissions reduction. Through the 2015 NDC, Kenya seeks to implement mitigation measures that have been identified across six sectors of the economy: energy, transport, industry, waste, forestry and agriculture.[38] This is based on article 4.1 of the UNFCCC, and the measures form part of the mitigation component of the 2018-2022 NCCAP.

III. NATIONAL CLIMATE CHANGE GOVERNANCE PRIORITIZATION OF ADAPTATION THROUGH LAW AND POLICY

The CCA, and the Climate Change Policy, as highlighted earlier, have both adopted the objective of pursuing a low carbon climate resilient development pathway for the sustainable development of Kenya. This means that, inherently, public policy makers who are mainstreaming climate change actions in Kenya will seek some sort of balance, or equilibrium, in context of the national circumstances, and the capabilities of the Republic of Kenya.

35 R Kibugi, 'Common but differentiated responsibilities in a North-South context: Assessment of the Evolving Practice under Climate Change Treaties' in L Kramer & E Orlando, eds., *Elgar Encyclopaedia of Environmental Law: Principles of Environmental Law* (Cheltenham: Edward Elgar, 2018) 613-626, 624.

36 ibid.

37 Republic of Kenya (10) 1.

38 ibid.

A. Policy approach in prioritization of adaptation actions for Kenya

In practice, as evident through various policy decisions, such as the 2015 NDC, [39] and the 2018-2022 Draft NCCAP, Kenya has affirmed that the country's climate change policy prioritizes adaptation actions as the country has little historical or current responsibility for global climate change, with the national GHG emissions currently representing less than 1 per cent of total global emissions.[40] Specifically, the 2015 NDC emphasized that while Kenya has set targets for reduction of GHG emissions, the national priority is implementing adaptation actions in order to reduce vulnerability to climate change impacts by building resilience and enhancing the adaptive capacity of the society.[41] The NDC further provides that:

> The priority adaptation actions are presented in the NCCAP and further elaborated in the National Adaptation Plan (NAP), which is part of the NAP. The actions are based on risk and vulnerability assessments across the sectors. Many of the actions have strong synergies with mitigation actions. Kenya's capacity to undertake strong mitigation actions is dependent upon support for the implementation of these adaptation actions.[42]

The draft 2018-2022 NCCAP maintains the same approach that adaptation is the priority for Kenya, with the rider that action is still needed to reduce GHG emissions that are projected to increase due to population and economic growth, and in order to keep national GHG emissions lower than the projected trajectory while delivering co-benefits including sustainable development, green growth and resource efficiency.[43]

B. Prioritization of adaptation: Focus on building resilience and enhancing adaptive capacity

Focusing on the national adaptation priority, it is important to examine the two core elements of adaptation actions: building resilience and enhancing adaptive capacity. Building resilience to the impacts of climate change requires Kenyan governance systems, ecosystems and society to have the capability to maintain competent function in the face of climate change and to return to some normal range of function even when faced with adverse impacts of climate change.[44] The IPCC defines adaptive capacity as the "ability or potential of a system to respond successfully to climate variability and change, and includes adjustments in both behaviour and in resources and technologies."[45] Adaptive capacity is therefore the ability of a society, economy or environment to modify behaviour

39 Republic of Kenya (n 10) 4, para 2.2.

40 Republic of Kenya (n 18) 18.

41 Republic of Kenya (n 10) 4, para 2.2.

42 ibid 4, para 2.2.1

43 Republic of Kenya (n 18) 18.

44 Republic of Kenya (n 2) 17

45 W Adger, S Agrawala, M Mirza, C Conde, K O'Brien, J Pulhin, R Pulwarty, B Smit and K Takahashi, 'Assessment of adaptation practices, options, constraints and capacity' M Parry, O Canziani, J Palutikof, P van der Linden and C Hanson, eds., *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, (Cambridge: Cambridge University Press, 2007) 717-743, 727.

in the face of adverse impacts of climate change, and thus adapt. These two are mutually dependent because the ability of a country like Kenya and its people to enhance adaptive capacity depends, first, on its capability to enhance resilience of its systems.[46]

The enhancement of climate change resilience and building adaptive capacity are two essential legal and policy priorities to enable Kenya to handle its vulnerability to adverse impacts of climate change. SDG 13.1 for instance calls on countries to take action to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.[47] The 2016 Climate Change Policy urges that for Kenya, adaptive capacity is key to improving socio-economic characteristics of communities, households and industry as it includes adjustments in both behaviour and in resources and technologies.[48] The IPCC states that adaptive capacity is a necessary condition for the design and implementation of effective adaptation strategies necessary to reduce vulnerability to adverse impacts of climate change.[49]

To illustrate, a 2017 study on smallholder farmers' strategies for adaptation to climate change in Kitui County found evidence of farmers adjusting their farming practices in response to lower precipitation by adopting new farming practices such as planting just before the onset of rains; use of hybrid crop varieties; and mixed crop and livestock farming (71%).[50] Other adaptation options included soil conservation (37%) and crop diversification (27%). The results also showed that 86 per cent of the respondents in Mikuyuni Village planted just before the onset of the rains and 14 per cent of the respondents planted just after the onset of the rains in response to the unpredictable onset of rains.[51]

The enhancement of adaptive capacity to deal with climate risks is fundamental and closely related to sustainable development and equity.[52] This is important for Kenya where, as highlighted earlier, the Constitution makes it mandatory to integrate sustainable development and take its consideration into account when making and implementing any law and public policy decision. Indeed, one of the guiding values and principles set out by the Climate Change Act as binding on all levels of government and all persons when implementing the climate law, or making or implementing public policy decisions on climate change, is to "ensure promotion of sustainable development under changing climatic conditions."[53]

46 Republic of Kenya (n 2) 17

47 United Nations, Transforming our world: the 2030 Agenda for Sustainable Development (Resolution adopted by the General Assembly on 25 September 2015, A/70/L.1).

48 Republic of Kenya (n 2) 17.

49 W. Adger et al (n 45) 727.

50 E Mutunga, C Ndungu, P Muendo, 'Smallholder Farmers' Perceptions and Adaptations to Climate Change and Variability in Kitui County, Kenya' (2017) 8(3) Journal of Earth Science & Climatic Change 3, 5.

51 ibid 6.

52 Intergovernmental Panel on Climate Change (IPCC), Climate Change 2001: Impacts, Adaptation, and Vulnerability. Working Group II: Impacts, Adaptation and Vulnerability: Adaptation to Climate Change in the Context of Sustainable Development and Equity (Chapter 18). <http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=653> accessed 14 November 2018.

53 Climate Change Act (No. 11 of 2016), section 4(2)(c).

IV. THE NATIONAL LEGAL, INSTITUTIONAL AND POLICY FRAMEWORK FOR CLIMATE CHANGE

As explained in the introductory section, the focus of the regulatory framework (policy, legal and institutional) for climate change governance in Kenya is to support attainment of the constitutionally mandated sustainable development outcomes. The overall legal framework includes Kenya's commitment to global treaties on climate change such as the UNFCCC, the Paris Agreement, as well as the national legal framework governing climate change. In this section, the chapter succinctly reviews the key elements of the national framework in order to demonstrate the focus and intended outcomes of climate governance.

A. The objective of the national climate change governance framework

The national legal and policy framework comprises the 2016 Climate Change Act[54] and the Sessional Paper No. 5 of 2016 on National Climate Change Policy Framework.[55] The climate change policy, consistent with the Climate Change Act,[56] has the goal of enhancing the adaptive capacity and resilience to climate change and promoting low carbon development (through mitigation of GHG emissions) for the sustainable development of Kenya.[57]

B. The institutional framework for climate change governance

The Climate Change Act has established an institutional framework governing climate change actions, as follows:

1. The National Climate Change Council (NCCC) is established through section 5 of the CCA. It is a national high-level oversight body with political convening power to support mainstreaming climate change throughout all sectors, and by various key stakeholders. The President chairs it with the Deputy President as the Deputy Chairperson. The Council membership is drawn from Cabinet Secretaries (Treasury, Planning, Energy, Climate Affairs), Council of Governors, private sector, civil society, academia, and marginalized communities.[58]

   The appointment of the representatives of the private sector, civil society, academia, and marginalized communities must be preceded by nomination by the President for approval by the National Assembly and the Senate.[59] However, in October 2016, through Kenya Gazette No. 9227, the President published the appointment of these members of the council without first seeking the approval of Parliament.[60] Rather un-procedurally,

54 ibid

55 Republic of Kenya (n 2).

56 Climate Change Act (No. 11 of 2016), section 3(1).

57 Republic of Kenya (n 3). 15.

58 Climate Change Act (No. 11 of 2016), section 7.

59 ibid, Section 7(4).

60 Kenya Gazette No. 9227, The Climate Change Act (No. 11 of 2016), The National Climate Change Council Appointment. Vol. CXVIII—No. 136. Published by Authority of the Republic of Kenya.

these names were subsequently forwarded to Parliament for approval after the formal appointment was made through the Kenya Gazette. In February 2017, both houses of Parliament approved two of the nominees submitted by the President (private sector and civil society), and rejected two others (academia and marginalized communities).[61] This issue became the subject of a judicial review action filed by civil society organizations contesting the nomination of the civil society representative, in *Republic v National Assembly & 5 Others ex parte The Green Belt Movement; Pan African Climate Justice Alliance; and Transparency International Kenya.*[62] In a judgment delivered on 27 September 2018, Justice Roselyn Aburili observed that:[63]

It is clear that the Act stipulates the procedure for nomination and appointment of members of the NCCC. It is also clear that procedure was never followed when the [Cabinet Secretary] presented names of nominees to HE the President instead of presenting to Parliament. Whereas this court is in agreement that Parliament has a constitutional mandate to vet the nominees and only approve those who satisfy the criteria for appointment to the NCCC, it is clear that Parliament, itself being the maker of the Climate Change Act, flouted the established procedure by accepting names from the President after appointment for vetting, as opposed to receiving nominees, vetting them first before submitting their names to the appointing authority -- the President.

The Climate Change Council is intended as an important institutional organ to provide guidance and political authority on climate change mainstreaming, as well as perform important statutory functions, including approving the NCCAP. It is therefore important that the President as the appointing authority finalizes the composition of the council lawfully since without this action, even the Draft 2018-2022 NCCAP cannot receive formal approval, and therefore cannot be implemented as envisaged by section 13 of the CCA.

2. Cabinet Secretary responsible for climate change affairs: This Cabinet Secretary is responsible for the overall implementation and delivery of the CCA, and the NCCAP and also serves as Secretary to the Climate Change Council.

3. National and county government ministries, departments and agencies: The CCA in its typical mainstreaming approach, places additional obligations and roles on existing agencies to integrate or mainstream climate change actions into their existing mandates. For this reason, section 15 addresses the roles of ministries, departments and agencies of the government at national and county level, which are required to mainstream climate change actions into their sectors, and to implement the NCCAP, the legal tool through which (under section 13), the CCA implements national mainstreaming of climate

61 Parliament of Kenya, Message from the Senate. No. 001 of 2017 Decision of The Senate on the Vetting of Nominees for Appointment to the National Climate Change Council. <http://www.parliament.go.ke/sites/default/files/2017-05/MESSAGES_TO_AND_FROM_SENATE.pdf> accessed 19 October 2018.

62 *Republic v National Assembly & 5 others Ex-parte Greenbelt Movement & 2 Others* [2018] eKLR.

63 ibid para 59 & 66.

change actions across various sectors of the economy, and levels of the national and county governments. Section 15(5) more specifically requires agencies of the national government to establish Climate Change Units (CCU) to coordinate mainstreaming of climate change actions, whose roles are elaborated on in this paper.

4. Climate Change Directorate: It is established, as part of the regular public service (not as an autonomous state agency) by section 9 of the CCA as the technical arm of the national government to support the Cabinet Secretary in the implementation of the climate law, policy and NCCAP. It is also appointed to serve as the Secretariat for the National Climate Change Council.

5. National Environment Management Authority (NEMA): Although established under the Environmental Management and Coordination Act,[64] section 17 of the CCA assigns NEMA the overall power and functions of enforcing compliance with climate change obligations under the CCA in Kenya, on behalf of the council. This function gives NEMA the specific powers, on behalf of the Climate Change Council to:

    i) monitor, investigate and report on whether public and private entities are in compliance with the assigned climate change duties.

    ii) ascertain that private entities are in conformity with instructions prescribed under section 16 of this Act. Section 16 of the CCA empowers the Climate Change Council to impose climate change duties on private entities, which are legal entities or persons who have functions that are private in nature, and includes public benefit organizations.

    iii) Regulate, enforce and monitor compliance on levels of greenhouse gas emissions as set by the Council under this Act.

6. Parliament: Under the CCA, Parliament has power to oversee the mainstreaming of climate change actions by national government agencies through the role of the National Assembly[65] in receiving reports on the progress towards mainstreaming by national government agencies in terms of section 15 of the CCA. Both the National Assembly and Senate have the common role of approving persons nominated by the President for appointment to the Climate Change Council representing the private sector, civil society organizations, academia, and marginalized communities.[66]

7. County governments: The overall climate change roles of the county governments can be found in section 15 and section 19 of the CCA:

    i) Section 15(1) empowers the Council to impose climate change duties on public entities, including the national and county governments (and agencies under them), and once

64 Environmental Management and Coordination Act (No. 8 of 1999 as variously amended), section 9.

65 Climate Change Act (No. 11 of 2016), section 15(10).

66 ibid section 7(4).

these duties have been imposed, the public entities must act in a manner best suited to achieve the successful implementation of the CCA and the NCCAP. This demonstrates another pathway through which the CCA provides a legal avenue to enhance compliance with its objectives, and to magnify the central role of the NCCAP. For this reason, the Council may vary, revoke or modify these public entity climate change duties, from time to time, and the process of imposing, varying or revoking public sector climate change duties should be preceded by public awareness and consultations.[67]

ii) The County Governments Act[68] through section 108 requires each county to put in place a County Integrated Development Plan (CIDP) for every five-year period, with clear goals and objectives, as well as address the county's internal transformation needs.[69] The CCA has added a requirement on counties: when preparing or updating the CIDP, they should mainstream the implementation of the NCCAP, taking into account national and county priorities.

iii) The CCA further requires each governor to designate a member of the County Executive Committee to be responsible for coordinating climate change affairs. Each county government is required to submit a report to the County Assembly annually on the progress on mainstreaming climate actions across sectors. A copy of this report should be forwarded to the Climate Change Directorate for purposes of information sharing and knowledge management.

It is notable that in its institutional approach, the CCA has elected to confer additional climate change functions on already existing institutions and mandates rather than establish new institutions. The exception is the establishment of the National Climate Change Council to provide a high-level legal and political opportunity to ensure mainstreaming of climate change is undertaken across the country, including the private sector, as evidenced by inclusion of non-government organisations representation in the council. In the next section, the chapter reviews the concept of climate change mainstreaming in order to demonstrate how the national governance framework utilizes institutions and mandates to attain this objective.

V. THE LEGAL APPROACH TO MAINSTREAMING CLIMATE CHANGE ACROSS SECTORAL AND INSTITUTIONAL MANDATES

In order to support the pursuit and adoption of integrated climate change actions, Kenya has adopted mainstreaming as the overarching regulatory (legal, institutional and policy)

67 ibid), section 15(4).

68 County Governments Act (No. 17 of 2012).

69 County Governments Act (No. 17 of 2012), Section 108(2).

implementation approach. The CCA defines mainstreaming as the integration of climate change actions into decision-making and implementation of functions by the sector ministries, state corporations and county governments.[70] Mainstreaming here focuses on implementation of actions consistent with the nationally adopted low carbon climate resilient development pathway that prioritizes adaptation actions.

According to the 2016 National Climate Change Policy, adoption of mainstreaming is necessary to equip various coordinating and sectoral agencies of the Kenyan national and county governments with the tools to effectively respond to the complex challenges of climate change.[71] This requires explicitly linking climate change actions to core planning processes through cross-sectoral policy integration.[72] This integration operates horizontally by providing an overarching national guidance system, such as through the policy, national climate change legislation, and high-level institutions with climate change oversight mandates like the Climate Change Council and Parliament. The mainstreaming also operates vertically by requiring all sectors and levels of government to implement climate change responses in their core functions.[73]

Mainstreaming, when implemented fully, is a process that encourages cooperation across government departments in planning for a longer-term period, rather than fragmented, short-term and reactive budgeting. County governments are, for instance, required by the CCA (section 19) to prepare and implement CIDPs, through which climate change actions can be mainstreamed. National government entities are required to establish Climate Change Units that, with adequate staffing and resources, can coordinate climate change mainstreaming actions in the specific entity.

A. The role of the National Climate Change Action Plan (NCCAP) as the main legal and policy tool for mainstreaming climate change actions

The objects and purposes of the CCA require that the law is applied by the national, as well as each of the 47 county governments to, among other actions, mainstream climate change responses into development planning, decision making and implementation in all sectors of the economy.[74] In terms of section 13 of the CCA, the NCCAP, developed by the Cabinet Secretary every five years, is the principal legal tool through which mainstreaming will be undertaken. The law requires the NCCAP to address itself to prioritization of climate change actions nationally, and consequently prescribe measures and mechanisms, among other things, to:[75]

i) guide the county toward the achievement of low carbon climate resilient sustainable development;

70 Climate Change Act (No.11 of 2016), section 2.

71 Republic of Kenya (n 2) para 5.1.3.

72 ibid, para 5.1.3.

73 ibid

74 Climate Change Act (No. 11 of 2016), section 3(2)(a).

75 ibid, section 13(3).

ii) set out actions for mainstreaming climate change responses into sector functions;

iii) adapt to climate change;

iv) mitigate against climate change;

v) specifically identify all actions required as enablers to climate change response;

vi) mainstream climate change disaster risk reduction actions in development programmes;

vii) set out a structure for public awareness and engagement in climate change response and disaster reduction;

viii) identify strategic areas of national infrastructure requiring climate proofing;

ix) review and determine mechanisms for climate change knowledge management and access to information;

x) strengthen approaches to climate change research and development training and technology transfer;

xi) review and recommend duties of public and private bodies on climate change;

xii) review levels and trends of greenhouse gas emissions; and

xiii) identify outputs, overall budget estimates and timeframes to realize expected results. The budgetary component is important to ensure that the NCCAP planning includes projection the costs, to allow for mobilization of financing required.

The scope of the NCCAP, in terms of law, is therefore very extensive as captured by section 13(4) of the CCA, which provides that the National Climate Change Action Plan shall address all sectors of the economy and provide mechanisms for mainstreaming the National Climate Change Action Plan into those sectors.

Once the development process is finalized, the law requires the Cabinet Secretary to present the final NCCAP to the Climate Change Council for approval,[76] at which point the NCCAP will be published in the *Kenya Gazette,* and national newspapers to notify the public. The role of the council is instrumental, in this sense, as it provides the strong, high-level institutional structure to approve the national policy tool chosen to mainstream climate change. Once this approval has been granted, the law is clear that the NCCAP is binding on all public bodies, and any person or entity engaged in climate change governance and administration whenever such persons or entities are exercising any power or discharging any statutory duty or function.[77]

At the time of writing, Kenya has finalized the validity period for the 2013-2017 NCCAP, which was developed prior to enactment of the CCA and the climate change policy. Indeed, enactment of the legal and policy framework, through the CCA and the climate change policy was one of the priority

76 Ibid, section 13(6).

77 ibid, section 13(9).

actions of the 2013-2017 NCCAP as set out in Annex 4 Action Sheets,[78] which were achieved during 2016. The process of developing the five-year period (2018-2022) NCCAP to succeed the 2013-2017 one got under way during 2017, and after public consultations, a final draft was released in July 2018 in a publicly accessible database.[79] This draft NCCAP is now awaiting the formal composition and appointment of the National Climate Change Council, which in terms of the climate change law, is the only entity with the legal power to approve the 2018-2022 Action Plan and bring it into operation. In the sections below, this chapter reviews the various approaches through which the law provides for NCCAP implementation.

B. The role of climate change units at national government level to coordinate NCCAP implementation

As pointed out earlier, the CCA, through section 15(5), places specific public duties on each State Department and national government public entities (e.g. State Corporations, Constitutional Commissions, etc.), to establish a Climate Change Unit (CCU) in order to mainstream climate change into their sectoral mandates. The role of the CCU is not to implement but rather to coordinate the mainstreaming of climate change priorities from the NCCAP by the specific entities. In addition, the CCU is mandated to coordinate performance of the following climate change duties by the respective state department or national government public entity:

i) integrating the climate change action plan into sectoral strategies, action plans and other implementation projections for the assigned legislative and policy functions;

ii) reporting on sectoral GHG emissions for the national inventory;

iii) regularly monitoring and reviewing the performance of the integrated climate change functions through sectoral mandates; and

iv) putting in place and implementing mechanisms for sustainability in performance of sectoral mandates.

The CCU appointed should have adequate staff and financial resources; and a senior officer should be appointed as head of the unit to coordinate the mainstreaming of the climate change action plan and other climate change statutory functions and mandates into sectoral strategies for implementation. It is important to note that the CCU is not a focal point but a fully functional unit with clear terms of reference to coordinate mainstreaming, competent staff, and a budget to facilitate operations. It is imperative to emphasize that the law requires each CCU to be headed by a senior officer, who is sufficiently high in rank within the relevant department or agency, to allow them to coordinate colleagues undertaking the actual mainstreaming work. As an oversight mechanism, the state departments under which each of these agencies fall are required to report annually to the council, and to the National Assembly, on the status and progress of performance and implementation of all assigned climate change duties and functions.

78 Republic of Kenya (n 2 194-195.

79 See draft of the 2018-2022 NCCAP, and other working documents <http://www.kcckp.go.ke> accessed 14 October 2018.

C. Mainstreaming the NCCAP into the development planning process under Vision 2030

Since climate change is a development challenge that causes adverse impacts and vulnerability across the economy, society and environment, it is imperative to incorporate the NCCAP climate action priorities into the national development planning process. This is undertaken, currently, within the context of *Sessional Paper No. 10 of 2012 on Vision 2030,*[80] which is the national development plan. Development planning at the national level is currently undertaken through five-year Medium Term Plans (MTPs), such as the most recent one, MTP 2, approved for the 2013-2017 period.[81] The country is preparing the Third Medium Term Plan (MTP 3) for the 2018-2022 period, whose implementation period coincides with that of the 2018-2022 Action Plan.

With the development of the MTP 3 (2018-2022) coinciding with the development of the 2018-2022 Action Plan, there was an opportunity for the first time to undertake a holistic mainstreaming of the Action Plan into the MTP, and to develop a clear process to do so efficiently. Thus a methodology was required through which Action Plan priority actions could be reviewed by the sector working groups established to develop the MTP3; and how, further, these climate change priorities (for adaptation, mitigation, financing, etc) could be integrated into the sector actions adopted by the MTP3. As the climate change law requires the Action Plan to take into account all sectors of the economy, the MTP3 provides an important avenue to fulfill the legal requirement. In addition, the MTP is the economic planning tool developed to implement Vision 2030: Using the Medium Term Plan to mainstream NCCAP priority actions means Kenya is already treating climate change as a development question. A study on this matter was conducted by the State Department of Planning, which resulted in a report on how to support the mainstreaming of climate change into MTP 3.[82]

The report recommended that Kenya should convene a Climate Change Thematic Working Group (CCTWG), under the guidance of the CCD, to provide an advisory and review function for MTP 3 inputs. For example, with respect to the development of assessment criteria to be used in prioritizing projects, programmes and policies, the CCTWG should provide advice and review the criteria, priorities and the decision-making processes. Based on this recommendation, a Climate Change Thematic Working Group (CCTWG) was convened under the chairmanship of the Principal Secretary responsible for climate change, and the CCD serving as the secretary.[83] The membership of the CCTWG is drawn from public entities, the private sector and CSOs, and comprises 71 members.[84] The CCTWG undertook a review of the 2013-2017 National Climate

80 Republic of Kenya, Sessional Paper No.10 of 2012 on Vision 2030 (Nairobi: Government Printer, 2012).

81 Kenya, Second Medium Term Plan, 2013-2017: Transforming Kenya, pathway to devolution, socio-economic development, equity and national unity (Nairobi: The Presidency, 2013). <http://vision2030.go.ke/inc/uploads/2018/06/Second-Medium-Term-Plan-2013-2017.pdf accessed 14 October 2018.

82 Kenya, *Supporting the Mainstreaming of Climate Change into Kenya's Medium Term III* (Nairobi: Ministry of Planning and Statistics/Climate Change Knowledge Development Network (CDKN), 2017). <http://www.kcckp.go.ke/download/Mainstreaming-climate-change-into-Kenyas-Medium-Term-Plan-III2.pdf>accessed 14 October 2018.

83 See webpage of the Climate Change Thematic WG (CCTWG) on the MTP3 homepage,<http://www.mtp3.go.ke/pillars.php?p=6&s=27> accessed 14 October 2018.

84 Membership of the CCTWG<http://www.mtp3.go.ke/portal/data/apis/uploads/site/downloads/COMPOSITION%20OF%20CLIMATE%20CHANGE%20MTPWG.pdf>accessed 14 October 2018.

Change Action Plan, and the draft 2018-2022 NCCAP. It subsequently made recommendations on how mainstreaming should be implemented in the 2018-2022 MTP 3, including a matrix of proposed high priority climate change projects that will enhance fulfillment of the low carbon climate resilient development pathway.[85]

VI. SPECIFIC REQUIREMENTS OF THE CCA TO MAINSTREAM CLIMATE CHANGE INTO STRATEGIC POLICY AREAS

In addition to the role of the NCCAP as a tool for mainstreaming climate change across various sectors and institutional mandates, the CCA has flagged some strategic governance areas and made provision for special focus on mainstreaming into those sectors by all levels of government. This include:

i) Education: in mandatory terms, section 21 of the CCA requires the Kenya Institute of Curriculum Development, on the advice of the council, to integrate climate change into various disciplines and subjects of the national basic education curricula at all levels. This provides a pathway to educate and convert millions of school children, the future generation of Kenyans, into champions on climate change.

ii) Environmental assessments: Section 20 requires NEMA to carry out integration of climate change risks by integrating climate risk and vulnerability assessment into all forms of assessment, and to liaise with relevant agencies for their technical advice. This is consistent with Article 69(a) of the Constitution, which places an obligation on the government to establish systems of environmental impact assessment, environmental audit, and monitoring of the environment; and to eliminate processes and activities that are likely to endanger the environment. Integrating climate risk assessments into environmental assessments (strategic and project-based EIA, as well as audits) provides a wider technical and legal approach to mainstream climate risks and vulnerabilities, and to plan how to ensure projects and activities are climate proofed.

iii) Disaster and public safety: The CCA, through section 13, requires that each NCCAP should include provisions to mainstream climate change disaster risk reduction actions in development programmes. The process should also set out a structure for public awareness and engagement in climate change response and disaster reduction. Section 18 provides more specific guidance, making provision for the council to annually, on the advice of the Cabinet Secretary, identify priority strategies and actions for disaster risk reduction related to climate change and:

    a) advise the President to require incorporation of these priority strategies and actions into functions and budgets of each state department, state corporation and other national government entities;

85 Kenya, *Report of the Climate Change Thematic Working Group on the Third Medium Term Plan 2018-2022* (Nairobi: Kenya Vision 2030, June 2017). <http://www.mtp3.go.ke/portal/data/apis/uploads/Draft%20Climate%20Change%20Thematic%20Working%20Group%20MTP%20III_20June2017_21.pdf> accessed 14 October 2018.

b) advise a county government on priority strategies and actions that should be integrated into functions and budgets of departments and entities of the county governments; and

c) develop a specific public safety component for disaster risk reduction for incorporation at all levels of government to prevent climate change induced disasters, and manage emergency responses.

This approach is supportive of the Kenyan strategy to prioritize adaptation actions in order to build resilience and enhance adaptive capacity, preventing climate hazards (such as extreme weather events) from combining with various vulnerabilities to result in disasters.

VII. UNIQUE LEGAL TOOLS TO FACILITATE EFFECTIVE PUBLIC PARTICIPATION AND CLIMATE FINANCING

The Climate Change Act has adopted certain unique tools to support effective public participation in climate change decision-making, including the mainstreaming process. These tools include the funding mechanisms required to enhance the necessary financing of climate actions that have been selected for mainstreaming.

A. Right of access to court to enforce rights relating to climate change

There is a constitutional right of access to court to enforce any of the human rights,[86] under Article 22, and more specifically, the right to bring an action where violation of the human right to a healthy environment has occurred, is happening, or likely to occur.[87] It is important to note that under Article 22 of the Constitution, legal action to protect human rights can be brought by a person protecting their own human rights, and also by:

i) a person acting on behalf of another person who cannot act in their own name;

ii) a person acting as a member of, or in the interest of, a group or class of persons;

iii) a person acting in the public interest; or

iv) an association acting in the interest of one or more of its members.

Under Article 70, if a person alleges or claims that a right to a clean and healthy environment recognized and protected under Article 42 has been, *is being* or *is likely to be*, denied, violated, infringed or threatened, the person may apply to the Environment and Land Court for redress -- in addition to any other legal remedies that are available in respect to the same matter (emphasis added). The remedies available to the applicant from the court include the following orders or direction to:

i) prevent, stop or discontinue any act or omission that is harmful to the environment;

86 Constitution of Kenya 2010, Article 22.

87 ibid, Article 70.

ii) compel any public officer to take measures to prevent or discontinue any act or omission that is harmful to the environment; or

iii) provide compensation for any victim of a violation of the right to a clean and healthy environment.

It is important to note that a person bringing a legal suit under Article 70, just like under Article 22, does not have to demonstrate that any person has incurred loss or suffered injury, and therefore any person has legal standing to take legal action to protect the environment on their own personal behalf, or in the public interest.

The Article 70 constitutional right of access to court has been expanded by section 23 of the Climate Change Act to provide an open right to the Kenyan public to bring legal actions for enforcement of rights relating to climate change as follows (reproduced verbatim):

(1) A person may, pursuant to Article 70 of the Constitution, apply to the Environment and Land Court alleging that a person has acted in a manner that has or is likely to adversely affect efforts towards mitigation and adaptation to the effects of climate change.

(2) Where an application is made under sub-section (1), the Court may make an order or give directions that it considers appropriate to —

(a) prevent, stop or discontinue an act or omission that is harmful to the environment;

(b) compel a public officer to take measures to prevent or discontinue an act or omission that is harmful to the environment; or

(c) provide compensation to a victim of a violation relating to climate change duties.

(3) For the purposes of this section, an applicant does not have to demonstrate that a person has incurred loss or suffered injury.

With this bouquet of legal rights and processes, it should be possible for the public to play an important role in climate change decision-making, and the implementation of climate actions through the public participation tools highlighted above. The possible areas of litigation include the failure by public and private entities to fully perform the climate change duties imposed on them by the council; or the improper utilization of incentives provided for by section 26 of the Climate Change Act.

B. Right of public participation during decision making on climate change matters

Public participation, in all its forms (public consultation, public representation in decision making, access to court, access to justice, public awareness among others), is protected by the Constitution. Article 10 sets out "participation of the people" as one of the values and principles of national governance in Kenya, which are mandatory and binding, and therefore should be taken into account

whenever any person (public officer or private person) is making or implementing any law, or making any public policy decision. Article 69(1), which places obligations on the Kenyan state to fulfill Article 42 on the right to a clean and healthy environment, requires the government to encourage public participation in the management, protection and conservation of the environment.

In addition to mechanisms, opportunities and requirements of the law for the public to be involved in climate change decision-making, certain human rights provisions compel public participation. The Constitution guarantees various human rights for citizens, including the right to participate in governance processes, access to information (citizens only), the (Article 42) right to a clean and healthy environment (threatened by some climate change impacts), and the (Article 48) right of access to justice which is however restricted to citizens only. The 2016 Access to Information Act[88] provides the detailed administrative mechanism through which public entities should implement the right of access to information, including the requirement for each public entity to designate its Chief Executive Officer as the Information Access Officer with responsibility to implement the legal requirements for access to publicly held information.[89]

Public entities at the national and the county government level all have an obligation under section 24 of the Climate Change Act to ensure that at all times, when developing strategies, laws and policies relating to climate change, they undertake public awareness and conduct public consultations. More specifically, these public entities are required by the law to undertake public consultations in a manner that ensures the public contribution makes an impact on the threshold of decision making.

The specific legal and practical meaning of "ensuring that public contribution makes an impact on the threshold of climate change decision making" is an important component of the political economy analysis. This is because it suggests an inherent obligation on public entities here to dutifully take into account the public obligations and provide feedback to the consulted public, demonstrating clearly how that contribution was taken into account when making the climate action decision in question. Section 24(3) of the law requires the council, based on the recommendation of the Cabinet Secretary, to make subsidiary legislation (regulations) that set out the procedure on how to enhance the efficacy of public consultations in order to ensure that they make an impact on the threshold of decision-making on climate change at all levels of government.

C. Financing climate change actions

The national goal in addressing climate change by following a low carbon climate resilient development pathway involves processes and climate actions that require financing. In terms of adaptation, for instance, the climate proofing of infrastructure, such as roads, can be costly; while mitigation measures such as clean energy, or waste management are capital-intensive. Innovation, research and development are critical to the country's selection and prioritization of climate change actions for mainstreaming through the NCCAP, and all other relevant processes and institutions, as previously highlighted here. Climate financing is therefore critical to a balanced

88 Access to Information Act (No. 31 of 2016).

89 ibid, Section 7.

approach in framing response actions, and both the 2016 National Climate Change Policy, and the 2016 Climate Change Act recognize this. According to the policy:[90]

> Kenya continues to face tremendous climate change challenges that require mitigation and adaptation interventions. Prudent management of resources requires a balance in the allocation of mobilized resources to both mitigation and adaptation to address the climate change needs of the country. Criteria should be developed to identify an appropriate allocation of resources in a manner that proportionately responds to both climate resilience and low carbon priority needs.

While the policy takes the broader approach of climate financing, and includes various sources of funds from international entities, public funds and private investments, the law has established a Climate Change Fund as the mechanism for aggregating climate finances from whatever sources. It administers, allocates and disburses the funds to the various recipients using government procedures. For this reason, in terms of section 25 of the Climate Change Act, the fund is under the oversight of the council, and is administered by the Principal Secretary responsible for climate change affairs. This fund, which is yet to be set up, would be applied to relevant climate change actions, including:

i) providing grants for climate change research and innovation in industrial and technology research, policy formulation, scientific research, and academic research.

ii) providing grants and loans to business, industry, civil society, academia and other stakeholders for development of innovative actions that benefit climate change responses in Kenya.

iii) providing finance, through grants and loans for the innovation of climate change adaptation and mitigation actions.

iv) providing technical assistance to county governments.

Kenya has developed a Draft National Policy on Climate Finance,[91] which proposes a number of strategic interventions that can encourage the mobilisation of climate finance and increase financial flows. These interventions include the establishment of a national climate finance platform (a Climate Change Fund) that can support the mobilization, coordination and tracking of climate finance in Kenya -- including both domestic and international resources. This will improve transparency and accountability. The policy encourages building capacity to develop bankable projects and effectively manage and implement those projects. Improved fiduciary standards and management, and application of environmental and social safeguards will encourage participation in climate finance investments and benefits sharing.

There is confusion, however, concerning the Climate Change Fund established by the law, since

90 Republic of Kenya (n 1) para 9.2.3.

91 Kenya, Draft National Policy on Climate Finance (Nairobi: The National Treasury, 2016). <http://www.starckplus.com/documents/ta/climatefinance/Draft%20Climate%20Finance%20Policy%20&%20Stakeholder%20Comments.pdf> accessed 20 October 2018.

in addition to the Climate Finance Policy, the National Treasury has in 2018 published the Public Finance Management (Climate Change Fund) Regulations for public debate. However, these regulations are not being made pursuant to section 25 of the Climate Change Act, but under authority given by the Public Finance Management Act (PFMA),[92] which provides as follows:

> Section 23 -
>
> (4) The Cabinet Secretary may establish a national government public fund with the approval of the National Assembly.
>
> (5) The Cabinet Secretary shall designate a person to administer every national public fund established under subsection (4).
>
> (6) The administrator of a national public fund shall ensure that the earnings of, or accruals to a national public fund are retained in the fund unless the Cabinet Secretary directs otherwise.

A conflict is therefore evident between provisions of the Climate Change Act, and those of the PFMA – although the draft regulations developed by the National Treasury have copied the objectives of the Climate Change Fund, and the mandate of the council with respect to the fund under the climate change law.

Climate financing is an important aspect in balancing out the priorities required for adaptation and mitigation, and publicly-operated climate change funds, such as the ones discussed here, are important but not exhaustive. There is need to give effect to the ambitions of the Climate Finance Policy to establish a broad climate finance platform that provides strategic directions and preferences for the application of climate funds within Kenyan priorities. Interested persons and stakeholders, including the private sector, can adopt this.

VIII. CONCLUSION

Kenya, like other countries in the region, is bearing the brunt of climate change impacts and associated socio-economic losses. This is a challenge because Kenya's economy is highly dependent on natural resources, making it highly vulnerable to climate variability and change. Climate hazards have caused considerable losses across the country's different sectors over the years. Sustainable development is one of the national values and principles of governance, which must be adverted to when applying the Constitution, making or applying any law, or making public policy decisions. Thus, the discussion on how Kenya is affected by, and responds to the impacts of climate change, must be had within the context of the country's obligation to pursue sustainable development. In this context, the country has ratified the 2015 Paris Agreement, and made commitments through its NDC to reduce greenhouse gas emissions, while prioritizing adaptation. This approach is further strengthened by the 2016 Climate Change Act and Climate Change Policy, as well as the NCCAP.

92 Public Finance Management Act No. 18 of 2012.

In order to implement its climate change responses, Kenya has opted to apply the methodology of mainstreaming climate change actions across various sectors, first through the Action Plan, and subsequently through different institutional and regulatory tools affecting the national government, county governments, private sector and even civil society. Climate obligations and incentives to trigger climate actions consistent with national development goals need to be put in place. A central aspect of the climate change regulatory framework is recognition that mainstreaming has to be an iterative process, to be reviewed regularly depending on the evolution of climate change knowledge, national circumstances and needs. Thus, the regulatory framework provides mechanisms for climate financing, through a climate change fund, established by the Climate Change Act that could incentivize certain climate actions. There is however need to resolve the legal divergence between the Climate Change Act, and the Public Finance Management Act, both of which are being used to establish climate change funds with identical objectives and purposes but providing different administrative and oversight approaches. In implementing the climate governance framework, public participation is a key ingredient to enhance the likelihood of sustainable development being realized, as it provides a voice to citizens to contribute to climate change decision-making.

As Kenya moves to implement the 2018-2022 National Climate Change Action Plan, including mainstreaming it in the MTP3 for the same period, it is important that the National Climate Change Council is formally and lawfully appointed, so that it can provide the desired political leadership and perform statutory functions necessary to implement the Climate Change Act. In addition, much more clarity will be required on how county governments can mainstream climate change through their functions; as well as defining the various climate change duties for public and private entities as envisaged in the legislation.

Chapter 12

Environmental Law of Africa

Robert Alex Wabunoha

I. PRELUDE

This paper, sets out to show that no sooner did Africa gain independence than gaps showed up in her environmental legal regimes. The development of environmental law of Africa, positive as it may be, has been shaped by scholars and academics. Professor Odidi Charles Okidi of the University of Nairobi in Kenya stands out as one such scholar who made tremendous contributions to the development of environmental law of Africa. Indeed, it took African scholars, such as Professor Okidi, several decades of toil in efforts to redefine and shape the environmental laws of Africa. From Professor Okidi's scholarly books and articles, to the teaching of environmental law and policy; preparation of the 2003 Maputo Convention on Environment and Natural Resources, regional and national laws especially in East Africa, and the mentoring of policy-makers, civil servants and students, we now have a semblance of an environmental legal regime in Africa. In the shaping of the environmental laws of Africa, the writer of this paper honors Professor Charles Odidi Okidi for his distinguished contribution. He is a pioneer in marrying the environment, the law and Africa.

II. INTRODUCTION

Africa's development is embedded in availability, use or exploitation of environmental goods and services on a sustainable basis.[1] Environmental law, being a facilitator of the environment pillar, strengthens efforts in the realization of environmentally friendly development. It is therefore critical to lay a foundation of what the environmental law of Africa consists of to ensure the sustainable development and transformation of the continent.

The environmental law of Africa neither developed nor progressed in a vacuum. It is connected to the pressures the continent has experienced. Indeed, the pressures on environmental resources through internal and external forces, such as, climate change, desertification, land and forest degradation, have played a critical role in the development of environmental law of Africa. Over the decades, there has been increased focus on Africa for its natural resources as well as the internal pressures arising out of the quest for socio-economic growth and other factors such as those related to governance.

1 United Nations Environment Programme, *Africa Environment Outlook 3: Our Environment, Our Health (Aeo-3)* (London: Earthscan Publications Ltd 2013)

An analysis of the environmental laws of Africa at continental, regional and national level shows a trend over the decades that moves away from extraction, use and disposal of resources to sustainable management approaches. The political and decision-making leadership in Africa has increasingly recognized the need to protect environmental resources in various ways including using global, regional and national laws. In the examination of the environmental law of Africa, it is critical to first assess the drivers that have shaped the development of such laws.

III. THE MAIN DRIVERS OF THE DEVELOPMENT OF ENVIRONMENTAL LAW OF AFRICA

There are two main drivers that have propelled the development of environmental law in Africa, namely, the natural capital wealth and the associated environmental losses. These two drivers are examined below.

A. Natural capital wealth of Africa

Africa's current estimated population of 1.1 billion people[2] largely depends on the continuous supply and flow of ecosystem goods and services. The ecosystem goods and services have driven local and international trade in Africa and globally due to increased consumption. Some of the natural capital resources that have driven the development of the environmental law of Africa are outlined below.

Africa hosts many of the large and unexploited deposits of minerals, accounting for three-quarters of the world's platinum supply, and half of its diamonds and chromium deposits. The continent has up to one-fifth of gold and uranium supplies and it is increasingly becoming a home to oil and gas production with over 30 countries now involved.[3] Mining and quarrying of some 60 mineral products currently represents around 20 per cent of Africa's economic activity, while minerals are the continent's second-largest export category worth 10 per cent of the continent's total exports only exceeded by hydrocarbons.

Up to 77 per cent of the people in Africa live in international water basins. The continent's 63 international river basins cover about 64 per cent of its land area and contain 93 per cent of its total surface water resources. The continent is also endowed with large, often under-utilized, aquifer resources, predominantly in the large shared sub-regional sedimentary systems of the Sahara, central and southern Africa.[4]

The forests of Africa cover 520 million hectares and constitute more than 17 per cent of the world's forests, contributing 6 per cent of the continent's region's Gross Domestic Product (GDP) and also provide 70 per cent of domestic energy needs. About 90 per cent of wood consumed in Africa

2 United Nations, Department of Economic and Social Affairs, *Population Division (2017). World Population Prospects: The 2017 Revision, Key Findings and Advance Tables* Working Paper No. ESA/P/WP/248 (New York: United Nations 2017)

3 African Union, *Invest in Africa 2015* (London: Newsdesk Media Publishers 2015)

4 United Nations Environment Programme, *Africa Water Atlas* (Nairobi: EarthPrint 2010)

is used for fuel and charcoal worth US$9.2 billion to US$24.5 billion annually.[5] Additionally, approximately 80 per cent of the rural population depends on traditional medicine harvested from forest biodiversity, including animals, trees, shrubs and herbs.[6]

Ecosystem goods and services drive tourism in Africa. Several African countries are the world's favourite tourism destinations. The UN World Tourism Organization records that Africa welcomed 58 million international tourists in 2016, earning US$35 billion in international tourism receipts.[7] The international tourism sector now accounts for 8.1 per cent of Africa's total GDP. The direct contribution of travel and tourism to GDP was US$40.1 billion in 2016, and is forecast to rise by 4.4 per cent in 2017, and to rise by 4.8 per cent annually from 2017-2027, to US$66.9 billion in 2027.[8] Across the continent, there are around 20 million people working directly or indirectly for the tourism industry, accounting for 7.1 per cent of all jobs in Africa.[9]

The value of coastal and marine resources of Africa is estimated at US$24 trillion. In 2011, the value added by the fisheries sector was estimated at more than US$24 billion, i.e. 1.26 per cent of the GDP of the continent.[10] The fisheries sector employs 12.3 million people, representing 2.1 per cent of Africa's population[11]. Fish provides food security for about over 400 million people in Africa[12] and can contribute up to 38 per cent of GDP.[13] The total economic value of environmental goods and services from Large Marine Ecosystems (LMEs) is estimated at US$139 billion per year.[14]

With such massive wealth, Africa's natural capital is a strategic target for exploitation and at the same time a tool to drive socio-economic growth and political direction both internally among the nations and externally to the rest of the world. This chapter cannot exhaustively detail the extent of Africa's natural capital. The main question it seeks to answer is: how does the endowment with natural capital wealth influence the development of the environmental law of Africa? The answer

5 C Nellemann, E Corcoran (eds) *Dead Planet, Living Planet – Biodiversity and Ecosystem Restoration for Sustainable Development. A Rapid Response Assessment* (UNEP/Earthprint, 2010)

6 World Health Organisation, *Regional Office for Africa, Promoting the role of traditional medicine in health systems: A strategy for the African Region*, (Ouagadougou: World Health Organisation 2000) 2

7 World Trade Organization, *Tourism Highlights: 2016 Annual Report* (Spain: United Nations World Tourism Organization 2017)

8 World Travel and Tourism Council, *Travel & Tourism Economic Impact 2017 Sub Saharan Africa* (London: World Travel and Tourism Council 2017)

9 African Development Bank Group et al 'Africa Tourism Monitor 2015 -- Unlocking Africa's Tourism Potential' (2015) Vol. 3 Issue 1 Africa Development Bank Group

10 DM Obura, 'Reviving the Western Indian Ocean economy: Actions for a sustainable future' (2017) World Wide Fund for Nature Gland

11 UN Food and Agriculture Organisation, *The State of World Fisheries and Aquaculture: Contributing to food security and nutrition for all* (Rome: FAO 2016)

12 World Fish Centre, 'Fish Supply and Food Security in Africa: Penang Consultative Group on International Agricultural Research' (Flier 2009)

13 D Belhabib et al, ' Feeding the poor: Contribution of West African fisheries to employment and food security' (2015) 11 Ocean and Coastal Management, 72-81

14 United Nations Environment Programme, *The Socioeconomics of the West, Central and Southern African Coastal Communities: A Synthesis of Studies Regarding Large Marine Ecosystems* (Nairobi & Abidjan: United Nations Environment Programme, Abidjan Convention Secretariat and GRID-Arendal 2016.)

can be found in those safeguards and measures that African countries have put in place to either use or protect the resources. These safeguards can, among others, be traced to the laws, policies and institutional frameworks that have been put in place.

B. Environmental losses

Despite endowment with natural capital wealth, Africa has lost environmental resources. The productivity of Africa's environmental resources is threatened by their usefulness to humanity. Natural resources in Africa are disappearing at an unprecedented rate from degradation, over-extraction, over-harvesting, biodiversity loss, illegal and illicit trade and impacts of human induced activities such as pollution. Infrastructural developments, agriculture and climate change also impact on the environment. These impacts and activities are outstripping the natural ability of environmental resources to regenerate. This has brought pressure to bear on decision makers to formulate regulatory frameworks. The outcome has been the development of laws governing environmental management. A narration of some of the environmental losses that have driven the development of modern environmental law of Africa follows.

Loss of wood products through unregulated charcoal trade incurs an annual revenue loss of at least US$1.9 billion to African countries. This has led to severe impacts like large–scale deforestation, pollution and subsequent health problems. Some fish populations have declined by close to 75 per cent from over exploitation of mangrove forests, and about three-quarters of the Africa's coral reefs and sea grasses are currently under threat.[15]

Overfishing is now an urgent problem because 50 per cent of population in Africa relies on fish as their main source of protein but 70 per cent of fisheries are estimated to be at or over the sustainable limit due to illegal and unregulated harvesting.[16] For example, estimates project that illegal fishing in the wider Eastern Central Atlantic is worth between US$828 million and US$1.6 billion annually.[17] This reduces the number of jobs in artisanal sectors by 300,000 annually.[18] Populations of marine mammals, birds, reptiles and fish have also on average, reduced by half in the past 40 years.[19]

According to the Africa Development Bank (AfDB), the wider economic impact of illicit trading in natural resources is estimated at US$120 billion per annum, which is 5 per cent of Africa's GDP. An estimated 24 million jobs are lost, which is about 6 per cent of overall employment in Africa. By curbing illicit activities such as these, Africa could create 25 million more jobs. The loss in tax revenue is about US$3.6 billion.

15 L Burke, et al, 'Reefs at Risk Revisited' (2011) World Resources Institute

16 Food and Agriculture Organization, *The State of World Fisheries and Aquaculture* (Rome: FAO 2009)

17 Teale N Phelps Bondarof et al 'The Illegal Fishing and Organized Crime Nexus: Illegal Fishing as Transnational Organized Crime (2015) The Global Initiative Against Transnational Organized Crime and Black Fish, 9

18 United Kindgom, 'Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries Report' (London: Marine Resources Assessment Group Ltd, 2005)

19 L McRae, et al., 'The state of our blue planet' in PC Tanzer J (eds), *Living Blue Planet Report. Species, habitats and human well-being* (Washington DC: Worldwide Fund for Nature 2015)

The degradation of environmental resources has significant implications on human wellbeing and health, with environmental risks accounting for about 28 per cent of Africa's disease burden.[20] About 60 per cent of Africa's population is considered vulnerable and exposed to insect-borne diseases such as malaria, and waterborne diseases, such as cholera, and dengue fever, among others.[21]

The losses highlighted have shaped the development of environmental law in Africa. The losses in environmental goods and services have led African states to recognise the significance of healthy ecosystems, interlinkages with socio-economic growth and the need to have laws, policies and systems that can either stop, maintain or enhance availability of these resources for the present and future generations. In addition, external pressures of global demand for Africa's environmental resources and the presence of multilateral agreements have also shaped the development of environmental laws of Africa.

The exploitation of Africa's natural capital and the associated environmental losses can be traced from the colonial period to the post-independence era, with the environmental laws changing over time to foster sustainability. It is therefore appropriate to examine the historical and recent trends in the development of the environmental laws of Africa to understand how these drivers influenced such laws.

IV. ORIGIN OF MODERN ENVIRONMENTAL LAW OF AFRICA

The origin of modern environmental laws in Africa can be traced from the colonial period in the 1900s. The first attempt in shaping the said laws was through the 'Convention on the Preservation of Wild Animals, Birds, and Fish in Africa'[22] signed by European colonial powers[23] in London on 19 May 1900. The convention aimed at preventing uncontrolled massacre of wild animals and ensuring the conservation of diverse wild animal species. The convention set a selective mechanism for the protection of 'useful' or rare and endangered wild animal species and the sufficient reduction of 'pest' species (Article II (1), II (13) and II (15)). Article II (5) of the convention encouraged the signatories to engage in the creation of 'reserves'. The convention was not ratified by any signatory but assisted some of the colonial powers to enact legislation related to exploitation and protection of wild fauna in their colonial territories. Efforts by the colonial governments culminated in the adoption of the 'Convention Relative to the Preservation of Fauna and Flora in the Natural State

20 United Nations Environment Programme, Purpose, assessment process and key messages in Africa Environment Outlook 3: Our Environment, Our Health (Aeo-3) (Nairobi: Earthscan Publications Ltd 2013)

21 United Nations, Habitat. UN-Habitat Annual Report 2010 (Nairobi: UN Habitat 2011)

22 British Parliamentary Papers, 'Convention Designed to Ensure the Conservation of Various Species of Wild Animals in Africa, which are Useful to Man or Inoffensive' 1900 Vol. Cd. 101. Vol. 50) British Parliament

23 Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India; His Majesty the German Emperor, King of Prussia, in the name of the German Empire; His Majesty the King of Spain, and in his name Her Majesty the Queen-Regent of the Kingdom; His Majesty the King-Sovereign of the Independent State of the Congo; The President of the French Republic; His Majesty the King of Italy; His Majesty the King of Portugal and the Algarves, etc.

(London Convention)' on 8 November 1933[24],[25] which came into effect on 14 January 1936. In addition to calling for the preservation of "economically valuable species," the scope of this convention was extended to include plant species and rejected the concept of nuisance species. It also provided for establishment of national parks and reserves limiting human settlement therein and required states to give special protection to a list of species.

At the time of gaining independence in the 1960s, the United Nations General Assembly adopted the '1960 Declaration on the Granting of Independence to Colonial Countries and Peoples'.[26] The resolution provided for the granting of independence to colonial countries and peoples and was a step further in affirmation to the newly independent states of their rights to take full control over their natural resources. Its preamble affirms, "that people may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation based upon the principle of mutual benefit and international law.[27] In the said convention, land resources in Africa were to be held, managed and used primarily as commons.[28] Dependence on common property resources is more crucial for poorer household[31] and environmental degradation substantially increased the survival risk of African populations.

The colonial powers removed large tracts of land from people's control, which in turn decreased the sense of trusteeship and reduced the sense of equity in the management of natural resources.[29] This system relegated environmental resources to open-access and unregulated common property[30] approach lacking incentives to act in a socially efficient way.[31] Consequently, the post-independence period was marked by continued environmental degradation facilitated by the colonial 'command-and-control' legislation.[32] African countries later recognized the necessity to shift from allocation and exploitation to long-term management and sustainable use of the natural resources.

The Organisation of African Unity (OAU) adopted the 1964 African Charter for the Protection and Conservation of Nature. The 1968 African Convention on the Conservation of Nature and Natural

24 British Parliamentary Papers, 'Convention relative to the Preservation of Fauna and Flora in their Natural State' (1933) British Parliament

25 Signatories were the governments of the Union of South Africa, Belgium, the United Kingdom of Great Britain and Northern Ireland, Egypt, Spain, France, Italy, Portugal, and the Anglo-Egyptian Sudan.

26 UNGA Res. A/RES/1514(XV) (1960) GAOR Plenary Meeting 948;UNGA Re. 1514 (XV) (1960) GAOR

27 ibid the Preamble

28 HWO, Okoth-Ogendo, 'The Tragic African Commons: A Century of Expropriation, Suppression and Subversion' (2003) Vol 1 University of Nairobi Law Journal

29 P Kameri-Mbote et al., 'Law, colonialism and environmental management in Africa' (1997) *6*(1) Review of European Community and International Environment Law 23 -31.

30 NS Jodha, 'Common property resources: A Missing Dimension of Development Strategies' (1992) World Bank Discussion Papers, 169.

31 J Lovett, Stuart Stevenson, and Hilda Kiwasila, 'Review of Common pool Resource Management in Tanzania' (2001) Vol. 7857 Final technical report: DFID-NRSP Project

32 IUCN World Conservation Union Law Centre, 'An introduction to the African Convention on the Conservation of Nature and Natural Resources' (2004) Paper 56 Gland, Switzerland and Cambridge

Resources (the African Nature Convention or the Algiers Convention)[33] subsequently replaced this charter. The convention imposed on the States the obligation to protect, manage, control and conserve fauna resources, prohibited some methods of hunting, capture and fishing and put measures in wildlife trade. It also required states to establish and maintain conservation areas.

As time went on, and with enhanced pressure for economic growth and ever-increasing loss of environmental resources, it also became clearer that Africa needed to change its laws to meet those needs and challenges. Having examined the historical trends, it now becomes pertinent to examine modern environmental law of Africa.

V. SCOPE OF MODERN ENVIRONMENTAL LAWS OF AFRICA

The scope of modern environmental laws of Africa encompasses laws and instruments relating to management of the environment and natural resources, regulation of relationships between nations, and environmental jurisprudence at continental, regional and national levels made leading to, during and after the 1992 Rio Conference on Sustainable Development.[34] The significance of this scope is that the 1992 Rio Conference defined the modern direction on sound environmental management and, consequently, modern environmental law of Africa.

At the continental level, the basis for environmental laws in Africa is laid in the African Union Constitutive Act[35] and in other continent-wide instruments. At the regional level, the basis for environmental laws is also founded in the regional conventions on environment and economic integration legal frameworks. At national levels, the framework and sectoral environmental related laws can be said to form part of the environmental laws of Africa. Beyond this, the environment law of Africa would not be complete without including the environmental jurisprudence that has evolved over the years.

To elaborate on the scope of the modern environmental law of Africa, selected key areas of water, air, minerals, waste management and incorporation global multilateral environment agreements are examined.

A. Continent-wide instruments of environmental law

An examination of the continent-wide instruments shows environmental law on a trend of moving from preservationism to facilitating sustainable development in Africa. The following section examines the trends of environmental law of Africa in support of this assertion.

33 The Convention encouraged individual and joint action for conservation, utilization and development of soil, water, flora and fauna for the present and future welfare of mankind, from an economic, nutritional, scientific, educational, cultural and aesthetic point of view (Article II).

34 RA Wabunoha, 'Environmental Law of East Africa' in C Okidi, P Kameri-Mbote, & M Akech (eds), *Environmental Governance in Kenya: Implementing the Framework Law (p. xxi + 554) (*East Africa Educational Publishers 2008) where he defines environmental law of East Africa as those laws that facilitate environmental protection or management within the community with either a regional scope or where the law can be commonly applied or practiced in all the partner states.

35 International Relations and Cooperation, South Africa, 'Transition from the OAU to the African Union Department of Foreign Affairs' (2004, <http://www.dirco.gov.za/foreign/Multilateral/profiles/oau-au.htm > accessed 1 April, October 2018

In the 1980s, it became clear that the 1968 African Convention could not address the emergent environmental challenges arising out of the pressures highlighted above. These pressures arose from environmental losses, historical environmental governance systems, economic trends and a weak convention with no implementation mechanisms. Consequently, the 1968 African Convention was revised in 2003 taking into consideration developments, natural resources and economic realities on the African environment, while bringing on board modern management approaches as provided for in global multilateral environmental agreements.[36] The revised 2003 African Convention gave a new lease of life to regional and national environmental law and policy development by providing a framework for sustainable use of natural resources, harmonisation and coordination of policies with a view to achieving ecologically rational, economically sound, and socially acceptable development policies and programmes (Article II).[37] The convention reflects the necessity for the parties to apply common solutions to common problems. The Convention did not, however, come into force until 2017.[38]

The 1991 African Economic Community Treaty (Abuja Treaty)[39] has assisted countries on the continent to adopt mutual economic development by progressive integration of existing and future regional economic commissions.[40] The treaty contains provisions regarding: agricultural development and food production (Article 46), energy and natural resources (Articles 54–58); dumping (Article 36), control of hazardous waste (Article 60) and environmental protection (Article 60). The treaty seeks to harmonize and coordinate environmental policies among the state parties. It also makes provision for several specialized technical committees[41] to ensure supervision and implementation, including on natural resources and environment, among others.

Further, the 1991 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes (Bamako Convention[42]) creates a framework of obligations to strictly regulate the transboundary movement of hazardous wastes to and within Africa. The 2001 Convention of the African Energy Commission also provides for the development and management of energy resources across Africa. The Lusaka Agreement on Co-

36 Revised African Convention on the Conservation of Nature and Natural Resources (adopted 11 July 2003, entered into force 23 July 2016) 2003

37 OC Ruppel, 'Environmental Law in the African Union (AU)' in OC Ruppel, & K Ruppel-Schlichting (eds), *Environmental Law and Policy in Nigeria: Towards Making Africa the Tree of Life* (2nd, Hanns Seidel Foundation 2013)

38 Africa Union, 'List of Countries which have signed, Ratified /acceded to the Revised African Convention on the Conservation of Nature and Natural Resources'(2017) <https://au.int/sites/default/files/treaties/7782-sl-revised_african_convention_on_the_conservation_of_nature_and_natural_re.pdf> accessed April 1 2018

39 Treaty Establishing the African Economic Community, 1994 (Abuja Treaty)

40 Article 28 of the Treaty Establishing the African Economic Community, 1994 describes the objectives and functions of the Regional economic communities and their Strengthening.

41 See Article 25 of the Abuja Treaty on Specialised Committees including the committee on: Rural Economy and Agricultural Matters; Monetary and Financial Affairs; Trade, Customs and Immigration Matters; Industry, Science and Technology, Energy, Natural Resources and Environment; Transport, Communications and Tourism; Health, Labour and Social Affairs; and Education, Culture and Human Resources.

42 Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, (adopted on 30 January 1991, entered into force 22 April 1998) No 36508 (Bamako Convention)

operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora[43] operates to combat transboundary wildlife crime.

The 2018 Agreement Establishing the African Continental Free Trade Area (CFTA) recognizes the right of state parties to regulate, in pursuit of national policy objectives, supply of services, without compromising environmental protection and overall inclusive growth and sustainable development, measures necessary to protect human, animal or plant life or health. These latter regional instruments also ensure that environmental protection, climate change, public health, and environmental security are incorporated in the laws.

Other trends in the development of the environmental law of Africa can be traced to the 1981 African Charter for Human and Peoples' Rights (Banjul Charter),[44] where environmental protection is incorporated as a human right. The African Court on Human and Peoples' Rights was created through a protocol to the charter adopted in 1998. The 2016 African Union Charter on Maritime Security, Safety and Development (Lomé Charter) recognizes that no state is capable of securing itself against maritime threats or providing the means to sustainably develop its maritime domain single-handedly.[45] The Lomé Charter moved the African maritime agenda from a mainly soft law, non-binding approach, to a legally binding treaty approach.[46] The charter is yet to come into effect, with only Togo having ratified it to date.[47] The 1999 Maritime Transport Charter recognized the interdependence between economic development and a sustainable policy for the protection and preservation of the marine environment. It develops and promotes mutual assistance and cooperation between state parties in maritime safety, security and protection of marine environment.

In addition, the 1996 African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba)[48] established the African-nuclear-weapon-free-zone, urging member states to cooperate in the development and practical application of nuclear energy for peaceful purposes in the interest of sustainable social and economic development of the African continent. It also urged all member states to keep Africa free of environmental pollution from radioactive wastes and other radioactive matter. It should also be noted that on 24 November 1961, the sixteenth session of the UN General Assembly adopted the 1652 (XVI) resolution on consideration of Africa as a denuclearized zone. This was confirmed during the Heads of African States and Government meeting in the First Ordinary Session

43 Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (Adopted on 8 September 1994, entered into force 10 December 1996) No 33409

44 Charter on Human and People's Rights African (Adopted on 27 June 1981, entered into force 21 October 1986) (Banjul Charter) CAB/LEG/67/3 rev. 5, 21 I.L.M 58 (1982)

45 African Charter on Maritime Security and Safety and Development in Africa 2016 (Lomé Charter)

46 E Egede, Africa's Lomé Charter on maritime security: What are the next steps? (*ORCA*, 08 Aug 2017) < http://orca.cf.ac.uk/102517/ accessed 31 October 2018

47 Africa Union Commission, List of countries which have signed, ratified/acceded to the African Charter on maritime security and safety and development in Africa (Lomé Charter) (2018) <https://au.int/sites/default/files/treaties/33128-sl-african_charter_on_maritime_security_and_safety_and_development_in_africa_lome_charter.pdf > accessed 31 October 2018

48 African Nuclear Weapon Free Zone (ANWFZ) Treaty (adopted 11 April 1996; Entered into Force: 15 July 2009) 1964 UNGA Res.A/50/426 (1997) GAOR 51st Session 79

of the Assembly of the Organization of African Unity in Cairo, from 17 to 21 July 1964 confirming Africa as a nuclear free continent.

The 1967 Phyto-Sanitary Convention for Africa[49] aims to control and eliminate plant diseases in Africa and to prevent the introduction of new diseases. It urges member states to undertake control measures when importing plants and put other mechanisms in place. Each member state is required to take such measures of quarantine, certification or inspection that constitute a threat to agriculture in any part of Africa.

Within the African Union, the Constitutive Act establishes an Executive Council and specialised technical committees on agriculture, rural economy and the environment coordinates policies on environmental protection, agricultural and animal resources, livestock production and forestry; water resources and irrigation energy, industry and mineral resources among others.[50] In addition, the African Ministerial Conference on Environment (AMCEN), established in 1985 by its constitution, is a permanent forum where ministers of the environment advocate environmental protection in Africa. The conference aims to provide political guidance and leadership on environmental matters.

From the trends above, we note that development of modern environmental law at the continental level integrates environmental issues with socio-economic, security and political agenda. Africa's distinctive response to legal, policy and other perspectives has driven its nations to develop modern environmental laws. This trend can be said to promote modern environmental management by integrating the three pillars of sustainable development -- economic, social and environment.

B. Regional instruments on environmental law

Similar trends to those seen at the continental level are in evidence at the regional level. This part examines the environmental law and environmental related instruments on regional integration instruments and selected environmental issues.

1. Regional economic communities

The regional economic communities underpin legal systems[51] and provide platforms for regional approaches in major structural areas such as harmonization, legal and regulatory reforms and investment. They enable countries to pool their resources and position themselves in the global market. The 1991 Abuja Treaty set in motion the efforts for regional cooperation in Africa.[52] Whereas all the regional economic communities' main aim is to promote economic integration, many of them have developed protocols and other legal instruments on the environment. Therefore, the trends, like at the continental level, is the tendency to incorporate environmental matters in community affairs.

49 Phyto-Sanitary Convention for Africa (Adoption: 13 September 1967 entered into force: 6 October 1992) CAB/LEG/24.4/11

50 The Constitutive Act of the African Union adopted by the 36 Ordinary Session of the Assembly of Heads of State and Government, 11 July 2000. Lomé, Togo.

51 See for instance Common Market for Eastern and Southern Africa Treaty, (adopted 5 November 1993, entry into force *entry* into *force*: 08 December 1994) 33 ILM 1067 (1994) Art. 186(1); East Africa Community Treaty East African Community, (adopted 30 November 1999, entered into force 7 July 2000) EAC: 2002 xiv (EAC Treaty) Art 138(1); Economic Community of West African States Treaty, 1993 Art 88(1)

52 Organisation for African Unity, *Lagos Plan of Action for the Economic Development of Africa* 1980 -2000 (African Union Lagos 1980)

Africa's major regional integration groupings[53] currently include: Arab Maghreb Union (AMU); Community of Sahel-Saharan States (CSS);[54] Common Market for Eastern and Southern Africa (COMESA);[55] Economic Community of Central African States (ECCAS);[56] Economic Community of West African States (ECOWAS);[57] Inter-Governmental Authority on Development (IGAD);[58] East African Community (EAC);[59] and Southern African Development Community (SADC).[60] Other regional groupings include the Central African Economic and Monetary Community; the Economic Community of the Great Lake countries; the Indian Ocean Commission; the Mano River Union; and the West African Economic and Monetary Union.

2. Select environment and natural resources laws

The following selected key areas are examined to elaborate the scope and trends in the development of the environmental law of Africa.

(a) Coastal and marine laws

Coastal and marine environment laws are principally found in the regional seas action plans,[61] conventions and associated protocols, regional fisheries bodies, the World Meteorological Organization (WMO) instruments and large marine ecosystem mechanisms as well as the UN Convention on the Law of the Sea and the Convention (UNCLOS). In Africa, five conventions form a major anchor: the 1995 MAP-Barcelona Convention;[62] the 1984 Abidjan Convention;[63] the 2010

53 See Africa Union, Decision on the Moratorium on the Recognition of Regional Economic Communities, Assembly/AU/Dec.112 (VII), 2006. [RECs Moratorium Decision] states that the African Union Seventh Ordinary Assembly on 1 – 2 July 2006 in Banjul, Gambia decided on 8 RECs and suspended further recognition of new RECs.

54 The Community of Sahel–Saharan States (CEN–SAD) was formed in 1998 seeks to establish a comprehensive economic union with a focus on agricultural, industrial and energy

55 The 1993 Common Market for Eastern and Southern Africa (COMESA) seeks to create a free trade region and promote joint development in all fields of economic activity and cooperate in the creation of an enabling environment for foreign, cross-border and domestic investment see Article 3 of the COMESA Treaty in n 53

56 The Economic Community of Central African States (ECCAS) formed in 1983 focuses on developing physical, economic and monetary integration among others. It has established agencies around three main areas, including Energy Pool of Central Africa, Forests of Central Africa and Regional Committee of the Gulf of Guinea Fishing.

57 The Economic Community of West African States (ECOWAS) has the primary objective of promoting economic integration in "all fields of economic activity, particularly industry, transport, telecommunications, energy, agriculture, natural resources, commerce, monetary and financial questions, social and cultural matters."

58 The Intergovernmental Authority on Development (IGAD) established in 1996 aims to coordinate and harmonize policies in the areas of socio-economic, agricultural development, environmental protection and political and humanitarian affairs.

59 The EAC Treaty seeks to develop policies and programme to attain a Political Federation, in an incremental progression through the stages of a Customs Union, a Common Market, and a Monetary Union.

60 The Southern Africa Development Community (SADC) formed in 1992 and amended in 2001 has the objectives including achieving complementarity between national and regional strategies; and achieving sustainable use of natural resources and effective protection of the environment.

61 United Nations Environment Programme, *Guidelines and principles for the preparation and implemnetation of comprehensive Action Plans for the Protection and Development of Marine and Coastal Areas of the Regional Seas* (United Nations Environment Programme 1982) <https://www.unenvironment.org/resources/report/guidelines-and-principles-preparation-and-implementation-comprehensive-action > accessed 31 October 2018

62 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, No. 16908 (adopted on 16 February 1976, entered into force on 12 February 1978 (Barcelona Convention) and its protocols. There are 22 contracting parties, among them including: Algeria, Egypt, Libya, Malta, Morocco, Tunisia

63 Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West, Central and Southern Africa region (adopted entry into force 5 August 1984 (Abidjan Convention) and its protocols

Nairobi Convention;[64] and the 1995 Jeddah Convention.[65] The 1982 Indian Ocean Commission[66] is exclusively for the island states. These provide legal frameworks that enable countries to jointly agree on their priorities and plan and develop programmes for the sustainable management, protection, and development of their marine and coastal ecosystems.[67]

Regional Fisheries Management Organizations (RFMOs) [68] are the legally mandated fisheries management bodies.[69] Some of the Regional Fisheries Management Bodies include: 1967 Fishery Committee for the Eastern Central Atlantic; 1985 Sub Regional Fisheries Commission; 2006 Fishery Committee for the West Central Gulf of Guinea; 1984 Regional Fisheries Committee for the Gulf of Guinea; 1991 Ministerial Conference on Fisheries Cooperation among African States Bordering the Atlantic; 1991 Regional Convention on Fisheries Cooperation among African States bordering the Atlantic Ocean; Convention on the Conservation of Antarctic Marine Living Resources; Commission for the Conservation of Southern Bluefin Tuna; Indian Ocean Tuna Commission; International Commission for the Conservation of Atlantic Tunas; General Fisheries Commission for the Mediterranean; South East Atlantic Fisheries Organisation; Southern Indian Ocean Fisheries Agreement.

The Sub-regional Fisheries Commission of Western Africa adopted the 2012 Convention on the Minimal Conditions for Access to Marine Resources to regulate access conditions for foreign vessels to marine resources of its member states. Large marine ecosystem mechanisms in Africa are the Benguela Current Convention; the Guinea Current Large Marine Ecosystem (GCLME) 2012, which established the Guinea Current Commission by a protocol to the Abidjan Convention;[70] Canary Current Large Marine Ecosystem;[71] and Agulhas Somali Current Large Marine Ecosystem. The trend in all of them is to promote a coordinated regional approach to long-term conservation, protection, rehabilitation, enhancement and sustainable use of their common marine resources. Given the multiplicity of these instruments there is bound to be duplication in functions and roles, resulting in unsustainable management of fisheries in Africa.

64 Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean, 2010

65 Regional Convention for the Conservation of the Red Sea and of the Gulf of Aden Environment (adopted Feb 14, 1982, entry into force Aug 20, 1985) vol. 2099, No. 36495 and its protocols dedicated to the conservation of the Red Sea, Gulf of Aqaba, Gulf of Suez, Suez Canal, and Gulf of Aden. Member states in Africa include: Djibouti, Egypt, Somalia and Sudan.

66 https://en.wikipedia.org/wiki/Indian_Ocean_Commission. accessed 24 February 2019

67 EM Mrema, 'Regional Seas Programme: The Role Played by UNEP in its Development and Governance' D. Attard, M. Fitzmaurice, N. Martinez, & R. Hamza (eds) *The IMLI Manual on International Maritime Law, Volume III: Marine Environmental Law and Maritime Security Law* (London:Oxford University Press, 2016)

68 Stefán Ásmundsson 'Regional Fisheries Management Organisations (RFMOs): Who are they, what is their geographic coverage on the high seas and which ones should be considered as General RFMOs, Tuna RFMOs and Specialised RFMOs? (2016) https://www.cbd.int/doc/meetings/mar/soiom-2016-01/other/soiom-2016-01-fao-19-en.pdf accessed 31 October 2018

69 See FAO UN Code of Conduct for Responsible Fisheries (FAO 1995)

70 Covering Angola, Benin, Cameroon, Republic of Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Ghana, Guinea, Guinea Bissau, Liberia, Nigeria, São Tomé and Príncipe, Sierra Leone and Togo,

71 Covering the countries: Cape Verde, Guinea, Guinea Bissau, Mauritania, Morocco, Senegal, Gambia

(b) Water resources' laws

Africa's water law can be analysed through transboundary river basin treaties, agreements, protocols, and other "understandings." With 63 shared basins covering about 64 per cent of the continental area, Africa has 34 international water agreements.[72] Out of 145 international agreements signed between two or more states sharing water basins in the last one century, about 94 occurred in Africa, dating back to late 1800s.[73] All the agreements deal with sharing both withdrawal and in-stream water. The sustainability of water available within a river basin that crosses two or more countries may be assured and even increased through transboundary agreements.[74]

The main trends in Africa water agreements in the 20th century has centred on creativity in formulating treaties to meet unique hydrological, economic, political and cultural settings of individual basins. For example, in the 1986 Treaty on the Lesotho highlands water project between Lesotho and South Africa,[75] where South Africa supports financing of hydroelectric and water diversion facility and in turn receives rights to drinking water for Gauteng province. The 1969 agreement between South Africa and Portugal on Kunene River, allows humanitarian diversions for human and animal requirements in Namibia, as part of the hydropower project. The other creativity is shown in the flexibility of treaties due to changes in conditions and priorities in basins, such as, the 1987 Agreement on an Action Plan for Environmentally Sound Management of the Common Zambezi River System that allows for future accession of additional riparian states.

Water agreements in Africa have also tended to use multi-resource linkages, hence broadening benefits, including peace and afforestation. The 2003 Protocol for Sustainable Development of Lake Victoria designated the basin as an economic growth zone using water, fisheries, agriculture, forestry, wetlands and industrial development, among others.

Regional economic communities have also developed co-riparian cooperative arrangements. For example, SADC has adopted the 2001 Revised Protocol on Shared Watercourses,[76] the Regional Water Strategy (2006) and a series of Regional Strategic Action Plans for the water sector supporting its member states in collaborative actions for transboundary water management.[77]

(c) Mineral resources laws

Extraction of minerals is often accompanied by and associated with deforestation, land degradation, air pollution, disruption of the ecosystem, and human rights abuses. In the colonial period, mining

72 UNEP, *Africa Water Atlas: Division of Early Warning and Assessment (DEWA)* (Nairobi: United Nations Environment Programme 2010)

73 UNEP, *Africa Water Atlas: Division of Early Warning and Assessment (DEWA)* (Nairobi: United Nations Environment Programme 2010)

74 *Transboundary Freshwater Dispute Database Oregon University,* Tra**nsboundary Freshwater Spatial Database** (Oregon State University, 2018) <http://transboundarywaters.science.oregonstate.edu/content/data-and-datasets> accessed 17 January 2018

75 Treaty On The Lesotho Highlands Water Project Between The Government of the Kingdom of Lesotho and the Government of the Republic of South Africa, 1986 <http://www.fao.org/docrep/w7414b/w7414b0w.htm> accessed on 12 October 2018

76 Revised Protocol on Shared Watercourses in the Southern African Development Community, 2000 < https://www.internationalwaterlaw.org/documents/regionaldocs/Revised-SADC-SharedWatercourse-Protocol-2000.pdf > accessed on 05 March 2018

77 United Nations Environment Programme. *Atlas of International Freshwater Agreements*. (Nairobi:UNEP 2002).

was part of the value chains of the colonial metropolis. After independence, most African countries struggled to invest in the mining industry to improve its contribution to the economy of the independent countries. To address the environmental challenges associated with mining, legal and regulatory reforms have been introduced -- including regional harmonisation instruments.

The 2009 African Mining Vision,[78] which guides exploitation of mineral resources to underpin sustainable growth and socio-economic development of the continent, calls on states to ensure the highest standards of environmental and material stewardship through entrenching the process of strategic environmental impact assessments.

The 2016 SADC Protocol on Mining[79] calls for the promotion of sustainable development by ensuring a balance between mineral development and environmental protection as well as a regional approach in conducting environmental impact assessments. The 2009 ECOWAS States Directive on Harmonisation of Guiding Principles and Policies on Mining[80] calls for protection of the environment during pre-mining, mining operations, closing and post-closure periods by mitigating the negative impacts on the environment.

The African Mining Vision has found space in national policies, laws and regulations in terms of environmental safeguards in the mining sector. The trend is to provide for procedures of environmental control of the pollutants during exploration, production and processing.[81] In many Africa legal frameworks, mineral resources are vested in Government under the public trust doctrine.[82]

(d) Forest resources laws

The forest laws in Africa have also followed the same historical trends like the other colonial laws on natural resources – they are geared towards extraction of timber for export.[83] The growth of industrial logging activities during the post-independence period led to serious deforestation and forest degradation as the laws inherited from the colonial period had few requirements for sustainable resource management. At the regional level, the most notable legal instrument is the 2005 Treaty Establishing the Central African Forests Commission and its convergence plan. From the 1970s to the 1990s, Africa witnessed changes in forest legislation mostly geared towards conforming to the emerging sustainable development principles.[84] The reforms in forest codes were a response to the environmental losses African countries were experiencing – deforestation, forest degradation and the

78 African Union, African Mining Vision 2009

79 See Protocol on Mining in the Southern Africa Development Community, 2006 Article 8 of the 2016

80 See the Economic Community of West African (ECOWAS) Directive /DIR.3/5/09 2009 on Harmonisation of Guiding Principles, Policies on Mining

81 See Department of Petroleum Resources: Environmental Guidelines and Standards for the Petroleum Industry in Nigeria, 2002 (EGASPIN2002); Petroleum Exploration, Development and Production) Act 2013, s 189

82 See the Constitution of Uganda, 1986 Art 244 that introduces the public trust doctrine in the management of oil and gas resources

83 World Bank, Reforming Forest Fiscal Systems to Promote Poverty Reduction, and Sustainable Forest Management (Washington,DC: World Bank, November 2003)

84 V Kohler; F Schmithüsen, 'Comparative Analysis of Forest Laws in twelve Sub-Sahara African Countries' (2004) 37 FAO Legal Paper 2006 Legal Papers Online

decline in the forestry revenue to the nations.

The trends in modern forest legislation in Africa[85] show principles of sustainable forest management incorporated. These include: categorization of forest and forest lands; community participation; property rights and use; local and private forests; forest standards and certification; trade; forest protection and enforcement and measures to reduce illegal timber felling and trade. The forest laws also address environmental challenges associated with forests and tree vegetation.[86]

(e) Air quality laws

To respond to the ever-growing problem of air quality, Africa has taken some steps by making regional 'agreements' with the objective of regulating, preventing, controlling and abating air pollution to ensure clean and healthy air. These agreements are, however, not binding, as none is yet to come into force.

The agreements include: (i) 2008 SADC Regional Policy Framework on Air Pollution (Lusaka Agreement 2008) adopted by SADC Ministers; (ii) 2008 Eastern Africa Regional Framework Agreement on Air Pollution (Nairobi Agreement-2008)[87] focusing on the key targets areas of transport, industry and mining, energy, waste, vegetation fires, indoor air pollution, urban; (iii) West and Central Africa Regional Framework Agreement on Air Pollution (Abidjan Agreement, 2009)[88] focusing on transport, industry and mining, household pollution, waste disposal, bush fires, uncontrolled burning and deforestation, urban and management and national and regional environmental governance; and (iv) North African Framework Agreement on Air Pollution.[89]

Air quality laws have therefore been developed to respond to the emerging environmental issues of indoor and ambient air pollution in Africa. In all the regional agreements, the cooperative arrangements are flexible with differentiated agreements for the control and ultimate reduction of agreed air pollutants.

(f) Waste management laws

The development of legislation on waste management in Africa has been driven more by population growth, rapid urbanisation, changing consumption habits and production patterns, global trade and waste trafficking.[90] Africa's response to management of waste is triggered more by global economic trends of over-consumption of goods that create wastes than an actual need to respond to the environmental problem. Through the global multilateral environment agreements of Basel, Rotterdam

85 Republic of Congo, Forest Code 2000

86 Simon Counse 'Forest Governance in Africa' (2009) Occasional Paper No. 50 South African Institute of International

87 <http://www.sei-international.org/rapidc/gapforum/html/regions/east_africa/eastern_africa_air_pollution_agreement.pdf> accessed 31 October 2018. The agreement covers eleven countries – Burundi, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda,

88 This agreement covers 21 countries including – Côte d'Ivoire, Angola, Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Congo Brazzaville, Democratic Republic of Congo, Equatorial Guinea, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo and ECOWAS.

89 <http://www.seiinternational.org/rapidc/gapforum/html/regions/north_africa/baq_na_en_final.pdf>accessed 12 May 2018 for six countries, that is, Tunisia, Morocco, Algeria, Libya, Egypt, and Mauritania.

90 United Nations Environment Programme, *Africa Waste Management Outlook, 2018* (Tokyo:UNEP 2018)

and Stockholm Conventions, the trends in Africa's response to the environmental problem of waste have not fundamentally changed. The global MEAs essentially provide for tracking and management of cross-border movement of waste, whereas Africa's problem is more related with domestic waste management. The 2008 Libreville Declaration, however, set the tone on Africa's commitment to protect human health from environmental degradation. The Libreville Declaration reaffirmed African countries' commitment to the implementation of the Bamako Convention on the 'Ban of the Import into Africa and Control of Transboundary Movement and Management of Hazardous Wastes within Africa (1991)'.

At the regional level, many waste management instruments have been developed calling for stronger systems of waste management. These instruments include the 2012 East Africa Community Development Strategy; the 2001 SADC Regional Indicative Strategic Development Plan; the 2012 ECOWAS E-Waste Strategy (2012); the 2015 ECOWAS Hazardous Waste Management; and the 2016 Plastic Waste Management Strategy.

At national level, environmental problems associated with solid waste management in Africa have traditionally been addressed through laws.[91] Almost every African country has put in place a legal framework dealing with solid waste management and established regulations and policies on how waste should be managed. African countries have also made by-laws at local levels to manage solid waste. Despite modernisation of environmental management, solid waste management has not significantly improved as countries still use the colonial systems of command and control, with no clear responsibilities for national governments, municipalities, service providers and waste generators. In many instances, the responsibility for waste management is on government bodies with minimal roles assigned to communities and the private sector. The common view is that waste management laws and systems inherited from the colonialists have not been modernised to cater for the growing population and burgeoning economic growth -- even during the reform era of the 1980s to the 2000s.

In most cases in Africa, issues of sustainability have not been embedded into waste management laws. For example, in Ghana, the Local Government Act, 1993 (Act 462), confers power on local authorities to promulgate and enforce by-laws to regulate solid waste management, among others, but private companies cannot operate without the approval of, or licence from, the local authority.[92]

Recent exponential growth in global markets for electrical and electronic equipment with the lifespan of these items becoming increasingly short has generated another form of waste, which is posing a challenge for Africa. Many components of these products are toxic and do not biodegrade easily. The modern environmental laws on waste management have no solutions for this problem and the development of policies and environmental safeguards is yet to respond to these new trends.

91 IA Bello et al, 'Solid waste management in Africa: A Review' (2016) Volume 6 • Issue 2 International Journal of Waste Resources 1

92 JH Fobil, NA Armah, JN Hogarh and D Carboo, 'The Influence of Institutions and Organisations on Urban Waste Collection Systems: An Analysis of Waste Collection Systems In Accra, Ghana (1985-2000) (2008)' 86 Journal of Environmental Management 262-271.

In efforts to address recent environmental challenges in solid waste and its negative impact on human health, several African countries have enacted homegrown legislation centred on banning single-use plastics.

VI. INFLUENCE OF GLOBAL MEAs IN THE DEVELOPMENT OF THE ENVIRONMENTAL LAW OF AFRICA

Whereas Multilateral Environmental Agreements (MEAs) are the main instruments available under international law for countries to collaborate on a broad range of global and regional environmental challenges, the African region has mainly used these instruments by incorporating their provisions in regional and national environmental laws.

Africa tends to use two approaches in implementing MEAs and other international environmental commitments, that is, regional and national level implementation. At the regional level, Africa uses model laws, charters, declarations, guidelines and other like instruments to find common approaches and to influence the development of national environmental laws. There are some cases in point to elaborate this trend. The 2001 African Union Model Law for the Protection of the Rights of the Local Communities, Farmers and Breeders and for the Regulation of Access to Biological Resources ("the African Model Law")[93] predates the Nagoya Protocol but has been very useful in its implementation. The African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa is another instrument to implement MEAs.[94]

Earlier on, countries on the continent had negotiated the Regional Implementation Annex for Africa to the 1994 UN Convention to Combat Desertification. To facilitate regional approaches, African countries have created five Sub-Regional Action Programmes and a Regional Action Programme[95] on combating desertification. In 2009, the African Heads of States through the Declaration on Land Issues and Challenges[96] endorsed the Framework and Guidelines on Land Policy in Africa constituting the African Union agenda on land. Its implementation is done in recognition of the contribution of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests[97] in Context of National Food Security as another tool to improve land governance on the continent.

Other approaches include the 1998 Bamako Convention to implement the 1992 Basel Convention, the 2001 Stockholm Convention and 1998 Rotterdam Convention. In the marine and coastal environment

93 JA Ekpere, *The African Model Law: The Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources: An Explanatory Booklet*. (Organisation for African Unity (OAU), 2001)

94 Africa Union African Union Practical Guidelines for the Coordinated Implementation of the Nagoya Protocol in Africa Dec 15/3 Assembly/AU/Dec.352 (XVI) 2015

95 https://www.unccd.int/convention/action-programmes

96 African Union the Declaration on Land Issues and Challenges in Africa Assembly/AU/Decl.1 (XIII) Rev.1 Declaration on Land Issues and Challenges in Africa

97 FAO, *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security* (Rome: FAO 2012)

realm, Africa has implemented the United Nations Convention on the Law of the Sea[98] through joint development agreements, establishing a Combined Exclusive Maritime Zone of Africa (CEMZA), and 2050 Africa's Integrated Maritime Strategy (2050 AIM Strategy). It can also be urged that in the freshwater areas, Africa's establishment of the river and lake basin organisations is a measure to implement the 1997 UN Convention on Non-navigable Uses of International Watercourses.[99]

The second pathway that Africa has used is the national approach through the direct or indirect incorporation of principles in MEAs in national laws and policies. Examples of the incorporation of principles in MEAs in national laws and policies in response to the environmental and economic pressures and challenges are discussed below.

VII. TRENDS IN THE DEVELOPMENT OF NATIONAL ENVIRONMENTAL LAWS OF AFRICA

The trends in the development of national environmental law in Africa are similar to Africa's development agenda, that is, quest for economic growth and response to environmental challenges and pressures. The independence constitutions in the 1960s and the sectoral national environmental laws in Africa were heavily influenced by colonial tenets such as allocation and extraction of natural resources. These frameworks considered the environmental resources as infinite and failed to put in place measures to guard against over-extraction or overuse.

The modern trend in Africa is that environmental laws are in conformity with the sustainable development pathway. Since the 1980s and 1990s, countries in Africa have progressively developed and implemented modern constitutions, framework laws and sectoral environmental policies and laws with varieties in terms of structure, detail and substance. The environmental laws have generally tended to move away from the extractive to sustainable management, preventive and restoration approaches. The legislative approaches also reflect different patterns and schemes of formulation, complexities, even among countries that share similar environmental concerns, legal systems and traditions.[100]

Most African constitutions, legal frameworks and sectoral environmental laws have changed the legal landscape by placing and distributing power for conservation and management in the state and among citizens.[101] Some constitutions place a duty on the state for the protection of the

98 The United Nations Convention on the Law of the Sea, (adopted 10 December 1982, entry into force 16 November 1994) 31363 UNCLOS

99 Convention on the Law of the Non-navigational Uses of International Watercourses, UNGA Res.51/229(1997) GAOR 51st session 144

100 UNEP *Guidelines for Preparing Framework Environmental Laws in Africa* (UNEP Nairobi 2005)

101 Article 1 of the Constitution of Ghana (1992) states that 'The Sovereignty of Ghana resides in the people of Ghana in whose name and for whose welfare the powers of government are to be exercised'.

environment[102] and others declare and define the duty by citizens to protect the environment.[103] Different countries have included environment related provisions in constitutions by using various approaches: preambular; principles of state direction; and substantive rights and obligations. Provisions for the protection of the environment are featured in different words, including: healthy environment as a human right; a right to live in a healthy and unpolluted environment;[104] right to water, right to food, duty to protect the environment; environmental impact assessments, sustainable development; and pollution prevention. The environmental laws also feature dispute resolution mechanisms and access to environmental justice through provisions on *locus standi*[105] and the right to environmental information[106] as media to mobilise and involve the people in environmental management. In some cases, the laws implicitly create public trust over environmental resources[107] and introduce new principles, including consumer and environmental protection.[108]

Most of the modern environmental laws in Africa integrate MEAs in various forms including in sectoral laws on land, air, water, energy, soil, waste, wildlife, and genetic resources. MEAs have also been incorporated in subsidiary legislation such as proclamations, rules, regulations, orders, resolutions, notices, bylaws or other instruments. Environmental activism has also shaped the development of national legislation and public policies in Africa.[109]

VIII. TRENDS IN THE DEVELOPMENT OF ENVIRONMENTAL JURISPRUDENCE

African courts have also repositioned themselves to respond to the developments in the environmental laws in pursuit of sustainable development promotion. The trend is to use regional courts, where common state and societal interests are decided above the preferences of any one government.[110] Though the regional courts were initially put in place to address issues on trade or human rights violations, they are now adjudicating environmental disputes.[111] It is instructive to trace the various

102 Constitution of Angola, 2010 -- Article 39; Constitution of Egypt: Article 46- The protection of the Environment states is a national duty. Constitution of the Republic of South Africa, Act 108 of 1996 provides that everyone has the right to have the environment protected, for the benefit of present and future generations.

103 http://hrlibrary.umn.edu/edumat/IHRIP/circle/modules/module15.htm

104 For instance the Constitution of Angola 2010; the Constitution of Democratic Republic of Congo 2006 Article 53 through Constitutional Amendment of 2005 as amended in 2011

105 Yash Tandon, 'Reclaiming Africa's agenda: Good governance and the role of the NGOs in the African context' (1996) 50, no. 3 Australian Journal of International Affairs 293-303.

106 See also: the case of *Environmental Action Network v British American Tobacco, Uganda,* where the applicant brought an application under article 50(2) of the 1995 Constitution and rule 3 of the Fundamental Rights and Freedoms (Enforcement Procedure) Rules, for a court order compelling the respondent, a manufacturer of 'dangerous products' (cigarettes), to fully and adequately warn consumers of the health risks associated with its products. Although the order was ultimately denied, the court did confirm the locus standi of the applicant, that article 50(2) enabled individuals to bring public interest matters to court on behalf of those who were not in a position to do so.

107 The Constitution of Egypt Article 44 articulates the governance of the River Nile.

108 The Constitution of Angola 2010,Article 89

109 M Lubell, 'Environmental Activism as Collective Action' (2002) 34(4) Environment and Behaviour, 431–454

110 James Thuo Gathii, 'Saving the Serengeti: Africa's New International Judicial Environmentalism,' (2016) Vol. 16: No. 2, Article 3 Chicago Journal of International Law

111 ibid 778 arguing that litigation in sub-regional courts "provides a corrective to the limited avenues of legal recourse available to victims of rights abuses in Africa"

regional courts and assess their adjudicative functions on environmental matters.

The Constitutive Act of the African Union provides for the establishment of the African Court of Justice[112] as its principle judicial organ, with authority to rule on disputes over interpretation of AU treaties. This court has been replaced by a protocol creating the African Court of Justice and Human Rights. The African Court on Human and Peoples' Rights [113] has jurisdiction over all cases and disputes submitted to it concerning the interpretation and application of the African Charter on Human and Peoples' Rights, the Protocol and any other relevant human rights instrument ratified by the States concerned, including those on the environment.

Some of the Regional Economic Community (REC) treaties have established courts to oversee the implementation of regional trade commitments and deal with controversies relating to the interpretation or application of those treaties.[114] Trade related decisions are the most dominant in regional integration[115] but protection of the environment has been enhanced in the process. The treaties have established *locus standi* for persons to either sue through national courts or directly to the regional courts, thus widening access to environmental justice. The East African Court of Justice, the Court of Justice of the Economic Community of West African States, and the Tribunal of the Southern African Development Community have adjudicated on cases challenging trade restrictions and other barriers to regional integration, natural resources and the environment being an underlying factor.

Jurisprudence on environmental matters in Africa has emerged mostly from mega-development projects such as construction of superhighways, large extractive industry operations, or hydro-electricity dams, among others. These environmental cases provide an opportunity for regional courts to adjudicate on environmental norms. Some of the cases that have been brought to the regional courts show the trends in environmental jurisprudence in Africa.

112 African Union Protocol of the Court of Justice of the African Union, 2003 Article 2.2

113 The Court was established by Article 1 of the Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights, which was adopted by Member States of the then Organization of African Unity (OAU) in Ouagadougou, Burkina Faso, in June 1998. The Protocol came into force on 25 January 2004 after it was ratified by more than 15 countries.

114 Africa has eight functioning international courts. These are: the African Court of Human and Peoples' Rights, see Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and People's Rights, 9 June 1998, OAU Doc. OAU/LEG/EXP/AFCHPR/PROT(III); the East African Court of Justice, see Treaty for the Establishment of the East African Community, art. 9(1)(e), 30 November 1999, 2144 UNTS 255 (providing for the establishment of the EACJ); the Southern Africa Development Community Tribunal, which is currently suspended but in the process of reconstitution, see Southern African Development Community, Protocol on the Tribunal and Rules thereof, arts. 15 & 16, Aug. 7, 2000; the Economic Community of West Africa Court of Justice, see Protocol on the Community Court of Justice, art. 2, A/P.1/7/91; the Common Market for Eastern and Southern Africa Court of Justice, see Treaty Establishing the Common Market of Eastern and Southern Africa, art. 7, Dec. 8, 1993, 2314 UNTS 265; the Organisation pour l'Harmonisation en Afrique du Droit des Affaires Common Court of Justice and Arbitration, see Traité portant révision du Traité relatif à l'Harmonisation du Droit des Affaires en Afrique, 17 October, 2008; the Common Market for Central Africa Court of Justice, see Traité constitutif, art. 2, 16 March 1994; and the Court of Justice of the West African Economic and Monetary Union, see Traité de l'Union Economique et Monétaire Ouest-Africaine (French), art. 38, 10 January1994. The Arab Maghreb Union does not have a functional court yet.

115 Frederick M Abbott, 'Regional Integration and the Environment: The Evolution of Legal Regimes - Chicago-Kent Dedication Symposium: International Law' (1992) 68 Chi.-Kent. L. Rev. 173

The Ogiek[116] community of the Mau Forest in Kenya moved to the African Court on Human and Peoples' Rights to seek redress for being evicted by the government from their ancestral land[117] and the court heard their case on the basis that it evinces serious and mass human rights violations.[118] The African Court ruled that the Kenyan government violated the rights of the indigenous Ogiek people when it evicted them from their land.

In 2012, the Court of Justice of the Economic Community of West African States ruled against Nigeria for failing[119] to regulate multinational companies whose oil extraction activities have degraded the Niger Delta.[120] Socio-Economic Rights and Accountability Project alleged violation by the defendants of the rights to health, adequate standard of living and rights to economic and social development of the people of Niger Delta and the failure of the Defendants to enforce laws and regulations to protect the environment and prevent pollution.[121] In 2014, the East African Court of Justice stopped the government of Tanzania[122] from building a road across Serengeti National Park because of its potential adverse environmental impacts.

Thus, a major feature of these courts is the way they have reoriented their original mandate to adjudicate over trade disputes to become bold adjudicators of human rights cases and disputes of a political nature.[123] Both the trade and human rights jurisprudence has major implications because of states' commitment to first, human rights and second, to improving economic growth and increasing growth.

116 Ogiek Community is an indigenous minority ethnic group in Kenya comprising about 20,000 members, about 15,000 of who inhabit the greater Mau Forest Complex, a land-mass of about 400,000 hectares.

117 Further reading: *African Court on Human and Peoples' Rights Application No. 006/2012. Kenya's Decision to Evict the Ogiek Community from the Mau Forest was in Violation of its Rights as an Indigenous Community that it ought to have protected and Effected as under the African Charter on Human and Peoples' Rights. African Commission on Human and Peoples' Rights v Republic of Kenya.*

118 *African Commission on Human and Peoples' Rights v Republic of Kenya,* Application. No 006/2012

119 The Socio-Economic Rights and Accountability contended that Niger Delta has an enormously rich endowment in the form of land, water, forest and fauna, which have been subjected to extreme degradation due to oil prospecting. It averred that Niger Delta has suffered for decades from oil spills, which destroy crops and damage the quality and productivity of soil that communities use for farming, and contaminates water that people use for fishing, drinking and other domestic and economic purposes. That these spills, which result from poor maintenance of infrastructure, human error and a consequence of deliberate vandalism or theft of oil have pushed many people deeper into poverty and deprivation, fuelled conflict and led to a pervasive sense of powerlessness and frustration. It further contended that the devastating activities of the oil industries in the Niger Delta continue to damage the health and livelihoods of the people of the area who are denied necessities of life such as adequate access to clean water, education, healthcare, food and a clean and healthy environment.

120 Karen Alter et al, 'Backlash Against International Courts in West, East and Southern Africa: Causes and Consequences' (2016) 27 European Journal of International Law, 293-328

121 *Socio-Economic Rights and Accountability Project (Applicant) v the Federal Republic of Nigeria (Defendant)* N° ECW/CCJ/JUD/18/12

122 *African Network for Animal Welfare (ANAW) v The Attorney General of the United Republic of Tanzania*, Ref. No. 9 of 2010, First Instance Div. 64; *Attorney General of the United Republic of Tanzania* v. *African Network for Animal Welfare (ANAW),* Appeal No. 3 of 2014, Judgment, East African Court of Justice at Arusha App. Div.

123 James Gathii, 'Sub-Regional Court or Employment Tribunal? The Legacy and Legitimacy of the Case-Law of the COMESA Court of Justice 2001-2015, in The Legitimacy of International Trade Tribunals' (2015) Research Paper No. 2015-012 Loyola University Chicago School of Law

Other legal battles include *Minister of Public Works v Kyalami Ridge Environmental Association Conservation: Housing for flood victims filed in the Constitutional Court of South Africa in 2001*;[124] and the 2006 Ivory Coast toxic waste dump case filed in the High Court of London in 2008.[125]

The trend is that African courts are simultaneously pushing the boundaries of judicial interpretation to cover not only trade and commerce but also environmental law and human rights.[126] In fact, the most interesting trend is the increasing willingness of the African regional courts to adjudicate on environmental, human rights, economic and trade issues.

IX: CONCLUSION

Africa is advancing its socio-economic growth in tandem with the sustainable management of the environment, including enhancement and improvement of environmental laws at continental, regional, national and local levels. This chapter discusses trends in environmental law of Africa, which ought to be viewed holistically even though one cannot exhaustively present it in one chapter.

There is a co-relation between the drivers of environmental, socio-economic and political change and the development of the environmental laws of Africa. The shaping of common approaches to protect the natural capital endowment from internal and external forces, stem the environmental losses, or enhance the sustainable productivity of the natural capital has provided an opportunity for the environmental laws of Africa to develop.

The 2018 Agreement establishing the CFTA will henceforth influence and play a role in implementing regional cooperation mechanisms with the notion that the environmental pillar of sustainable development underpins the overall survival of the continent. Thus, policy makers need to respond to the challenges outlined above and recognize that issues emerging from natural resources management must be addressed in a holistic and robust manner. From the trends analysed above, it is recognizable that there is need to develop a free trade area protocol on environmental goods and services in Africa.

It is more important than ever that policy makers in Africa understand their role in establishing more stable and functional regional and domestic legal and regulatory frameworks for achieving sustainable development. To ensure environmental law remains high on the national and regional agenda, several challenges must be dealt with, including enabling the judicial and executive systems to move in tandem with advancing environmental law regimes.

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124 *Minister of Public Works and Others* v *Kyalami Ridge Environmental Association and Others* (Mukhwevho Intervening) (CCT 55/00) [2001] ZACC 19; 2001 (3) SA 1151 (CC); 2001 (7) BCLR 652 (CC) (29 May 2001). <http://www.saflii.org/za/cases/ZACC/2001/19.html> Accessed 15 October 2018

125 <https://en.wikipedia.org/wiki/2006_ivory_coast_toxic_waste_dump#lawsuit_by_victims> accessed on 23 March 2018

126 Daniel Abebe, 'Does International Human Rights Law in African Courts Make a Difference?' (2017)56 Virginia Journal of International Law 527

Chapter 13

Measuring the Effectivity of Environmental Law Through Legal Indicators in the Context of Francophone Africa

Michel Prieur and Mohamed Ali Mekouar

"When you can measure what you are speaking about and express it in numbers, you know something about it."

Lord Kelvin (natural scientist), 1883

I. PRELUDE

Traditionally, gauging the effectivity of law has mainly been the realm of legal theory and legal philosophy around the fundamental question: what is the purpose of the law?[1] According to the legal philosopher Henri Lévy-Bruhl, knowledge of the legal facts "cannot do without precise and methodically established numerical data".[2] A similar view was expressed back in the 18th century by Nicolas de Condorcet, philosopher, mathematician and politician, who maintained that the progress of quantification should go hand in hand with the design of a uniform and universal legal system, one in which it should be possible to 'calculate' the legal rules applicable to all humankind.[3]

This approach appears to be particularly suitable for assessing the effectivity of environmental law, considering the universal character of the latter and its applicability to humanity as a whole. However, no in-depth research work has been conducted in the past for the creation and use of legal indicators intended to evaluate the effectivity of environmental law. Empirical studies undertaken in recent years have only partially dealt with particular phases of law enforcement procedures,[4]

1 In this connection, see for example: Yann Leroy, *L'effectivité du droit au travers d'un questionnement en droit du travail* (LGDJ 2011); Vincent Richard, 'Le droit et l'effectivité: contribution à l'étude d'une notion' (PhD thesis, 2003).

2 Henri Lévy-Bruhl, 'Note sur la statistique et le droit' in Semaine internationale de synthèse (7: 1935: Paris) and Michel Huber (eds), *La statistique, ses applications, les problèmes qu'elles soulèvent* (PUF 1935) 141.

3 Jean-Antoine-Nicolas de Caritat marquis de Condorcet 'Observations de Condorcet sur le vingt-neuvième livre de L'Esprit des lois' in Antoine Louis Claude Destutt de Tracy (ed), *Commentaire sur L'Esprit des lois de Montesquieu; suivi d'observations inédites de Condorcet sur le vingt-neuvième livre du même ouvrage* (Delaunay 1819) <https://ia801407.us.archive.org/9/items/commentairesurle00destuoft/commentairesurle00destuoft.pdf> accessed 15 April 2018 456-462; also quoted by Alain Supiot, *La gouvernance par les nombres* (Fayard 2015) 153.

4 For an illustration of such studies, see: V Zakane, 'Problématique de l'effectivité du droit de l'environnement en Afrique: l'exemple du Burkina Faso' in Laurent Granier (ed), *Aspects contemporains du droit de l'environnement en Afrique de l'ouest et centrale* (Centre du droit de l'environnement de l'UICN 2008) 13-34.

which did not allow all the legal steps involved in the implementation process of environmental law to be embraced. Hence, so far the effectivity of environmental law has not yet been methodically investigated and measured, owing principally to the lack of specific legal evaluation tools.

Addressing this methodological gap, the 1st International Symposium on Environmental Law in Africa, held in 2013 in Abidjan, Côte d'Ivoire, innovatively called for the development of legal indicators to assess the effectivity of environmental law in Africa.[5] This pioneering recommendation was reiterated in 2016 at the 2nd International Symposium on Environmental Law in Africa, which took place in Rabat, Morocco.[6]

Acting upon this recommendation, the *Institut de la Francophonie pour le développement durable* (IFDD), in partnership with the International Union for the Conservation of Nature (IUCN) and UN Environment, commissioned a study for the design of proper tools on the effectivity of environmental law, which was carried out in the second half of 2017[7] and provisionally peer-reviewed and validated in the course of a symposium held in February 2018 in Yaoundé, Cameroon.[8] The study put forward a set of legal indicators to scrutinize the different phases of the legal process of environmental law application. Creating these new tools should make it possible to statistically and mathematically measure, on scientific grounds, the various factors that contribute to the effective implementation of national and international environmental law.

In this article, we deliberately use the term 'effectivity', rather than the word 'effectiveness'. For the sake of clarity, the notion of 'effectivity' is intended to denote what produces real and concrete effects. 'Effective' law is law in action, which is translated into reality through actual implementation. It is 'real' law or 'living' law, beyond formal law or law on the books. In its legal meaning, 'effectivity' is the intersection of the law and fact, which ideally leads to unity of the law and fact. This implies that a legal rule should not only exist, but should also be applicable, respected, enforced and possibly sanctioned by the administration or the court.

Using the term 'effectiveness', on the other hand, would entail the risk of semantic confusion and substantive inaccuracy, as its common equivalent is generally '*efficacité*' in French and '*eficacia*' in

5 Proceedings of the First International Symposium on Environmental Law in Africa, 'Recommandations pour le renforcement de l'effectivité du droit de l'environnement en afrique' (2010) 1 Revue de droit de l'environnement en Afrique <https://www.ifdd.francophonie.org/media/docs/publications/656_RADE_no012014.pdf> accessed 15 April 2018.

6 Deuxième Colloque international sur le droit de l'environnement en Afrique, 'Rapport final et recommandations du Colloque droit de l'environnement en Afrique' (Deuxième Colloque international sur le droit de l'environnement en Afrique, Rabat, Maroc 25-27 juillet 2016) <https://www.ifdd.francophonie.org/ifdd/nouvelle.php?id=427> accessed 15 April 2018.

7 Michel Prieur, *Les indicateurs juridiques, outils d'évaluation de l'effectivité du droit de l'environnement* (Québec: Institut de la Francophonie pour le développement durable, 2018), <http://www.ifdd.francophonie.org/ressources/ressources-pub-desc.php?id=733> accessed 1 March 2019.

8 International Symposium on Effectiveness and Judicial Education of Environmental Law in Francophone Africa, 'A Communiqué on the outcome of the International Symposium on Effectiveness and Judicial Education of Environmental Law in Francophone Africa' (International Symposium on Effectiveness and Judicial Education of Environmental Law in Francophone Africa, Yaoundé, 5-7 February 2018) <https://www.iucn.org/fr/news/world-commission-environmental-law/201802/effectivité-et-éducation-judiciaire-du-droit-de-l'environnement-en-afrique-francophone> accessed 15 April 2018.

Spanish, which in turn both typically translate as 'efficiency'.[9] The latter obviously bears quite a different connotation: usually a rule is considered 'efficient' if it ends up being socially relevant and beneficial. 'Efficiency' refers to the useful impact of a legal norm on *society*, that is, its contribution to achieving a positive result that lies *outside* the legal system, whereas the 'effectivity' of law is measured *within* the legal system.

In this specific sense, 'effectivity' does not carry the same significance in domestic law and in international law. In domestic law, it is a non-legal concept questioning the conditions of application of the law.[10] In international law, it is a legal criterion conditioning the application of the law through identification of the subjects of law and the appropriation of territories.[11] To take 'effectivity' out of this conceptual elusiveness, it is necessary to develop legal indicators for its objective assessment, both in domestic law as well as in international law.

Premised on the findings of the aforementioned IFDD-sponsored study and on previous research by the International Centre for Comparative Environmental Law,[12] the present contribution to the essays in honour of Professor Charles Odidi Okidi advocates the setting up of science-based legal indicators that aim to evaluate accurately the effectivity of environmental law at national, regional and global levels.

II. THE NEED FOR ENVIRONMENT-SPECIFIC LEGAL INDICATORS

At present, official assessments of environmental policies through regular reports on the state of the environment do not allow the existence or the effectivity of environmental laws to be accounted for. These documents, whether national, regional or global, only refer to scientific, economic or social indicators. Legal indicators are never singled out for the simple reason that they do not yet really exist.[13] Such a glaring absence of law in formal state-of-the-environment reports leads policy makers and public opinion to underestimate or deny the weight of law and its usefulness. Lacking precise

9 For instance, in the 2015 Paris Climate Agreement and in Decision 1/CP.21 whereby it was adopted, the French and Spanish translations used for 'effective', 'effectively' and 'effectiveness' are systematically '*efficace*', '*efficacement*' and '*efficacité*' or '*eficaz*', '*eficazmente*' and '*eficacia*', except in a some cases. The same terminology is found in the English, French and Spanish versions of the 2030 Agenda for Sustainable Development, here again with a few exceptions.

10 Julien Bétaille, 'Les conditions juridiques de l'effectivité de la norme en droit public interne: illustrations en droit de l'urbanisme et en droit de l'environnement' (PhD thesis, Université De Limoges 2012).

11 Florian Couveinhes-Matsumoto, *L'effectivité en droit international* (Bruylant 2014); Rüdiger Wolfrum, *Means of Ensuring Compliance with and Enforcement of International Environmental Law* (Martinus Nijhoff Publishers, 2001).

12 The International Centre for Comparative Environmental Law, in brief CIDCE (*Centre International de Droit Comparé de l'environnement*), initiated a project in 2013 for the development of environmental legal indicators. The preliminary result of this initial effort was presented at the Meeting of the Focal Points of the Mediterranean Pollution Assessment and Control Programme (MED POL), held in Rome on 29-31 May 2017.CIDCE is an academic international NGO based in Limoges, France since 1982.Working towards the development of environmental law through a network of legal experts in 65 countries, it has consultative status with ECOSOC and observer status with the UN Environment Assembly and the *Organisation internationale de la Francophonie*, among others. Its website is at: <https://cidce.org> accessed 15 April 2018.

13 For instance, since 1992, the Organisation for Economic Co-operation and Development (OECD) has conducted over 90 Environmental Performance Reviews of its member and partner countries. While environmental law is generally mentioned in these reviews, it is not the subject of in-depth evaluations. See OECD, *Environmental Performance Reviews* (OECD 2017) <http://www.oecd.org/environment/country-reviews/OECD_Environmental_Performance_Reviews.pdf> accessed 15 April 2018.

data on the law as actually applied, decision-makers are somehow forced to act almost blindly.

Once established and operational, environment-specific legal indicators should represent key tools for rigorous evaluations of environmental policies. In turn, these assessments should help to draw the attention of policy makers, the public and its elected representatives to gaps in or regressions of the law. Appropriate legal indicators should also enable law enforcement officers and the public generally to be better informed about the extent to which environmental law is a contributing factor in the success or failure of environmental policies.

According to Antoine Jeammaud, a labour lawyer, the effectivity of law turns out to be a 'falsely simple' concept and its measurement should be seen as a 'primary task for legal sociology',[14] implying that the time has come for lawyers to take up the effectivity issue by looking for assessment indicators of a legal nature. In this connection, several scholars have recently reflected on whether and how law can be measured. In other words: can we measure the immeasurable in a scientific way?[15]

In exploring this question, Mathias M. Siems conceptualized what he termed the 'numerical comparative law' method. In this approach, he submits, apart from benchmarking (performance indicators), the types of indicators that can be combined for measurement purposes specially include: functional indicators for issues to be considered in a comparative law perspective; indicators to determine the quality of political institutions or judicial systems; and indicators to survey public and private perceptions of the conditions of law enforcement. Setting a numerical level of the effectivity of a piece of law, he concludes, would require the aggregation of performance figures and perception data. Hence, approaches such as 'numerical comparative law' appear to be unavoidable for proper measurement of law, quantitatively and qualitatively.[16]

However, few environmental legal texts, either domestic or international, explicitly allude to the need for such indicators. Country-level illustrations from Africa include the 2014 laws of Burkina Faso and Côte d'Ivoire on sustainable development, both prescribing the creation of specific indicators to monitor progress in attaining sustainable development,[17] as well as the Rwandan law on biodiversity of 2013, providing for invasive species control plans that include "indicators to measure progress

14 A Jeammaud, 'Le concept d'impact des normes sociales européennes, quels indicateurs?' in Centre de Recherche en Droit Social et l'Université Lumière Lyon (eds), *Impact et perspectives des normes sociales européennes - Egalité de traitement et restructurations dans neuf pays de l'Union européenne* (Centre de recherche en droit social 2005) <http://www.metiseurope.eu/content/pdf/n8/12_pinse.pdf> accessed 15 April 2018.

15 See the references cited by Mathias M Siems, 'Measuring the Immeasurable: How to Turn Law into Numbers' in Michael Faure and Jan Smits (eds), *Does Law Matter? On Law and Economic Growth* (Intersentia 2011) 115-136.

16 *Ibid*. The author discussed this approach at length in a previous paper: Mathias M Siems, 'Numerical Comparative Law -- Do We Need Statistical Evidence in Order to Reduce Complexity?'(2005) 13 Cardozo Journal of International and Comparative Law 521-540.

17 Pursuant to Burkina Faso's law, relevant actors should use such indicators to report actions undertaken in support of sustainable development: See Orientation Law on Sustainable Development in Burkina Faso (law No 008-2014 / AN of April 08th, 2014), art 9 <http://extwprlegs1.fao.org/docs/pdf/bkf139544.pdf> accessed 15 April 2018. Under the law of Côte d'Ivoire, the indicators should be used as "an assessment and decision support tool for measuring progress in the area of sustainable development": See Orientation Law on Sustainable Development of Cote d'Ivoire (Law W 2014-390 of 20 June 2014), art 1 <http://extwprlegs1.fao.org/docs/pdf/ivc140677.pdf> accessed 15 April 2018.

towards achieving objectives".[18] At the regional level, the 2008 Protocol on Integrated Coastal Zone Management in the Mediterranean requires parties to define suitable indicators to evaluate ICZM strategies, plans and programmes, along with progress in implementing the Protocol (Art. 18-4), but without specifying the scientific, socioeconomic or legal nature of such indicators. Globally, the 2006 International Tropical Timber Agreement calls for criteria and indicators to assess, monitor and promote progress towards sustainable forest management (Preamble, ¶ g), here again without characterizing the indicators as being scientific, economic, social, legal or otherwise. As it were, the indicators referred to in these cases seem to be more indicators of 'efficiency' than indicators of 'effectivity'.

With a view to forging environment-specific legal indicators, similar existing indicators were identified and reviewed for reference and inspiration, both outside and within the field of the environment. The results of this research, which revealed 36 indicator experiences, are summarized here selectively.[19]

III. INDICATORS NOT PERTAINING TO THE ENVIRONMENT

Some 14 categories of indicators not directly related to the environment have been identified. Examples of such indicators are outlined in this section, namely: Rule of Law Indices, Human Development Index, Human Rights Indicators, and the Ibrahim Index of African Governance.[20]

A. United Nations Rule of Law Index

In 2011 the Department of Peacekeeping Operations and the Office of the United Nations High Commissioner for Human Rights (OHCHR) published a set of 135 indicators focused on the delivery of criminal justice in conflict and post-conflict situations.[21] These rule of law indicators are intended to measure, through questionnaires, the capacity, performance, integrity, transparency and accountability of three key institutions: the police (41 indicators), the courts (51 indicators) and the prisons (43 indicators). Each rated indicator is expressed as a numerical value ranging from 1 to 4 – with 1 being the lowest negative score and 4 the highest positive score. While most indicators mirror the content of a legal rule, they do not directly characterize its implementation process and only reflect the respective roles of the institutions evaluated.

B. World Justice Project Rule of Law Index

Founded in 2006 by the American Bar Association, the World Justice Project (WJP) is a Washington-based non-profit organization mandated to advance the rule of law around the

18 Law Governing Biodiversity in Rwanda (No 70/2013 Of 02/09/2013), art 25-5 <http://extwprlegs1.fao.org/docs/pdf/RWA131764.pdf> accessed 15 April 2018.

19 For a full presentation of all those indicator initiatives, see Prieur (n 7).

20 Other indicator initiatives not covered here include: (i) indicators related to 'Law and Economics', such as the World Bank *Doing Business Index* and *Worldwide Governance Indicators*; (ii) labour indicators of the International Labour Organization; (iii) financial transparency indicators of the Global Transparency Initiative; (iv) rule of law indicators of the Vera Institute of Justice.

21 United Nations, *Rule of Law Indicators: Implementation Guide and Project Tools* (United Nations 2011) <http://www.un.org/en/events/peacekeepersday/2011/publications/un_rule_of_law_indicators.pdf> accessed 15 April 2018.

world.[22] Published annually, the WJP Rule of Law Index is a quantitative assessment tool designed to measure the extent to which countries adhere to the rule of law around nine factors: limited government powers; absence of corruption; order and security; fundamental rights; open government; regulatory enforcement; civil justice; criminal justice; and informal justice. They provide together, through a total of 47 performance indicators, a comprehensive picture of rule of law compliance. The 2016 edition of the Index ranks 113 countries based on an assessment of their compliance with the rule of law. Particularly relevant to this discussion, the regulatory enforcement factor is divided into five general indicators that seek to determine the effectivity of law enforcement, including in respect of environmental protection. However, no specific indicator addresses the legal conditions for environmental law enforcement.

C. Human Development Index

'Human development', a new approach for advancing human wellbeing, was introduced in 1990 by the UNDP's first Human Development Report (HDR).[23] Since then, HDRs have been published almost annually, each with a thematic focus. The Human Development Index (HDI), originally presented in the 1990 report and subsequently embodied in successive HDRs, is a summary measure of average achievements in three key dimensions of human development: health, assessed by life expectancy; knowledge, gauged by years of schooling; and decent standard of living, measured by gross national income per capita. The environment and sustainable development became stable entries of the HDRs as of 1992, to a greater or lesser extent depending on the years. For example, the 2011 HDR, sub-titled 'Sustainability and Equity', devoted a section on the constitutional recognition of the right to the environment, and environment-related indicators were incorporated in three of its 10 statistical tables.[24] However, these data were not used to try and measure the effectivity of the right to the environment.

D. Human rights indicators

Numerous initiatives on the possibility of measuring the application of human rights law through indicators have been taken over the years. As part of these efforts, OHCHR carried out several studies to develop evaluation indicators of the effective implementation of the International Covenant on Economic, Social and Cultural Rights. Their outcome was the publication in 2012 of *Human Rights Indicators: A Guide to Measurement and Implementation*.[25] Intended to better monitor state application of international conventions on human rights, such indicators have been initially tested in respect of certain rights that are somehow linked to the environment, like the right to life, the right to food and the right to health. They include three categories of indicators: (i) structural indicators reflecting the commitment to ratify a treaty and create the legal and institutional tools necessary

22 Juan Carlos Botero and Alejandro Ponce, 'Measuring the Rule of Law' (2011) 1 The World Justice Project: Working Paper Series.

23 A dedicated UNDP webpage on the HDRs is available: See UNDP, 'About Human Development' (*UNDP*) <http://hdr.undp.org/en/humandev> accessed 15 April 2018.

24 UNDP, *Human Development Report 2011-Sustainability and Equity: A Better Future for All* (UNDP 2011) <http://hdr.undp.org/sites/default/files/reports/271/hdr_2011_en_complete.pdf> accessed 5 April 2018.

25 OHCHR, 'Human Rights Indicators: A Guide to Measurement and Implementation' (2012) UN Doc HR/PUB/12/5 <http://www.ohchr.org/Documents/Publications/Human_rights_indicators_en.pdf> accessed 15 April 2018.

to implement it; (ii) process indicators measuring duty bearers' efforts to transform their human rights commitments into the desired results; and (iii) outcome indicators capturing individual and collective attainments that echo the level of enjoyment of human rights.

In this connection, various UN Special Rapporteurs on human rights called for the development of sector-specific human rights indicators in their respective work areas. For example, in 2015 the Independent Expert (then Special Rapporteur) on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment pointed to the growing relevance of environmental indicators for assessing the fulfilment of these rights. In his report on good practices, he noted the significance of such indicators particularly with regard to: procedural rights; public participation; environmental constitutionalism; compliance monitoring; and sustainability reports.[26] Furthermore, *Guidelines for the Preparation of Progress Indicators in the Area of Economic, Social and Cultural Rights* were produced in 2008 by the Inter-American Commission on Human Rights.[27] Covering structural, process and outcome indicators, this document is apparently the first to mention 'rights indicators', actually meaning legal indicators such as: constitutional recognition of rights; functioning of justice; institutions, programmes and services for rights enforcement; participation, transparency and accountability mechanisms.[28]

E. Ibrahim Index of African governance

The Mo Ibrahim Foundation was established in 2006 with a focus on governance and leadership in Africa.[29] Since 2007, it publishes the Ibrahim Index of African Governance (IIAG), an annual statistical tool that measures and monitors governance performance in African countries. Governance delivery is assessed across four components that provide indicators of a country's performance: safety and rule of law; participation and human rights; sustainable economic opportunity; and human development. In the 2017 IIAG report,[30] a total of 100 indicators provide quantifiable measures of the overarching dimensions of governance. There are nine 'welfare' indicators for the human development component, with two indicators on 'environmental sustainability' and on 'environmental policy', but environmental law is not considered as such.[31]

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26 United Nations Human Rights Council, 'Report Of The Independent Expert On The Issue Of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy And Sustainable Environment, John H. Knox - Compilation of Good Practices' (3 February 2015) UN Doc A/HRC/28/61.

27 OEA (Inter-American Commission on Human Rights), 'Guidelines for the Preparation of Progress Indicators in the Area of Economic, Social and Cultural Rights' (19 July 2008) OEA Doc No OEA/Ser.L/V/II.132, Doc. 14 rev. 1.

28 Other agencies working on human rights indicators include inter alia: (i) the European Union Agency for Fundamental Rights, tasked to monitor implementation of the EU Charter of Fundamental Rights (<http://fra.europa.eu/en> accessed 15 April 2018); (ii) the Venice Commission for Democracy through Law of the Council of Europe, which drew up a list of criteria regarding the rule of law that can serve as a theoretical reference base for the creation of environmental legal indicators (<http://www.venice.coe.int/webforms/documents/default.aspx?pdffile=CDL-AD(2016)007-e> accessed 15 April 2018).

29 Mo Ibrahim Foundation, 'Home' (*Mo Ibrahim Foundation*) <http://mo.ibrahim.foundation> accessed 15 April 2018.

30 Mo Ibrahim Foundation, *2017 Ibrahim Index of African Governance* (Mo Ibrahim Foundation 2017) <http://s.mo.ibrahim.foundation/u/2017/11/21165610/2017-IIAG-Report.pdf?_ga=2.194755693.1959711590.1523513508-1611990928.1523513508> accessed 15 April 2018.

31 An inventory of the world's governance indicators, conducted in 2003, identified at the time 47 tools for quantifying such indicators. See: Marie Besançon, *Good Governance Rankings: The Art of Measurement* (World Peace Foundation 2003). A list of similar online evaluation indicators is also provided by Paul Martin, Ben Boer and Lydia Slobodian (eds), *Framework for Assessing and Improving Law for Sustainability: A Legal Component of a Natural Resource Governance Framework* (IUCN 2015), Appendix 1.

IV. ENVIRONMENT-RELATED INDICATORS

Out of the 22 initiatives concerning these types of indicators that have been identified through this research, eight are described here, that is: EU indicators; IMPEL initiatives, OECD indicators, UN SDG indicators, ECLAC indicators, Mediterranean Sea indicators, TAI indicators, and INECE indicators.[32]

A. EU indicators

Adopted in 2010, the *Europe 2020 Strategy* is EU's current decade agenda for growth and jobs.[33] Among the nine headline indicators that support its monitoring, only one is related to the environment: the climate change and energy indicator, which has policy objectives to reduce GHG emissions by 20 per cent and to increase the share of renewable energy by 20per cent.[34] Still, there is no indicator for the environment in general, let alone a legal indicator. Yet, as rightly observed in its 7th Environment Action Programme to 2020,[35] the European Union has "a broad range of environmental legislation [...] amounting to the most comprehensive modern standards in the world". However, acknowledging the 'insufficient implementation' of existing legislation, the same document calls, as a matter of priority, for the maximization of its benefits by improving its implementation (Art. 2-1-d), which should be informed by "indicators used to monitor progress in achieving existing environment and climate-related legislation"(Art. 4). In this regard, the European Commission issued *Better Regulation Guidelines* covering the whole policy cycle – design, adoption, implementation, evaluation and revision.[36] Monitoring and evaluation arrangements include the definition of a set of indicators to measure the extent to which the objectives of community law have been achieved by member states. Nevertheless, such indicators are not explicitly qualified as 'legal'.

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32 Other indicators not described in this section include those developed by: (i) the European Environment Agency (<http://www.eea.europa.eu/publications/digest-of-eea-indicators-2014>); (ii) the European Network of the Heads of Environment Protection Agencies (<http://epanet.pbe.eea.europa.eu>); (iii) UNEP (<web.unep.org/geo>); (iv) FAO (<www.fao.org/3/a-x3307e.pdf>); (v) the World Bank (<http://datatopics.world>); (vi) the International Finance Corporation (<www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES>); (vii) Bertelsmann Stiftung and Columbia University (<http://datatopics.worldbank.org/sdgs>); (viii) the Praia Group on Governance Statistics (<https://unstats.un.org/unsd/methodology/citygroups/praia.cshtml>); (ix) Gerd Winter (<www.iucn.org/sites/dev/files/assessing_law_as_a_factor_toward_the_aichi_biodiversity_targets_0.pdf>); (x) Peter Sand (<www.researchgate.net/publication/311717128_The_Effectiveness_of_Multilateral_Environmental_Agreements_Theory_and_Practice?ev=prf_high>); (xi) Chris McGrath (<http://envlaw.com.au/wp-content/uploads/delw.pdf>); and (xii) Yale University, Columbia University and World Economic Forum (<www.researchgate.net/publication/308022559_Global_Metrics_for_the_Environment_2016_Environmental_Performance_Index_Report>).

33 European Commission, 'Europe 2020 Strategy' (*European Commission*) <https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy_en> accessed 15 April 2018.

34 European Union, *Smarter, greener, more inclusive? Indicators to support the Europe 2020 strategy* (European Union 2017) <http://ec.europa.eu/eurostat/documents/3217494/8113874/KS-EZ-17-001-EN-N.pdf/c810af1c-0980-4a3b-bfdd-f6aa4d8a004e> accessed 15 April 2018.

35 European Union, 'Decision 1386/2013/EU of the European Parliament and of the Council on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet" (20 November 2013) EU Doc No L 354/171 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013D1386> accessed 15 April 2018.

36 European Commission, 'Commission Staff Working Document: Better Regulation Guidelines' (7 July 2017*)* EU Doc No SWD (2017) 350 <https://ec.europa.eu/info/sites/info/files/better-regulation-guidelines.pdf> accessed 15 April 2018.

B. IMPEL initiatives

Established in 1992, the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an international non-profit association of the EU environmental authorities. Its main objective is to promote a more effective implementation of environmental legislation within the European Union.[37] To this effect, IMPEL developed in 2006 a *Checklist for Assessing Legislation on Practicability and Enforceability* in order to enhance environmental law implementation in the member states. Intended as a tool to assess practicability and enforceability issues in a structured way, the checklist helps to gather information that can improve the effectiveness of EU environmental legislation.[38] Under a project on Performance Indicators for Environmental Inspection Systems completed in 2012, IMPEL defined a list of indicators to assess the strength and weaknesses of environmental inspectorates, but without characterizing their effectiveness.[39] IMPEL also published in 2015 a study on the challenges faced in implementing EU environmental law. The report found that a major challenge to the effectivity of legislation is "insufficient data, evidence and information to support effective implementation". It therefore recommended that "self-assessment tools and indicators" be developed "to measure progress with implementation".[40]

C. OECD indicators

Through its Working Party on Environmental Information, OECD has a long history of work on environmental indicators.[41] However, it has not yet made active efforts at clearly linking law and indicators, including in the Environmental Performance Reviews of its member countries that have been regularly undertaken since 1992.[42] Although these appraisals usually cover various aspects of environmental law, the performance assessments they provide are not based on any specific legal indicators. From an environmental law enforcement perspective, OECD issued in 2009 a report on compliance in the area of pollution control, which signalled the desirability of developing a limited list of indicators to assess the performance of compliance assurance programmes that would lend themselves to comparative analysis and could be used for international benchmarking.[43] Although based on a legal review, the proposed indicators were not meant to be of a legal nature. This approach of designing quantitative indicators to assess

37 IMPEL, 'Home' (*IMPEL*) <https://www.impel.eu> accessed 15 April 2018.

38 Marc Pallemaerts, Patrick Brink, Andrew Farmer and David Wilkinson, 'IMPEL Project: Developing a checklist for assessing legislation on practicability and enforceability' (6-8 December 2006) IMPEL Report No 2006/15 <http://www.impel.eu/wp-content/uploads/2016/06/pe_checklist.pdf> accessed 15 April 2018.

39 IMPEL, 'Performance Indicators for Environmental Inspection Systems' (*IMPEL*) <https://www.impel.eu/projects/performance-indicators-for-environmental-inspection-systems> accessed 15 April 2018.

40 IMPEL, *Challenges in the Practical Implementation of European Union Environmental Law and How IMPEL Could Help Overcome Them* (European Union Network for the Implementation and Enforcement of Environmental Law 2015) 18.

41 OECD, *Environmental Indicators: A Preliminary Set* (OECD 1991); OECD, *Environment at a Glance 2015: OECD Indicators* (OECD, 2015).

42 OECD, 'About Environmental Performance Reviews' (*OECD*) <http://www.oecd.org/environment/country-reviews/about-env-country-reviews.htm> accessed 15 April 2018.

43 OECD, *Ensuring Environmental Compliance: Trends and Good Practices* (OECD 2009) <http://www20.iadb.org/intal/catalogo/PE/2009/03570.pdf> accessed 15 April 2018.

compliance of anti-pollution regulations was illustrated further in ensuing OECD studies of 2010[44] and 2011.[45]

D. United Nations SDG indicators

In adopting the 2030 Agenda for Sustainable Development in 2015 through Resolution 70/1,[46] the UN General Assembly (UNGA) prescribed a review the SDGs and their targets "using a set of global indicators", to be complemented by regional and national indicators. It also mandated the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) to develop a global indicator framework for subsequent endorsement by the UN Statistical Commission and adoption by UNGA.[47] Resolution 70/1 did not specify the nature of the indicators to be put in place, but invited member states to involve national parliaments in conducting regular reviews of progress on the SDGs.[48] An initial list of 232 indicators,[49] produced by the IAEG-SDGs and agreed by the Statistical Commission in March 2017, was adopted in July the same year by UNGA in Resolution 71/313.[50] The Statistical Commission was requested, through the IAEG-SDGs, to refine the global indicators annually and to review them compressively in 2020 and 2025.[51] Early efforts towards SDG implementation have been reported against selected indicators for which sufficient data exist.[52] For now, however, the SDGs remain orphaned by real legal indicators. SDGs 2, 3, 6, 7 and 11 to 16 are those most relevant to environmental issues and for which legal indicators ought to be worked out.

E. ECLAC indicators

The UN Economic Commission for Latin America and the Caribbean began in 2003 one of the first research studies on environmental indicators incorporating legal data, which focused on environmental standards for air, water and vegetation. The publication of its results for Brazil

44 Eugene Mazur, 'Outcome Performance Measures of Environmental Compliance Assurance: Current Practices, Constraints and Ways Forward' (2010) 18 OECD Environment Working Paper.

45 Eugene Mazur, 'Environmental Enforcement in Decentralised Governance Systems: Toward a Nationwide Level Playing Field' (2011) 34 OECD Environment Working Paper.

46 UNGA, 'Resolution adopted by the General Assembly on 25 September 2015' (21 October 2015) UN Doc No A/RES/70/1 <http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E>, accessed 15 April 2018.

47 UNGA (n 46) para 75.

48 UNGA (n 46) para 79. To support parliamentarians in assessing progress on the SDGs, the Inter-Parliamentary Union published in 2016 *Parliaments and the Sustainable Development Goals: A Self-assessment Toolkit* (<http://archive.ipu.org/pdf/publications/sdg-toolkit-e.pdf> accessed 15 April 2018. While recognizing the need for adequate indicators, this document does not qualify them as being legal or otherwise.

49 The full number of indicators in the global indicator framework is 244, but nine of them repeat under two or three different targets, so the actual total number of individual indicators is 232.

50 UNGA (n 46). The global indicator framework is appended to this resolution.

51 UNGA (n 46), paras 1, 3 of the resolution. At its meeting in November 2017, the IAEG-SDGs proposed four annual refinements for indicators 1.4.2, 6.2.1, 16.1.3 and 17.17.1; See: ECOSOC, 'Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators - Note by the Secretary-General' (19 December 2017) UN Doc No E/CN.3/2018/2. In March 2018, the Statistical Commission approved those proposed refinements; See: ECOSOC, 'Statistical Commission Report on the forty-ninth session' (6-9 March 2018) UN Docs E/2018/24-E/CN.3/2018/37.

52 United Nations, *The Sustainable Development Goals Report 2017* (United Nations 2017) <https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017.pdf> accessed on 15 April 2018.

in 2007[53] led to the setting up, under the Brazilian National Environment Council, of a working group aimed at establishing guidelines for the definition of indicators for enforcement of, and compliance with environmental standards, comprising entries on applicable legal rules. At the same time, following the creation of the Latin America and Caribbean Initiative for Sustainable Development in 2002, a Working Group on Environmental Indicators was set up in 2003.[54] Its mandate did not cover environmental law per se, but included relevant institutional aspects. In 2016, the Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean acknowledged the progress achieved by this working group and requested it to update existing indicators or propose new ones, taking into account "the science-policy interface on all issues related to sustainable development",[55] but without referring to any legal indicators.

F. Mediterranean Sea indicators

In 2016 the Parties to the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean adopted the *Mediterranean Strategy for Sustainable Development 2016-2025*,[56] whose implementation is to be monitored on the basis of 49 sustainability indicators.[57] Interestingly, seven of these indicators relate to legal matters, e.g. protected areas or threatened species mentioned in legal texts, and public participation mechanisms. To help monitor implementation of the Mediterranean Strategy, a compendium of indicator factsheets is progressively posted on its website. Some factsheets address legal issues such as compliance under the Barcelona Convention, the Aarhus Convention or World Heritage sites.[58] Although such indicators are purely quantitative and static, they represent a first step towards a real consideration of the law within the Mediterranean Strategy.

G. TAI indicators

Established in 1999, The Access Initiative (TAI) is a global network of 250 civil society organizations dedicated to promoting environmental democracy in the framework of Principle 10 of the 1992 Rio Declaration, with the World Resources Institute serving as its Secretariat.[59] As such, TAI supported

53 CEPAL, *Indicadores de aplicação e cumprimento da norma ambiental para ar, água e vegetação no Brasil* (United Nations 2007), <https://www.cepal.org/pt-br/publicaciones/3607-indicadores-aplicacao-cumprimento-norma-ambiental-ar-agua-vegetacao-brasil> accessed on 15 April 2018.

54 Graciela Metternicht and Johanna Granados, 'Environmental Indicators of the Latin American and Caribbean Initiative for Sustainable Development' (International Association for Official Statistics Conference, Santiago, October 2010), <www.researchgate.net/profile/Graciela_Metternicht/publication/301628036_ENVIRONMENTAL_INDICATORS_OF_THE_LATIN_AMERICAN_AND_CARIBBEAN_INITIATIVE_FOR_SUSTAINABLE_DEVELOPMENT_ILAC/links/571eb8bc08aeaced7889e74f/ENVIRONMENTAL-INDICATORS-OF-THE-LATIN-AMERICAN-AND-CARIBBEAN-INITIATIVE-FOR-SUSTAINABLE-DEVELOPMENT-ILAC.pdf> accessed 15 April 2018.

55 Decision 2 on indicators <http://www.pnuma.org/forodeministros/20-colombia/documentos.htm> accessed 15 April 2018.

56 UNEP, *Mediterranean Strategy for Sustainable Development 2016-2025: Investing in Environmental Sustainability to Achieve Social and Economic Development* (UNEP/Mediterranean Action Plan 2016) <https://planbleu.org/sites/default/files/publications/mssd_2016-2025_final.pdf> accessed 15 April 2018.

57 UNEP, 'Mediterranean Sustainable Development Dashboard' (27 June 2017) UN Doc No UNEP (DEPI)/MED WG.441/Inf.3 <https://wedocs.unep.org/bitstream/handle/20.500.11822/21191/17wg441_inf3_eng.pdf?sequence=1&isAllowed=y> accessed 15 April 2018.

58 UNEP, *Monitoring the implementation of the Mediterranean Strategy for Sustainable Development 2016-2025* (Plan Bleu 2017) <http://obs.planbleu.org/images/recueils/en/PDF/suivi_SMDD_EN_13avril2017_web.pdf> accessed 15 April 2018.

59 The Access Initiative, 'The Access Initiative' (*Access Initiative*) <http://www.accessinitiative.org> accessed 15 April 2018.

the development process of the Escazú Regional Agreement on Access to Information, Participation and Justice in Environmental Matters in Latin America and the Caribbean, adopted on 4 March 2018.[60] Under this new convention, parties are urged to encourage independent environmental performance reviews that take into account 'common indicators' for the evaluation of "the efficacy, effectiveness and progress" of their national environmental policies (Art. 6-8). Earlier in 2015, TAI launched the *Environmental Democracy Index* (EDI), a virtual platform that tracks progress in enacting laws on public engagement in environmental decision-making.[61] EDI consists of 75 legal indicators and 24 practice indicators developed under the 2010 UNEP Bali Guidelines. While legal indicators measure the strength of law, practice indicators provide insight on implementation performance.[62] Designed to evaluate the legal texts governing environmental management, pollution control, terrestrial biodiversity and extractive industries, those legal indicators do not cover marine, coastal, fisheries and energy laws. They have four scoring options, ranging from 0 (lowest) to 3 (highest). The scores are arithmetically averaged to generate a country's overall score.[63]

H. INECE indicators

Founded in 1989, with the Environmental Law Institute as its secretariat, the International Network for Environmental Compliance and Enforcement (INECE) is an informal partnership of enforcement and compliance practitioners from more than 150 countries that contribute to the rule of law, protection of ecosystem integrity and sustainable use of natural resources through effective implementation of environmental laws at global and domestic levels.[64] At its sixth conference held in 2002, INECE was requested to assist in developing environmental compliance and enforcement (ECE) indicators. It formed a working group to help with their design, which met in 2003 to agree its roadmap for the process,[65] and later produced a guide to support practitioners in identifying and implementing ECE indicators.[66] The Strategic Implementation Plan 2006-2009 of INECE, adopted at its seventh conference in 2005, encouraged the creation of specific indicators to measure compliance and enforcement of environmental standards. In 2008, INECE's eighth conference further called for the development of performance measures, including indicators of effective compliance and enforcement of environmental law. However, despite intensive follow-up work, INECE has not yet really tackled the issue of legal indicators.

60 CIDCE also contributed inputs to this process at two meetings of the Negotiation Committee held in Buenos Aires and Brasilia in 2017.

61 EDI, 'Environmental Democracy Index' (*EDI*) <http://www.environmentaldemocracyindex.org> accessed 15 April 2018.

62 WRI, *Measuring, Mapping, and Strengthening Rights: The Environmental Democracy Index* (World Resources Institute 2015) <www.accessinitiative.org/sites/default/files/edi_brochure_english_10_2015.pdf> accessed 15 April 2018.

63 Jesse Worker and Lalanath De Silva, 'The Environmental Democracy Index' [2015] World Resources Institute: Technical Note <www.environmentaldemocracyindex.org/sites/default/files/files/EDI_Technical%20Note%20Final%207_9_15.pdf> accessed 15 April 2018.

64 UN, 'International Network for Environmental Compliance and Enforcement (INECE)' (*United Nations: Partnerships for the SDGs)* <https://sustainabledevelopment.un.org/partnership/?p=2211> accessed 15 April 2018; Basel Convention, 'Fact Sheet: International Network for Environmental Compliance and Enforcement (INECE)' (*Basel Convention*) <www.basel.int/Default.aspx?tabid=2920> accessed 15 April 2018.

65 INECE Expert Working Group on Environmental Compliance and Enforcement Indicators, 'Workshop on Environmental Compliance and Enforcement Indicators: Measuring What Matters' (INECE-OECD Workshop: Discussion Paper, Paris, 22 October 2003) < https://www.oecd.org/env/outreach/26739891.pdf > accessed 15 April 2018.

66 INECE, *Performance Measurement Guidance for Compliance and Enforcement Practitioners* (2nd edition, INECE 2008).

I. Conclusions

Some conclusions can be drawn from the above summary account of indicator experiences:

(i) Although numerous lawyers have reflected on the effectivity of environmental law, 'measuring' the conditions of its enforcement has not yet been seriously considered;

(ii) Outside the environment, two sectors have been the subject of significant studies and tests related to legal indicators: human rights and the rule of law;

(iii) The very term 'legal indicator' is rarely used in literature and was found only a few times through this research on indicators, e.g. in the 2008 guidelines of the Inter-American Commission on Human Rights or the 2015 index of The Access Initiative;

(iv) While major studies on environmental law evaluation generally cover three levels – global, regional and national – legal indicators should be dealt with separately at the international and domestic levels; and

(v) Legal indicators of effectivity can only be relevant if they complement purely legal data with institutional and social behavioural data.

V. THE QUEST FOR ENVIRONMENT-SPECIFIC LEGAL INDICATORS

In light of these findings, an effort was made to design, on an experimental basis and subject to peer-review and scientific validation, an initial set of legal indicators on the effectivity of environmental law. Based on Julien Bétaille's PhD thesis,[67] 127 legal indicators have been identified in theory, and preliminarily articulated in 17 indicator sheets, including eight for international law and nine for domestic law. At this stage, the proposed indicators are enunciated but not measured. Measuring their respective weight requires further work, to be carried out with strong inputs of a non-legal nature by mathematicians and statisticians.

The suggested indicators have been tested, through detailed questionnaires, by environmental law experts from four pilot French-speaking countries, selected on the basis of balanced geographical representation from North, Central, East and West Africa, namely: Benin, Cameroon, Madagascar and Tunisia. The indicators put forward are of two types: general indicators and special indicators.

A. General indicators

While past work on the effectivity of environmental law has focused more on international law than on national law, the proposed general indicators cover the national, regional and global levels. The indicators related to international law include those linked to environmental treaties and those connected with the SDGs.

67 Bétaille (n 10).

1. Indicators linked to environmental conventions

This first list of indicators is intended to assess the legal factors contributing to the effective enforcement of the legal requirements set out in international conventions. To be complete, additional factors regarding the effectivity of the general principles of international law, of customary international law, of soft law instruments, and of international case law should also be developed.

Formulated in plain terms, these indicators are meant to be handled by lawyers familiar with the jargon used. They aim to assess the formal mechanisms and procedures that make it possible to consider that the evaluated convention is actually applied. The convention's substantive content is not addressed. The formal issues covered are clustered around: (i) institutional matters (secretariat, conference of parties, national focal points); (ii) implementation monitoring (reporting system, compliance committee); and (iii) dispute settlement (arbitration, recourse to the International Court of Justice). A yes/no answer allows a simple and fast treatment of the questions asked under each cluster of issues.

2. Indicators connected with the SDGs

The political, strategic and financial importance of the SDGs, adopted in 2015 as part of the 2030 Agenda for Sustainable Development, is reflected in the need to closely monitor their implementation both internationally and domestically. The tools of SDG implementation should surely include the law, especially environmental law. However, the targets of the 17 SDGs pay minor attention to the law. Only human rights and the rule of law are referred to as basic requirements, while environmental law is not specifically mentioned.

On the other hand, as indicated, a robust global indicator framework was formally agreed in 2017 to support monitoring of progress on the SDGs. Through this quest of environment-specific legal indicators, the global indicator framework could be enhanced by strengthening the role of environmental law as an operational tool for sustainable development. Among the 17 SDGs, those with the most environmental linkages and with the highest demands for legal implementation are SDGs 2, 3, 6, 7 and 11 to 16. Proposed draft indicators have been sketched out by the experts from the four African countries associated with this study, which could serve as a basis for future collaboration with the UN Statistics Division and the Statistical Commission to develop appropriate legal indicators for environment-related SDGs.

3. Indicators related to national law

Owing to the existence of a sizeable number of international treaties on the environment, the important question of the effectivity of international law in domestic national law needs to be tackled. The indicators envisaged in this regard address the following matters: (i) ratification process; (ii) incorporation into national law; (iii) national implementation of international conventions; (iv) NGO involvement and public participation; (v) national applicability of customary international law; (iv) non-legal conditions of effectivity (e.g., readability or understanding; technical capacity; pressure from interest groups to prevent enforcement).

To develop these indicators, the 11 criteria of the effectivity of domestic law set forth by Julien Bétaille in his thesis,[68] as outlined in the following Box 13.1, served as a theoretical reference.

Box 13.1: Criteria for effectivity of domestic law

1 Indicators related to the internal coherence among legal systems
2 Indicators related to the coherence of the national legal system
3 Indicators related to the sanction of national norms
4 Indicators related to the judicial review of the legality of national norms
5 Indicators related to the liability of public authorities for breaching environmental law rules
6 Indicators related to the knowledge of the norms
7 Indicators related to the quality of the norms
8 Indicators related to the legitimacy of the norms
9 Indicators of implementation of the norms
10 Indicators of reception of the norms by their addressees
11 Indicators of reception of the norms by the courts

As environmental law is a complex set of interconnected legal instruments, the value scale of its various branches was also considered. Each state, according to its culture, its resources and its level of development, has different priorities in terms of legal protection of the environmental. Hence, it seemed pertinent to put together, as an indicator of a state's ecological sensitivity, a list of areas of environmental law to be ranked in order of importance. The experts from the four African states who contributed inputs to this study were invited to grade those areas hierarchically, according to their perceived legal benefit for a better environment in their country, which made it possible to test the relevance of the suggested indicator model through a sample of informed respondents.

The proposed ecological sensitivity list contains approximately 30 areas of environmental law, including the following: environment in the constitution; Minister of the Environment;

68 *Ibid.*

information and the environment; participation and the environment; EIA law; law on pure ecological damage; law on liability for damage caused by pollution; law on nature protection and biodiversity; forest law; law on soils; coastal zone management law; mountain law; hunting law; fisheries law; climate change law; pollution law; law on wastes; law on chemicals; law on air pollution; law on water pollution; law on noise; law on genetically modified organisms; landscape law; law on cultural and historical heritage; land use planning law; law on natural disasters; nuclear law; and law on energy efficiency and renewable energies. Besides statutory law, pertinent customary rules should also be considered in view of their continued relevance for the environment, particularly in Africa.

Using the proposed legal indicators, together with non-legal indicators to assess the causes of non-effectivity of the law, an overall evaluation of the effectivity of environmental law at the national level can be undertaken. Such assessment is intended to provide a global vision of the effectivity of environmental law in a given state, with a view to setting priority action areas for improved effectivity in environmental law. Three entries were selected for this process: (i) institutions (e.g., line ministry, environment agency, commission or committee; inter-ministerial body); (ii) legal instruments (e.g., environmental code, environmental plan); and (iii) judicial system (e.g., access to justice, free legal aid, environmental law cases, environmental courts). As to non-legal factors limiting effective enforcement, they include: poverty, corruption, political patronage, administrative instability, technicality of the norms, and lack of NGOs, among others.

B. Special indicators

As Chris McGrath put it, evaluating the effectivity of environmental law is a 'Herculean task'.[69] Indeed, the development of legal indicators for the whole of environmental law is clearly a massive effort requiring extensive collective work. Thus, only a limited number of environmental law tools and sectors were chosen for the purposes of this study. Since environmental law is both national and transnational, the legal indicators address both levels. In international law, two global treaties and four regional conventions were selected to examine their effectivity at country level. In national law, besides some general principles of environmental law, two special topics were picked out: protected areas and EIAs.

1. Assessing domestic implementation of international conventions

The legal indicators' first focus is on the effectivity of national implementation of two global treaties: the Ramsar Convention on Wetlands of International Importance and the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage. Next is the evaluation of the effectivity in national law of four regional conventions of relevance to the four countries involved in this research: the Algiers/Maputo African Convention on the Conservation of Nature and Natural Resources; the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean; the Abidjan

69 Chris McGrath, *Does Environmental Law Work? How to Evaluate the Effectiveness of an Environmental Legal System* (Lambert Academic Publishing 2010).

Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region; and the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region.

The indicator model is the same for all selected conventions, as the legal issues linked to their effectivity are identical. The following elements are proposed as legal indicators: (i) legal existence of the convention (signature, ratification, publication); (ii) applicability of the convention (instrument of incorporation in domestic law); (iii) organic content (implementation institutions and procedures); (iv) substantive content (legal measures taken to implement the substantive provisions);70 (v) enforcement conditions (control bodies, assigned officers, allocated budget, penalties provided, remedies available, court decisions); and (vi) non-legal factors hindering implementation (poverty, corruption, political instability, etc.).

2. Assessing the effectivity of national law

Five evaluation areas relating to the general principles of environmental law, both in legislation and in judicial decisions, have been selected for effectivity evaluation purposes, that is: (i) the environment in the constitution; (ii) the right to information; (iii) the right to public participation; (iv) access to environmental justice; and (v) the non-regression principle. In addition to these, two sectoral fields are also to be assessed: (i) protected natural areas; and (ii) EIAs of projects and activities that are harmful to the environment.

For each evaluation area, the indicators seek to address the following six questions: (i) Does the right in question exist? (ii) Is this right applicable? (iii) What is its institutional framework? (iv) What is its substantive content? (v) Is it enforced by the courts? (vi) What are the non-legal factors obstructing its implementation?

VI. PROSPECT

Environmental law, more than other legal disciplines, tends to deliberately display its concern for effectivity, as if its enforcement represented an urgent social imperative. However, while no one is unaware that, for more than half a century, countless national laws and international treaties dealing with the environment have burgeoned across the globe, who can today confidently explain why, here and there, the state of the environment has sometimes improved, sometimes deteriorated, owing to the implementation of such laws and treaties or lack thereof, or even independently of their existence?

In trying to contribute to closing this knowledge gap around the effectivity of environmental law, an attempt was made through the pilot study portrayed here to develop a preliminary list

70 With regard to the substantive content entry, convention articles for which implementation indicators are foreseen are as follows: (i) Ramsar Convention, arts 1-5; (ii) UNESCO Convention, arts 1-6; (iii) original Algiers Convention: arts 2-15; revised Maputo Convention, arts 2-21; (iv) Barcelona Convention, arts 1-15; (v) Abidjan Convention, arts 1-11 and 13; and (vi) Nairobi Convention, arts 1-10 and 13.

of 127 proposed legal indicators intended to objectively measure the range of factors affecting the effective implementation of environment-related legal instruments, be they domestic or international.

Considering the novelty of this issue in theory and practice, coupled with the wide scope and inherent complexity of environmental law, the initial set of proposed legal indicators was put forward on experimental grounds. Although peer-reviewed provisionally in early 2018, the future indicators need further elaboration and validation. In particular, beyond their intrinsic formulation, the method to be used for their measurement is yet to be fully worked out.

In reviewing the existing indicator experiences, surprisingly no detailed discussion of the methods employed to convert the data collected into indicators was found, as if that information needed to be kept confidential as trade secrets. In the present case, the measurement method of the legal indicators is work in progress. Requiring the involvement of mathematicians and statisticians, together with environmental lawyers, it should constitute a three-phase process of design, testing and implementation.

The initial design phase comprises: (i) collection of the raw data gathered by the lawyers from the four African countries associated with the study, followed by their interpretation, classification and weighting in order to define the measurement system scales; (ii) analysis of the quantitative and qualitative data collected, sample validation for each data class to ensure representativeness of the measure and gauging of uncertainty by data class, eventually leading to data aggregation; (iii) finally, representation of the legal indicators allowing the results to be shown in terms of their effectivity.

The ensuing testing phase includes: (i) training of lawyers on legal data collection to help them grasp and use the measurement system; (ii) delineation of the sampling perimeter to either confirm or broaden the areas covered by the legal indicators, and thereafter digitalization of data collection and analysis; (iii) final validation of the measurement system, with any methodological adjustments, and then drafting of its reference framework.

The last implementation phase consists of: (i) overall use of the effectivity assessment tools for all international environmental agreements; (ii) progressive extension of the evaluation exercise to domestic environmental law in all African countries, then gradually worldwide; (iii) full integration of the legal indicators into national and international assessment reports on the state of the environment, bringing about accordingly a global harmonization of all indicators.[71]

The innovative creation of such science-based legal indicators will make it possible to recognize and measure effective application of environmental law. It can also help to invigorate environmental law at a time when, in many countries, the proliferation of environmental norms has given rise to critical voices of an alleged 'punitive ecology', which often ask for the abolition

71 Christophe Bastin, an expert mathematician, assisted with the conceptualization of the measurement method. His support is gratefully acknowledged.

or oversimplification of environmental laws, thus running a serious risk of regression in the ambitions and achievements of the environmental policies put in place from the 1970s to the 1990s. To be able to track this threatening regression of environmental law, it is essential to give greater visibility to the steady progress it keeps accomplishing, making good use of proper legal indicators to this end.

Important as they may be, such legal indicators are merely a source of information for better decision-making and cannot in any way be seen as having a legally binding effect on policy makers or judges. Nor can they be viewed as a miracle solution to fill the enforcement gaps in environmental law that, to varying degrees, are the common lot of all countries. They represent, though, a crucial evaluation tool allowing to:

- make the role of law in environmental policies readable and discernible;
- demonstrate the usefulness of environmental law at a time when it is called into question;
- assess, quantitatively or qualitatively, the extent to which environmental law is complied with;
- give the public a concrete perception of the effectivity level of existing environmental law;
- provide evidence-based insight on the enforcement level of international treaties and domestic laws to members of parliaments, government officials and other policy makers to support them in conducting reform processes of environmental legislation;
- aggregate legal indicator data with scientific indicator data in order to assess the effectiveness of environmental policies, that is: the adequacy of the objectives pursued in relation to the results achieved.

The benefits derived from the creation of legal indicators that actually measure the effectivity of environmental law should be all the more valued as the cost of non-compliance with existing laws is considerable. In the European Union, for example, it has been estimated at around a staggering Euro 50 billion a year.[72] Hence, costing the effectivity – or lack thereof – of environmental law, based on reliable legal indicators, does make a great deal of economic sense.

By assessing the effectivity of environmental law through suitable legal indicators, countries will be able both to enhance their performance in implementing existing legislation as well as to target the priority legal reforms to be carried out, thus continuously improving the legal frameworks for environmental protection. This will ensure progression and avoid regression of environmental law, a prerequisite to sustaining livelihoods in harmony with nature.

72 IMPEL (n 40) 11.

Part IV.
Law of the Sea, International Environmental Law and Water Law

Chapter 14

Contribution of the United Nations Environment Programme (UNEP) to the Development of International Environmental Law

Iwona Rummel Bulska

I. INTRODUCTION

In 1970s environmental law and institutional structuring for environment protection became an important matter for most developed countries. Many of them have developed national legislation and established national institutions/ministries for protection of environment and the prevention of pollution. The same process was followed by developing countries in 1980s. The United Nations Environment Programme (UNEP), established in 1972 by the UN Stockholm Conference on Human Environment,[1] was instrumental in assisting several developing countries in the development of their national legislation in the field of environmental protection.

Since the 1970s, UNEP has developed a number of guidelines and principles in the field of environmental law, followed by negotiations and adoption of several conventions,[2] agreements[3] and protocols.[4] Over 10 non-binding guidelines,[5] principles,[6] and action plans[7] have been negotiated and adopted under the auspices of UNEP, setting up a series of important principles and rules in environmental management and use of natural resources. In several cases, the

1 'Background – United Nations Environment – Finance Initiative' (*Unepfi.org*, 2018) http://www.unepfi.org/about/background/ accessed 13 November 2018.

2 Examples include; The Convention on Biological Diversity , The Convention on International Trade in Endangered Species of Wild Fauna and Flora, The Minamata Convention on Mercury, The Basel, Rotterdam and Stockholm Conventions, The Vienna Convention for the Protection of Ozone Layer and the Montreal Protocol, The Convention on Migratory Species, The Carpathian Convention, The Bamako Convention, The Tehran Convention

3 For instance, The Paris Agreement, adopted in 2015

4 For Instance The Vienna Convention for the Protection of Ozone Layer and the Montreal Protocol, Kyoto protocol, Montreal Protocol,

5 For instance, Agenda 21, Bali Guidelines, Cairo Guidelines

6 Principle 10, The Equator Principles, Principles of Environmental Impact Assessment etc.

7 For instance: Zambezi River Action Plan, Mediterranean Action Plan (MAP), Global Programme of Action (GPA)

complicated titles[8] of these legal instruments indicate how difficult it was to agree on their scope and measures in spite of their non-binding character.

II. ENVIRONMENTAL SOFT LAW: GUIDELINES AND PRINCIPLES

'Soft law' is a term used to distinguish less formal agreements, such as codes of conduct, guidelines, principles and plans of actions.[9] Codes of conduct from legally binding agreements are called 'hard law'.[10] 'Soft law' has been enacted when governments were not yet ready to enter into binding agreements. Soft law includes agreed and adopted, but not signed and ratified by governments guidelines, principles, charters, codes of conducts, action plans among others, which can guide action by the countries without 'hard' commitments and ratifications by parliaments.[11] Many such 'soft law' legal instruments have been developed and adopted by UNEP covering for instance shared natural resources, off-shore mining and drilling, exchange of information on chemicals in international trade, environmentally sound management of hazardous waste, marine pollution from land-based sources, weather modification, and environmental impact assessment as well as the forestry principles adopted by the UNCED. The 'soft law' instruments require neither signature nor ratification and are usually immediately implemented. In UNEP practice, the 'soft-law' instruments often eventually evolve into legally binding agreements. This was the case with the Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes,[12] which was the basis for the Basel Convention on the Control of Transboundary Movement of Hazardous Waste and Other Wastes and Their Disposal[13] as well as Chemicals Guidelines evolving into Stockholm[14] and Rotterdam[15] conventions.

In the case of treaties dealing with areas subject to frequent changes in technology and the rapid advance in scientific knowledge, the delegated lawmaking approach permits an intergovernmental body -- Conference of the Parties -- to revise the convention without the need for ratification by the parties. An example is the option for adoption of revised control measures of ozone depleting substances of the Montreal Protocol on Substances that Deplete the Ozone Layer.[16]

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8 For instance, Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

9 Kenneth W Abbott and Duncan Snidal, 'Hard And Soft Law In International Governance' (2000) 54 International Organization.

10 ibid

11 Jon Birger Skjærseth, Olav Schram Stokke and Jørgen Wettestad, 'Soft Law, Hard Law, And Effective Implementation of International Environmental Norms' (2006) 6 Global Environmental Politics.

12 Decision 14/30 of the Governing Council of UNEP, 1987

13 Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and Other Wastes and Their Disposal (adopted 22 March 1989 entered into force 5th May 1992) 57 UNTS 1673

14 Stockholm Convention on Persistent Organic Pollutants(adopted 22nd May 2001 entered into force 17th May 2004) 119 UNTS 40214 Vol. 2256, C.N.531.2001

15 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (adopted 10 September1998) 337 UNTS 39973 Vol. 2244, CN 846.2002

16 Montreal Protocol on Substances That Deplete the Ozone Layer, (adopted 16 September1987, entered into force 26 August 1989), 3 UNTS 1522 Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (adopted

A. Principles on transboundary/shared natural resources

The 1972 Stockholm Declaration touched on the transboundary natural resources in its Principle 21 declaring that: "States have ... the sovereign right to exploit their own resources, pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction." And in its Principle 22 by which states agreed to "cooperate to develop further the international law regarding liability and compensation for victims of pollution and other environmental damage." Stockholm Principles[17] were reaffirmed in 1992 during the United Nations Conference on Environment and Development (UNCED) by adoption of the Principles 2 and 13 of the Rio Declaration.[18] Principle 2 repeats Principle 21 of the Stockholm Declaration. In Principle 13, states further agreed to "develop national law regarding liability and compensation for the victims of pollution and other environmental damage ... and to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control...".

It was also in response to the Stockholm Declaration and the UNGA Resolution that in 1976 UNEP established a legal group of experts which developed draft principles on shared natural resources (1976-1978). Government experts who met under the auspices of UNEP found the negotiations over Principles as difficult as negotiations for a legally binding agreement. Draft text of the Principles of Conduct in the Field of the Environment for Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States,[19] referred to in short as Guidelines on Shared Natural Resources, were presented for their adoption to the UNEP Governing Council. This created a political crisis at the council meeting resulting in the Brazilian delegation leaving the conference room in protest (at that time Brazil and Argentina were in an acute conflict over use of La Plata River, which they share).

The UNEP Governing Council eventually adopted the Principles in 1978. States were requested "to use the principles as guidelines and recommendations in the formulation of bilateral or multilateral conventions regarding natural resources shared by two or more states on the basis of the principles of good faith and in the spirit of good neighbourliness and in such a way as to enhance and not to affect adversely development and the interests of all countries and in particular of the developing countries." [20]

Principle 6 required that every sharing state notify others in advance of any plans to begin or change its use or conservation of the resource if this will significantly affect other states' environment, and

15th October 2016) Kigali

17 Declaration of the United Nations Conference on the Human Environment, July 1972

18 Rio Declaration on Environment and Development, 14 July 1992

19 Principles of Conduct in the Field of the Environment for Guidance of States in the Conservation and harmonious Utilization of Natural Resources Shared by Two or More States (adopted 1978)

20 ibid, explanatory note

upon request enters into consultations regarding its plans, providing any additional information requested if the state has not furnished such advance notice, it must upon request consult with states that may be affected. Principle 9 emphasized that states have an urgent duty to inform other states that may be affected by any emergency situation arising from use of a shared natural resource, or from sudden natural events related to the resource that may cause harmful effects on their environment. Further, Principle 13 required that domestic environmental policy take into account the potential adverse environmental effects of use of shared natural resources, whether the effects were in their jurisdiction or outside it.

B. State responsibility, compensation and liability for environmental damage

The Governing Council of UNEP established a Working Group on State Responsibility and Compensation for Environmental Damage in 1976 with a view of implementing Principles 21 and 22 of the Stockholm Declaration. Unfortunately, the group, in light of the position taken by a majority of countries participating in its work towards this matter, proposed to change its task. Eventually the Working Group changed its focus from state responsibility and compensation for environmental damage to the issue of prevention and specifically decided to concentrate on the environmental matters related to offshore mining and drilling. Although some points in the finally developed and agreed Guidelines on Offshore Mining and Drilling adopted by the Governing Council of UNEP in 1982 contained some recommendations on state responsibility and liability and compensation for environmental damages, the main issues of responsibility of states and liability and compensation for environmental damage were left unaddressed. For example, Paragraph 34 of these Guidelines provides in very general language that "States should adopt appropriate measures for the determination of damage suffered as a result of operations and liability, therefore, as well as for the payment of prompt and adequate compensation for such damage. There should be appropriate arrangements for the award and payment of compensation when damage is suffered outside their respective jurisdiction." The rest of the guidelines mirror this generality by using language such as 'by appropriate means' and providing that exceptions to or modifications of liability may be made, *inter alia*, when damage results from circumstances of an "exceptional inevitable and irresistible character".

Many years passed and in the 2000s, UNEP again embarked on the matter of liability and compensation for environmental damage. Eventually, in January 2007, UNEP called a meeting of the Advisory Expert Group Meeting on Liability and Compensation for Environmental Damage. The meeting recognized the basic principle in the matter that is the Polluter-Pays-Principle (PPP). It recommended further preparation of guidelines, which were however limited only to the development of national legislation on environmental liability and compensation. Once developed, these guidelines were to be used in developing liability rules, including liability insurance systems, in countries that had not yet adopted a system of environmental liability and compensation. Eventually, the guidelines concentrated on Liability, Redress and Compensation for Damage caused by Activities Dangerous to the Environment and were submitted to the UNEP Governing Council for adoption. In February 2010, the Governing Council of the United Nations Environment

Programme by Decision SS.XI/5 (part B) adopted the UNEP Guidelines for the Development of Domestic Legislation on Liability, Response Action and Compensation for Damage Caused by Activities Dangerous to the Environment.[21] The purpose of the guidelines was to highlight core issues that states have to resolve should they choose to draft domestic laws and regulations on liability, response action and compensation for damage caused by activities dangerous to the environment. The guidelines discuss key elements for possible inclusion in any such domestic legislation and offer specific textual formulations for possible adoption by legislative drafters. It was envisaged that they would be of assistance to, in particular, developing countries and countries with economies in transition, in devising, as they deemed appropriate, domestic legislation or policy on liability, response action and compensation.

A similar process related to the development of legal rules on the matter of state responsibility, liability and compensation for environmental damage as in UNEP, were also observed in the work of the International Law Commission (ILC). The reason behind shifting away from developing an international legal regime on state responsibility, liability and compensation for environmental damage was the argument that the main issue for the international community was the prevention of environmental damage and that this should be considered and dealt with as a matter of priority. Eventually the subject of state responsibility and compensation for damages caused to the environment was replaced simply by liability and compensation. It appeared quite clear that no country wanted to approach the matter of responsibility of the state for damages caused to the environment (only in one case, namely after the invasion of Kuwait by Iraq did the Security Council of the United Nations adopt Resolution 687, which dealt with state liability for environmental damage. Resolution 697 clearly stated that "Iraq … is liable under international law for any direct loss, damage including environmental damage and the depletion of natural resources … as a result of [its] unlawful invasion and occupation of Kuwait." This was the first and until now, the only time when the Security Council considered the issue of liability and compensation for environmental damage. This Resolution also provided for the establishment of a fund to pay compensation for claims and further on establishment of the United Nations Compensation Commission (UNCC) to administer this fund.

C. Guidelines on offshore mining and drilling

Apart from the elements described above on liability and compensation in cases of environmental damage, the guidelines on offshore mining and drilling, officially titled, Conclusions of the Study of Legal Experts Concerning the Environment Related to Offshore Mining and Drilling within the Limits of National Jurisdiction, were adopted by UNEP Governing Council in 1982. They emphasized Principle 21 of the Stockholm Declaration for the first time and also provided guidance on how to perform an environmental impact assessment (EIA). The guidelines attempted to formalize the management of offshore exploration and drilling for oil and other minerals to minimize pollution and other harmful results. They urged states to adopt laws regulating these activities. They included recommendations for assessment of environmental effects and advance notice measures.

21 Adopted by the Governing Council of the United Nations Environment Programme in Decision SS.XXI/5 in 2010

D. Guideline provisions for cooperation between states in weather modification

Weather Modification Guidelines adopted by the UNEP Governing Council in 1980 required early notification of any planned practices that might affect other states. EIAs appeared for the first time in this agreement, much predating the Governing Council's 1987 Environmental Impact Assessment Principles. The requirement that "states should ensure that an assessment is made of the environmental consequences of prospective weather modification activities under their jurisdiction or control which are likely to have an effect on areas outside their national jurisdiction, and either directly or through the World Meteorological Organization, make the results of such assessments available to all concerned states". States were also to notify potentially affected states and to enter into 'timely consultation' with them.

E. The Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-based Sources

In 1985, the UNEP Governing Council adopted the Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources, which had taken over two years of negotiations. They included elements from Principle 21 of the Stockholm Declaration and established rules on cooperation around this very acute problem. They also created the base for development of the Global Action Plan for Cooperation in the field of Pollution of Oceans from Land Based Sources (which account for over 80% of global pollution of the seas.) A legally binding global treaty should cover the area but that has not yet materialized.

F. Goals and principles of Environmental Impact Assessment (EIA)

The Goals and Principles of EIA were adopted by UNEP in 1987. These principles were largely used in developing the 1991 Convention on EIA in a Transboundary Context, which was elaborated under the auspices of the United Nations Economic Commission for Europe (ECE) by 26 states and the European Commission. What is interesting is that these were mostly developed countries, which then developed the 1991 Convention for themselves. During the negotiations leading to the adoption of UNEP Principles of EIA (1985-1987), these countries strongly opposed its development into legally binding agreement also covering the developing countries. They stated on some occasions that developing countries were not yet ready for adoption of such a binding agreement.

Most of the guidelines and agreements these days refer to EIA although they differ in their terminology and in the obligation they impose on parties to carry out EIAs. Some of the earlier guidelines and agreements do not expressly use the term, and others refer to 'environmental assessment'. The Convention on the Regulation of Antarctic Mineral Resource Activities[22] refers to the assessment of the possible impacts of such activities. Some of the instruments identify the minimal content of an EIA, but none specifies procedures or methods. As yet, there have been

22 The Convention on the Regulation of Antarctic Mineral Resource Activities, *Antarctic Treaty System* Vol.11-3 (adopted 2

only a few cases in which rules have been made for procedural details or to name the activities for which an EIA should be carried out. There are exceptions, such as the 1987 Antarctic Treaty Consultative Meeting's recommendation for an EIA on human impact on the Antarctic, and provisions dealing with EIAs of seabed activities under the UN Convention on the Law of the Sea. The UNEP Action Plan for the Environmentally Sound Management of the Common Zambezi River System of May 1987 addresses environmental assessment as one of its four elements, recognizing the need for continuing systematic assessment of water management and quality, and describing the tasks required, but it does not specify the administrative procedures to be followed. The United Nations Principles on Shared Natural Resources[23] and the World Charter for Nature[24] also included references to environmental assessment.

G. Cairo Guidelines and Principles for Management of Waste

As already mentioned above, the Cairo Guidelines and Principles for the Environmentally Sound Management of Wastes, adopted by the UNEP Governing Council in 1987 were a basis for negotiation and adoption of the Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal.[25].The Cairo guidelines included four important principles governing the transfer of technology, capacity building, public access to information, and liability and compensation. The guidelines recognized developing countries' need for technical assistance from the industrialized world to ensure the environmentally sound management of wastes. They also pointed out the need for the public to have access to all information concerning this activity, and established a requirement for national laws governing liability and compensation for damages.

H. International trade in chemicals

In 1972, the United Nations Conference on the Human Environment requested that the UN, governments, and scientific and international bodies "develop plans for an international registry of data on chemicals in the environment based on the environmental behavior of the most important man-made chemicals, together with their pathways from factory via utilization to ultimate disposal or recirculation."[26] This request resulted in the establishment of the International Register of Potentially Toxic Chemicals (IRPTC) in 1976, a computerized data bank for the exchange of information on production and consumption of these substances, the use, treatment of poisoning, waste management and control of hazards posed by them.

In the late 1970s, Kenya called the attention of the UNEP Governing Council to the indiscriminate trade in toxic chemicals, particularly those that were carried on in the South by companies from

July 1988).

23 Principles of Conduct in the Field of the Environment for Guidance of States in the Conservation and harmonious Utilization of Natural Resources Shared by Two or More States (adopted 1978).

24 World Charter for Nature, UN Doc A/RES/37/7 (adopted 24 October 1982).

25 Basel Convention on the Control of Transboundary Movement of Hazardous Waste and Other Wastes and Their Disposal (adopted 22 March 1989 entered into force 5 May 1992) 57 UNTS 1673

26 United Nations, 'Report of The United Nations Conference on the Human Environment' (United Nations 2018).

the North. In 1977, the council urged governments "to take steps to ensure that potentially harmful chemicals ... which are unacceptable for domestic purposes in the exporting country, are not permitted to be exported without the knowledge and consent of appropriate authorities in the importing country."[27] In 1978, the council further urged that such chemicals should not be exported until their health and environmental effects had been tested and reported to the recipient countries, and called for adequate monitoring, evaluation, and protections to be instituted by both exporting and importing governments.

The Montevideo Programme, adopted by the Governing Council as its programme of action in environmental law for 1981-1991, included the preparation of principles or guidelines on the exchange of information relating to the trade in potentially harmful chemicals, particularly in pesticides. An ad hoc working group of experts met in the Netherlands in March 1984 and submitted to the following Governing Council session a Provisional Notification Scheme for Banned and Severely Restricted Chemicals, which the council adopted. It also called for it to go into effect as soon as possible and urged close cooperation with other UN bodies and specialized agencies in further elaboration of the draft guidelines. Among its provisions, the notification scheme called for a country that has acted to ban or severely restrict a chemical to notify other nations' authorities promptly and to provide the appropriate information at the time of the first export following such action.

In 1987, the UNEP Governing Council adopted the London Guidelines for the Exchange of Information on Chemicals in International Trade, which continued to be developed and two years later were adopted as amended. The 1987 guidelines were designed to complement existing instruments of other governments and intergovernmental organizations, and of the UN and its specialized agencies, particularly the FAO's code of conduct on distribution and use of pesticides.[28] The guidelines stated that in using chemicals, nations should abide by Principle 21 of the Stockholm Declaration, and flagged a potential conflict if the unilateral adoption of environmental regulations were to create obstacles to international trade agreements. They also specified that control requirements be normalized for all producers of the same chemical.

The 1987 guidelines were negotiated for five years, and during that entire time the developing countries consistently invoked the principle of prior informed consent (PIC), while the industrialized nations resisted its inclusion in the formal guidelines. The working group of legal experts continued its efforts following adoption, and the PIC principle was included in the amended London Guidelines. This was the first time it had been accepted in an agreed text negotiated by governments. It would later appear as part of legally binding treaties, together with the contents of Principle 21 of the Stockholm Declaration, in both the 1989 Basel Convention[29] on

27 Iwona Rummel-Bulska and Mostafa Kamal Tolba, Global Environmental Diplomacy: Negotiating Environment Agreements For The World, 1973-1992 (Global Environmental Accord) (1st edn, MIT Press 1998)

28 Ibid, p 29

29 Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and Other Wastes and Their Disposal (adopted 22nd March 1989 entered into force 5 May 1992) 57 UNTS1673

and the 1992 Biodiversity Convention.[30]

The complementary nature of the London Guidelines may be seen in the relevant work of other international organizations such as the International Labour Organization (ILO), which included chemical safety as an important component of its programmes; the Food and Agriculture Organization (FAO) which in 1985 adopted the International Code of Conduct on the Distribution and Use of Pesticides;[31] the World Health Organization (WHO) which established the International Program on Chemical Safety (IPCS) on control of chemicals in the workplace, control of environmental pollution, use of chemicals in disease vector control, and control of chemicals in food among others.

Governments were deeply concerned about the international trade in hazardous chemicals and eventually in 1997 the action taken by the UNEP Governing Council to begin negotiating conventions in these fields led to the adoption of the Rotterdam Convention on the Prior Informed Procedure for Certain Hazardous Chemicals and Pesticides in International Trade[32] and to the Stockholm Convention on Persistent Organic Pollutants.[33]

III. ENVIRONMENTAL AGREEMENTS AND CONVENTIONS: BINDING INTERNATIONAL ENVIRONMENTAL LAW

As the transboundary nature of environmental threats has become clearer, a growing number of agreements have attempted to lay down norms and to offer incentives for other states to sign on, or at least to commit themselves to a similar course of action. The examples of "early conventions" are the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES),[34] the Bonn Convention of Migratory Species of Wild Animals (CMS),[35] the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat,[36] UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage[37].

The parties to CITES may trade with non-parties only if the latter substantially conform to the terms of CITES. Although this seemed at that time to undermine the liberalization of trade

30 The Convention on Biological Diversity (adopted 23rd December 1993) 79 UNTS vol. 1760, CN 29.1996

31 International Code of Conduct on the Distribution and Use of Pesticides, *Food Agricultural Organization of the United Nations* (adopted in November 2002) Rome, 2003,

32 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (adopted on 10 September 1998) 337 UNTS 2244; CN 846.2002.

33 Stockholm Convention on Persistent Organic Pollutants (adopted 22 May 2001 entered into force 17 May 2004) 119 UNTS 2256.

34 Convention on the International Trade in Endangered Species of Wild Fauna and Flora (signed 3 March 1973, effective 1 July 1975) 243 UNTS 14537 Vol. 993 (CITES).

35 Bonn Convention of Migratory Species of Wild Animals, (adopted 23rd June 1973 entered into force 3 November 1983), UNTS 28395 Vol. 1651.

36 Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat,(adopted 2 February 1971, entered into force 21 December 1975) 245 UNTS14583 Vol.996.

37 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (adopted on 9 May 1972) UNTS.

hammered out during more than a decade (during the Uruguay round of the General Agreement on Tariffs and Trade (GATT)), it was justified by the realization that the internal activities of one country may have a material effect on others. Several years later, in 1987 the Montreal Protocol[38] also put the restrictions in trade in ozone depleting chemicals between parties and non-parties to the protocol and although very much criticized by the trade groups including the World Trade Organization (WTO) it was eventually recognized as one of the effective ways of stopping trade in substances damaging the environment. The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes[39] followed this track, as did the Rotterdam[40] and Stockholm[41]conventions, the Cartagena Protocol on Biosafety[42] to the 1992 Biodiversity Convention (CBD)[43] and many others.

The above conventions clearly illustrate that since 1970, there has been growing willingness to cooperate between countries at the global and regional levels. This has overtaken, to a certain extent, the issues of so-called absolute national sovereignty, and yielded a growing cooperation in the fields of environmentally safe technologies' transfer and technical and financial assistance to developing countries by industrialized nations. This has bridged the ideological gulf of significant proportions between traditional voting blocs, due to the universal nature of the environmental threat. In the face of the serious threats to the global environment, the principle of common but differentiated responsibility has been developed and since the 1980s, largely implemented through several of environmental Conventions and Protocols (for instance Ozone and Climate). Governments have been ready to enter into binding agreements with the belief that emerging environmental problems can only be solved by strong commitments including economic and trade aspects and considerations. A special role has been given to NGOs and business groups as well as to the public in accordance with the principles of participation in decision making in environmental matters and access to information. Negotiations and conclusions of environmental agreements have always been based on new scientific findings and with a clear recognition of the precautionary principle.

It is also worth emphasizing that most of the environmental conventions and protocols entered into force in less than two/three years after their adoption and signature. In many cases negotiations of environmental agreements first lead to the adoption of a framework convention containing mainly sets of principles and a general statement of problems to be solved, followed by

38 Montreal Protocol on Substances That Deplete the Ozone Layer, (adopted 16 September1987, entered into force 26 August 1989), 3 UNTS1522.

39 Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and Other Wastes and Their Disposal (adopted 22 March 1989 entered into force 5 May 1992) 57 UNTS 1673

40 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (adopted 10 September1998) 337 UNTS 39973 Vol 2244, CN 846.2002

41 Stockholm Convention on Persistent Organic Pollutants (adopted 22nd May 2001 entered into force 17th May 2004) 119 UNTS 40214 vol 2256, CN 531.2001.

42 Cartagena Protocol on Biosafety to the Convention on Biological Diversity (adopted 29 January 2000, entered into force 11 September 2003) 208 UNTS 30619 CN 251.2000

43 The Convention on Biological Diversity (adopted 23 December 1993) 79 UNTS vol. 1760, CN 29.1996.

the development of actual or/and more detailed commitments usually containing strict control measures in the form of protocols to the framework convention. For instance, the Vienna Ozone Convention[44] followed by the Montreal Protocol on Substances that Deplete the Ozone Layer;[45] United Nations Framework Convention on Climate Change[46] followed by the Kyoto Protocol[47] and Paris Agreement;[48] Biodiversity Convention[49] followed by the Cartagena Protocol on Biosafety,[50] the Nagoya Protocol on Access to Genetic Resource and Benefits Sharing[51] and the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety,[52] to name a few.

Recently more often the environmental agreements contain compliance and enforcement provisions and mechanisms as well as reporting and verification systems in addition to the traditional settlements of disputes provisions. We are also facing sort of 'weighted' entry into force provisions that are combining the amount of ratifications required for the entry into force of agreement with percentage of emissions/production/consumption of the regulated substances.[53]

Multilateral Environmental Agreements (MEAs) often include different obligations for different parties, i.e. granting 'grace period' for developing countries in introducing control measures (the Montreal Protocol offers a 10-year grace period for implementation to developing countries with less than 0.3 kilogrammes per capita consumption of the substances it controls); providing trade restrictions and ensuring special funding for developing countries and countries with economies in transition not only through Global Environmental Facility (GEF) but also through creation of various special trust funds under MEAs to finance joint programmes and actions. This has been done under CITES,[54] the Regional Mediterranean Sea Convention,[55] the UNECE Transboundary

44 Vienna Convention for the Protection of the Ozone Layer (adopted 22 March 1985 entered into force 22 September 1998) 293 UNTS 26164 vol. 1513.

45 Montreal Protocol on Substances That Deplete the Ozone Layer, (adopted 16 September1987, entered into force 26 August 1989), 3 UNTS 26369 Vol. 1522.

46 United Nations Framework Convention on Climate Change, (9 May 1992 entered into force 21 March 1994) 107 UNTS 30822, C.N.148.1993.

47 Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997 entered into force 16 February 2005) 162 UNTS 30822 Vol. 2303.

48 Paris Agreement, (adopted 12 December 2015 entered into force 4 November 2016) UNTS 54113, CN 63.2016.

49 The Convention on Biological Diversity (adopted 23 December 1993) 79 UNTS vol. 1760, C 29.1996.

50 Cartagena Protocol on Biosafety to the Convention on Biological Diversity (adopted 29 January 2000, entered into force 11 September 2003) 208 UNTS 30619, CN 251.2000.

51 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (adopted 29th October 2010) UNTS 30619 Doc: UNEP/CBD/COP/DEC/X/1.

52 Nagoya - Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety, (adopted 15 October 2010) Doc.: UNEP/CBD/BS/COP-MOP/5/17 .

53 n45, n47.

54 Convention on the International Trade in Endangered Species of Wild Fauna and Flora (signed 3 March 1973, effective 1 July 1975) 243 UNTS 14537 Vol. 993 (CITES).

55 Convention for the protection of the Mediterranean Sea against pollution, (adopted 16 February entered into force 12 February 1978) UNTS 16908 Vol. 1102

Air Pollution Convention,[56] the Vienna Convention on the Ozone layer[57] and its Montreal Protocol,[58] the Basel Convention on hazardous wastes,[59] UNFCCC,[60] its Kyoto Protocol,[61] Paris Agreement[62] and other COPs commitments.

Regional and sub-regional MEAs have also adopted similar approaches to ensure participation of all countries of these regions in these agreements (for instance the 1974 Helsinki and Paris conventions for the Baltic and the North Sea;[63] the UNEP Regional Seas agreements[64] covering the Mediterranean, the Persian/Arabian Gulf, the Southeast Pacific, the Caribbean, and West and Central Africa; and treaties for management of shared fresh water resources such as the Zambezi River[65] and Lake Chad[66] basins; further the Bamako Convention on the Ban of the Import into Africa and the Control within Africa of Transboundary Movement of Hazardous and Radioactive Wastes,[67] which aligned a regional with a global regime, the Basel Convention similarly to Wangani Convention for South-Pacific Region[68] -- these conventions follow the basic principles of the Basel Convention, but are more stringent and significant financial and technical resources are required for their implementation, similarly like Lusaka Agreement,[69] which implements CITES for the African Region in a more stringent way.

To avoid the delays caused by lengthy ratification processes, some MEAs include so called "provisional application" of agreement (for example the ECE Geneva Convention on Long-Range Transboundary Air Pollution,[70] whose signatories decided to "initiate, as soon as possible

56 Convention on Long-Range Trans-boundary Air Pollution, (adopted 13 November 1979) 217 UNTS 21623 Vol.1302.

57 Vienna Convention for the Protection of the Ozone Layer (adopted 22 March 1985 entered into force 22 September 1998) 293 UNTS 26164 vol. 1513.

58 Montreal Protocol on Substances That Deplete the Ozone Layer, (adopted 16 September1987, entered into force 26 August 1989), 3 UNTS 26369 Vol.1522.

59 Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and Other Wastes and Their Disposal (adopted 22 March 1989 entered into force 5 May 1992) 57 UNTS1673

60 United Nations Framework Convention on Climate Change, (9 May 1992 entered into force 21 March 1994) 107 UNTS 30822, C.N.148.1993

61 Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997 entered into force 16 February 2005) 162 UNTS 30822 vol. 2303

62 Paris Agreement, (adopted 12 December 2015 entered into force 4 November 2016) UNTS 54113, CN 63.2016

63 Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (OSPAR convention)

64 For example Cartagena Convention for the Caribbean and the Barcelona Convention for the Mediterranean, and Convention on the Conservation of Nature in the South Pacific

65 For example ZAMCOM,

66 For example, Convention Relating to the Development of the Lake Chad Basin 1974

67 Bamako Convention on the Ban of the Import into Africa and the Control of Trans-boundary Movement and Management of Hazardous Wastes within Africa (adopted 30 January 1991) 177 UNTS 36508 Vol. 2101

68 Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and Other Wastes and Their Disposal (adopted 22 March 1989 entered into force 5 May 1992) 57 UNTS1673

69 Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (adopted 8 September 1994) 35 UNTS 33409 Vol.1950.

70 Convention on Long-Range Transboundary Air Pollution, (adopted 13 November 1979) 217 UNTS 21623 Vol 1302.

and on an interim basis, the provisional implementation of the convention", and to "carry out the obligations arising from the convention to the maximum extent possible pending its entry into force." Similarly the plenipotentiary conference of the Basel Convention stipulated "that until such time as the Convention comes into force, all states refrain from activities which are inconsistent with the objectives and purposes of the convention". All states were called on to apply the provisions of the Basel Convention as soon as possible. Some MEAs provide for entry into force of amendments or/and adjustments binding on all parties as long as they do not oppose them (for example the Montreal Protocol).

Analyzing MEAs shows that scientific findings, with their uncertainties, were a real base for negotiations of environmental treaties by government at high political fora and that countries agreed to have a special and more flexible approach to their cooperation. Governments have taken a more flexible approach to the question of national sovereignty and an embraced an understanding of the need for consensus while facing environmental threats.

Chapter 15

Kenya and the Law of the Sea: Implementing International Norms

FDP Situma

I. INTRODUCTION

Kenya acceded to the 1958 Geneva Convention on the law of the sea on 20 June 1969 and ratified the 1982 United Nations Convention on the Law of the Sea on 9 March 1989. The Geneva conventions were remarkable in the sense that they represented the first codification, under the aegis of the United Nations, of customary international law on the rights and duties of states in their uses of the seas and exploitation of their resources.

The international regime established by the Geneva conventions was soon challenged by factors such as advancement in marine technology and the scramble for a new international economic order by the newly independent states of Africa, Asia and Latin America in the 1960s and 1970s. The United Nations General Assembly acknowledged the great need to review the existing legal order of the oceans in order to accommodate the interests of all states and to deal with all matters relating to the law of the sea. After nine years of formal negotiations, the 1982 UN Convention on the Law of the Sea, negotiated and adopted under the aegis of the United Nations, was opened for signature on 10 December 1982 at Montego Bay, Jamaica.

This chapter analyses Kenya's legal and administrative measures taken to domesticate and implement its rights conferred and discharge the duties imposed by the contemporary international regime to which it is a party. It is supposed to harmonize its laws with its international obligations. Being a coastal state, Kenya would be expected to have national interests in its coastal waters and, accordingly, to enact and enforce laws and regulations to safeguard its rights in the various maritime zones under its jurisdiction, and to ensure that the interests of the international community in those zones are not compromised.

II. THE 1958 GENEVA CONVENTIONS ON THE LAW OF THE SEA

The four Geneva Conventions on the Law of the Sea, namely, the Convention on the Territorial Sea and Contiguous Zone,[1] the Convention on the Continental Shelf, [2] the Convention on the High Seas,[3] and the Convention on Fishing and Conservation of the Living Resources of the High Seas,[4] were the products of the first UN Conference on the Law of the Sea, held in Geneva from 24 February to 27 April 1958. The convening of the conference by UN General Assembly Resolution 1105 (XI) of 21 February 1957[5] was the culmination of a long process that had its antecedents in the work of the 1930 Hague Conference on the Codification of International Law and, subsequently, that of the International Law Commission from 1949 up to 1956. The conference was driven by the need for states to agree on the legal regime of the seas, especially the limits of coastal state jurisdiction following the spate of extravagant claims to ocean space between 1946 and 1955. Eighty six states attended the conference.

The Convention on the Territorial Sea and Contiguous Zone sets out in detailed provisions the main rules on the territorial sea and the contiguous zone, largely codifying the pre-existing rules of customary international law, but clarifying some of the uncertain ones and incorporating a measure of novel developments, such as the contiguous zone. Its rules address baselines, bays, delimitation between states with adjacent and opposite coasts, innocent passage and the contiguous zone. A controversial provision was Article 16(4), which provides that the right of innocent passage, which cannot be suspended, applies in straits used for international navigation not only connecting one part of the high seas to another part of the high seas, but also to the territorial sea of a foreign state. Besides, Article 16 makes no distinction regarding innocent passage of warships; the provision is generally couched for all ships. A key question that was left unresolved by the convention was the breadth of the territorial sea. Nonetheless, the fact that the convention provides that the external limit of the contiguous zone cannot exceed 12 nautical miles from the baseline,[6] indicates that no breadth beyond 12 nautical miles can be accepted.

The Convention on the Continental Shelf reflected technological advances in sub-marine oil exploration and exploitation, and was a response to the need for a legal regime to govern such activities. The convention sets out rules on the notion, limits and regime of the continental shelf. The basic concept of the sovereign rights of the coastal state as regards resources of an area of the seabed beyond the external limit of the territorial sea,[7] had emerged in state practice since

1 Convention on the Territorial Sea and the Contiguous Zone (adopted on 10 September 1964) 516 UNTS 206.

2 Convention on the Continental Shelf (adopted on 29 April 1958,entered into force 10 June 1964) 499 UNTS 311.

3 Convention on the High Seas, (adopted on 29th April 1958,entered into force 29 September 1962) 450 UNTS 11.

4 Convention on Fishing and Conservation of the Living Resources of the High Seas,(adopted on 29th April 1958, entered into force 20thMarch 1966) 559 UNTS 285.

5 UNGA Resolution 1105(XI) (1957), International Conference of Plenipotentiaries to Examine the Law of the Sea, 11th session.

6 Article 24, Convention on the Territorial Sea and the Contiguous Zone (adopted on 10 September 1964) 516 UNTS 206.

7 That is, the high seas.

the Truman Proclamation of 1945.[8] The rights of the coastal state over the shelf do not require occupation or express proclamation.[9] They are inherent and exist *ipso facto* and *ab initio*.[10] The provision on the external limit, based on the 200 metres isobath and on exploitability,[11] was widely viewed as favouring the technologically advanced coastal states. The rule on delimitation, based on equidistance and special circumstances concept,[12] was rejected by the International Court of Justice as not being a codification of customary international law.[13]

The Convention on the High Seas was "generally declaratory of established principles of international law", though it did reflect the growing concern with the threat to the freedom of the seas posed by oil pollution and the discharge of radioactive waste. The convention consolidated and codified the rules of customary international laws on such matters as the freedom of the high seas, nationality of ships, safety at sea, piracy and hot pursuit. For the avoidance of any doubt, Article 1 of the convention stipulated that the term 'high seas' means all parts of the sea that are not included in the territorial sea or in the internal waters of a state.

The Convention on Fishing and Conservation of Living Resources of the High Seas was a reflection of the international community's awareness that developments in fishing technology posed a threat of over-exploitation of the living resources of the sea. The convention sets out principles and mechanisms for the rational management of fisheries in the high seas. The convention insists on co-operation between states engaged in the same fisheries,[14] recognizes the special interests of the coastal state when the fisheries are in the high seas adjacent to its territorial sea,[15] and provides for compulsory settlement of disputes concerning its interpretation and application.[16]

At the time of their adoption, the Geneva Conventions on the Law of the Sea represented an amalgam of customary international law and novel developments that had been brought by technological advances in areas such as fishing on the high seas.[17] A remarkable cumulative impact of the conventions is that they divided the oceans into three basic zones, namely, internal waters, territorial sea, and high seas and stipulated the rights of states therein. Article 1 of the Convention on the Territorial Sea and Contiguous Zone confirmed that internal waters and territorial sea are

8 Federal Register, 'Proclamation 2667, Policy of the Unite States with Respect to the Natural Resources of the Sea Soil and Sea Bed of the Continental Shelf' (Federal Register 1945). '59 Stat. 884.

9 North Sea Continental Shelf Cases (1969) ICJ Rep. 3, at p. 23.

10 Ibid.

11 Article 1, Convention on the Continental Shelf (adopted on 29th April 1958,entered into force 10 June 1964) 499 UNTS 311.

12 Ibid., Article 6.

13 North Sea Continental Shelf Cases (1969) ICJ Rep. 3, at p. 23.

14 Articles 3-5, Convention on Fishing and Conservation of the Living Resources of the High Seas,(adopted on 29 April 1958, entered into force 20 March 1966).

15 Ibid., Article 6.

16 Ibid., Article 9.

17 See R.R Churchill and A.V.Lowe, *The Law of the Sea*, 3rd ed. (Manchester University Press, Manchester, 1999), at pp. 13-15, and Donald R Rothwel and Tim Stephens, *The International Law of the Sea*, 2nd ed. (Hart Publishing, Oxford, 2016), at pp. 6-9.

subject to the territorial sovereignty of the coastal states, whereas Article 2(2) of the Convention on the High Seas explicitly reserved the freedom of the high seas, including that of fishing.

III. THE 1982 UN CONVENTION ON THE LAW OF THE SEA

On 10 December 1982, at Montego Bay, Jamaica, Kenya was one of the 119 states that adopted and signed the United Nations Convention on the Law of the Sea, prompting Javier Perez de Cuellar, Secretary General of the United Nations, to declare that "international law is now irrevocably transformed".[18] The Third United Nations Conference on the Law of the Sea was the most complex and remarkable negotiation ever held under the auspices of the United Nations. Referred to as the 'Constitution for Oceans' by Tommy T.B. Koh, the President of the Conference,[19] the convention contains 320 articles of the text and nine annexes that cover, in unprecedented detail, every aspect of ocean affairs and the interests of all states, from landlocked and geographically disadvantaged to coastal, and from developed to developing states.

The convention is divided into 17 parts that establish a new international regime for the orderly and stable regulation of the multiple and often conflicting uses of the oceans. Part I, comprising only Article 1, contains the interpretational provisions. Part II (Articles 2-33) deals with the regime of the territorial sea and the contiguous zone, in language similar to that of the 1958 Convention on the Territorial Sea and Contiguous Zone,[20]albeit more precise and more specific. The breadth of the territorial sea is set at a maximum of 12 nautical miles from the baseline. The earlier extravagant claims for this area were relinquished. Regarding delimitation of the territorial sea between opposite or adjacent states, Article 15 is categorical that neither state is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two states is measured. The claim of historical title, or presence of other special circumstances, is the exceptions to this agreement-equidistance rule. This Part also allows the establishment of a contiguous zone, up to 24 nautical miles from the baseline, for the purpose of exercise of control to prevent infringement of customs, fiscal, immigration, and sanitary laws and regulations within the coastal state's territory or territorial sea, and for punishment of such infringement. Article 17 of the convention codifies the controversial right of innocent passage by providing that "ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea" without, however, specifically stating that even foreign warships enjoy this right, in spite of the fact that state practice is not uniform on this subject. Nonetheless, Article 24 imposes on the coastal state the duty not to hamper, deny or impair the right of innocent passage by imposing certain requirements on foreign ships or by discriminating in form or in fact against any ships. Besides, in language reminiscent of the *Corfu*

18 See the UN Secretary-General's statement in The United Nations, *The Law of the Sea: United Nations Convention on the Law of the Sea;* UN Publication Sales No. E.83.V.5(1983), p. xxxix.

19 Ibid., p. xxxiii.

20 Convention on the Territorial Sea and the Contiguous Zone (adopted on 10 September 1964) 516 UNTS 206.

Channel Case between the United Kingdom and Albania,[21] the Article also requires the coastal state to give appropriate publicity to any danger to navigation of which it has knowledge within its territorial sea.

Part III (Articles 34-45) of the convention creates a new and comprehensive regime of transit passage through straits used for international navigation. This regime applies to straits used for international navigation between one part of the high seas or exclusive economic zone and another part of the high seas or exclusive economic zone. Article 38 is categorical that transit passage entails the freedom of navigation and overflight solely for purposes of continuous and expeditious transit of the strait. Foreign ships are prohibited from engaging in research or survey activities, during transit passage, without the prior authorization of the strait states. Article 41 empowers the strait states to designate sea lanes and prescribe traffic separation schemes in straits used for international navigation, while Article 42 empowers the strait states to adopt laws and regulations on a range of matters aimed at facilitation of transit passage. The strait states are, however, under a duty not to hamper or suspend transit passage.

Part IV (Articles 46-54) establishes a special category of archipelagic states in the international law of the sea. These are states that are constituted by one or more groups of islands, whether coastal or outlying. An archipelagic state is allowed to draw straight archipelagic baselines joining the outer-most points of the outermost islands and drying reefs of the archipelago. The waters enclosed by such baselines are archipelagic waters subject to the sovereignty of the archipelagic state. This sovereignty extends to the air space over the waters as well as to their bed and sub-soil and the resources contained therein. However, third states enjoy the right of archipelagic sea-lanes passage and innocent passage; Article 53 empowers the archipelagic state to designate sea-lanes and air routes for the continuous and expeditious passage of foreign ships and aircraft. The archipelagic state may temporarily suspend the innocent passage of foreign ships when essential for its security, and only after due publicity.

Part V (Articles 55-75) establishes a new category of ocean space known as the exclusive economic zone, extending to a maximum of 200 nautical miles from the baseline of the territorial sea. The concept of the exclusive economic zone comprises the seabed and its subsoil, the waters superjacent to the seabed, and the airspace above the waters. With respect to the seabed and its subsoil, Article 56(1) provides that the coastal state has sovereign rights over the area for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or nonliving, of the waters superjacent to the seabed and of the seabed and its subsoil. The coastal state also has jurisdiction with regard to the establishment and use of artificial islands, installations and structures, marine scientific research, and the protection and preservation of the marine environment. Under the provisions of Article 56(3), the rights of the coastal state with respect to the seabed and subsoil are to be exercised in accordance with provisions governing the continental shelf. In the exclusive economic zone, all states, whether coastal or landlocked, enjoy

21 United Kingdom v. Albania, ICJ Rep 244, ICGJ 201 (ICJ 1949), 15th December 1949, International Court of Justice [ICJ]

the freedoms of navigation and overflight and of the laying of submarine cables and pipe-lines, and other internationally lawful uses of the sea. With respect to delimitation of the exclusive economic zone between adjacent or opposite states, Article 74(1) provides that the same shall be effected by the agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution. It is noteworthy that there is no reference to equidistance or special circumstances; the sovereignty of the states in reaching agreement is what is emphasized! If no agreement is reached within a reasonable period of time, the states concerned must resort to the dispute settlement procedures under Part XV of the Convention.

Part VI (Articles 76-85) provides for the continental shelf, a problematic subject for the legal regime of ocean space after the Truman Proclamation of 1945, with respect to the precise delineation of the outer limit of the shelf. The imprecise nature of the criteria under the 1958 Convention on the Continental Shelf, that is, the 200 metre isobath and the exploitability test, compounded the problem. However, during the Third UN Conference on the Law of the Sea, states were able to agree on a continental shelf whose breadth is coterminous with the exclusive economic zone, that is, 200 nautical miles. This was incorporated in Article 76(1) of the convention, which lays down that the continental shelf of a coastal state extends "beyond its territorial sea, throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance". However, where the continental shelf extends beyond the 200 nautical miles, the legal continental shelf shall not exceed 350 nautical miles from the baseline or 100 nautical miles from the 2500 metre isobath. Article 76(4) of the convention provides criteria for determining the outer limits of the continental shelf beyond 200 nautical miles and the role of the Commission on the Limits of the Continental Shelf therein.

The coastal state has, under Article 77, exclusive sovereign rights for the purposes of exploring the continental shelf and exploiting its living and non-living resources. These rights do not depend on occupation, effective or notional, or on any express proclamation. Since these rights are inherent, *ipso facto* and *ab initio*, it is not necessary for a coastal state to enact municipal legislation as a basis for their exercise. However, beyond the 200 nautical miles, the position is different. Here, the superjacent waters and air space are under the regime of the high seas and the attendant freedoms, including the freedom of fishing of the non-sedentary living resources. The continental shelf beyond 200 nautical miles is part of the Area which, together with the non-living resources thereof, is under the regime of the common heritage of mankind to be managed by the International Sea Bed Authority established under Part XI of the Convention. Hence, although other states are not involved in the actual exploitation of the non-living resources, Article 82 requires the coastal state to make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles. Such payments or contributions must be made through the Authority in order to be distributed to

the states parties to the convention on the basis of equitable sharing criteria. Developing states that are net importers of mineral resources produced from their continental shelves beyond 200 nautical miles are exempt from making such payments or contributions in respect of those mineral resources.

Article 83 provides for the delimitation of the continental shelf between opposite or adjacent states. This is to be effected in the same manner as that of exclusive economic zone under Article 74.

Part VII (Article 86-120) sets out the high seas regime in language that largely reflects the 1958 Convention on the High Seas recognizing two additional freedoms of the high seas, namely, the freedom to construct artificial islands and other installations, and the freedom to conduct marine scientific research.

Parts VIII to X deal with a number of special cases, some of which were not catered for in the 1958 Geneva Conventions. Part VIII comprises one article, Article 121, that addresses the regime of islands in the international law of the sea. The Article makes it clear that rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf.[22] Part IX, comprising two articles, deals with enclosed and semi-enclosed seas, such as the Black Sea, Baltic Sea, the Caspian Sea, the Mediterranean Sea, and the Gulf of Fonseca, and provides a cooperative framework among the riparian states for the management of the resources and the implementation of their rights and duties in respect of such seas.

Part X (Articles 124-132) contains specific provisions for the rights and freedoms of landlocked states, stating that land-locked states have the right of access to and from the sea and the freedom of transit across the territory of one or more transit states. The terms and modalities for exercising the freedom of transit shall be agreed between the landlocked states and transit states concerned through bilateral, sub-regional or regional agreements.

Part XI (Articles 133-191) creates a new regime in the international law of the sea, the deep seabed and ocean floor and sub-soil thereof beyond the limits of notational jurisdiction, referred to as the Area. The Area and its resources are the common heritage of mankind. Part XI of the Convention, Annex III thereto, and Resolution II, prescribe the legal regime of the Area and its resources. No state shall claim or exercise sovereignty over any apart of the Area or its resources, nor shall any state or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights, nor such appropriation, shall be recognized. Under Article 140, activities in the Area shall be carried out for the benefit of mankind as a whole, and financial and other economic benefits derived from such activities shall be equitably shared, through an appropriate mechanism, on non-discriminatory basis. Article 141 explicitly provides that the Area shall be open to use exclusively for peaceful purposes by all states. To emphasize the cardinal importance of the essential elements governing the Area, that is, the principle of the common

22 Jonathan I Charney, 'Rocks that Cannot Sustain Human Habitation' (1999) 93 American Journal of International Law p. 864.

heritage of mankind, the non-appropriation of the Area and its resources, the benefit of mankind as a whole, and the uses exclusively for peaceful purposes, Article 311(6) creates a rule of *jus cogens* by providing that states parties to the convention agree that there shall be no amendments to the basic principle relating to the common heritage of mankind set forth in Article 136 and that they shall not be party to any agreement in derogation thereof.

The convention establishes the International Sea Bed Authority, composed of all the states parties, as the supreme organ for the management of the common heritage of mankind. The Enterprise, one of the organs of the Authority, is the operational arm for the Authority to conduct investment and production activities on the deep seabed.

Part XII (Articles 192-237) contains detailed provisions on the protection and preservation of the marine environment. The overarching principle is enunciated by Article 192, which provides that states have the obligation to protect and preserve the marine environment from substances having deleterious effects on marine life or activities. There are, then, detailed provisions regarding the various sources of marine pollution and the respective jurisdictions of the flag states, the coastal states, and port states to adopt and enforce laws and regulations for the prevention, reduction and control of marine pollution.

Marine scientific research, a subject introduced for the first time by the convention, is addressed in Part XIII (Articles 238-265), which provides for the rights and responsibilities of all states in conducting marine scientific research. The provisions of the convention on this subject provide a balance between the interests of the coastal states within zones under their jurisdiction and the freedom of the international community in carrying out marine scientific research "exclusively for peaceful purposes". In order to facilitate the research and associated activities, Part XIV (Articles 266-278) provides for cooperation in the development and transfer of marine technology on fair and reasonable terms and conditions.

Part XV (Articles 279-299) deals with the settlement of disputes. Unlike the 1958 conventions, which had an optional protocol on dispute settlement, the convention creates a regime of compulsory procedures for settlement of disputes, using the International Court of Justice, the newly created and permanent International Tribunal for the Law of the Sea, and the ad hoc arbitral and special arbitral tribunals constituted under Annexes VII and VIII, respectively.

Parts XVI (Articles 300-304) and XVII (Articles 305-320) deal with general and final provisions, providing for good faith in the exercise of the rights conferred by the convention, use of oceans for peaceful purposes, and signature, ratification, and entry into force, respectively. For the avoidance of any doubt, Article 311(1) provides that the 1982 UN Convention on the Law of Sea shall prevail, as between the states parties, over the Geneva conventions of 1958.

IV. KENYA'S LEGISLATIVE AND ADMINISTRATIVE ACTION

The first legislation enacted by Kenya, following its accession to the Geneva Conventions on the Law of the Sea, on 20 June 1969, was the Territorial Waters Act.[23] Enacted in 1972, the Territorial Waters Act made provision for the delimitation of the territorial waters of Kenya, and for purposes incidental thereto. [24] The law extended the breadth of Kenya's territorial waters from customary international law distance of three nautical miles to 12 nautical miles.[25] This breadth was to be measured in accordance with the provisions of the 1958 Convention on the Territorial Sea and Contiguous Zone.[26] The schedule to the Territorial Waters Act stipulated the course of the baseline from which the 12 nautical miles of the territorial sea were to be measured. On coastlines adjacent to neighboring states, the breadth of the territorial sea was to extend to a median line every point of which was equidistant from the nearest points on the baselines from which the breadth of the territorial waters of each of the respective states is measured.[27] In accordance with Article 7 of the Contention, section 2(3) of the Act declares that Ungwana Bay (formerly known as Formosa Bay) "shall be deemed to be and always to have been an historic bay".

Under international law, waters on the landward side of the baseline are internal waters which, like the territorial waters, international straits and, archipelagic waters under the 1982 United Nations Convention on the Law of the Sea,[28] are under the territorial sovereignty of a coastal state. Though sufficiently linked to the land domain, internal waters are not the same as 'inland waters', the latter comprising lakes, rivers, and water pans and ponds. However, section 4(2) of the Territorial Waters Act defined the territorial waters to mean "any part of the open sea within twelve nautical miles of the coast of Kenya and includes any inland water of Kenya".[29]

The Territorial Waters Act did not provide for any specific powers, functions, or activities that Kenya would control or regulate in its territorial waters. This could be explained by the fact that under general international law, the territory of a coastal state includes the territorial waters and the superjacent airspace over which the state has sovereignty. Under international law, territorial sovereignty is characterized by completeness and exclusiveness, and denotes complete jurisdiction in that it entails comprehensive and exclusive legislative, judicial, and enforcement authority over a state's territory. The state exercises its jurisdiction over all matters within its territory, that is, territorial sovereignty entails no limit *ratione materiae* and no limit *ratione personae* as the state exercises jurisdiction over all activities and persons regardless of their nationality.[30] With

23 Act No. 2 of 1972; Cap.371, Laws of Kenya, 1978 (now repealed).

24 Ibid. The Long Title of the Act.

25 Ibid. Section 2(1).

26 Ibid. Section 2(2).

27 Ibid. Section 2(4).

28 United Nations Convention on the Law of the Sea, (adopted on 10 December 1982,entered into force on 16 November 1994) 1833 UNTS 397.

29 Section 4(2), Act No. 2 of 1972.

30 See, for instance, Malcolm N Shaw, *International Law*, 7th edn, (Cambridge University Press, Cambridge, 2014), pp. 469

respect to territorial waters, the traditional exception to the completeness and exclusiveness of the coastal state sovereignty is the right of innocent passage enjoyed by foreign ships. This right was codified by Article 14 of the Conventions on the Territorial Sea and Contiguous Zone, which provided that ships of all states enjoyed the right of innocent passage through the territorial sea. Article 16 of the convention empowered the coastal state to take measures necessary to prevent passage which was not innocent, that is, where the passage was prejudicial to the peace, good order or security of the coastal state. Article 14(5) of the convention made specific reference to fishing vessels, providing that their passage would not be innocent if they failed to observe coastal state laws preventing fishing in the territorial sea.

Accordingly, although the Territorial Waters Act was silent on the nature and scope of Kenya's powers, functions, or activities in its territorial waters, it can be legitimately concluded that, based on conventional and customary rules of international law, Kenya could institute legal proceedings against any foreign ship that was found to be engaged in, for instance, military exercises, fishing, pollution and other activities prejudicial to its peace, good order or security. The only hindrance would be lack of capacity to enforce its rights in the territorial waters.

It is noteworthy that the Territorial Waters Act did not make any reference to a contiguous zone, unlike the convention whose provisions it sought to implement. The reason for this is founded on the juridical nature of the zone. Article 24 of the convention described the contiguous zone as "a zone of the high sea contiguous to its (the coastal state's) territorial sea". Hence, the contiguous zone was considered part of the high seas, outside the jurisdiction of the coastal state. Nonetheless, the convention empowered the coastal state to exercise the control necessary to prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea, and to punish infringement of these regulations committed within its territory or territorial sea.[31] Thus, Kenya had the power to prevent and punish infringement of its customs, fiscal, immigration on sanitary regulations within the contiguous zone.

In 1975, Kenya enacted the Continental Shelf Act "to vest rights in the Government in respect of the natural resources of the continental shelf, and to provide for matters incidental thereto and connected therewith."[32] Section 2 of the law defined natural resources to mean "the mineral and other non-living resources of the sea-bed and sub-soil, and all living organisms belonging to the sedentary species which, at the harvestable stage, either are immobile on or under the sea-bed or are unable to move except in constant physical contact with the sea-bed or subsoil." Section 3 of the law then vested all rights in the government by providing that "all existing rights in respect of the continental shelf and the natural resources thereon, therein and thereunder, and all such rights as may from time to time hereafter by right, treaty, grant, usage, sufferance or other

– 488, and James Crawford, *Brownlies' Principles of Public International Law,* (8th edn, Oxford University Press, Oxford, 2012), pp. 456 – 486

31 Article 24(1), Convention on the Territorial Sea and the Contiguous Zone(adopted on 10th September 1964) 516 UNTS 206.

32 Chapter 312, Laws of Kenya, 1978 (now repealed).

lawful means become exercisable by the Government or appertain to Kenya, shall be vested in the Government." Section 6 of the Act provided the procedure for the verification of whether an act or omission occurred within the continental shelf. It provided that where such a matter was in dispute, a certificate signed by or on behalf of the minister for natural resources would be deemed to constitute *prima facie* proof of the facts certified therein.

The continental shelf, regarded as the natural prolongation of a coastal state's land territory into and under the sea, is rich in marine resources that have attracted the interests of both coastal and non-coastal states. The first clear assertion that a continental shelf belongs to the coastal state was the 1945 Truman Proclamation that asserted US jurisdiction over living and no-living resources on the continental shelf.[33] This proclamation was followed by similar claims on the part of so many states that by the time of the 1958 Geneva Conference on the Law of the Sea, the idea that coastal states had legitimate rights over their continental shelves was generally accepted.

Turning to Kenya's Continental Shelf Act, there are two distinctive points to be noted. First, the Act did not define the continental shelf. It only vested rights in respect of the natural resources of the continental shelf. Coming after the judgment of the International Court of Justice, in the *North Sea Continental Shelf* cases that declared that the rights of a coastal state in respect of the continental shelf exist *ipso facto* and *ab initio* and, further, that the same are 'inherent' for the purpose of exploring the continental shelf and exploiting its natural resources,[34] it is doubtful whether the legislation added any value to the regime of the continental shelf. All that was necessary was for Kenya to marshal human and technological resources to exploit its continental shelf resources. There was available technology employed in fishing by factory fleets and in offshore oil drilling projects.

Second, the law did not provide for the outer limit of the continental shelf. At the time of enacting the legislation, the outer limit of the continental shelf had already become a controversial matter in the international law of the sea. The controversy was caused by the imprecise nature of the criteria under the Convention on the Continental Shelf for determination of the outer limit of the shelf.[35] The 200-metre isobath had led to several coastal states, especially those on the western coasts of the continental land masses, claiming jurisdiction over wide shelves, including continental slopes and continental rises. Besides, the exploitability criterion had already rendered the seaward limit obsolete as new technology had enabled exploitation of deeper areas of the seabed, thereby posing the danger of some coastal states extending their continental shelf claims to cover even the deep seabed.

Not only did the Act fail to provide for the outer limit of Kenya's continental shelf, but, unlike

33 Federal Register, 'Proclamation 2667, Policy Of The Unite States with Respect to the Natural Resources of the Sea Soil And Sea Bed of the Continental Shelf' (Federal Register 1945). ' 59 Stat. 884.

34 Federal Republic of Germany v Denmark; Federal Republic of Germany v. Netherlands, (1969) ICJ Rep. 3.

35 Convention on the Continental Shelf (adopted on 29 April 1958,entered into force 10 June 1964) 499 UNTS 311. Article 1 of the Convention put the outer limit of the shelf at 200 meters depth or "where the depth of superjacent waters admits of the exploitation of natural resources.

the Territorial Waters Act,[36] it failed to provide for the delimitation of the continental shelf boundaries between Kenya and adjacent or opposite states.

Given the fact that this legislation was enacted when the problems of the regime of the continental shelf were already manifest, and when the Third UN Conference on the Law of the Sea was well under way, perhaps it would have been prudent for Kenya to await the outcome of the conference. In the meantime, it would exercise jurisdiction over the continental shelf in accordance with the convention and customary law.

The Continental Shelf Act contained no provision on marine scientific research, the laying of submarine cables and pipelines, and the construction of artificial islands and installations on the continental shelf.

In anticipation of the adoption of the already recognized regime of the exclusive economic zone by the Third UN Conference on the Law of the Sea, for the exercise therein by coastal state of sovereign rights for the purpose of exploring, exploiting, conserving and managing the natural resources, whether renewable or non-renewable, of the water column, sea-bed and sub-soil, President Daniel arap Moi did proclaim, on 28 February 1979, the Exclusive Economic Zone of Kenya.[37] in it, the President proclaimed:

> "Article 1. That notwithstanding any rule of law or any practice which may *hitherto* have been observed in relation to Kenya or the water beyond or adjacent to the territorial sea of Kenya, the Exclusive Economic Zone of the Republic of Kenya shall extends across the sea to a distance of 200 nautical miles measured from the appropriate baseline from where the territorial sea is measured. Without prejudice to the foregoing, the Exclusive Economic Zone of Kenya shelf:
>
> (a) In respect of its Southern territorial waters boundary with the United Republic of Tanzania be an easterly latitude north of Pemba Island to start at a point obtained by the Northern intersection of two arcs one from the Kenya light-house at Mpunguti ya Juu, and the other from Pemba Island light-house at Ras Kigomasha.[38]
>
> (b) In respect of its northern territorial waters boundary with Somalia Republic be on easterly latitude South of Duia Damasciace Island being latitude 1° 38' South"

The Proclamation expressly reversed the rights of Kenya over its continental shelf as defined in the Continental Shelf Act, 1975,[39] and allowed all states, subject to the applicable laws and

36 Ibid.

37 'Proclamation by the President of the Republic of Kenya' (28 February 1979) Available at <extwprlegs 1. fao.org/docs/pdf/ken4655.pdf> (accessed on 14 December 2018).

38 The maritime boundary between Kenya and the United Republic of Tanzania was delimited by agreement in 1976 through exchange of letters between the respective states' Ministers of Foreign Affairs. See 19 United Nations Legislative Series 106.

39 Chapter 312, Laws of Kenya

regulations of Kenya, the freedom of navigation and over-flight and of the laying of submarine cables and pipelines and other internationally lawful or recognized uses of the sea related to navigation and communication.[40]

Kenya's jurisdiction over the exclusive economic zone was defined in a schedule attached to the Proclamation, as follows:

> In and throughout the zone Kenya exercises the following:
>
> (a) Sovereign rights for the purpose of exploring, exploiting, conserving and managing the natural resources, whether renewable or non-renewable, of the water column, the seabed and sub-soil thereof.
>
> (b) Sovereign rights with regard to other activities for the economic exploration and exploitation of the zone, such as the production of energy from the water currents and winds.
>
> (c) (i) Jurisdiction with respect to regulation, control and preservation of the marine environment, including pollution control and abatement.
>
> (ii) Exclusive jurisdiction with respect to authorization and control of scientific research.
>
> (iii) Exclusive jurisdiction with respect to the establishment and use of artificial islands, installations, structures and other devices including customs, fiscal, health, public order and immigration regulations pertaining thereto.
>
> (iv) Other rights and duties compatible with international conventions or protocols to which Kenya is or may be a party.[41]

Under the Schedule, Kenya reserved the discretion to permit other states or their nationals to fish in its exclusive economic zone subject to such terms and conditions and to compliance with such regulations as it might prescribe and whose tenor was non-over-exploitation of the fisheries.[42]

Although the Proclamation was issued about four years before, and in anticipation of the UN Convention on the Law of the Sea,[43] it did not give preference to landlocked and geographically disadvantaged states, like the convention does, in the exploitation of the surplus of the living resources of the exclusive economic zone.[44]

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40 Proclamation by the President of the Republic of Kenya' (28 February 1979) Available at <extwprlegs 1. fao.org/docs/pdf/ken4655.pdf> (accessed on 14 December 2018).

41 Ibid., Clause 1 of the Schedule.

42 Ibid., Clause 2 of the Schedule.

43 United Nations Convention on the Law of the Sea,9adopted on 10 December 1982,entered into force on 16th November 1994) 1833 UNTS 397.

44 Ibid., Articles 69-72.

After ratification of the convention on 9 March 1989, Kenya enacted the Maritime Zones Act[45] in order to "consolidate the law relating to the territorial waters and the continental self of Kenya; to provide for the establishment and delimitation of the exclusive economic zone of Kenya; to provide for the exploration and exploitation and conservation and management of resources of the maritime zones; and for connected purposes"[46] The law defines 'maritime zones' to mean "the exclusive economic zone together with territorial waters and the air space above exclusive economic zone." The Act then makes provisions for several fundamental issues. First, the Act repealed the Territorial Waters Act and the Continental Shelf Act, discussed above.[47] However, the territorial waters were reserved under Part II of the Act, which incorporated the substantive provisions of the repealed Territorial Waters Act. Thus, under section 3(1), the breadth of Kenya's territorial waters shall be 12 nautical miles, measured in the manner set out in the Schedule to the Act calculated in accordance with the 1982 UN Convention on the Law of the Sea. Section 3(3) provides that for the purposes of Article 7 of the Convection,[48] Ungwana Bay shall be deemed to be and always to have been an historic bay, and empowers the Minister to declare any other bays or waters to be historic bays or waters. This means that Kenya considers, under its domestic law, Ungwana Bay due to its size and location, to be economically, and politically strategically significant as to be equated to its land territory for the purposes of sovereignty and jurisdiction. Section 3(4) of the Act provides for the delimitation of the territorial waters between Kenya and neighbouring states stating:

> On the coastline adjacent to neighbouring States, the breadth of the territorial waters shall extend to every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial waters of each of respective states is measured.

Section 4(1) proclaims Kenya's exclusive economic zone by providing that "there shall be an exclusive economic zone of Kenya." The spatial dimensions of the zone and then spelt out in the subsequent sub-sections:

> (2) Subject to sub-sections (3) and (4), the exclusive economic zone shall comprise those areas of the sea, seabed and subsoil that are beyond and adjacent to the territorial waters, having as their limits a line measured seaward from the baselines, low waterlines or low tide elevations described in the First Schedule, every point of which is 200 nautical miles from the point on the baselines, low water marks or low tide elevations.
>
> (3) The southern boundary of the exclusive economic zone with Tanzania shall be on an easterly latitude north of Pemba Island obtained by the northern intersection of

45 Act No. 6 of 1981; Chapter 371, Laws of Kenya (Revised edition, 1991).

46 Ibid., Long title of the Act.

47 Ibid., section 2.

48 Ibid., section 13(2), United Nations Convention on the Law of the Sea, adopted on 10 December 1982,entered into force on 16 November 1994) 1833 UNTS 397.

two arcs one from the Kenya lighthouse at Mpunguti Ya Juu Island, and the other from Pemba Island lighthouse at Ras Kigomasha.

(4) The northern boundary of the exclusive economic zone with Somalia shall be delimited by notice in the Gazette by the Minister pursuant to an agreement between Kenya and Somalia on the basis of international law.

It is instructive that the Maritime Zones Act leaves open the delimitation of the exclusive economic zone boundary between Kenya and Somalia; this was to be done in future pursuant to an agreement between the two. This means, therefore, that the unilateral delimitation in the Presidential Proclamation of 28 February 1979, fixing the boundary "on easterly latitude South Diua Damasciace Island being latitude 1° 38" South"[49] was vacated. Section 4(4) of the Maritime Zones Act is, accordingly, in accordance with Article 74(1) of the 1982 UN Convention on the Law of the Sea, which formulates the rule for the delimitation of the exclusive economic zone:

> The delimitation of the exclusive economic zone between States with opposite and adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution.

Within the exclusive economic zone, Kenya exercises sovereign rights with respect to the exploration and exploitation and conservation and management of natural resources of the zone, specifically in respect of.

(a) exploration and exploitation of the zone for the production of energy from tides, water currents and winds;

(b) regulation, control and preservation of the marine environment;

(c) establishment and use of artificial islands and off-shore installations, structures and other devices; and

(d) authorization and control of scientific research.[50]

Cognizant of the absence of sovereignty over the exclusive economic zone and the existence of the rights of other states in the zone, section 6 of the Maritime Zones Act provides that subject to any international convention and any other written law for the time being in force making provisions with respect to transport and communication by sea or air, all states shall enjoy navigation and over-flight, laying of submarine cables and pipelines and other lawful uses recognized by international law in Kenya's exclusive economic zone.

Section 7 of the Act confers both criminal and civil jurisdiction on Kenya's courts over any offence and any question or dispute concerning or arising out of any act or omission which occurs in the

49 Proclamation by the President of the Republic of Kenya' (28 February 1979) Available at <extwprlegs 1. fao.org/docs/pdf/ken4655.pdf> (accessed on 14 December 2018).

50 Supra, note 45, section 5.

exclusive economic zone regarding the exercise of the sovereign rights conferred by the Act; this jurisdiction shall be in addition to and not in derogation of any other jurisdiction exercisable by the courts under any other written law.

Section 8 of the Act applies the provisions of the Fisheries Act[51] to the management of the fisheries resources in the exclusive economic zone, whereas sections 9 and 11 empower the Minister to make regulations for the exploration and exploitation and conservation and management of the marine resources that may be necessary to give effect to any convention on the law of the sea or to any other international agreement or convention affecting the maritime zone.

In another administrative measure taken on 9 June 2005, President Mwai Kibaki issued a Proclamation[52] that constituted an adjustment to and a replacement of the proclamation made by President Daniel arap Moi on 28 February 1979.[53] It is not clear why this Proclamation was issued given that the Maritime Zones Act already addresses the issue or whether, at the time of the Proclamation, the President was aware of the Act. Nonetheless, given its weight and impact, it is important to reproduce it here. It stated:

> Whereas the Third United Nations Convention on the Law of the Sea recognizes the right of a coastal state to establish beyond and adjacent to its territorial sea, the excessive economic zone, and to exercise thereon sovereign rights for the purposes of exploring, exploiting conserving and managing the natural resources whether renewable or non-renewable, of the water column, sea-bed and sub-soil.
>
> And whereas, it is already recognized by the said convention that the extent of the area referred to as the exclusive economic zone, aforesaid, shall not exceed two hundred nautical miles measured from the same baseline and the territorial sea.
>
> And whereas it is necessary that a declaration be made establishing the extent of the said exclusive economic zone of the Republic of Kenya;
>
> Now therefore, I, Mwai Kibaki, President of the Republic of Kenya, do declare and proclaim in accordance with the Constitution of the Republic of Kenya:
>
> 1. That notwithstanding any rule of law which may hitherto have been observed in relation to Kenya or the waters beyond or adjacent to the territorial sea of Kenya, the exclusive economic zone of the Republic of Kenya shall extend across the sea to a distance of two hundred nautical miles measured from the appropriate baseline from where the territorial sea is measured, as indicated in the map annexed to this Proclamation. Without prejudice to the foregoing, the exclusive economic zone of Kenya shall:

51 Now The Fisheries Management and Development Act, Act No 35 of 2016.

52 Kenya Gazette Supplement No. 55; Legal Notice No. 82 of 2005.

53 Supra, note 37.

(a) In respect of its southern territorial waters boundary with the United Republic of Tanzania be easterly latitude north of Pemba Island to start at a point obtained by the northern intersection of two arcs one from the Kenya light-house Mpunguti ya Juu Island, and the other from Pemba Island lighthouse at Ras Kigomasha.

(b) In respect of its northern territorial waters boundary with Somalia Republic be on easterly latitude South of Diua Damascian Island being latitude 1° 39' 34" South.

2. That this Proclamation replaces the earlier Proclamation by Kenya but shall not affect or be in derogation of the vested rights of the Republic of Kenya over the continental shelf as defined in the Continental Shelf Act, 1973.

3. All States shall, subject to the applicable laws and regulation (sic) of Kenya, enjoy in the exclusive economic zone the freedom of navigation and over-flight and of the laying of submarine cables and pipelines and other internationally recognized uses of the sea related to navigation and communication.

4. That the scope and regime of the exclusive economic zone shall be as defined in the schedule attached to the proclamation.

Two schedules and an illustrative map were attached to the Proclamation. The first schedule indicated the geographical co-ordinates for the area of the territorial waters, and the second schedule indicated the geographical co-ordinates for the exclusive economic zone. The text of the Proclamation was transmitted through a note verbale dated 11 April 2006 from Kenya's Permanent Mission to the United Nations. Probably the most fundamental effect of this Proclamation was to reverse the provision of the Maritime Zones Act on the delimitation of the exclusive economic zone with Somalia from the same being "pursuant to an agreement between Kenya and Somalia on the basis of international law" to being unilateral by Kenya.

Delimitation of Kenya's maritime zone[54]

The concept of 'maritime delimitation' entails the establishment of lines separating the spatial dimension of coastal state jurisdiction over maritime space where legal title overlaps with that of another state, either because the coastlines are adjacent or are opposite each other.[55] Maritime delimitation is different from maritime limits, the latter being a unilateral act whereby a single state draws lines that define its maritime spaces that are not in contact with those of another state, and the former being an operation carried out between two or more coastal state attempts to exercise spatial jurisdiction over the same maritime space. The International Court of Justice enunciated the fundamental norm of maritime delimitation in the *Gulf of Maine* (Canada/United

54 See also, Charles O. Okidi, ,'Legal Aspects of Management of Coastal and Marine Environment in Kenya', in CO Okidi et el (eds) *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers Nairobi, 2008), at pp.445-455.

55 Yoshifumi Tunaka, *The International Law of Sea*, 2nd ed. (Cambridge University Press, Cambridge, 2015), at pp. 197-198. See also, R.R. Churchill & A. V. Lowe, *The Law of the Sea,* 3rd ed. (Manchester University Press, Manchester, 1999), at pp. 181-191.

States) case[56] when it stated:

> What general international law prescribed in every maritime delimitation between neighbouring states could therefore be defined as follows:
>
> (1) No maritime delimitation between States with opposite or adjacent coasts may be effected unilaterally by one of those States. Such delimitation must be sought and effected by means of an agreement, following negotiations conducted in good faith and with the genuine intention of achieving a positive result. Where, however, such agreement cannot be achieved, delimitation should be effected by recourse to a third party possessing the necessary competence.
>
> (2) In either case, delimitation is to be effected by the application of equitable criteria and by the use of practical methods capable of ensuring, with regard to the geographic configuration of the area and other relevant circumstances, an equitable result.

In essence, maritime delimitation, unlike maritime limits, is by nature international and, under the contemporary international law of the of the sea, comprises delimitation of the territorial sea and contiguous zone, delimitation of the continental shelf, and delimitation of the exclusive economic zone. The 1958 Geneva Conventions and the 1982 UN Convention provide for the delimitation of these zones. However, despite these international law instruments and the many bilateral treaties establishing maritime boundaries, it is noteworthy that there has been a lot of international litigation in this area of the law of the sea.[57]

An analysis of Kenya's legal and administrative measures taken to implement the international norms on maritime delimitation reveals a situation of confusion. The provisions of some of these measures are in harmony with the international law instruments to which Kenya is a party. Others are not. With respect to the territorial sea and the contiguous zone, Article 6 of the 1958 Convention on the Territorial Sea and Contiguous Zones provided that:

> Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured. The above provision does not apply, however, where it is necessary by reason of historic title or other special circumstances to delimit the territorial seas of the two States in a way which is at variance therewith.

Articles 4 and 15 of the 1982 UN Convention on the Law of the Sea[58] are substantively in identical terms.

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56 Gulf of Maine Case (Canada/United States) (1984) ICJ Rep. 246, at p. 299, para. 112.

57 See, for instance, United Nations, *Handbook on the Delimitation of Maritime Boundaries* (United Nations Publication Sales No. E. 01.V.2, 2000), at pp 144-145, for a list of maritime boundary delimitation cases decided by the ICJ and international arbitral tributes from 1951 to 1998; and Donald R. Rothwell and Tim Stephens, *The International Law of Sea*, (2nd edition Hart Publishing, Oxford, 2016), at p. 424, for a list of ICJ judgments on maritime boundary delimitation from 1969 to 2015.

58 UN Convention on the Law of the Sea, (adopted on 10 December 1982, entered into force 16 November 1994) 1833 UNTS

Section 2 of Kenya's Territorial Waters Act, 1972, and section 3 of the Maritime Zones Act, 1989, are not are not, in substance in harmony with international law. They do not incorporate the triple rule of "agreement-equidistance-special circumstances" provided under Articles 12(1) of the 1958 Convention on the Territorial Sea and Contiguous Zones and 15 of the 1982 UN Convention on the Law of the Sea, respectively. Given that maritime delimitation is not unilateral, the failure of Kenya's law to refer to 'agreement' ignores and downplays the international character of maritime delimitation. Besides, it does not reflect the international law principle of state equality.[59]

Kenya's legislative and administrative measures are silent on the delimitation of the contiguous zone. Both the Territorial Waters Act and the Maritime Zones Act laws have no provision on this. It is understandable why the Maritime Zones Act does not provide for this. However, for the Territorial Water Act, it should have provided for this as the 1958 Convention on the Territorial Sea and Contiguous Zones, that it sought to implement, provided for this and there was no logic in the implementation of part only of the convention.

Article 24(3) of the convention provided a rule different from that governing the territorial sea:

> Where the coasts of two states are opposite or adjacent to each other, neither of the two states is entitled, failing agreement between them to the contrary, to extend its contiguous zone beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial sea of the two States is measured.

Further, the law fails to set out the rights and duties of Kenya as well as those of third states, such as the right of innocent passage that is to be enjoyed by ships of all states under Article 14 of the Convention. Indeed, the Act lays down no specific functions, activities or objects that are subject of control by Kenya. Whether it may be assumed that these are governed by the rules of customary law or the Convention to which reference is made by the Act is not clear; this creates grey areas that lead to lack of predictability.

As mentioned above, the absence of any provision on the delimitation of the contiguous zone is understandable. Unlike the 1958 Convention on the Territorial Sea and Contiguous Zone, the 1982 UN Convention on the Law of the Sea that the Maritime Zones Act seeks to implement has no provision on the contiguous zone.[60] This is because the contiguous zone forms part of the exclusive economic zone, for states proclaiming an exclusive economic zone, whose delimitation will automatically be that of the contiguous zone as well.

The general rule governing the delimitation of the territorial sea and the contiguous zone applies

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397.

59 The principle of state equality is the fundamental basis of inter state relations and character of contemporary international law, including the negotiations and adoption of bilateral and multilateral agreements between and among states. Indeed, the principle of state equality is one of the principles that govern the activities of the United Nations – see Article 2(1) of the Charter of the United Nations.

60 Article 33, UN Convention on the Law of the Sea, (adopted on 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397

equally to the delimitation of the continental shelf. Under Article 6 of the 1958 Convention on the Continental Shelf, where the continental shelf is adjacent to the territories of two or more states whose coasts are adjacent or opposite to each other, the boundary of the continental shelf appertaining to such states shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary shall be determined by application of the principle of equidistance from the nearest point of the baselines from which the breadth of the territorial sea of each state is measured.

The Continental Shelf Act of Kenya[61] made a half-hearted attempt to declare and define Kenya's claims over the marine resources of the seabed and sub-soil adjacent to its coast. Section 3 of the law vested in the government "all existing rights in respect of the continental shelf and the natural resources thereon, therein and thereunder, and all such rights as may from time to time hereafter by right, treaty, grant, usage, suffrage or other lawful means become exercisable by the Government or appertain to Kenya." The lack of any provision on the spatial dimension, delimitation, and the rights and duties of other states sends a confusing message to the international community about Kenya's implementation of international norms and its fidelity to the principle of *pacta sunt servanda*.[62] The legislation should have specifically provided for important issues such as marine scientific research on the continental shelf, laying of submarine cables and pipelines on the continental shelf, and control of marine pollution, all of which are activities that impact Kenya's rights and interests over its continental shelf. The scope of the legislation needed to be expanded to accommodate these and other issues.

The Maritime Zones Act[63] that repealed both the Territorial Waters Act and the Continental Shelf Act in 1989, did little to address the shortcomings highlighted above. First, although the long title of the Act provides that the Act is "to consolidate the law relating to *the territorial waters and the continental shelf of Kenya",* it has no single provision relating to the continental shelf as it defines 'maritime zones' to mean "the exclusive economic zone together with the territorial waters and the airspace above the economic zone", thus excluding the continental shelf from its scope. Second, section 3 of the Act is identical to section 2 of the Territorial Waters Act in providing that the breadth of the territorial waters shall be 12 nautical miles measured in accordance with the 1982 United Nation Convention on the Law of the Sea. In a 'cut and paste' approach, section 3(3) of the Maritime Zones Act, in words identical to section 2(3) of the repealed Territorial Waters Act, provides that "For the purposes of Article 7 of that Convention, Ungwana Bay shall be deemed to be and always to have been an historic bay", notwithstanding that Article 7 of the 1982 convention has no provision on bays! Third, with respect to the delimitation of the territorial waters, section 3(4) of the Maritime Zones Act fails to incorporate the triple rule of "agreement-equidistance (median line)-special circumstances" provided for under Article 15 of the 1982 convention.

61 Act No. 3 of 1975, Chapter 312, Laws of Kenya, 1978.

62 The fundamental principle of law of treaties that every treaty in force is binding upon the parties to it and must be performed in good faith, now codified by Article 26 of the 1969 Vienna Convention on the Law of Treaties; 1155 UNTS 331.

63 Chapter 371, Laws of Kenya 1991.

Section 4 of the Maritime Zones Act proclaims an exclusive zone of Kenya up to 200 nautical miles from the baselines, and provides for the delimitation of the southern boundary with Tanzania and the northern boundary with Somalia. The southern boundary with Tanzania was delimited by agreement in 1976.[64] With respect to the northern boundary with Somalia, section 4(4) provides that this shall be delimited by notice in the Gazette by the Minister pursuant to an agreement between Kenya and Somalia on the basis of international law, thus reflecting the substance of the 1982 UN Convention on the Law of the Sea. Articles 74(1) and 83(1) of the convention formulate identical rules for the delimitation of the exclusive economic zone and the continental shelf:

> The delimitation of the exclusive economic zone {the continental shelf} between States with opposite and adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution.

However, before that agreement could be negotiated and concluded, in June 2005, President Mwai Kibaki issued a proclamation whose essence was a unilateral delimitation of the boundary of the exclusive economic zone between Kenya and Somalia.[65] The Proclamation was to establish the extent of the exclusive economic zone of Kenya and was to apply "notwithstanding any rule of law". The President proclaimed that the exclusive economic zone of Kenya shall "in respect of its northern territorial water boundary with Somalia Republic be on easterly latitude South of Diua Damascian Island being latitude 1° 39', 34" degrees south". This Proclamation was transmitted to the Secretary General of the United Nations from the Permanent Mission of Kenya to the UN through a note verbale dated 11 April 2006, and has not been amended or withdrawn. The question raised by this measure is whether, as at now, the Presidential Proclamation overrides and supersedes the clear words of an Act of Parliament! This is a constitutional matter for the courts to determine.

Nonetheless, it is significant to note that the Presidential Proclamation above was to be one of the cornerstones in the unilateral application by Somalia instituting proceedings, before the International Court of Justice, in August 2014, against Kenya, on the maritime delimitation in the Indian Ocean.[66] In its application, Somalia accused Kenya of "excessive and unjustifiable maritime claims" that lack legal foundation, and asked the court to determine, on the basis of international law, the complete course of the single maritime boundary dividing all the maritime areas appertaining to Somalia and Kenya in the Indian Ocean, including the continental shelf beyond 200 nautical miles. The case is yet to be heard and determined on the merits: Kenya's preliminary objections to admissibility of the claim and the court's jurisdiction were dismissed by the court in its judgment of 2 February 2017.

Sections 9 and 11 of the Maritime Zones Act empower the minister to make regulations that may be necessary or expedient for carrying out an array of activities relating to the objects and purposes

64 19 UNLS 106.

65 Kenya Gazette Supplement No. 55; Legal Notice No. 82 of 2005.

66 See paras. 21 – 24 of Somalia's Application filed in the Registry of the Court on 28 August 2014, General List No. 161.

of the Act and to limit this application of the Act so far as it may be necessary to give effect to any convention on the law of the sea or to any other international agreement or convention affecting maritime exploitation and conservation, and management of the resources of the maritime zones or activities therein, some of which may impact Kenya's strategic interests.

The exploration, exploitation and conservation and management of the fisheries in Kenya's exclusive zone are of strategic importance to the country, at least from the socio-economic point. However, the Fisheries Act,[67]which applies to the exclusive economic zone by virtue of section 8(1) of the Maritime Zones Act, provides that Kenya shall have full jurisdiction and sovereign rights over fisheries resources in accordance with the Maritime Zones Act and such other maritime zones or areas which may be claimed from time to time.[68] The capacity to exercise the full jurisdiction and sovereign rights may still be the biggest challenge.

V. CONCLUDING REMARKS

When Kenya joined the league of states whose ocean affairs are governed by the international legal regime, the expectation was that it would appropriate the whole bundle of benefits that are conferred by the regime.

The expectation was further heightened by the widely acknowledged role that Kenya was to play during the Third United Nations Conference on the Law of the Sea.[69] With the 1982 UN Convention on the Law of the Sea now in force, Kenya's legislative and administrative measures to implement the provisions of the convention lack the expectations of comprehensiveness and boldness, as well as the passion manifested during the negotiations of the convention.

Given the wide and varied scope of the convention, Kenya needs to repeal the Maritime Zones Act and to replace it with a more comprehensive statute, which addresses the areas discussed above and is in harmony with its international law obligations. In particular, Kenya's legislative measures need to address and clarify some of the controversial issues that arise due to the imprecise nature of the provisions of the 1982 Convention.

For instance, due to absence of a clear provision on the subject in the convention, there is controversy over the right of innocent passage through the territorial sea for warships. Some countries insist on the right of innocent passage on an un-impeded and unannounced basis, while others, such as China, insist on prior notification and prior permission. Yet, there are others that require foreign ships conducting innocent passage to carry equipment that enables the coastal states to monitor the ships' movement, since the convention does not expressly prevent the

67 The Fisheries Act, Chapter 378 of the Laws of Kenya, (repealed by the Fisheries Management and Development Act), Act No. 35 of 2016.

68 Section 3(1), The Fisheries Management and Development Act, Act No. 35 of 2016.

69 See, for instance, Nasila Rembe, *Africa and the international Law of the Sea* (Sijithoff and Noordohoff, Alphen aan den Rijn, 1980), pp. 116-142; Charles O Okidi, 'The Role of the OAU Member States in the Evolution of the Concept of the Exclusive Economic Zone in the Law of the Sea: The First Phase', 7 (1 Dalhousie Law Journal 39 (1982); and Yoshifumi Tanaka, *The International Law of the Sea*, (2nd edition Cambridge University Press, Cambridge, 2015), pp. 127-128.

imposition of such a measure.[70] Other coastal states, such as Romania[71] and Lithuania,[72] prohibit passage of ships carrying nuclear and other weapons of mass destruction through their territorial waters.

Controversy also surrounds the extercise of military activities in the exclusive economic zone, the issue being whether military operations and exercises can be regarded as internationally lawful uses of the sea, and whether the right to conduct such activities is open to all states within the enclave economic zones of other states. The combined effects of Articles 58, 86 and 87 of the convention is to internationalize the exclusive economic zone and to apply thereto the regime of the high seas for purposes of navigation and overflight rights "and other internationally lawful uses of the sea related to these freedoms."

Would surveillance and intelligence collection flights or collection of marine data or hydrographic surveys within the exclusive economic zone of a coastal state be legitimate under the Convention? These and related activities by such maritime powers as the USA are a source of friction with states that seek to expand their authority over their exclusive economic zones. The current disputes between the US and China over the American military intelligence collection flights within the exclusive economic zones of China are examples of incidents that could be avoided with clear comprehensive legal provisions.

Finally, the provisions of the convention on environment (Part VII) are couched in language that largely calls states to duties, rather than obligations, and asks them to reflect on their own environmental impacts, their influence on others and how partnerships can be formed to study and respond to pollution. In essence, the convention allows for the application of domestic environmental laws and regulations. Conflicts are bound to arise between coastal and port states, such as Kenya, applying their laws and regulations, and flag states insisting on application of theirs.

70 See John A Knauss & Lewis M Alexandra, 'The Ability and Rights of States to Monitor Ship Movement: A Note', 31 Ocean Development and International Law 377(2000), at p. 379.

71 Act Concerning the Legal Regime of Internal Waters, the Territorial Sea and Contiguous Zone of Romania (Aug 07, 1990); 19 I. Seas Bulletin 9, 11 (1991).

72 Legislation on Territorial Sea, 25 Seas Bulletin 75 (1994).

Chapter 16

Unbundling the Public Interest Component in International Maritime Law

Paul Musili Wambua

I. INTRODUCTION

International maritime law (IML) plays a prominent role in safeguarding public interest. However, its extent and nature as a branch of law is often overshadowed and undermined by its historical origin, growth and perception. Originally private sector players for protection and regulation of contractual interests spearheaded development of IML. The public nature and extent of many maritime perils has however over the years created the need for, and indeed resulted in, the evolution of the international maritime regime to one prominently encompassing both private as well as public interests. This chapter examines the important public interest role that IML plays. The chapter examines the public interest element of IML through a historical perspective by focusing on the role IML has played in marine environmental protection, safety and security at sea. To illustrate this, the chapter analyses three incidents: the 1912 massive loss of human life from the sinking of the *Titanic;*[73] the 1967 mass destruction of human and marine life from the *Torrey Canyon*[74] massive oil spill, as well as hijacking of the *MV Achille Lauro*[75] in the Mediterranean Sea. An analysis of these three incidents

73 *RMS Titanic* sank in the early morning of 15 April 1912 in the North Atlantic Ocean, four days into the ship's maiden voyage from Southampton to New York City. The *Titanic* carried 2224 people of all ages, genders and only 710 escaped in lifeboats and later rescued by the *RMS Carpathia*. It is estimated that 1514 people died in the icy waters of the Atlantic Ocean. (For a detailed report on the sinking of the *Titanic* see <https://www.theguardian.com/news/1912/apr/16/leadersandreply.mainsection> accessed 15 October 2018.

74 The *Torrey Canyon* oil spill is recorded as one of the world's most serious oil spills. The supertanker SS Torrey Canyon ran aground on a reef off the south-west coast of the United Kingdom on 18 March 1967, spilling an estimated 94–164 million litres of crude oil. Hundreds of miles of coastline in Britain, France, Guernsey, and Spain were affected by the oil and other substances used in an effort to mitigate the environmental damage. Covering some 1,000 square kilometres, the *Torrey Canyon* oil spill caused massive coastal pollution around Cornwall, the Channel Islands and Brittany (For a comprehensive report on the *Torrey Canyon* oil spill see *Torrey Canyon disaster – the UK's worst-ever oil spill 50 years on,* reported in *The Guardian- International Edition* <https://www.theguardian.com/environment/2017/mar/18/torrey-canyon-disaster-uk-worst-ever-oil-spill-50tha-anniversary-> accessed 15 October 2018.

75 The Italian ship *MS Achille Lauro* was hijacked on 7 October 1985 by four men representing the Palestine Liberation Front off the coast of Egypt, as she was sailing from Alexandria to Ashdod, Israel. The Italian cruise liner was on a 12-day trip from its port of Genoa. The trip was to include stops in Egypt and Israel. The vessel carried more than 750 passengers from several nations and a predominantly Italian crew of 331, the ship entered the port of Alexandria on 7 October. Most of the passengers disembarked for a day-long tour of Egypt, with the remaining passengers and crew, numbering approximately 400, continuing to Port Said. Shortly after leaving Alexandria, four Palestinian terrorists seized control of the ship. It was believed that the terrorists, who boarded the ship in Genoa, had planned to carry out an attack at the Israeli port of

at sea reveals the prominent role of public interest in all maritime adventures. To further illustrate the public interest element in IML, the chapter examines the historical origin and the role of two international institutions: the Comité Maritime International (CMI) and the International Maritime Organization (IMO). The role and functions of the CMI and the IMO are illustrative of the deliberate institutionalization of the public interest element in IML by the international maritime community.

The chapter begins by examining the traditional distinction of maritime law as representing the private aspect of the oceans and the law of the sea as representing the public aspect. A historical analysis is set out to demonstrate that maritime and admiralty laws were the oldest laws to be developed as maritime trade flourished. The public interest element represented by the law of the sea was developed much later culminating in the so-called constitution of the oceans that is the 1982 United Nations Convention on the Law of the Sea (UNCLOS). The historical analysis demonstrates the public interest element in matters touching on shipping, which was considered a private undertaking as opposed to the public nature of relations between states on matters touching on the sea. The chapter concludes that in the face of the evolving nature of maritime space use, resources and interests, the interests of state, groups, international organizations and individuals are interwoven and that the thin line between the public and private interests has become blurred and may have collapsed into one huge interest. The chapter therefore argues for greater recognition of the public interest component of IML.

The discussion in this chapter is inspired by the scholarly work of Prof Charles Okidi, most of which focused on clarifying the content of sustainable development and designing measures to achieve the same. Indeed, this focus on designing measures to achieve sustainable development has been the life-long quest of Prof Okidi, whose scholarship is coterminous with diverse defining moments in the development of environmental law and governance. In the spirit of clarifying content, the chapter unbundles the public interest element of IML against the backdrop of the evolving nature of maritime space use, resources and interests. It is our genuine hope that the chapter is a worthy contribution to the *Festschrift/liber amicorum* (book of friends) in honour of a great scholar, mentor, patriot and friend, whose contribution to the academy, national, regional and international environmental governance leaves a legacy comprising of indelibly etched footprints in the sands of time.

Ashdod, one of the stops on the cruise. This was to be in retaliation for the 1 October Israeli raid on the headquarters of the Palestinian Liberation Organization in Tunisia. The hijackers ordered the ship to sail towards Tartus, Syria, where Syrian authorities denied permission for the ship to enter the port. It was off the Syrian coast that the terrorists killed Leon Klinghoffer, an elderly American who was confined to a wheelchair, and threw his body overboard. The ship then returned to 15 miles off the coast of Port Said, where Egyptian and PLO officials negotiated an end to the hijacking. The Palestinians were given safe passage out of Egypt in exchange for the release of the hostages and the ship. The Egyptian government subsequently claimed that it had no knowledge that anybody aboard the ship had been killed. In a rapid sequence of events, US Navy F-14 fighter planes intercepted the Egyptian airliner carrying the hijackers and Palestine Liberation Front leader Abul Abbas, the mastermind of the terrorist operation. The Egyptian plane was forced to land at a US-Italian military base in Sicily, where Italian officials arrested the four hijackers, but allowed Abul Abbas to leave the country.(For a comprehensive analysis of the hijacking see *The Achille Lauro Hijacking Comes to A Close October 10, 1985* <https://specialoperations.com/31772/achille-lauro-hijacking-comes-close-october-10-1985/> - accessed 15 October 2018.

II. DEFINITIONAL COMPLEXITY AND THEORETICAL UNDERPINNING OF PUBLIC INTEREST IN IML

There is no universally accepted definition of 'public interest'. This is mainly because establishing a universal definition depends on many factors, including a successful social and political debate in which actors can reach a consensus on values and actions and enter into agreement on the basis of enlightened consent.[76] Utilitarianism[77] defines 'public interest' in terms of its consequences for those affected by a particular action. According to the utilitarian approach, public policy prevails if those that are affected are in a position to present an enlightened consent to the actions that are proposed. Applying the utilitarian approach to the historical functioning of IML, it is possible to justify the great public interest component as the rationale for the responses by the international community to the three maritime disasters involving the *Titanic*, the *Torrey Canyon* and the *Achille Lauro*.

Utilitarianism falls under the broad consequential ethical theories, which hold that the moral justification (the 'rightness' or 'wrongness') of any act, rule or institution can only be based on the intended consequence or result. On the extreme end of the spectrum are the 'deontological' or duty-based theories, which hold that, an act rule or institution can only be justified on the basis of duty.[78] Accordingly, based on the utilitarian theory, an act is morally acceptable and justifiable if it produces the greatest net benefit to society as a whole, where the net social benefit equals social benefits minus social costs.

'Rule utilitarianism' (as opposed to 'act utilitarianism') involves a set of rules designed to achieve the greatest net positive consequences over time -- whether in the short term or in the long term. Rule utilitarianism measures the consequences of the act repeated over time as if it were to be followed as a rule whenever a similar circumstance arose. It establishes the best overall rule that would be pursued by the whole community and the rule must be followed even if it does not lead to the greatest happiness for the individual at the time but would bring about the greatest happiness for the community in the long term. Rule utilitarianism argues for a pluralistic moral code on three grounds: calculating the consequence of every given action in advance may lead to

76 The basis of the 'enlightened consent' is the fictional social contract theory which was originally put forward by Socrates but which was developed by subsequent scholars including the 20th Century versions of John Rawls, David Gautier and others. For a detailed discussion on the social contract theory see the Encyclopaedia of Philosophy < https://www.iep.utm.edu/soc-cont/ > accessed 5 June 2018.

77 Utilitarianism is a normative ethical theory that places the locus of right and wrong solely on the outcomes (consequences) of choosing one action or policy over other actions or policies. As such, it moves beyond the scope of one's own interests and takes into account the interests of others. The theory was first stated by Jeremy Bentham and subsequently developed by John Stuart Mill, who developed the 'rule utilitarian' version of the theory. For a detailed discussion on utilitarianism see *A critical Reflection on Utilitarianism as the Basis for Psychiatric Ethics* <https://www.jemh.ca/issues/v2n1/documents/JEMH_V2N1_Article1_UtilitarianismAsAnEthicalTheory.pdf > accessed 5 June 2018.

78 Deontology is associated mostly with German philosopher Emmanuel Kant, who argued that the highest good was the goodwill, and morally right actions are those carried out with a sense of duty. Thus, it is the intention behind an action rather than its consequences that make that action good. For a detailed discussion on the deontological theories, see <http://darwin.eeb.uconn.edu/eeb310/lecture-notes/value-ethics/node3.html > accessed 5 June 2018.

mistakes; important rules may be undermined if we consider the consequence of a single act only; and it is too demanding to ask an individual or a state to promote total social well being.

Utilitarianism therefore provides the theoretical underpinning of the intervention by the international community in the adoption of the various maritime codes on marine pollution, maritime safety and maritime security following the occurrence of the three maritime disasters involving the *Titanic*, the *Torrey Canyon* and the *Achille Lauro*. In this regard, utilitarian theory provides a suitable theoretical underpinning for the discussion in this chapter.

III. THE TRADITIONAL DICHOTOMY: IML VERSUS THE LAW OF THE SEA

The traditional distinction between maritime law and the law of the sea has been presented as a distinction between maritime law as representing the private aspect of the use of seas and, the law of the sea as representing the public aspect of the use of the sea. This approach takes the view that there is a clear public law-private law dichotomy between the two branches of the law. Some scholars have suggested that maritime law and the law of the sea are mutually exclusive; maritime law is domestic, whereas the law of the sea is international.[79]

There is certainly a strong justification for such public law-private law dichotomy. For instance, it has been argued that due to the need to balance competing interests between the state and private individuals and entities, once a treaty is characterized as 'private', governmental interests must *ipso facto* be subordinate to the private interests, which should have the controlling voice in deciding what the terms of the treaty ought to provide.[80] Any suggestion, however, that 'the conventions or treaties relating to maritime law are absolutely private while others are absolutely 'public' or that "there can or ever will be an equal distribution of power between the competing interests" in many cases obscures the need for the widespread public interest attention as well as the very serious public concern that governments should have and that every one of these 'private law' treaties deserves.[81]

The author agrees with the view that IML is a dynamic and evolving branch of law.[82] While IML's inception was innately shaped by the need to protect individual merchant interests, the effect and management of maritime adventures raise fundamental public interest concerns. In response to this, the current IML system encapsulates both public and private interest.[83] It includes not only admiralty law, but also maritime statutes and regulations enacted on a nation by-nation basis or

79 <https://www.houstoninjurylawyer.com/maritime-law-vs-law-sea/ >accessed 3 June 2018.

80 Allan I Mendelsohn, 'The Public Interest and Private International Maritime Law' (1969) 10 Wm. & Mary L. Rev. 783, 784-785. <http://scholarship.law.wm.edu/wmlr/vol10/iss4/3 >accessed 1 June 2018.

81 ibid.

82 Maritime Law Answer Book, (2014) 7 <https://www.pli.edu/product_files/Titles%2F6728%2F54725_sample01_20141011115534.pdf> accessed, 1 June 2018.

83 See William Tetley, *Glossary of Maritime Law Terms*, 2nd Edn., (2004) <http://www.pfri.uniri.hr/~bopri/documents/02_MaritimeLaw.pdf > accessed 1 June 2018.

based on international conventions.[84] While public and private interests in matters concerning the seas are significantly diverse, private interests would be greatly prejudiced by any exclusive segregation from public interests. IML therefore has a conspicuous linkage with public interest and also has a core public interest component.

IV. THE PRACTICAL LINK BETWEEN IML AND PUBLIC INTEREST

As noted above, an analysis of the 1912 massive loss of human life from the sinking of the *Titanic*, the 1967 *Torrey Canyon* massive oil spill, as well as the 1985 *Achille Lauro* hijacking present real life scenarios that demonstrate the practical link between IML and public interest. The recent piracy cases off the coast of Somalia have buttressed the argument that the thin line between the private interest and the public interest in IML is fading with every passing day.[85]

The *MV Titanic* disaster, emanating from a 'private' voyage contract, led to great maritime disaster with massive loss of human life. Reported as one of the deadliest peacetime maritime disasters in history, it killed more than 1,500 out of an estimated 2,224 passengers on board. *RMS Titanic* sank on 15 April 1912 in the North Atlantic Ocean. This was four days into the ship's maiden voyage from Southampton to New York City. The effect of this luxury passenger liner disaster has been attributed to regulatory and operational failures, whose aftermath led to major improvements in maritime safety. The improvements include the adoption in 1914 of the International Convention for the Safety of Life at Sea (SOLAS), which governs maritime safety at sea to date. The *Titanic* disaster also led to the adoption of new wireless regulations around the world in an effort to learn from the reported missteps in wireless communications, which may have saved lives.

The *MV Torrey Canyon* disaster, which led to massive oil pollution at sea, also emanated from a 'private' contract of oil shipment.[86] It was the first oil spill involving the first generation of super-tankers. The effect of this contract of shipment evolved into a grave issue of public concern when the vessel was wrecked on 18 March 1967 on the Pollard Rock of the Seven Stones reef, 15 miles (25 km) from Land's End, Cornwall, United Kingdom.[87] The 970-foot (300m) tanker was bound for oil refineries at Milford Haven with 117,000 tonnes of Kuwaiti crude oil. She struck the rocks at 17 knots, tearing open six of her 18 storage tanks and less severely damaging the others. Salvage attempts failed. The ship progressively broke up over the next six weeks due to storm damage and bombing on the 28, 29 and 30 March in an attempt to burn up the oil. She ended up a submerged, broken wreck, being officially declared to contain no more oil towards the end of April 1967.

84 See (n 10) 3 above.

85 See <https://www.un.org/press/en/2017/sc13058.doc.htm > accessed 3 June 2018.

86 AE Utton, 'Protective Measures and the "Torrey Canyon"' (1968) 9 B.C.L. Rev. 613 <http://lawdigitalcommons.bc.edu/bclr/vol9/iss3/4 > accessed 3 June 2018.

87 Fifty years after the wreck of the Torrey Canyon: The Work of the Marine Biological Association of the UK on Acute Impacts and Subsequent Recovery. <https://www.mba.ac.uk/sites/default/files/katcla/50_year_anniversary_of_Torrey_Canyon_more_info.pdf> accessed 3 June 2018.

There are two *MV Achille Lauro* incidents that are relevant to the discussion in this chapter. *MV Achille Lauro* was a cruise ship registered in Naples, Italy, which was initially built as *MS Willem Ruys*, a passenger liner. The first incident was its collision with *MV Oranje* on 6 January 1953, in the Red Sea. At that time, it was common for passenger ships to pass each other at close range to entertain their passengers. It is reported that due to the possibility that she would be impounded for safety reasons, *MV Oranje* failed to call at Colombo as scheduled, and went directly to Jakarta. There was no loss of life reported. The reported determined cause for the collision was miscommunication on both ships.

The second incident involving *MV Achille Lauro* and which is significantly relevant to the discussion in this chapter is its seizure on 7 October, 1985, as an Italian-flag cruise ship, sailing from Alexandria to Port Said. The seizure of the *MV Achille Lauro* raised public interest concerns, which cut across the disciplines of international criminal law and international relations. The 1985 *Achille Lauro* incident occurred against the backdrop of rising terrorism worldwide.[88] The hijackers had boarded the vessel, posing as tourists.[89] The hijackers were a faction of the Palestinian Liberation Organization (PLO) seeking the release of 50 Palestinian prisoners by Israel.[90] They threatened to blow up the ship if a rescue mission was attempted. When their demands had not been met by the following afternoon, the hijackers shot one of the passengers, one Leon Klinghoffer, a Jew of American nationality, who was partly paralyzed and on a wheelchair. They threw his body and wheelchair overboard.[91]

The *Achille Lauro* incident is reported as symbolic and as of utmost significance, because it involved a target that the public was not accustomed to; associating with acts of terrorism at sea and a great concern for safety in the use of the sea for pleasure and business travels.[92] Several urgent public interest related questions were raised as needing attention: security measures taken at ports and aboard passenger ships; the issue of intelligence gathering and dissemination of information about international terrorism; and the need for timely and accurate information, as well as comprehensive assessments of the potential risks that the shipping industry faces from the threat of terrorism.[93] The *Achille Lauro* hijacking also resulted in the temporary collapse of the government of Prime Minister Bettino Craxi and further led to strained relations between the United States and both Egypt and Italy following the US interception of the Egyptian airliner carrying the Palestinian terrorists; thereby demonstrating the need for better international cooperation in the fight against terrorism.[94] The

88 JD Simon, 'The Implications of the *Achille Lauro* Hijacking for the Maritime Community' (1986), Paper prepared for the 1st International Workshop on Violence at Sea, San Jose, California, March 17-19, 1 <http://www.dtic.mil/dtic/tr/fulltext/u2/a178441.pdf > accessed 2 June 2018.

89 M Halberstam, 'Terrorism on the High Seas: The *Achille Lauro*, Piracy and the IMO Convention on Maritime Safety' , p.1 <http://www.uio.no/studier/emner/jus/humanrights/HUMR5503/h09/undervisningsmateriale/halberstam_achille_lauro.pdf > accessed 2 June 2018.

90 ibid.

91 ibid.

92 ibid 2.

93 ibid.

94 ibid.

seizure of *Achille Lauro* provided the required momentum that resulted in the adoption of the IMO's Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (the SUA Convention) by member states on 10 March 1988.[95]

After the year 2000, there was a noticeable increase in incidents of piracy and armed attacks on ships using the Gulf of Aden maritime route, compared to other maritime routes. In the year 2008, over 100 attacks, including over 40 successful hijackings, culminated in hundreds of passengers and crew-members being taken hostage by pirates off the coast of Somalia.[96] The pirates demanded millions of dollars in ransom in exchange for the captured hostages, ships and cargo. Other negative consequences of the upsurge in piracy off the coast of Somalia include, but are not limited to, the disruption of critical humanitarian aid deliveries to Somalia as well as other affected areas in the region; increased marine insurance costs; and the potential environmental disasters in cases where huge oil tankers are blown up or sunk by the pirates in cases where ransom was not paid.[97]

In 2010, the International Maritime Bureau Piracy Reporting Centre (IMB PRC) reported that there were a total of 406 piracy attacks in the year 2009. It was further reported that, the recorded incidents of piracy increased for the third successive year since 2006.[98] With the increase in the number of piracy attacks in the Gulf of Aden and off the coast of Somalia, the alarmed international community initiated elaborate programmes in an attempt to counter the piracy menace. The counter piracy efforts by the international community are exemplified by the intervention of the United Nations Security Council (UNSC). In 2008, UNSC adopted no less than 10 Chapter VII-based Resolutions (UNSCRs) aimed at containing the escalating threat of piracy and armed robbery against ships off the coast of Somalia. This was followed by another four resolutions in 2009.[99] Similarly, many other international organizations made more concerted efforts to curb maritime insecurity off the coast of Somalia.

The International Maritime Organization (IMO) has adopted many legal instruments aimed at minimizing maritime security threats at sea. These instruments include, *inter alia*, the International Ship and Port Facility Security Code (ISPS Code), and IMO Code of Practice for the Investigation of the Crimes of Piracy and Armed Robbery against Ships and the requirement for Long Range Identification and Tracking of Ships. The United Nations Office on Drugs and Crime (UNODC), the European Union (EU) and the North Atlantic Treaty Organization (NATO) have all

95 For a full text of the treaty, see <http://oceansbeyondpiracy.org/sites/default/files/SUA_Convention_and_Protocol.pdf > accessed 6 June 2018.

96 See report by the US Department of State, <http://www.state.gove/t/pm/rls/othr/misc/121054.htm > accessed 5 June 2018.

97 ibid.

98 See report at <http://www.icc- ccs.org/index.php?option=com_content&view=article&id=385:2009-worldwide-piracy-figures-surpass-400&catid=60:news&Itemid=51 > accessed on 5 June 2018.

99 Between 2008 and 2011 there were at least 10 United Nations Security Council (UNSC) resolutions on piracy off the coast of Somalia, namely; 1816 (2008), 1838 (2008), 1846 (2008), 1851 (2008), 1897 (2009), 1918 (2010), 1950 (2010), 1976 (2011), 2015 (2011) and 2020 (2011) six of which have been under Chapter VII of the UN Charter. For full text of all the UNSC resolutions on Somalia, see search engine for UNSC Resolutions at <http://unscr.com/en/resolutions/2383 >accessed 6 June 2018.

been involved in counter piracy operations in the Gulf of Aden and off the coast of Somalia.[100] The continuing nature of the threat of piracy off the coast of Somali has resulted in the unanimous adoption of a recent resolution by the UNSC renewing authorization for international naval forces to fight piracy off the coast of Somalia, clearly demonstrating the public interest link as well as the international institutional response to the threat of piracy.[101]

V. INTERNATIONAL INSTITUTIONAL FRAMEWORK: THE LINK BETWEEN PUBLIC POLICY AND DEVOLUTION OF IML

Over the years, the rising public interest in maritime adventure necessitated a greater need for a "public interest inclusive approach" to the development of IML. In addition to the conventions referred to above, there are several other international conventions that were largely informed, and justified, by the public interest component of IML. The IMO[102] as the main global specialized agency of the UN with responsibility for the safety and security of shipping and the prevention of marine pollution by ships has originated numerous draft conventions, which have been adopted by member states. Apart from IMO, there are other institutions that have been instrumental in the historical evolution and development of IML from its predominantly private law character to its present-day "international public law image", having a great public interest component. The Comité Maritime International (CMI) is one such private organizations, which has contributed greatly in reshaping the nature and function of IML.

A. The CMI. The Precursor of the IMO

The CMI was formally established in Brussels in 1897.[103] It is the oldest international organization in the global maritime sector; concerned almost exclusively with the unification of maritime law and related commercial practices.[104] Article 1 of the CMI Constitution provides, in part, as follows:

100 See the report by the UNSC commenting the efforts of various organizations involved in counter piracy operations off the coast of Somalia including the efforts of the European Union Naval Forces (EUNAVFOR) Operation ATALANTA, Combined Maritime Forces' Combined Task Force 151, counter-piracy efforts of the African Union and the naval activities of the Southern Africa Development Community, as well as the efforts of other States to suppress piracy and to protect ships transiting through the waters off the coast of Somalia at <https://news.un.org/en/story/2017/11/570172-un-security-council-urges-comprehensive-response-piracy-somali-coast > accessed 6 June 2018.

101 See UNSC Resolution 2383 (2017), Security Council Renews Authorization for International Naval Forces to Fight Piracy off Coast of Somalia <https://www.un.org/press/en/2017/sc13058.doc.htm >accessed 3 June 2018.

102 <http://www.imo.org/en/About/Pages/Default.aspx > accessed 3 June 2018.

103 There is evidence to demonstrate that CMI existed informally prior the formal 1897 establishment. CMI has undergone various structural changes and changes in constitution over the years. Its constitution adopted in the 1899 London Conference of the CMI established the Founding Members as Titulary Members by right, set the limit for Titulary Members at nine per country, set the number of delegates of NMAs at six, and established a "Bureau Permanent" as the interim governing body of the CMI to function between conferences. The constitutionally-mandated norm during the early years of the CMI was to hold an International Conference each year, but these conferences also fulfilled the functions of a general assembly and were not solely devoted to the debate and adoption of drafts and resolutions which have characterized the less-frequent conferences of the second fifty years of the CMI's existence, see CMI website at ,http://www.comitemaritime.org/History/0,273,1332,00.html > accessed on 6 June 2018.

104 Although its foundation followed that of the International Law Association (ILA) by several years, and the CMI was perhaps in one sense a descendant of the ILA, the CMI was the first international organization to be involved in the unification of IML. See CMI website at< http://www.comitemaritime.org/History/0273,1332,00.html accessed 6 June 2018.

> It is a not-for-profit international organization established in Antwerp in 1897, the object of which is to contribute by all appropriate means and activities to the unification of maritime law in all its aspects. To this end, it shall promote the establishment of national associations of maritime law and shall cooperate with other international organizations."[105]

CMI has over the years been constituted of different maritime industry players, including jurists, mercantile and insurance interests, ship-owners, and other organizations concerned with maritime commerce as well as Belgian government agencies.[106]

The birth of CMI[31] was spearheaded by a group of Belgian commercial and political persons who developed and put before the International Law Association (ILA) a proposal to codify the body of maritime law to make a 'universal codification of uniform principles' extracted from the various mediaeval maritime codes. The proposal was based on the then commonly acknowledged view that maritime law courts and courts of admiralty were courts of international law. The attempts at unification were unsuccessful in both CMI's 1885 Antwerp conference and the subsequent 1888 Brussels conference. Subsequently, the ILA lost its appetite for continued work on a grand unification of maritime law. It was eventually agreed between the ILA and the various maritime interests who wished to carry on with the work of unification that a specialist organization be formed to pursue this goal. The agreement with the ILA was announced in a circular letter from the CMI dated 2 July 1896.[107] The announcement led to the 1897 formal establishment of the CMI as the parent international organization to carry on with the effort of unifying the world's maritime laws and adopting a constitution for the CMI. This first international conference of the CMI resulted in the formation of several new National Member Associations (NMAs).

Over the years, the Belgian Government has offered great support to CMI, giving rise to the famous series of 'Brussels Diplomatic Conferences on Maritime Law'.[108] However, CMI achieved limited output on unification of maritime codes prior to the Second World War. The Second World War prevented the three instruments adopted by the 1937 Conference (on Civil Jurisdiction in cases

105 ibid. <http://www.comitemaritime.org/Relationship-with-UN-organisations/027114,111432,00.html > accessed 6 June 2018.

106 CMI's current membership consists of national maritime law associations (NMAs), provisional members, members *honoris causa*, titulary members, consultative members and honorary officers. Most NMAs have as members not only individuals but law firms and companies in various sectors of the industry, but it is fair to say that the image of the CMI as a sort of club representing the interests of ship owners has had validity until the past 25 years, during which period more representatives of the cargo interests have become increasingly active in the CMI. All present indications are that a real balance of the ship and cargo interests within the CMI membership is imminent. Whether the same will ever be said of the representatives of seafarer and passenger interests on the one hand and the ship owning interests on the other is doubtful, particularly with regard to cases of personal injury. This is an area in which the CMI has taken only a peripheral interest, and given that the law of personal injury is almost wholly national in character, further involvement by the CMI seems unlikely.

107 For a detailed discussion on the origin and history of CMI, see online article by F Wishall, <http://www.comitemaritime.org/A-Brief-History/0,27139,113932,00.html > accessed 6 June 2018. The 2 July 1896 letter demonstrates that the CMI was already in existence and functioning, albeit in a limited way, prior to its formal establishment in 1897. The letter stated that the decision that the CMI would promote the establishment of national associations of maritime law, and would ensure a structured relationship between these associations. The letter further stated that the national associations should be comprised of jurists, mercantile and insurance interests, ship owners, and all other organizations concerned with maritime commerce. Finally, CMI's letter stated that the first task to be undertaken in the pursuit of unification would be the international codification of the law relating to collision at sea.

108 ibid.

of Collision, the Penal Jurisdiction in Cases of Collision, and the Arrest of Ships) from being formally presented to the Belgian Government with the request for a diplomatic conference.[109]

With the formation of the Legal Committee of the IMO in 1968 following the *Torrey Canyon* oil spill, IMO began to take over from the Government of Belgium the role of organizing diplomatic conferences in the field of maritime law. This move by the Belgian government seemingly brought the preparatory role of CMI to an end. It is important to note, however, that to date, the international sub-committees and subsequent conferences of the CMI have done the initial drafting of every convention considered by the IMO's Legal Committee except the 1969 International Convention Relating to the Intervention on the High Seas in Cases of Oil Pollution Casualties (the 1969 Intervention Convention) and its 1973 Protocol as well as the 1996 HNS Convention.[110] CMI has subsequently drafted conventions for consideration and adoption jointly by IMO and the United Nations Conference on Trade and Development (UNCTAD), including the 1994 International Convention on Maritime Liens and Mortgages, and the 1997 International Convention Relating to the Arrest of Sea-going Ships.

In addition to its continuing work on maritime conventions, CMI is involved in the formation and maintenance of codes of maritime law and related commercial practice. In 1990, CMI adopted uniform rules for seaway bills, and for most of its existence it has been the custodian of the York-Antwerp Rules for adjustment of general average, which were most recently revised by CMI at its assembly in London in 2004.[111] CMI has worked with the United Nations Commission on International Trade Law (UNCITRAL) to establish standards for electronic document interchange (EDI) that comprehend the 'electronic bill of lading'. The work done under CMI coordination in the 1990s with regard to Classification Societies could well provide a *modus operandi* for the study of broader maritime issues.

After more than 110 years of existence, CMI can claim as its greatest achievement the top-to-bottom reform of international maritime transport law. Working from the early 1990s, at first internally and subsequently hand-in-hand with UNCITRAL for a decade, CMI is the acknowledged parent of the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, 2008 (the 'Rotterdam Rules'). Meanwhile work has continued, jointly with IMO, on a number of important issues including Places of Refuge for Vessels in Distress, Fair Treatment of Seafarers, and Guidelines for National Legislation on Piracy and Serious Maritime Crime.[112]

B. CMI transition: Increased public interest focus

For a long time, CMI's activities focused on private law as provided for in its constitution. CMI's 1972 Constitution declared its object as the unification of "maritime and commercial law, maritime

109 ibid.

110 ibid.

111 ibid.

112 ibid. See also, International Maritime Committee 1897 to 1972 by A. Lilar and C. Van den Bosch <http://www.comitemaritime.org/Uploads/History/LILAR-VAN%20DEN%20BOSCH-Le%20Comit%C3%A9%20Maritime%20International.pdf > accessed 6 June 2018.

customs, usages and practices". In view of the growing involvement of the CMI in matters of public law, and the increasing blend of private and public law issues in single conventions, its 1992 Constitution broadened the scope of activity to cover "maritime law in all its aspects". This expanded scope of mandate in the context of the maritime domain has seen CMI's work include development of the legal status of offshore mobile craft involved in exploration and production on the high seas.[113]

CMI was one of the first non-governmental international organizations to be granted consultative status by the IMO (which is itself a Consultative Member of the CMI). CMI also remains in continual contact with all other recognized international organizations concerned in any way with maritime law. To facilitate its increasing work with subsidiary bodies of the UN such as UNCTAD, UNCITRAL and the Office for the Law of the Sea, CMI was in 1997 granted consultative status by the UN. In order to keep its members and other organizations currently informed, the CMI Newsletter is published quarterly. The annual CMI Yearbook summarizes its current work; contains a digest of recent court decisions involving the various maritime conventions, and lists the names and addresses of officers and 'Titulary Members' of CMI as well as information concerning the NMAs.[114]

CMI's work over the years demonstrates the continuing need to guide the evolving mix between components of public and private law in the historical evolution of IML. It is worth noting that while CMI continues to perform the key role of guiding the evolution of IML, one of its challenges in the 21st Century is its continuing visibility and utility to the contemporary world.[115]A continuing and pressing need is to promote and achieve the formation of active, democratic and financially responsible regional maritime member associations *in lieu* of the larger numbers of individual NMAs which have small memberships and are therefore incapable of meeting their financial obligations.

C. The culmination of public interest in IML under the work of the IMO

As demonstrated in the discussion in the foregoing paragraphs, the maritime incidents of *Titanic*, the *Torrey Canyon* and the *Achille Lauro* adversely affected the maritime environment, safety and security and undermined public order in the maritime domain. Oftentimes, such maritime threats result in the loss of both human as well as marine life, physical harm or hostage-taking of seafarers, strain and breakdown of international relations, significant disruptions to commerce and navigation, financial losses to ship owners, increased insurance premiums and security costs, increased costs to consumers and producers, and damage to the marine environment. Pirate attacks on sea lines of communication (SLOCs) can have widespread ramifications, including disruption of humanitarian assistance and increase in the cost of future shipments to affected areas.

113 ibid.

114 ibid

115 ibid.

IMO was formed in 1948 under the Convention on the International Maritime Organization.[116] IMO initially focused on maritime safety and navigation. However in the 1960s, as the world became more aware of the spillage of oil into the seas through accidents or as a result of poor operating practices, IMO redefined its global role. Spurred by major oil pollution incidents, such as the *Torrey Canyon* disaster in 1967, IMO embarked on an ambitious programme of work on marine pollution prevention and response, and on liability and compensation issues. The IMO's efforts culminated in the adoption, in 1973, of the International Convention for the Prevention of Pollution from Ships, universally known as MARPOL.[117] The increase in the number and the size of ships and the volume of cargo carried over the past five decades has gone hand in hand with the work of IMO, through its 172 member states, to create the legal and technical framework within which shipping has become progressively cleaner and safer.

As the UN agency responsible for developing and adopting measures to improve the safety and security of international shipping and to prevent pollution from ships, IMO has also assumed the integral role of meeting the targets set out in United Nations Sustainable Development Goal (SDG) 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. IMO was also intricately and directly been involved in the work of the Third United Nations Conference on the Law of the Sea, which led to the adoption of UNCLOS in 1982.[118]

UNCLOS provides the framework for the repression of piracy and other maritime security threats under the provisions of articles 100 to 107 and 110.[119] The UNSC has repeatedly reaffirmed "that international law, as reflected in the UNCLOS ('The Convention'), sets out the legal framework applicable to combating piracy and armed robbery at sea, as well as other ocean activities".[120]Article 100 of UNCLOS requires that "all States shall cooperate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any State." The United Nations General Assembly (UNGA) has also repeatedly encouraged states to cooperate at the global, regional, sub-regional and bilateral levels, in combating threats to maritime security.[121] The UN's Division for Ocean Affairs and the Law of the Sea, as the secretariat of UNCLOS, has the mandate to provide information and advice on the uniform and consistent

116 See <https://unchronicle.un.org/article/role-international-maritime-organization-preventing-pollution-worlds-oceans-ships-and > accessed 6 June 2018.

117 For a full text of the treaty and the subsequent protocols see, <https://treaties.un.org/doc/Publication/UNTS/Volume%201340/volume-1340-A-22484-English.pdf > accessed 6 June 2018.

118 See The Relationship between United Nations Convention on the Law of the Sea and IMO Conventions, A Mihneva-Natova <http://www.un.org/depts/los/nippon/unnff_programme_home/fellows_pages/fellows_papers/natova_0506_bulgaria.pdf > accessed 6 June 2018.

119 UN Division for Ocean Affairs and the Law of the Sea, Piracy Under International Law <http://www.un.org/depts/los/piracy/piracy.htm> See also <https://www.unodc.org/documents/middleeastandnorthafrica/organised-crime/UNITED_NATIONS_CONVENTION_AGAINST_TRANSNATIONAL_ORGANIZED_CRIME_AND_THE_PROTOCOLS_THERETO.pdf > accessed 3 June 2018.

120 Security Council resolution 1897 (2009), adopted on 30 November 2009. <http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1897(2009) > accessed 6 June 2018.

121 See UN General Assembly resolution 64/71 of 4 December 2009. <http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_64_71.pdf > accessed 6 June 2018.

application of the provisions of UNCLOS. It also has the mandate to provide information on relevant developments on oceans and the law of the sea to UNGA, as well as to the Meeting of States Parties to UNCLOS, in the annual reports of the Secretary-General on oceans and the law of the sea. These reports provide updated information on developments in respect of piracy and other crimes or security threats at sea.

IMO has also partnered with UNODC[122] in the implementation of the Convention against Transnational Organized Crime (UNTOC) of 2000. UNTOC provides the framework for combating transnational organized crime.[123] UNTOC and its subsequent protocols are relevant to the discussion in this chapter in so far as they provide a framework for (a) prevention, suppression and sanctions for trafficking in persons, especially women and children; (b) prevention of smuggling of migrants by sea as well as (c) prevention of the illicit manufacturing and trafficking in firearms by sea.

VI. CONCLUSION

Historically, IML preceded the development of the principles of the law of the sea. Being the older in time, IML significantly informed and shaped the path of growth of the law of the sea in the 20th century. The public interest element has always been present since the inception and early growth of IML. However in later years, the public interest component of IML increasingly became prominent such that it necessitated the establishment of the IMO as a specialized UN agency to oversee the safety and security at sea; marine pollution prevention and response; and issues touching on liability and compensation in respect of injury or damage arising from accidents at sea. The critical role of IMO was more pronounced during times of disasters, which led to adoption of international conventions through treaty negotiations ('a public law process'). The close linkages between IML and the law of the sea as well as lack of a concise definition of 'public interest' make it very difficult to sustain the traditional neat dichotomy between maritime law and the law of the sea based on the public versus private functions of the law.

The 21st Century definition of IML demonstrates that the content and character of IML traditionally had a public interest component, which has gained prominence over time. The focus of IML has therefore grown beyond its hitherto pre-dominant application to contracts of carriage, charter-parties and insurance/liability to core considerations of maritime safety, security and discharge control.[124]

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122 See UNODC Thematic Program titled Action against transnational organized crime and illicit trafficking, including Drug Trafficking, 24 <https://www.unodc.org/res/human-trafficking/2012/strategy-on-human-trafficking-and-migrant-smuggling_html/Thematic_Programme_on_Transitional_Threats.pdf. > accessed 6 June 2018.

123 Also known as 'Palermo Convention'. <https://www.unodc.org/documents/middleeastandnorthafrica/organised-crime/UNITED_NATIONS_CONVENTION_AGAINST_TRANSNATIONAL_ORGANIZED_CRIME_AND_THE_PROTOCOLS_THERETO.pdf > accessed 6 June 2018.

124 Scandinavian Institute of Maritime Law Safety, Security and Discharge Control at Sea, See <https://www.jus.uio.no/nifs/forskning/prosjekter/sjosikkerhet/project-description-controll-at-sea.pdf > accessed 1 June 2018.

Chapter 17

International and African Legal Protection Mechanisms Against Illegal Wildlife Trade

Oliver C. Ruppel and Barbara Varekamp

Professor Charles Okidi can look back on a rich life's work. With this *liber amicorum* his special earnings in the establishment and development of environmental law as a legal discipline are to be appreciated. He is the founder of ASSELLAU and the 'father of environmental law in Africa'. In the interest of our children we must strive hard to sustain what he has started. *Sapientia aedificabitur domus et prudentia roborabitur!*

I. INTRODUCTION[125]

The illegal wildlife trade (IWT) is a worldwide crisis that haunts many species to the point of extinction. It is a large global business with extensive profits. IWT is a multidimensional crime that has environmental, developmental, economic, social and security consequences.[126] IWT has significant direct adverse impacts on Africa's wildlife. Africa's rhinos, elephants and pangolins are especially traded at an extreme and fast growing rate. Africa's timber, charcoal and exotic flower trade is also rising frighteningly rapidly. In addition, IWT has indirect impacts on African communities that rely on the use of wildlife. Deprivation of these resources threatens communities' livelihoods and their socio-economic development.[127]

This chapter observes international and African legal protection mechanisms against IWT. Without aiming to be fully conclusive, the focus of this chapter is on both international economic law and international environmental law. It discusses both hard and soft law tackling the problem of IWT *per se* and as a whole. It will therefore not look into legislation that protects particular wildlife species, nor will it discuss legislation that tackles problems with which IWT is often involved,

125 Parts of this work are based on BF Varekamp, 2017, 'Fighting for the Silver Bullet. Contemporary Legal Challenges in the Illegal Wildlife Trade: The International, Regional and South African Protection Mechanisms' (LLM University of Stellenbosch 2017)

126 ME Zimmerman, 'The Black Market for Wildlife: Combating Transnational Organized Crime in the Illegal Wildlife' (2003) 36 Vanderbilt Journal of Transnational Law, 1657

127 African Union, 'African Common Strategy On Combating Illegal Exploitation and Illegal Trade in Wild Fauna and Flora in Africa' (Africa Union Addis Ababa 2015) <https://au.int/sites/default/files/documents/33796-doc african_strategy_strategy_africaine_au.pdf> accessed March 13, 2018

such as transnational organised crime and corruption. The international protection mechanisms against IWT will be examined. The Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973, will be discussed first, followed by the General Agreement on Tariffs and Trade, 1948, the World Trade Organization, the Rio Declaration on Environment and Development, 1992, the United Nations Convention on Biological Diversity, 1992, the United Nations' Sustainable Development Goal 15, three United Nations Resolutions, The London Conference on the Illegal Wildlife Trade Declaration, 2014, and finally the United for Wildlife Transport Taskforce's Buckingham Palace Declaration of 2016.

Protection mechanisms under the African Union, which will be discussed, include the 2015 African Common Strategy on Combatting Illegal Exploitation and Trade in Wild Fauna and Flora in Africa and the revised African Convention on the Conservation of Nature and Natural Resources, 2003.

This will be followed by a short comparison of international law and African Union law. Moreover, the importance of international cooperation between countries as well as organisations will be highlighted.

II. INTERNATIONAL PROTECTION MECHANISMS AGAINST ILLEGAL WILDLIFE TRADE

A. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973 (CITES) was drafted and agreed on 3 March 1973 and now has 183 state parties.[128] It was a response to ever-growing concerns of over-exploitation of certain species caused by international trade. The preamble to the convention states that wild fauna and flora form an irreplaceable part of the earth's natural systems and, therefore, its purpose is to protect them for present and future generations. The preamble also emphasises that "peoples and States are and should be the best protectors of their own wild". It further recognises the crucial aspect of international cooperation by giving producer and consumer countries a joint responsibility to prevent and/or stop the illegal trade.[129] This principle of international cooperation is crucial because IWT forms an interdependent and extensive market that a single country cannot prevent on its own, thus information and knowledge of wildlife and their conservation must be shared in order to combat IWT.[130]

The convention provides a legal framework, based on a permit and certificate system for the

128 Convention on International Trade in Endangered Species of Wild Fauna and Flora (adopted 3 March 1973, entered in force 1 July 1975) 993 UNTS 243 (CITES)

129 Wijnstekers, W, *The evolution of CITES* (International Council for Game and Wildlife Conservation, 9th edn, 2011) <*https://cites.org/sites/default/files/common/resources/evolution_of_cites_9.pdf*> accessed 12 March 2018.

130 See the subsection on international cooperation – the Wildlife Justice Commission below.

authorisation of trade, by which states are bound once they voluntarily sign to adhere to it.[131] This permit and certificate system controls the importation and exportation of certain specimens of species that are listed once they need a certain degree of protection against over-exploitation. This means that certain rules apply to the trade of these specimens as a protection mechanism and that parties "shall not allow trade in specimen of these species, except,[132] in accordance with the provisions of the present Convention".[133] In this regard, Appendix I provides the most and Appendix III the least protection. Appendix I reads as follows:[134]

> All species threatened with extinction, which are or may be affected by trade. Trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances.

Appendix II contains:[135]

> (a) All species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival; and
>
> (b) Other species, which must be subject to regulation in order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be brought under effective control.

In addition, Appendix III contains:[136]

> All species which any party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the co-operation of other parties in the control of trade.

All parties must implement CITES provisions into their national legislation. Furthermore, they must identify one or several management authorities that will be held responsible for administering the licensing system.[137] In addition, the parties have to identify one or several scientific authorities[138] to advise them on the effects of trade on the status of the species.[139] Every two to three years, all state parties come together for an international meeting, called

131 CITES, *Convention on International Trade in Endangered Species of Wild Fauna and Flora,* (2018) <https://www.cites.org/eng/disc/text.php> accessed 1 November 2018

132 CITES (n 4) Article VII

133 ibid Article II (4)

134 ibid Article II (1)

135 ibid Article II (2)

136 ibid Article II (3)

137 ibid IX (1) (a)

138 ibid IX (1) (b)

139 ibid Article III

'the Conference of Parties'.[140] During the meeting, the parties review the implementation of the convention, the conservation status of the listed species and they consider the (de)listing of species.[141] Furthermore, there is a standing committee (SC) that consists of members of parties from Africa, Asia, Europe, North America, Central and South America and the Caribbean, and Oceania. The SC provides the secretariat, with policy guidance with regard to the implementation of the convention and the management of the secretariat's budget.[142]

The parties must take 'any appropriate measures' to enforce the provisions of the convention.[143] They have the duty and responsibility to prohibit and penalise trade in and/or possession of specimen included in all three Appendices when they are being traded in violation of these provisions.[144] In addition, the parties have to keep record of the trade in these species.[145] These records must include, inter alia, the contact details of the exporters and importers, the state with which the trade has occurred, the details of the permits and certificates granted as well as the specifications of the specimens.[146] Moreover, each party has the duty to transmit periodic reports on the implementation of the convention to the secretariat, including a summary of the abovementioned required records as well as a report including the "legislative, regulatory and administrative measures taken to enforce the provisions" of the convention.[147] Trade can be suspended for failure to report and will be sustained until the reporting deficit is solved.[148]

In case the secretariat[149] becomes aware that the provisions of the convention are not being implemented effectively in a particular state or that the trade is detrimental to any specimens included in Appendices I or II, "it shall communicate such information to the Authorised Management Authority of the Party concerned".[150] This party shall inform the secretariat of any relevant facts which shall be reviewed by the next Conference of Parties,[151] upon which they will make 'appropriate recommendations', such as trade embargoes.[152] During the 66th meeting of the SC in 2016, the SC recommended the suspension of commercial trade in all listed CITES species from Guinea-Bissau, Liberia and Venezuela because these three countries failed to effectively

140 ibid Article XI

141 ibid Article XI (3)

142 CITES 'Standing Committee' (CITES April 2,2018) <https://www.cites.org/eng/disc/sc.php> accessed 4 April 2018

143 ibid Article VIII (1) of the CITES 1973

144 ibid Article VIII (1)

145 ibid Article VIII (6)

146 ibid Article VIII (6)

147 ibid Article VIII (7)

148 Laina, E, 'Tackling challenges in wildlife trade' (2016) 46 *Environmental Policy and Law,* 112

149 CITES n(4) Article XII

150 ibid Article XIII (1)

151 ibid Article XI

152 ibid Article XIII (2) and (3)

implement the CITES provisions.[153] Furthermore, the Democratic Republic of Congo (DRC) also failed to implement the CITES provisions effectively, which particularly affected the African grey parrot (*Psittacus erithacus)*. The SC was called upon and recommended that all state parties suspend commercial trade in the African grey parrot originating from the DRC, until the DRC had developed a "scientifically-based field survey to establish the population status of the species in the country and, besides, commences implementation of a National Management Plan for the species".[154]

CITES is the leading international instrument on IWT and has led to some remarkable successes. One of them was including all Asian elephants in Appendix I in 1975, followed by including African elephants in Appendix I in 1989, thereby banning commercial trade in these specimens and their products. Only the populations of Zimbabwe, Botswana, Namibia and South Africa are included in Appendix II. Nonetheless, the ivory of these populations is included in Appendix I.[155] In addition, CITES created the so-called National Ivory Action Plans (NIAPs) to strengthen control on the ivory markets and the ivory trade, essentially helping to combat the ivory trade. CITES uses these NIAPS on several state parties that are involved in illegal ivory trade and that are of "'primary concern', 'secondary concern' and parties of 'importance to watch'". Each NIAP is unique to the particular party, depending on its circumstances, capacity-building needs, available resources, the scale and nature of the trade and whether the party is a source, transit or destination state for illegal ivory.[156]

Despite being a successful and leading international tool that protects about 5,800 species of animals and 30,000 species of plants,[157] CITES is criticised by animal activists and conservationists. They say that CITES' protection is insufficient, because it (still) allows the commercial use of many animals, such as the four elephant populations that are excluded from Appendix I.[158]

B. The General Agreement on Tariffs and Trade (GATT)

The General Agreement on Tariffs and Trade, 1947 /1994 (GATT) is a multilateral agreement that aims at regulating the international trade and, according to its preamble, reducing trade tariffs and other barriers on a reciprocal and mutually advantageous basis. Article 1 (1) introduces the elimination of quantitative restrictions, imposed on products imported or exported between state parties, such as quotas, import bans and export bans. Thus, this Article implies the promotion and regulation of free trade, which could jeopardise conservation goals if it would be applicable

153 Laina (n 24) 112

154 ibid.

155 See <https://cites.org/eng/news/current_rules_commercial_international_trade_elephant_ivory_undercites proposals_cites_cop17_200716 > accessed 10 October 2017

156 *CITES, Convention on International Trade in Endangered Species of Wild Fauna and Flora* | (2018) <https://www.cites.org/eng/disc/text.php> accessed October 10 2017

157 See <https://cites.org/eng/disc/species.php> accessed 10 October 2017

158 See<https://www.theguardian.com/environment/2017/oct/03/exclusive-footage-shows-young-elephants-being-captured-in-zimbabwe-for-chinese-zoos, accessed 10 October 2017

to wildlife as well. However, Article 11 paragraph 2 (c) (iii) can be seen as an exception to this elimination of trade restrictions, since it does not allow countries to eliminate quantitative restrictions on the importation or the exportation of certain animal products permitted to be produced and exported. Furthermore, the GATT allows trade restrictions when this is necessary for animal or plant life and health as well as in cases relating to the conservation of exhaustible natural resources.[159]

C. The Word Trade Organisation (WTO)

The Marrakesh agreement establishing the Word Trade Organisation (WTO), unlike the GATT has anchored the objective of sustainable development and the need to protect and preserve the environment within its Preamble:

> Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.

For more than 20 years, the WTO and CITES have been working closely together on sustainable development. In their collaboration, the WTO and CITES try to assist countries, especially the least-developed ones, and societies on how to best identify and exploit win-win situations between trade, development and the environment.[160] One of the objectives of the WTO is to achieve sustainable development while protecting and preserving the environment, in a way consistent with their respective needs and concerns.[161] However, the WTO is not an environmental protection agency. So far, its competence in the field of trade and environment is limited to trade policies and to the trade-related aspects of environmental policies that have a significant effect on trade. However, in addressing the link between trade and environment, the two fields can complement each other. Overall, the GATT/WTO rules already provide significant scope for members to adopt national environmental protection policies. The right of governments to protect the environment is confirmed by WTO agreements under certain conditions. This is regulated by way of exceptions that allow governments under certain conditions to implement policies to protect the environment but which affect trade. Trade liberalisation for developing country exports, along with financial incentives and technology transfers, are necessary to help developing countries generate the necessary resources to protect the environment and work towards sustainable development. Improved co-ordination on trade- and environment-related issues

159 CITES (n 4) Article XX (b) and (g)

160 See <https://www.wto.org/english/news_e/news15_e/publ_22jun15_e.htm> accessed 4 April 2018

161 World Trade Organization, Agreement on the Establishment of the World Trade Organization, 1994, (adopted 15 April 1994 entered into force 1 January 1995) the Preamble

at the national level between trade and environmental officials, as well as increased co-ordination at the international level, could enhance mutual support between the trade and environmental regimes.[162]

Furthermore, the WTO has an additional agreement that contributes to the protection of the environment: The Agreement on Technical Barriers to Trade. Like the GATT, the Agreement on Technical Barriers to Trade stimulates free trade, but not to the detriment of the environment. In addition, it recognises the right of member states to protect the environment as well as animal or plant life or health, with the requirement of not creating unnecessary obstacles for international trade.[163]

D. Rio Declaration on Environment and Development 1992

The Rio Declaration on Environment and Development 1992 (Rio Declaration) "recognizes the integral and interdependent nature of the earth" and works "towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system".[164] The Rio Declaration provides guidelines to help countries achieve sustainable development. It is not legally binding, although it does include provisions that reflect customary international law.[165]

The declaration does not include specific provisions on wildlife trade. However, since IWT contributes to environmental degradation, some provisions do apply to it.[166] Wildlife is part of the environment, thus, Principle 14 comes closest to the protection against IWT, which encourages states to cooperate to discourage or prevent the international transfer of anything that causes serious environmental degradation. Furthermore, the Rio Declaration emphasises that environmental protection is inseparable from the process of sustainable development.[167] All States have certain responsibilities to combat global environmental degradation. A combination of effective environmental legislation, cooperation between states and the participation of all concerned citizens is necessary to conserve, protect and restore the earth's ecosystem.[168] Consequently, this implies that states have the responsibility to protect and prevent wildlife from being trafficked illegally.

E. United Nations Convention on Biological Diversity, 1992

The United Nations Convention on Biological Diversity 1992 (CBD) is legally binding and has 193 parties.[169] Its principal objective is to encourage actions of sustainable development from

162 OC Ruppel, 'International Trade and Sustainable Development' in Strydom, H (ed) *International Law* (Cape Town: Oxford University Press Southern Africa 2016) 435-476

163 World Trade Organization, Agreement on Technical Barriers to Trade, 1995 Article 2

164 Rio Declaration on Environment and Development, 1992 the Preamble

165 See <http://legal.un.org/avl/ha/dunche/dunche.html> accessed 4 April 2018

166 Zimmerman (n 2)

167 Zimmermann (n 126). Rio Declaration on Environment and Development 31 ILM 874 (1992) Principle 4

168 ibid Principles 7, 10 and 11

169 See <http://www.un.org/en/events/biodiversityday/convention.shtml> accessed 4 April 2018

which present and future generations can benefit.[170] It contains three core objectives: (1) the conservation of biodiversity; (2) the sustainable use of biodiversity; and (3) "sharing equally the benefits arising from the use of genetic resources".[171] Parties to the CBD must develop and integrate strategies, plans and programs in order to achieve these objectives and they must cooperate with other parties as far as possible and appropriate.[172]

Wildlife is part of the biological diversity. The CBD contains several provisions that constitute the conservation of biological diversity, which implicitly protect wildlife against the illegal trade. First of all, Article 8 (c) obliges States to "manage biological resources important for the conservation of biological diversity (…) to ensuring their conservation and sustainable use". Furthermore, States have to "promote the viable populations of species in natural surroundings".[173] In addition, they have to "develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations".

Moreover, states have a joint responsibility with other states to raise public awareness on the conservation of biodiversity, at local and international level.[174] To this extent, it is important to take the special needs of developing countries into consideration.[175] This especially applies to Africa, a continent that contains many developing countries.

F. United Nations Sustainable Development Goal 15

In 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, which contains 17 sustainable development goals (SDGs). The SDGs are to "end poverty, protect the planet, and ensure prosperity for all".[176] Each goal consists of targets that have to be reached by 2030. The SDGs are not legally binding, however, states are expected to take responsibility and establish a national framework for achieving the 17 SDGs, which are monitored nationally and globally.

"Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss" is the focus of Goal 15, 'Life on Land'. One of the targets specifically requires states to take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products.[177] Furthermore, one target specifically protects species that are threatened with extinction by requiring states to "take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and

170 Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993, 1760 UNTS 69 (CITES), the Preamble

171 ibid Article 1

172 ibid Articles 5 and 6

173 ibid Article 8 (d).

174 ibid Article 13.

175 ibid Article 12 (a)

176 See <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>accessed 4 April 2018.

177 See <http://www.un.org/sustainabledevelopment/biodiversity/> accessed 4 April 2018.

prevent the extinction of threatened species". These two targets thus require states to take action against poaching, IWT and biodiversity loss. This means that all states have this responsibility: developed countries, developing countries, consumer countries and producer countries.

G. United Nations Resolutions

United Nations (UN) Resolutions, such as: (1) the UN Economic and Social Council Resolution 2011/36 of 28 July 2011 on crime prevention and criminal justice responses against illicit trafficking in endangered species of wild fauna and flora; (2) the Economic and Social Council Resolution 2013/40 of 25 July 2013 on crime prevention and criminal justice responses to illicit trafficking in protected species of wild fauna and flora; and (3) the General Assembly Resolution 69/314 of 19 August 2015 on tackling illicit trafficking in wildlife, call upon the international community for support and cooperation in the fight against IWT. The resolutions recognise the devastating impacts IWT has on the ecosystems in particular, but also on national economies, local communities and national stability. This enshrines the three pillars of the UN: peace and security, sustainable development and human rights.[178] Furthermore, they urge member states to take effective steps to prevent, combat and eradicate IWT and to strengthen their national legislation on all matters concerning IWT, within the existing international legal framework, and in accordance with CITES. These UN Resolutions are non-binding and will therefore have no enforcement powers on states.

H. London Conference on the Illegal Wildlife Trade Declaration, 2014

The London Conference on the Illegal Wildlife Trade Declaration, 2014 (London Conference Declaration) is a political commitment that recognises the serious threat that IWT poses to the survival of many wildlife species. It promotes international cooperation by engaging governments, international organisations, non-governmental organisations and communities in the fight against IWT. Furthermore, it provides political leadership and practical support to take the following actions:[179]

- First of all, the market for illegal wildlife products has to be eradicated.[180] Therefore, the Declaration calls upon the international community to take actions, such as eradicating the demand and supply of illegal wildlife products, prohibiting the use of products from wildlife threatened with extinction, recognising the authority of CITES and urging governments to take measures that ensure that illegal wildlife products do not enter the markets for legal wildlife products.[181]

- Second, an effective legal framework and deterrence measures have to be ensured.[182] In that regard, the Declaration calls upon the international community to, inter alia, criminalise poaching, wildlife trafficking and related crimes and ensure that these

178 UNGA Res.69/314 (2015) GAOR 69th Session

179 London Conference on the Illegal Wildlife Trade Declaration, 2014 (London Conference), s 1,13

180 ibid s 15

181 ibid

182 ibid s 16

offences fall within the definition of a 'serious crime',[183] in terms of Article 2 of the UN Convention against Transnational Organized Crime. Furthermore, governments have to criminalise corruption, money laundering and other related offences that facilitate IWT and poaching, strengthen the legal framework and promote law enforcement. Moreover, governments have to invest in the training of the judicial sector to increase its ability to successfully prosecute and penalise and adopt a zero tolerance policy on corruption associated with the illegal wildlife trade.[184]

- Third, to strengthen law enforcement the international community is called upon to invest in trained and equipped law enforcement officers, establish mechanisms to develop action plans against wildlife crime, share expertise and support international and regional cooperation.[185]

- Fourth, local communities should be involved to protect sustainable livelihoods and economic development and, therefore, the Declaration calls upon the international community to recognise the adverse impacts of IWT on sustainable livelihoods and economic development. The international community has to increase the capacities of local communities, support for community-led wildlife conservation and engage local communities in the establishment of law enforcement networks.[186]

- Lastly, the Declaration calls upon the international community to implement existing action plans and declarations as well as the political commitments of this Declaration to prevent and combat IWT.[187]

I. United for Wildlife Transport Taskforce's Buckingham Palace Declaration, 2016

The United for Wildlife Transport Taskforce, created by The Royal Foundation of the Duke and Duchess of Cambridge and Prince Harry, signed the Buckingham Palace Declaration, 2016 (Buckingham Palace Declaration). The Declaration consists of 11 commitments through which it aims to help the fight against IWT, as it recognises the devastating impact of IWT.[188]

The commitments encourage the entire transport industry to sign up to the declaration and to adopt a zero tolerance policy regarding IWT.[189] It aims at raising awareness about IWT and its devastating

183 A 'serious crime' is a "conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty".

184 London Conference s 16

185 ibid s 17

186 ibid s 18

187 ibid s 19

188 United for Wildlife Transport Taskforce's Buckingham Palace Declaration, 2016, the Preamble

189 ibid comm. 1, 3

impacts among "passengers, customers, clients and staff" of the transport industry.[190] Furthermore, the Declaration's objective is to develop mechanisms and enhance data systems to enable the transport industry (1) to receive information about "the transport of suspected illegal wildlife and their products" and (2) to allow the transport industry to "screen data and cargo to identify potential shipments of suspected illegal wildlife and their products".[191] Staff should be trained and systems should be promoted to help and enable them to "detect, identify and report" suspected IWT.[192] To stop the transportation of illegal wildlife products, the Declaration calls upon the transport industry to develop a system for "passing information about suspected IWT from the transport sector to relevant customs and law enforcement authorities".[193] Cargo suspected of containing raw and processed species should be (1) notified to the relevant law enforcement authorities, (2) refused acceptance and (3) refused shipping.[194] In addition, cross-disciplinary teams should be working at key ports along with local customs and law enforcement authorities.[195] Lastly, the Declaration asks the transport industry to "support the development of mechanisms by the World Customs Organization and national customs authorities".[196]

The United Nations Development Programme, the World Customs Organization (WCO) and CITES belong to the signatory members.[197] Other signatories are airlines such as Emirates, Kenya Airways, British Airways, Qatar Airways, South African Airways, Qantas and Etihad. Other signatories in the transport industry include Maersk, DHL and Air China Cargo. Conservation organisations such as the World Wildlife Fund are also signatories.[198]

III. AFRICAN PROTECTION MECHANISMS AGAINST ILLEGAL WILDLIFE TRADE

A. Revised African Convention on the Conservation of Nature and Natural Resources, 2003

The African Convention on the Conservation of Nature and Natural Resources was adopted at Algiers in 1968 and replaced the Convention Relative to the Preservation of Fauna and Flora in the Natural State, 1933 (The London Convention, 1933). In 2003, the African Convention on Conservation of Nature and Natural Resources was revised and entered into force in July 2016

190 ibid comm 2

191 ibid comm 4, 5

192 ibid comm 6, 7

193 ibid comm 8

194 ibid comm 9

195 ibid comm 10

196 Ibid comm 11

197 See <http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2016/03/15/global-transport-leaders-sign-historic-declaration-at-buckingham-palace-in-fight-to-shut-down-illegal-wildlife-trafficking-routes-.html> accessed 4 April 2018.

198 See<http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/environmental-crime/united-for-wildlife/ufw-transport-taskforce-buckingham-palace-declaration-signatories.pdf?db=web> accessed 4 April 2018.

upon the deposit of the 15th instrument of ratification. This subparagraph is based on the revised version (2003) of the original African Convention.

> The objectives of this convention are to: (1) "enhance environmental protection"; (2) "foster the conservation and sustainable use of natural resources"; and (3) "harmonize and coordinate policies…to achieve acceptable development policies and programmes".[199] All Parties have the fundamental obligation to "adopt and implement all measures necessary" to achieve these objectives.[200]

With regard to species and genetic diversity, parties have the obligation to establish and implement policies for the conservation and sustainable use hereof.[201] As part of this obligation, they must adopt legislation regulating the taking, hunting and capturing of wild animals, including fish, and the taking of plants.[202] In addition, they have to monitor the factors that cause the exhaustion of wildlife species that are threatened or that may become so.[203]

Regarding the trade of specimens and their products, parties have to ensure that the trade, transport and possession therein is in conformity with both domestic law as well as international law.[204] Therefore, parties have to regulate the domestic trade on this matter and they have to implement and enforce their international obligations, such as the provisions under CITES. In addition, parties have to provide for "appropriate panel sanctions, including confiscation measures".[205] When appropriate, they have to cooperate through bilateral and sub-regional agreements in order to reduce and eliminate IWT.[206]

B. Common Strategy on Combatting Illegal Exploitation and Trade in Wild Fauna and Flora in Africa, 2015

In 2014, the African Union (AU) adopted the Executive Council Decision EX.CL/Dec.832 (XXV) that targets illegal exploitation and trade in African wildlife and called upon the member states to develop an African-wide strategy. As a result, in 2015, leaders of the member states of the AU came together in Brazzaville, DRC, to develop the first Africa-wide strategic framework in the fight against illegal exploitation and trade in African wildlife. The outcome of this conference was the 2015 African Common Strategy on Combatting Illegal Exploitation and Trade in Wild Fauna and Flora in Africa (the African Common Strategy).[207] The African Common Strategy has

199 African Convention on the Conservation of Nature and Natural Resources (adopted (revision) 11 July 2003, entered into force 23 July 2016) 2003 Article II

200 ibid Article III

201 ibid Article IX (1)

202 ibid Article IX (3)

203 ibid Article X (1)

204 ibid, Article XI (1) (a)

205 ibid, Article XI (1) (b).

206 ibid, Article XI (2).

207 African Union (n 3)

an implementation time of 10 years (2016-2025) and its ultimate goal is to have eradicated the illegal exploitation and trade in African wildlife by 2063, as part of the Agenda 2063.[208] Agenda 2063 is a framework for the "socio-economic transformation" of Africa over the next 50 years.[209]

A total of seven objectives, each containing an action plan, form the core of this strategy. The objectives are as follows: (1) "increase the level of political commitment to prevent, combat and eradicate illegal exploitation and illegal trade in wild fauna and flora, and to recognise illegal trade in wild fauna and flora as a serious crime"; (2) "improve governance, integrity and enhance regional, inter-regional cooperation"; (3) "enhance engagement with consumer states to reduce demand, supply and transit of illegal products of wild fauna and flora"; (4) "promote the participatory approach with economic development and community livelihoods through sustainable use of wild fauna and flora"; (5) "reduce, and prevent and eliminate the economic, security and stability impact of wildlife crime"; (6) "increase capacity, information, advocacy and public awareness"; and (7) "increase the capacity of source and transit states in detecting illegal wild fauna and flora products including in the exit and transit points".[210]

The strategy encourages all African countries to implement obligations and commitments in line with this strategy as well as with obligations and commitments under other regional and international agreements, such as CITES, the CBD, the SDGs and the African Ministerial Declaration on Africa Forest Law Enforcement and Governance.[211] In accordance with the strategy, sub-regions such as the Southern African Development Community may develop their own strategy.[212] The implementation of the strategy will be monitored and evaluated. The success of the strategy will eventually be based on the decline in illegal wildlife exploitation and trade.[213]

C. AU regional economic communities and wildlife protection

The Constitutive Act of the African Union, which was adopted in Lomé, Togo, in 2000, provides in Article 13 that the Executive Council coordinates and takes decisions on policies in areas of common interest to the member states. This includes, foreign trade; energy, industry and mineral resources; food, agricultural and animal resources; livestock production and forestry; water resources and irrigation; and the environment and its protection. The African Economic Community, the African Union's economic institution was established in 1991 by the Abuja Treaty Establishing the African Economic Community. It contains specific provisions regarding environmental protection. The treaty contains broad economic objectives, which touch on the environment, first by the general objective of promoting economic, social and cultural development and the integration of African economies in order to increase economic self-reliance and to promote an indigenous and self-sustained development; and second, through the

208 ibid 19

209 See <https://au.int/agenda2063/about> accessed 4 April 2018.

210 Africa Union (n 3)

211 ibid

212 ibid str. 30

213 ibid str. 33

specific objective of ensuring the harmonisation and coordination of environmental protection policies, among the states parties. The treaty makes provision for several specialised technical committees, including a Committee on Industry, Science and Technology, Natural Resources and Environment. Each of these committees has the mandate to prepare projects and programmes in its sphere of duty, and of ensuring supervision and implementation of these. [214]

Chapter VIII contains provisions with regard to food and agriculture, and provides for cooperation among member states in the development of rivers and lake basins, and the development and protection of marine and fisheries resources, and plant and animal protection. States parties are required to ensure the development within their borders of certain basic industries that are identified as conducive to collective self-reliance and to modernisation, and to ensure proper application of science and technology to a number of sectors that, according to Article 51, include the conservation of the environment. [215]

At the seventh ordinary session of the African Union's Assembly of Heads of State and Government in Banjul, The Gambia, in July 2006, the AU officially recognised eight regional economic communities (RECs). Alphabetically listed, they are:[216]

- The Arab Maghreb Union (AMU);
- The Community of Sahel-Saharan States (CEN-SAD);
- The Common Market for Eastern and Southern Africa (COMESA);
- The East African Community (EAC);
- The Economic Community of Central African States (ECCAS);
- The Economic Community of West African States (ECOWAS);
- The Intergovernmental Authority on Development (IGAD); and
- The Southern African Development Community (SADC).

All AU member states are affiliated to one or more of these RECs.[217] The Protocol on Wildlife Conservation and Law Enforcement of SADC, for instance, aims to establish common approaches to the conservation and sustainable use of wildlife resources and to assist with the effective enforcement of laws governing those resources within the framework of the respective national laws of each member state. The protocol applies to the conservation and sustainable

214 OC Ruppel, 'International Trade and Sustainable Development' In: Strydom, H (ed) *International Law* (Cape Town: Oxford University Press Southern Africa 2016)

215 ibid

216 OC Ruppel, 'Regional Economic Communities and Human Rights in East and Southern Africa' in Bösl, A & J Diescho (eds) *Human Rights in Africa* (Windhoek: Macmillan Education 2009) 273-314

217 OC Ruppel,,'Environmental Law in the Southern African Development Community (SADC) and Cross-Cutting Regimes' in Ruppel, OC & K Ruppel-Schlichting (eds) *Environmental Law and Policy in Namibia – Towards Making Africa the Tree of Life (*Windhoek: 3ed, Orumbonde Press, 2016) 85-111

use of wildlife, excluding forestry and fishery resources. Each member state has to ensure the conservation and sustainable use of wildlife resources under its jurisdiction, and that activities within its jurisdiction or control do not cause damage to the wildlife resources of other states or in areas beyond the limits of national jurisdiction. In line with Article 4 of the protocol, appropriate policy, administrative and legal measures have to be taken to ensure the conservation and sustainable use of wildlife and to effectively enforce national legislation pertaining to wildlife protection. Cooperation among member states is envisaged to manage shared wildlife resources as well as any trans-frontier effects of activities within their jurisdiction or control. To achieve its overall objectives, the protocol is to promote the sustainable use of wildlife, harmonise legal instruments governing wildlife use and conservation, enforce wildlife laws within, between and among member states, facilitate the exchange of information concerning wildlife management, utilisation and the enforcement of wildlife laws, assist in the building of national and regional capacity for wildlife management, conservation and enforcement of wildlife laws, promote the conservation of shared wildlife resources through the establishment of trans-frontier conservation areas, and facilitate community-based natural resource management practices for management of wildlife resources.[218]

IV. COMPARISON BETWEEN THE INTERNATIONAL AND THE AFRICAN PROTECTION MECHANISMS

Of all international instruments that combat IWT, the majority is soft law (the Rio Declaration, SDG 15, the UN Resolutions, the London Declaration, the Buckingham Palace Declaration). They cannot bind states, and thus they cannot be enforced upon them. Besides, the indifference of many countries towards IWT do not augur well for soft law. CITES, no doubt, is one of the best tools to combat IWT. It differs from most international environmental regulations because it promotes the controlled trade in wildlife, instead of protecting species per se. It is a leading international environmental law convention that is agreed upon by almost all countries in the world.[219] However, the problem is that CITES is only applicable in the international (illegal) wildlife trade, which means that domestic (illegal) wildlife trade is not covered and therefore not protected. Consequently, many countries continue to allow domestic trade, which also fuels international illegal trade.[220]

Furthermore, CITES contains Appendices in which specimens of certain species are listed, according to the degree of protection they need. This means that certain rules apply to the trade of these specimens as a protection mechanism. At the same time, these Appendices can have detrimental effects on the survival of these specimens. This has to do with the fact that the more endangered and rare wildlife becomes, the higher their value and thus, the higher the demand.[221]

218 ibid 97

219 See above section on the Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973

220 J Clarke, *Overkill* (Cape Town, Penguin Random House 2017)

221 Hall et al. 'Endangering the endangered: The effects of perceived rarity on species exploitation' (2008) 1 Conservation Letters 75-81

This means that the status of the listed specimens in the Appendices can increase the demand and thus the trade in these specimens.[222]

The AU recognises the importance of international agreements such as CITES, the CBD and the SDGs, and it encourages all African states to implement these commitments and obligations into their national legislation. It furthermore encourages all African states to implement the commitments and obligations of the recently adopted African Common Strategy on Combatting Illegal Exploitation and Trade in Wild Fauna and Flora in Africa. This strategy is rather new, so time will tell whether it is successful, depending on the decline in illegal wildlife exploitation and trade. In addition, the AU has the African Convention, which obliges parties to ensure that the trade, transport and possession of wildlife is in conformity with both domestic and international law.

This comparison shows that the international and African continental and regional protection mechanisms are overall well in order. There is a great variety of legislation that can protect wildlife against illegal trade. However, the problem of IWT mainly occurs when countries do not match their international commitments and obligations with their national legislation and enforcement efforts because of poor governance, corruption and indifference.[223] Consequently, having legislative measures is one thing, enforcing them another.

V. INTERNATIONAL COOPERATION – THE WILDLIFE JUSTICE COMMISSION (WJC)

IWT is a global concern that must be handled by international cooperation that is based on "joint responsibilities, intelligence sharing, and strong and compatible national legislations".[224] This principle of international cooperation is of great importance due to a variety of reasons. First, in most cases, the IWT depends on markets elsewhere.[225] China and Vietnam, for example, play the biggest part in the demand for ivory and rhino horn from African countries. Second, a single country is physically incapable of preventing IWT. Consumer countries therefore have to complement the efforts of the producer countries by simultaneously applying strict rules.[226] Third, in order to take decisions on the exploitation of wildlife, it is crucial to share information about the knowledge of wildlife and of aspects that affect their conservation.[227]Besides consumer and producer countries, there are many organisations involved, of which one of the leading ones will be discussed in this subparagraph: the Wildlife Justice Commission (WJC).

The WJC is an innovative and unique organisation and justice accountability mechanism that distinguishes itself from other organisations. By way of enforcing justice, the WJC provides

222 ibid

223 Varekamp (n 125)

224 See <http://www.unodc.org/unodc/en/wildlife-and-forest-crime/index.html> accessed 19 April 2018

225 Wijnstekers (n 5) 32

226 ibid

227 ibid

opportunities to combat IWT where national authorities fail to do so. The WJC is an "independent, results-oriented organisation" that was established in 2015 in The Hague, The Netherlands.[228] The WJC is incorporated under Dutch law and operates globally in cooperation with other non-governmental organisations, governments and private individuals. It consists of a management team, donors, a supervisory board, ambassadors, an advisory council, an intelligence unit and an independent review panel that contain criminal justice, law enforcement and wildlife crime experts based in the Netherlands and in the field.[229] The supervisory board and the advisory council provide the WJC with local insights and knowledge. The intelligence unit has several tasks such as (1) providing "analytical support during deployment of the investigations teams in the field" and (2) providing the management team and the supervisory board with strategic assessments that include "potential threats, risks, emerging issues and opportunities relevant to international illegal trade".[230] The independent review panel consists of carefully selected members who are characterised by "their affinity with the rule of law, transparency and anti-corruption", their independence and their "impartiality and high moral character".[231] Among them are high-profile judges, academics, investigative journalists and authors "with widely recognised expertise in wildlife or organised crime".[232]

The Wildlife Justice Commission's mission is "to help disrupt and dismantle transnational, organised wildlife crime", including the "illegal trade in wildlife species, timber and fisheries" by "exposing criminal networks and the corruption that enables them to flourish".[233] Its vision is "a future in which wildlife crime no longer occurs, because governments effectively enforce the law".[234] Its focus is on "justice and its activation".[235] The key elements in the process to activate justice include: (1) case selection; (2) investigation; (3) case file; (4) national dialogue; and (5) public hearing. The rules for this transparent process are laid down in its Rules of Procedure, which are designed by its criminal justice, law enforcement and wildlife crime experts and approved by the supervisory board.[236]

The focus of the case selection is on targeting the people at the highest level of the criminal networks in order to disrupt and dismantle them. An assessment will determine whether a case will be selected, based on "how the case scores against criteria of proportionality and subsidiarity, the impact of the suspected crimes on biodiversity, the impact on the rule of law" and impact the

228 Wildlife Justice Commission, 'Wildlife Justice Commission brochure' (2017) <https://wildlifejustice.org/nl/wp-content/uploads/2017/06/brochure-fall-2017.pdf> last accessed 12 March 2018.

229 See <https://wildlifejustice.org/organisation/>accessed 19 April 2018.

230 See <https://wildlifejustice.org/intelligence-unit/> accessed 4 April 2018.

231 See <https://wildlifejustice.org/independent-review-panel/> accessed 4 April 2018.

232 Ibid

233 See <https://wildlifejustice.org/about-us/> accessed 19 April 2018.

234 Wildlife Justice Commission, 'Wildlife Justice Commission 2016 A*nnual reporto* (2016) 1<https://wildlifejustice.org/wp-content/uploads/2017/07/annual-report-2016-.pdf> last accessed 18 March 2018.

235 Wildlife Justice Commission (n 104)

236 See <https://wildlifejustice.org/accountability-panel-procedure/> accessed 4 April 2018.

WJC expects to achieve.[237]

The investigations team consists of former law enforcement officers from various countries around the world who have experience in "major case investigations, international wildlife investigation, surveillance, undercover and intelligence analysis".[238] They conduct (undercover) investigations to examine wildlife crimes and establish which national laws have been violated, with regard to wildlife crime, money laundering, fraud and corruption.

Ideal situations will lead to immediate action to arrest and successfully prosecute wildlife criminals. However, in the more complex situations and if cooperation with responsible agencies makes it impossible to take immediate action, an investigation will result in a case file.[239] A case file is a document that contains the evidence and criminal and intelligence-led analyses that was generated during the investigations.[240] The case file will be handed over to national authorities to help to bring wildlife criminals to justice. In these situations, the WJC will establish a national dialogue with national authorities of the key governments involved to encourage and, if necessary, pressurise them and their law enforcement authorities to act.[241]

A public hearing will follow if the national dialogue is unsuccessful and insufficient action was taken. During the public hearing, a designated independent review panel, consisting of five independent experts, will examine the evidence from the investigations upon which it will decide "whether or not to confirm the fair and objective nature of the evidence".[242] It can furthermore give recommendations to the authorities involved.

In November 2016, the first-ever public hearing took place after an 18-month investigation into a major criminal network involved in wildlife trafficking in Nhi Khe, Vietnam. This criminal network trafficked many raw and processed CITES Appendix I species, including 907 African elephants, 579 African rhinos, 225 tigers, pangolin and helmeted hornbill, with a total worth of US$53 million.[243] Case files containing over 5,000 pages and detailed evidence against 51 subjects, were sent to the Vietnamese and Chinese governments in 2016. A public hearing followed, because both governments had taken insufficient law enforcement action. The panel "confirmed the case file and offered recommendations to the Vietnamese authorities and other stakeholders".[244] The WJC is still engaged with the Vietnamese authorities and is now "in the process of establishing a mechanism to monitor the implementation of the Designated Independent Review Panel's recommendations".[245]

237 See <https://wildlifejustice.org/case-selection-proposal/> accessed 4 April 2018

238 See <https://wildlifejustice.org/investigations/> accessed 4 April 2018.

239 Wildlife Justice Commission (n 104)

240 See <https://wildlifejustice.org/investigations/> accessed 4 April 2018.

241 Wildlife Justice Commission (n 104)

242 ibid

243 ibid

244 See <https://wildlifejustice.org/public-hearing-2016/> accessed 4 April 2018

245 Wildlife Justice Commission (n 104)

VI. CONCLUSION

This chapter investigated international and African legal protection mechanisms against IWT. A conclusion that can be drawn is that both the international protection mechanisms as well as the protection mechanisms under the African Union dispensation provide protection for wildlife against illegal trade. There are, however, some concerns with regard to the efficiency and sufficiency of the aforementioned regimes. First of all, even though the Appendices of CITES aim to regulate the trade in the listed specimens as a protection mechanism, they can cause an increase in the trade, which can question their efficiency. This results from the fact that the rarity of the specimens, as shown in the Appendices, can fuel demand and thus the trade flows. Second, it can be questioned if the protection of these international and African instruments is sufficient, especially since the commercial use of many (iconic) animals is (still) allowed.

The IWT crisis is a reflection of a combination of bad governance, corruption and indifference. More interdisciplinary research, also across the different international law regimes, is also needed.[246] IWT forms an interdependent and extensive market that a single country cannot prevent or combat on its own. IWT is a global concern that must be handled by international cooperation that is based on joint responsibilities, intelligence sharing, and strong and compatible national legislations. In this regard, both states and civil society must come more progressively forward in order to bridge existing legal gaps.[247] The Wildlife Justice Commission has proved to become quite a game changer with regard to international cooperation, considering its innovative and unique approach to enforce justice on wildlife criminals.

246 For instance, in its Annex to the 2017 G20 Leaders Declaration, the G20 also highlight a number of Principles on Combatting Corruption Related to Illegal Trade in Wildlife and Wildlife Products. In the Implementation Plan for the G20 Anti-Corruption Action Plan 2017-18, the G20 commits to focusing its attention on corruption related to the illegal trade in wildlife and wildlife products. The document is available at <http://www.bmjv.de/SharedDocs/Downloads/EN/G20/2017-g20-acwg-wildlife en.pdf?__blob=publicationFile&v=1> accessed 3 May 2018.

247 E Théobald, 'Towards Bridging the Accountability Gap for International Wildlife Trafficking: The Efforts of the Wildlife Justice Commission' (2017) vol. 9, no. 3, Amsterdam Law Forum, p. 115-126.

Chapter 18

Multilateral Climate Change Diplomacy from Copenhagen to Paris: Process and Procedure Matter

Dan Bondi Ogolla

I. INTRODUCTION

The 21st session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris from 30 November to 13 December 2015 reached a landmark agreement to combat climate change and its impacts.[1] The Paris Agreement was adopted on 12 December 2015 and entered into force on 4 November 2016.[2] It currently has 175 parties. The deal was hailed as 'historic', a 'monumental triumph', et cetera. The path to this 'historical moment' was neither smooth nor easy. It was punctuated by voluble disagreements regarding process and procedure as witnessed at the Copenhagen (2009), Cancun (2010) and Doha (2012) conferences, masking more fundamental substantive differences among parties.

Substantive issues are at the core of multilateral negotiations. Through such negotiations, states seek to reach mutually beneficial agreements on complex global issues. However, in the multilateral climate change negotiations from Copenhagen to Paris, process and procedural issues became as important as the substantive matters under negotiation. As one delegate aptly put it:

> "Process is substance in this process".[3]

Indeed, COP 19 held in Warsaw in November 2013 adopted a new agenda item entitled 'Decision-making in the UNFCCC process' as a response to issues raised by some parties regarding process and procedure during the Doha Conference the previous year.[4] The importance of process and

1 UNFCCC, 'Report of the Conference of the Parties on its twenty-first session' (Paris 30th November -13th December 2015), FCCC/CP/2015/10/Add.1 COP decision 1/CP, 21 <https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf> accessed 22 April 2018.

2 UNFCCC,'Paris Agreement - Status of Ratification'(UNCC,2018)1 <https://unfccc.int/process/the-paris-agreement/status-of-ratification> accessed 22 April 2018.

3 A Vihma & K Kulovesi, Strengthening the Global Climate Change Negotiations: Improving the Efficiency of the UNFCCC Process (The Nordic Council of Ministers 2012)1.

4 Subsequent discussions focused on "Party-drivenness" of the process; transparency and openness; inclusiveness; fairness and equal treatment; and the role of the President and presiding officers. See UNFCCC 'Report of the Conference of the Parties on its nineteenth session' (Warsaw, 11 -- 23 November 2013)Doc. FCCC/CP/2013/10, Agenda item 17 (d) paragraph 10.

procedure cannot be gainsaid. How a negotiating process is organized, managed and conducted is a key variable in reaching agreement. This is particularly so in a negotiating process as complex and challenging as the climate change talks where stakes are high and critical interests such as development needs; economic competitiveness of countries; technological, technical and financial capacities; food security; human health and welfare; mass migrations and displacement of populations; and long-term viability of some states are at play. Questions relating to transparency, inclusiveness, decision-making and procedural integrity were therefore recurrent themes throughout the negotiation process. However, process and procedural issues have also been exploited by some parties not only to promote their own selfish interests but also to stymie any outcomes inimical to those interests. This chapter examines the role played by process and procedure in the climate change negotiations from Copenhagen to Paris.

II. BACKGROUND TO THE NEGOTIATIONS

The negotiations were undertaken within a mature institutional framework dating back to the adoption of the UNFCCC in 1992. In addition, there were three separate negotiating mandates between 2005 and 2015.

A. The institutional framework

The UNFCCC[5], the Kyoto Protocol (KP)[6] and the Paris Agreement (PA)[7] establish the institutional framework for the climate change intergovernmental process. Each of the three instruments establish a supreme governing body that takes decisions: the Conference of the Parties (COP) for the Convention;[8] the Conference of the Parties serving as the meeting of the parties to the Kyoto Protocol (CMP)[9]; and the Conference of the Parties serving as the meeting of the parties to the Paris Agreement (CMA).[10] The convention also establishes two open-ended standing subsidiary bodies, that is, the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI).[11] These subsidiary bodies also serve the Kyoto Protocol and the Paris Agreement.[12] The subsidiary bodies make recommendations to the governing bodies and adopt conclusions.

For the purposes of the further development of the treaties, the governing bodies (COP, CMP and CMA) often establish open-ended *ad hoc* working groups. In this regard, the COP established the

5 United Nations Framework Convention on Climate Change(adopted on 9th may 1992, entry into force 21st March 1994) 1771 UNTS 107 U.N. Doc. A/AC.237/18 (Part II)/Add.1 (UNFCCC).

6 Kyoto Protocol to the United Nations Framework Convention on Climate Change (Adopted on 10 December 1997, entry into force 16 February 2005) Doc FCCC/CP/1997/7/Add.1 (Kyoto Protocol).

7 UN Doc. FCCC/CP/2015/10 Add. 1 (29 January 2016).

8 UNFCCCC, Article 7.2.

9 Kyoto Protocol, Article 13.

10 Paris Agreement, Article 16.

11 *Ibid,* Articles 9,10.

12 Kyoto Protocol, Article 15; Paris Agreement, Articles 18.

Ad Hoc Working Group on the Berlin Mandate (AGBM)[13] that negotiated the Kyoto Protocol, the Ad Hoc Working Group on the Durban Platform (ADP) that negotiated the Paris Agreement, and the Ad Hoc Working Group for the Paris Agreement that was charged with the preparation for the entry into force of the Agreement and the development of the rules, modalities and guidelines for its implementation.[14] The CMP on its part established the Ad Hoc Working Group on the Kyoto Protocol that negotiated the Doha Amendment to the Kyoto Protocol.

There are also limited membership subsidiary bodies known in the process as constituted bodies. They have specific mandates relating to a number of thematic areas/issues. Examples include the Adaptation Committee, the Technology Executive Committee and the Standing Committee on Finance. These bodies report either directly to the COP, CMP or CMA or through the permanent subsidiary bodies, the SBI and SBSTA.

The institutional structure is basically hierarchical. The COP, CMP and CMA as supreme, governing bodies for the respective treaties are the principal decision-making organs. The subsidiary and constituted bodies function under the authority and guidance of the COP, CMP or CMA. They develop recommendations for the consideration of the supreme treaty organs. Understanding this hierarchical structure and respecting the 'chain of authority' is critical to successful negotiations. Thus, normally the COP/CMP/CMA plenaries refer specific issues to the SBI and SBSTA for consideration and recommendation in accordance with their respective mandates.[15] The SBI and SBSTA may then establish contact groups/informal consultations to address specific agenda items. These informal groups report back with recommendations to SBI and SBSTA plenaries who then adopt and forward recommendations to the COP/CMP/CMA for decision-making. In other instances, the COP/CMP/CMA may decide to address some issues directly. In this respect, they may themselves establish contact groups/informal consultations to undertake such work. These groups would then develop appropriate recommendations for decision-making by the supreme body.

B. The negotiating mandates

The Kyoto Protocol, which imposed quantified greenhouse gas (GHG) emission reduction and limitation targets for developed country-parties is predicated on successive commitment periods.[16] The first commitment period was from 2008 to 2012. Negotiations for a second commitment period were launched in Montreal in 2005 during the first meeting of the CMP. At that meeting, the CMP decided,

13 Report of the Ad Hoc Group on the Berlin Mandate on the work of its first session (Geneva, 21 - 25 August 1995) FCCC/AGBM/1995/2.

14 (n 1)COP decision 1/CP.21, Paragraph 7.

15 Draft Rules of Procedure (22 May 1996) FCCC/CP/1996/2; Rule 27, paragraph 7.

16 Kyoto Protocol, Articles 3.1 and 3.9.

` "... to initiate a process to consider further commitments for Parties included in Annex I for the period beyond 2012 in accordance with Article 3, paragraph 9, of the Protocol."[17]

The CMP established the open-ended Ad hoc Working Group of Parties to the Kyoto Protocol (AWG-KP) to undertake the negotiations and to complete its work and have its results adopted by the CMP as early as possible and to ensure that there is no gap between the first and the second commitment periods. In the occurrence, the AWG-KP did not complete its work until the Doha Conference in 2012, the very eve of the end of the first commitment period.

The limited coverage of the Kyoto Protocol in terms of total global emissions[18] and the fact that developing countries, including China and India, as well as the United States[19] were outside its framework, led to growing disenchantment among developed countries that were shouldering the burden of emission reductions under the Kyoto regime and increasing pressure for a more broad-based approach that would include the US and developing countries.[20] A parallel negotiating process was consequently initiated by the COP in 2007 at its Conference in Bali through the Bali Action Plan.[21] The COP noted that deep cuts in global emissions were required in order to achieve the ultimate objective of the convention. It therefore decided,

"to launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012 ..."

The aim was to reach 'an agreed outcome' and adopt a decision at COP 15 in 2009 in Copenhagen, Denmark. The negotiation process under the open-ended Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) was mandated to address, *inter alia*, enhanced national/international action on mitigation of climate change including,

"measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, by all developed country Parties ..."

as well as,

17 UNFCCC, 'Conference of the parties serving as the meeting of the parties to the Kyoto Protocol' (Montreal 28 November - 10 December 2005) Doc. FCCC/ KP/CMP/2005/8/Add. 1 Decision 1/CMP 1, paragraph 1.

18 The first commitment period of the KP enjoined 37 industrialized countries and the EU. Upon its entry into force it covered 60% of global greenhouse gas (GHG) emissions. In 2012, at the end of the first commitment period, it covered only 25% of global emissions and the second commitment period agreed to in Doha that year covered only 15% of global emissions since Canada had withdrawn from the KP and Japan, New Zealand and the Russian Federation had declined to join the Doha Amendment.

19 The Byrd-Hagel Senate Resolution of 1997, adopted in the lead up to Kyoto was explicit that the US would not become a signatory to any protocol or other agreement concerning the UNFCCC which would impose new commitments on Annex I Parties without similar commitments for developing countries and that any such protocol or agreement would require the advice and consent of the Senate to ratification: see S-Res. 98, 105th Congress (1997-1998).

20 See M Wewerinke-Singh & C Doebbler, *The Paris Agreement: Some Critical Reflections on Process & Substance* (UNSW Law Journal 2016) 1486, 1489 – 1490.

21 UFCCC, 'Report of the Conference of the Parties on Its Thirteenth Session' (Bali 3 - 15 December 2007), Dec 1/CP.13, UN Doc FCCC/CP/2007/6/Add.1.

> nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity building ...[22]

However, the mandate was broad and covered issues relating to adaptation, technology development and transfer, and provision of financial resources.

Both the AWG-LCA and the AWG-KP were expected to conclude their work and have the results adopted at COP 15/ CMP 5 in Copenhagen, Denmark, in 2009. In any event, little progress was achieved in the AWG-KP with regard to establishing emission reduction targets for developed country parties and the negotiations under AWG-LCA collapsed due to disagreements regarding process and procedure, leading to the COP simply 'taking note' of the Copenhagen Accord of 18 December 2009.[23] The mandate of the AWG-LCA was extended to enable it to continue its work with a view to presenting the outcome to COP 16 in Cancun, Mexico, in 2010.[24] For its part, the CMP welcomed the progress made by the AWG-KP and requested it to deliver the results of its work for adoption at CMP 6 in Cancun.

Subsequent conferences in Cancun (2010) and Durban (2011) not only achieved significant progress with regard to the further development of the implementation framework of the convention through the adoption of an important corpus of COP decisions but also helped to stabilize the UNFCCC process after the acrimonious meltdown in Copenhagen. Indeed, as we have pointed out elsewhere, the disenchantment with the UNFCCC process in particular and the UN in general led to calls for the fragmentation of the international climate change regime through 'plurilateralism' (or "coalitions of the willing") and the shifting of the locus of international responses to the climate challenge away from the United Nations.[25] However, the Mexican and South African Presidencies of the Conference of the Parties both before and during the conferences invested heavily in ensuring the transparency, inclusiveness and legitimacy of the process and restored much needed trust in the process. As the South African COP President, Minister Maite Nkoana-Mashabane, put it during an informal joint plenary before the closure of the session it was important to "maintain the integrity of the multilateral system and trust in the UNFCCC process".[26]

However, Cancun and Durban were also significant in laying the foundation for the succeeding negotiations that led to the adoption of the Paris Agreement. The Cancun Agreements,[27]

22 Ibid.

23 UNFCCC, 'Report of the Conference of the Parties on Its Fifteenth Session' (Copenhagen 7 - 19 December 2009), UN Doc FCCC/CP/2009/11/Add.1 Decision 2/CP.15 ('Copenhagen Accord') 4.

24 ibid Decision 1/CP. 15.

25 See D Bodansky, 'The international climate change regime: the road from Copenhagen' (Harvard Project on International Climate Agreements, 2010) <https://www.belfercenter.org/sites/default/files/.../Bodansky-VP-October-2010-3.pdf> accessed 22 April; Ogolla, Bondi D, *Forward* in Carlarne Cinammon, Gray, Kevin and Tarasofsky, Richard (eds.), *The Oxford Handbook of International Climate Change Law* (OUP 2016) pp. vi –viii.

26 IISD, Earth Negotiations Bulletin, Volume 12, No. 534, 13 December 2011, p.17.

27 UNFCCCC, 'Report of the Conference of the Parties on Its Sixteenth Session' (Cancun, 29 November - 10 December 2010)

containing the outcome of the work of the AWG-LCA established a long-term goal of holding the increase in global average temperature below 2 degrees Celsius above pre-industrial levels. They also recognized that deep cuts in GHG emissions were required in order to achieve this long-term goal. The Durban Conference of the Parties in 2011 noted the significant gap between the aggregate effect of the parties' mitigation pledges captured in Cancun and the long-term goal. It therefore recognized the need to strengthen the multilateral, rules-based regime under the convention. In this respect, it decided

> to launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties[28]

These new negotiations were to be undertaken by an open-ended subsidiary body to be known as the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP). It was mandated to complete its work as early as possible but no later than 2015 in order to enable the COP to adopt the instrument at COP 21. The mandate was broad and although the list of the issues to be covered was specified it was not closed. Thus, the ADP was to plan its work,

> … including, *inter alia,* on mitigation, adaptation, finance, technology development and transfer, transparency of action and support, and capacity-building …[29]

Negotiating the Durban Platform mandate was not easy because of the entrenched positions of some parties and coalitions. Indeed, the final text was only agreed during a dramatic 'huddle' during a joint informal plenary of the COP and CMP in the early morning of Sunday 11 December 2011. It represented

> a finely balanced compromise among the principal negotiating groups in the UN climate-change regime.[30]

There were significant differences between parties regarding the legal character of the eventual outcome of the Durban Platform negotiations; the scope of the new instrument in the context of developing/developed countries dichotomy; the start date of the instrument to be negotiated in the context of a Kyoto Protocol second commitment period; the applicability of the provisions and principles of the convention; and the mitigation ambition question given the gap between the aggregate effect of the Cancun pledges and what science required. The legal character issue pitted the EU, supported by the small island developing states (SIDS) and least developed countries (LDCs) against India and China. The EU could only agree to a second commitment period under Kyoto in exchange for an early negotiation of a legally binding instrument applicable to

Doc. FCCC/CP/2010/7/Add. 1, Decision 1/CP. 16.

28 UN Doc FCCC/CP/2011/9/Add.1, Decision 1/CP. 17, paragraph 2.

29 ibid Decision 1/CP. 17, paragraph 5.

30 D Bodansky, *The Durban Platform Negotiations: Goals and Options*, in *Viewpoints*, Harvard Project on Climate Agreements, (July 2012) p.1.

all parties.[31] India and China pushed for the maintenance of the binary approach of Annex I and Non-Annex I parties enshrined in the UNFCCC and the Kyoto Protocol, as well as a non-legally binding outcome. The US on the other hand would only accept a legally binding outcome if there was symmetry in its application to both developing and developed countries. The issue of legal character was left open through the phraseology "a protocol, another legal instrument or an agreed outcome with legal force".

The constructive ambiguity in the phrase "agreed outcome with legal force" allowed both India and the EU to come on board. The concerns of the US and EU on scope were resolved through the phrase "… applicable to all Parties" and the BASIC countries (Brazil, South Africa, India & China) concerns over the continued application of the principles of the Convention were implicitly addressed through a reference to "… under the Convention …"

The pre-2020 ambition question raised by SIDS, LDCs and the African Group was addressed through the launching of a work plan aimed at ensuring the highest possible mitigation efforts by all parties.[32] The outcome was only possible because the South African Presidency conducted an open, transparent and inclusive process.

III. TRANSPARENCY AND INCLUSIVENESS OF PROCESS

The issues of transparency and inclusiveness of the negotiation process have been recurrent themes in the UNFCCC intergovernmental process since Copenhagen. They are key variables in determining the legitimacy of both the negotiation process and its outcome. Success or failure has often depended on whether or not the legitimate expectations of parties regarding effective representation and participation in the process have been satisfied. Transparency and inclusiveness creates the enabling environment for compromise and pre-empts any potential procedural obstructions and gridlock. Although in theory negotiations are between individual parties, in practice parties form groups and coalitions to further group interests. Negotiations are also organized and conducted in specific forums, formal and informal. The President of the Conference plays a pivotal role in the organization and management of the whole process. In his examination of process management in the climate change, trade and biosafety regimes, Kai Monheim identified, *inter alia*, the following process levers or determinants of success in negotiations: transparency and inclusiveness, capability of organizers (host country and secretariat), and authority of the lead organizer (President).[33]

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31 See Council of the European Union, 'Preparations for the 17th Session of the Conference of the Parties (COP 17) to the United Nations Framework Convention on Climate Change (UNFCCC) and the 7th Session of the Meeting of the Parties to the Kyoto Protocol(CMP7)'(Durban,SouthAfrica,28Nov2011)321<http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/envir/125026.pdf>.

32 (n 28)Decision 1/CP. 17, paragraph 7.

33 See K Monheim, "The power of process': the impact of process management on multilateral negotiations'(PhD Thesis, 2013), The London School of Economics & Political Science, http://etheses.lse.ac.uk/673/.

A. Negotiating groups and coalitions

For the purposes of negotiations, parties often organize themselves into formal or informal groupings based on common interests and concerns. Such groups may coordinate in order to develop and present common group positions on key negotiation issues. Thus, forming coalitions enables parties to harness "the power of allies to enhance a negotiation position".[34] Within the UNFCCC process there are formal United Nations regional groups found in other multilateral processes as well as negotiating groups unique to the UNFCCC process.[35] The five UN geopolitical regional groups are: the African Group, the Asia-Pacific Group, the Eastern European Group, the Latin American & Caribbean Group (GRULAC), and the Western European & Others Group (WEOG). In the UNFCCC process, these regional groups are mainly used for electoral representation purposes and, except for the unique case of the African Group, do not engage in direct negotiations on substantive issues.

Traditionally, the major negotiating groups are the Group of G77 & China established on 15 June 1964 on the margins of the first session of United Nations Conference on Trade and Development by 77 developing countries and China and currently consisting of 134 developing countries; the European Union (EU) consisting of 28 member states and the EU; the Environmental Integrity Group (EIG) established in 2000 and consisting of Lichtenstein, Mexico, Monaco, Republic of Korea, and Switzerland; the Umbrella Group (UG) a loose coalition of nine non-EU developed countries – Australia, Canada, Japan, Kazakhstan, New Zealand, Norway, The Russian Federation, Ukraine and the United States of America – established following the adoption of the Kyoto Protocol in 1997; the Alliance of Small Island Developing States (AOSIS) comprising 43 highly vulnerable low-lying or small island developing states; and the 49 Least Developed Countries (LDCs), which operate throughout the UN system, mostly located in Africa and Asia and are highly vulnerable to the impacts of climate change. Other negotiating groups have recently emerged and they include the BASIC countries (Brazil, South Africa, India & China); the ALBA group (the Bolivarian Alliance for the Peoples of our America – Bolivia, Cuba, Ecuador, Nicaragua and Venezuela); the Arab Group (League of Arab States consisting of 22 states in North Africa and West Asia); AILAC (Chile, Colombia, Costa Rica, Guatemala, Panama and Peru); Coalition for Rainforest Nations – a large grouping of forested tropical countries spread across Africa, Asia and Latin America & the Caribbean; and the Like-Minded Group of Developing Countries (LMDC) – a large grouping of developing country parties, representing over 50 per cent of the world's population, that emerged during the ADP negotiations and was the main negotiating group for developing countries throughout that process.

The proliferation of negotiating groups and coalitions has only added to the complexity of the climate change negotiations. In a number of cases there are overlaps in membership. The G77 &

34 See SJ Spector, Climate Change Negotiations in Montreal, Kyoto and Copenhagen: Analyzing Negotiation Components & Techniques, (Inquiries Journal, Vol. 4, No. 2, 2012) 1.

35 See J Depledge, The Organization of Global Negotiations: Constructing the Climate Change Regime (London, Earthscan 2005) 30; UNFCCC, United Nations Framework Convention on Climate Change: Handbook, (Bonn, UNFCCC 2006) 44 – 51.

China, EU, the Umbrella Group and the EIG are the only groups without overlapping membership. There are varying degrees of cohesion in the negotiating groups and coalitions. Some groups coordinate and present common group positions in the negotiations while others merely share information. In some instances, individual party positions are presented notwithstanding group interventions. In Copenhagen, for example, there was a clear fragmentation in the G77 & China manifesting clear differences between the big emitters – China and India – and the most vulnerable and poor countries in the African Group, LDCs and the SIDS.[36] Importantly, care must be taken to ensure that every negotiating group/coalition is represented at every negotiating forum and provided with space and opportunity to articulate its position. The disagreements in Copenhagen and Doha were partly due to the fact that some groups/parties felt excluded from the process.[37]

B. Negotiating forums

Negotiations within the climate change intergovernmental process take place in both formal and informal spaces. The formal negotiation forums include the plenaries of the governing and subsidiary bodies as well as contact groups established by the plenaries to conduct negotiations on specific agenda items. Plenary meetings are the decision-making forums and are open to participation by all parties, observer states and organizations as well as the media. Plenary meetings also provide an opportunity for parties to make general statements, to review progress in the negotiations, and to raise any process related issues. Contact groups are open-ended, that is, open to participation by all parties. Representatives of observer organizations may be invited to attend but parties have the prerogative to close the meetings to observers.[38] There is flexibility in the application of the formal rules of procedure in the conduct of business of contact groups, which allows for a more efficient negotiation process.

In addition to the formal forums, negotiations often take place in smaller informal settings. These are established by the presiding officer (President of the COP or Chair of a subsidiary body), with the concurrence of the group or under his/her own responsibility. These groups may be established for a variety of reasons:[39] to advance negotiations on difficult and politically sensitive issues; to resolve technical issues through drafting; to troubleshoot specific problematic issues; or to break political deadlocks. Indeed, the final deal in critical negotiations is invariably hammered out in such small group settings. They take a variety of forms - informal consultations, 'informal informals', Friends of the Chair, drafting group, or '*Indabas*'. In the case of the Paris Conference, COP President Laurent Fabius, after extensive consultations with negotiating groups/coalitions as well as individual parties over two days regarding the transition of negotiations from the ADP to the COP, proposed the establishment of an open-ended *Comite de Paris* under the COP to undertake informal consultations on outstanding issues from the ADP negotiations. Limited

36 See P Meilstrup, 'The Runaway Summit: The Background Story of the Danish Presidency of COP 15, the UN Climate Conference', *(Danish Foreign Policy Yearbook* 2010, 113) 129.

37 See IISD, Earth Negotiations Bulletin [Vol. 12, No. 459] (22 December 2009) 28.

38 See UNFCCC, 'Framework Convention on Climate Change Note by the Executive Secretary' 1.FCCC/SBI/2011/7, paragraph 167

39 (n 3) 11.

membership groups – "*groupes de travail informels*" (also called '*indabas'*) – presided over by ministers were subsequently convened under the *Comite de Paris* to address specific issues.

There are critical considerations to take into account in establishing such groups. First, there has to be clarity on the mandate and the timeline for concluding the work. An unclear mandate or deadline for concluding work will result in unnecessary squabbling with regard to scope of mandate and time wasting. Secondly, there is need for clarity on the number of participants and how they are selected. Since these are small group negotiations the questions of who participates and how they are selected are key to the acceptability and legitimacy of the outcome. Care must be taken to ensure that all negotiating groups are represented. The best approach is to allow the groups to select their own representatives. The Copenhagen Conference collapsed partly because, out of 122 Heads of State/ Government, the small group of 26 that hammered out the final deal was neither representative of the generality of the membership nor was its composition the subject of consultations and agreement by the negotiating groups/coalitions. Indeed, a secretive final session only involved the US and the BASIC countries.[40]

The success of Cancun, Durban and Paris lay in the fact that negotiating groups/coalitions selected their spokespersons in the ministerial process in Cancun, the *Indaba* process in Durban[41] and the *Indaba of Solutions* process in Paris.[42] Thirdly, there has to be regular reporting to the larger formal setting. Such regular reporting serves key transparency and inclusivity imperatives. It enhances transparency by providing information to all parties on the state of the negotiations; it engenders trust and inclusion by providing an opportunity to collectively review progress; and it promotes a sense of ownership by enabling parties to raise issues regarding the conduct and state of the negotiations and to suggest ways forward. At the Cancun, Durban and Warsaw conferences regular reports from the various negotiation streams were provided by the chairs/facilitators at informal plenaries of the COP and the CMP. At the Paris Conference the ADP co-chairs reported regularly to the COP plenaries on progress in the negotiations. Also, the ministers in charge of the "*groupes de travail informels"* made regular reports to the '*Comite de Paris'*. The Copenhagen Heads of State/Government negotiations that resulted in the Copenhagen Accord did not respond to these imperatives.

40 (n 36) 132; K Monheim, The Management of Multilateral Negotiations: Lessons from UN Climate Negotiations, Policy Paper, Centre for Climate Change Economics and Policy and Grantham Research Institute on Climate Change and the Environment, (February 2015) 7.

41 *Indabas* are the traditional inclusive, transparent and participatory conferences of the Zulus and Xhosas convened to find solutions to pressing community issues. During the Durban Conference COP President Maite Nkoana-Mashabane called for a series of *Indabas* hoping that the parties in "coming together to solve common challenges for the larger community" would resolve the outstanding issues in the negotiations. In the last days of the conference a high-level ministerial/head of delegation only *Indaba* of 26 Parties representing the major negotiating groups hammered out the final deal.

42 The French Presidency borrowed the Durban *Indaba* format of small group negotiations settings. Several ministerial-led *indabas* ("*groupes de travail informels*") were convened under the *Comite de Paris* with regular reporting to the *Comite*. A final *Indaba of Solutions* presided by COP President Laurent Fabius was convened from Thursday night (10 December) to resolve politically contentious outstanding issues relating to finance, ambition and differentiation with the *Comite de Paris* being reconvened on Saturday 12 December to adopt the final text and forward it to the COP for adoption. Throughout these processes all negotiating groups/coalitions were represented by their own designated spokespersons.

C. The role of the president

The presidency of the COP plays a pivotal role in the negotiations. It provides strategic leadership to and facilitation of the negotiations; ensures the transparency, inclusiveness and 'party-drivenness' of the process; and guarantees the procedural integrity of the process. As Sydney D. Bailey points out

> an incompetent presiding officer can, single-handedly, create procedural chaos if he does not understand the rules, or does not enforce them or acts in a dictatorial or partisan manner.[43]

Effective leadership and facilitation requires that the President must master the process and ensure strict observance of the rules; build trust and support for his/her leadership and authority; maintain neutrality and avoid overt partisanship; build political capital and goodwill; and reach out to and hear negotiating groups/coalitions and parties.

The process of building trust and support starts way before the conference itself, through informal preparations and consultations. Traditionally, the President-designate begins his/her engagement through the organization of the Pre-COP – an informal ministerial/heads of delegation meeting aimed at seeking the views of parties on the substantive issues under negotiation as well as the organization of the conference itself. Although in many instances specific invitations are sent to selected countries – representative of the negotiating groups – the meetings are largely open-ended and any party that wishes to do so may attend. There are no negotiations during these meetings and no decisions are taken. The Pre-COP meetings enable the President to gather vital intelligence on parties' views and positions on key issues both substantive and process-related.

Due to the nature of the conferences, the Copenhagen, Cancun and Paris were preceded by more elaborate and extensive pre-conference informal engagements with the parties. The Government of Denmark launched its 'climate diplomacy' as early as 2008, in which it sought to consult all major countries and country groups with a view "to sow the seeds for a successful outcome in Copenhagen".[44]

The Greenland Dialogue organized by the President-designate, Minister Connie Hedegaard, consisted of a series of roundtables with 20 to 30 ministers from key developed and developing countries and was aimed at building trust with parties as well as consensus on key issues for the Copenhagen Conference. But these meetings also raised global expectations about the outcome from Copenhagen to unprecedented levels – expectations whose management became problematic in the face of failure. In the lead-up to the Cancun Conference the Mexican Presidency organized, in addition to the traditional Pre-COP, a series of activities on the margins of the United Nations General Assembly as well as preparatory meetings covering the critical issues for the negotiations. These activities involved both parties and stakeholders and were

43 SD Bailey, The General Assembly of the United Nations, A Study of Procedure and Practice, (New York, Frederick A. Praeger Inc. 1964) 111.

44 See (n 36) 118 – 120.

open to all interested governments. The Paris Conference has been hailed as a triumph to French diplomacy.[45]

In the months leading to the conference, the formidable French diplomatic machine was brought to bear on the intergovernmental process. The President-designate Laurent Fabius, the then Minister of Foreign Affairs, the French Climate Ambassador Laurence Tubianna, and the Minister of Environment Segolene Royal visited many capitals and attended many meetings and conferences. French President Francois Hollande visited world leaders impressing upon them the need to come to Paris. But in sharp contrast to the Copenhagen approach, Heads of State/ Government came to Paris at the beginning of the conference rather than during the second week, thereby providing much needed guidance and impetus to the negotiations. The network of French diplomatic missions around the world were mobilized and French ambassadors organized regular dinners with key players in each country.[46] Starting early 2015, the Presidency-designate organized informal meetings between governments where exchange of views and ideas took place.

These pre-conference activities enable the incoming Presidency to build trust and confidence with parties and negotiating groups/coalitions through the development of vital relations, reassurances that the incoming Presidency is an honest broker, and clarity on the process. During the conference itself, the President must continue to create goodwill and trust among parties. This is achieved through an open-door policy to negotiating groups/coalitions as well as individual parties. Openness, listening to everyone and consulting broadly are important tools in creating goodwill and trust. Such openness and broad consultations were the hallmarks of the Mexican and French presidencies. The political capital gained through such an approach enables the President to take crucial decisions at critical junctures in the negotiation process. It enhances the authority of the President. Thus, the Mexican President was able to adopt the Cancun Agreements, to a standing ovation, over the protests of the Bolivian delegation, and the French President could postpone giving the floor to Nicaragua on a point of order in the final session of the *Comite de Paris* without serious repercussions from Nicaragua and the generality of the membership.

The President must also ensure transparency, inclusiveness and party-drivenness of the process. The President must strike a fine balance between facilitation – which is his/her core mandate – and 'steering' the process. Negotiations are party-driven and outcomes must flow out of an open and inclusive process. In this regard, the Mexican Presidency in 2010 is a classic example of neutral facilitation – it repeatedly assured delegates that there was no Mexican text and that outcomes would emerge out of the work of parties themselves. On the other hand, the Danish Presidency was characterized by a litany of missteps: a decision was taken quite early in 2008/2009, out of a common understanding with a group of developed countries (mainly European), that the Danish

45 See Fiona Harvey, 'Paris climate change agreement: the world's greatest diplomatic success ' (The Guardian, 14th December 2015) <https://www.theguardian.com/environment/2015/dec/13/paris-climate-deal-cop-diplomacy-developing-united-nations> accessed 22 April 2018.

46 See A Brun, 'Conference Diplomacy: The Making of the Paris Agreement' (2016) 4 Politics and Governance 115-123; N Chan, 'French Diplomacy, the Paris Agreement, and the Structural Power of the COP President'(Nick Chan,2016) <https://nickdotchan.wordpress.com/2016/01/13/french-diplomacy-the-paris-agreement-and-the-structural-power-of-the-cop-president/> accessed 22 April 2018.

Presidency would steer and lead the process rather than simply facilitate; a Danish 'compromise' text was prepared behind the scenes and leaked to the media on the second day of the conference (wiping out all the goodwill created through Minister Connie Hedegaard's pre-conference activities); the President of the COP was substituted in the second week of the conference with the Prime Minister, Mr Lars Lokke Rasmussen, taking over from Minister Hedegaard; a parallel Heads of State/ Government process was launched during the second week of the conference -- notwithstanding on-going negotiations in the AWGs; and the resultant product, negotiated in secret by a small group of countries, did not draw on the outcomes of the on-going negotiations.[47] This does not mean that the President cannot table a compromise text. However, the President needs to weigh the opportunity for such an initiative and the text must build on the existing negotiating texts. During the Copenhagen Conference, President Rasmussen was accused in plenary of introducing a 'text from the sky'. Further, having had little time to master the process, he was completely at sea with regard to procedure. Similarly, the ADP Co-Chairs' October 2015 text was savagely condemned by developing countries as not reflecting the proposals they had put on the table during the negotiations.[48] In sharp contrast, the Japanese Presidency of the tenth session of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 10) succeeded in foisting on the parties, particularly developing country-parties, a compromise text for the Nagoya Protocol on Access and Benefit-sharing negotiated in a closed meeting that excluded some negotiating groups.[49] The path to the outcome was smoothened in no small measure by the substantial financial pledges by the Japanese Government to developing countries for the implementation of the Strategic Plan and the development of NBSAPs and for Access and Benefit-sharing.[50]

IV. PROCEDURAL INTEGRITY

Rules of procedure are indispensable in an international intergovernmental conference. As Robbie Sabel underlines:

> No international organization or international conference can carry out its functions without clearly defined rules of procedure.[51]

They define and protect individual rights, permit the orderly conduct of the business of the

47 See generally (n 36).

48 See Ad Hoc Working Group on the Durban Platform for Enhanced Action, Non-Paper: *Note by the Co-Chairs, UN Doc ADP.2015.8.InformalNote* (5 October 2015) <http://unfccc.int/resource/docs/2015/ adp2/eng/8infnot.pdf>[accessed April 22 2018]; A Doyle, *South Africa Compares World Climate Plan to 'Apartheid'"* (Mail & Guardian , 20 October 2015) <http://mg.co.za/article/2015-10-20]>.

49 See E Morgera & E Tsioumani, *Yesterday, Today and Tomorrow: Looking Afresh at the Convention on Biological Diversity* (University of Edinburgh School of Law, Working Paper 21, 2011) 11; GN Singh, 'The Nagoya Protocol on ABS: An Analysis', (Ceblaw Brief, 2011); Kevin D McCranie and others, 'Decisions adopted by the conference of the parties to the convention on biological diversity at its tenth meeting' (2011)34 Journal of Strategic Studies 281 <http://www.tandfonline.com/doi/abs/10.1080/01402390.2011.569130%5Cnhttp://proxy.library.upenn.edu:2195/doi/abs/10.1080/01402390.2011.569130>. Doc. UNEP/CBD/COP/10/27 (2010).

50 ibid.

51 R Sabel, Procedure at International Conferences: A study of the rules of procedure of international inter-governmental conferences (Cambridge University Press, 1997) 2.

conference, and provide certainty and predictability to participating states. Rules of procedure are critical in ensuring procedural fairness and equity as well as guaranteeing the legitimacy of the process and its outcome. Participants have the legitimate expectation that the rules of the game shall be respected. Indeed, one of the fundamental obligations of the presiding officer of a conference is to ensure the observance of the rules of procedure in the proceedings of the conference.[52]

Although the UNFCCC provides that the

> Conference of the Parties shall, at its first session, adopt its own rules of procedure as well as those of the subsidiary bodies established by the Convention, which shall include decision-making procedures for matters not already covered by decision-making procedures stipulated in the Convention[53]

the COP has failed to formally adopt its rules of procedure because of disagreements on Draft rule 42 that defines voting majorities for both procedural and substantive matters.[54] However, the Conference of the Parties at the beginning of each session decides to apply the Draft rules of procedure as contained in document FCCC/CP/1996/2[55] with the exception of Draft rule 42. The Draft rules of procedure address a number of issues critical to the orderly conduct of business of the conference: the agenda, quorum, powers and functions of the President, submission of proposals, points of order, motions, and decision-making. The manner in which some Presidents have handled the twin procedural issues of points of order and decision-making has had some impact on the outcome of key conferences.

D. Points of order

A point of order is an intervention by a representative directed to the presiding officer, requesting him or her to exercise certain powers inherent in his or her office or vested in him or her by the rules of procedure. A point of order may relate to the manner in which debate is being conducted, the maintenance of order at the meeting, compliance with the rules of procedure, or the manner in which the presiding officer is exercising the powers conferred on him/her by the rules of procedure.[56] Rule 34 of the Draft rules of procedure provide that a representative may at any time raise a point of order during the discussion of any matter. The presiding officer is required to

52 See, for example, Rule 23 (1) of the Draft Rules of Procedure of the Conference of the Parties to the UNFCCC, Doc. FCCC/CP/1996/2, which stipulates that: "In addition to exercising the powers conferred upon the President elsewhere by these rules, the President shall…ensure the observance of these rules …"

53 UNFCCC, Article 7.3 .

54 The Draft Rules of Procedure as contained in Doc. FCCC/CP/1996/2 were presented to COP 1 for adoption. Subsequent efforts to adopt the Rules have not been successful.

55 (n 15).

56 See UNGAOR 'Report of the Special Committee on the Rationalization of the Procedures and Organization of the General Assembly' UNGAOR 26th Session Supp. No. 26 UN Doc. A/8426(1971) paragraph 229.

decide on the point of order immediately.[57] A representative may appeal against the ruling and the appeal shall be put to vote immediately. The presiding officer's ruling shall stand unless overturned by a majority of the parties present and voting. A point of order has precedence over any other matter including the procedural motions specified in Draft rule 38.[58] In contrast to procedural motions, points of order involve issues requiring an immediate ruling by the presiding officer.

In practice, however, points of order have been used by parties for a wide variety of issues and reasons, and not necessarily linked to the categories identified here. Indeed, a point of order has become a tool of choice by parties to ensure that a particular point of view is heard and dealt with expeditiously. The priority for any presiding officer should be to deal with the issue immediately and in a way that allows normal business to resume. Allowing a party to air its grievance followed by appropriate reassurances by the presiding officer are often sufficient to avoid procedural gridlock.

At the Doha Conference in 2012, during the final plenary meeting of the CMP, the delegation of the Russian Federation raised its nameplate on a point order. The President of the CMP gaveled the decision adopting the Doha Amendment to the Kyoto Protocol ostensibly without noticing the Russian Federation's raised flag.[59] The President then gave the floor to the representative of the Russian Federation after the adoption of the decision. In his intervention the representative affirmed that he had raised a point of order under rule 34 of the Draft rules of procedure and that it was wrong for the President to ignore it. He also stated that the delegations of the Russian Federation, Ukraine and Belarus had not been given an opportunity to present their substantive proposal to parties. The President took note of the statement and ruled that it would be reflected in the report of the session. In his second intervention on a point of order, the representative of the Russian Federation referred to rule 34 and, in particular, the right conferred on a party to appeal the decision of the President. However, he declined to exercise that right and stated that he simply sought to explain to delegates the substantive concerns of the Russian Federation, Ukraine and Belarus and the proposals they had made to address them. In any event, the Russian Federation made a declaration, which it requested should be reflected in the record of the proceedings of the conference. The President's decision to ignore the Russian Federation's point of order before the adoption of the decision was clearly a breach of procedure.

At the final plenary of the *Comite de Paris*, the representative of Nicaragua raised the flag on a point of order. The President did not give the floor to Nicaragua but gave assurances that any delegation wishing to intervene would be given the floor once the text of the Paris Agreement is tabled for adoption at the COP plenary to be convened immediately after the closure of the *Comite de Paris*. At the COP plenary Nicaragua was again not given the floor before the adoption of the Paris Agreement. In his intervention during the closing session of the COP, the representative

57 (n 15).

58 Procedural motions are motions to suspend or adjourn a meeting or to adjourn or close debate on a question under discussion. Rules of procedure of most international conferences invariably require a presiding officer to put a procedural motion to the vote.

59 See IISD, Earth Negotiations Bulletin [Vol. 12, No. 567] (11 December 2012) 27.

of Nicaragua lamented the fact that the President had failed to acknowledge his country before adopting the Paris Agreement.[60]

In both instances there was palpable apprehension on the part of the President that giving the floor to the Russian Federation and Nicaragua before the adoption of the texts of the Doha Amendment and the Paris Agreement, respectively, could lead to the adoption being blocked. As Dapo Akande points out,

> to deny States the right to take the floor, in order to prevent them from expressing opposition to a text … seems to be an abuse of office by the presiding officers.[61]

In any event, however, neither the Russian Federation nor Nicaragua had the courage to *formally object* to the adoption after the relevant decision was gaveled. This was precisely because both Presidents had significant political capital with parties that enabled them to take such crucial decisions.

E. Decision-making

Because of the continuing lack of consensus on Draft rule 42 regarding voting majorities, decision-making on all matters, substantive and procedural, require consensus save for the specific cases where the Convention, the Kyoto Protocol, the Paris Agreement or the Draft rules of procedure define the requisite voting majorities. However, both the meaning and application of the concept of 'decision-making by consensus' have not been without controversy within the intergovernmental process.[62]

Some international legal instruments have attempted to define the term 'consensus'. Article 161.7(e) of the United Nations Convention on the Law of the Sea (UNCLOS) states that 'consensus' means "the absence of any formal objection".[63] Article 2.4 of the Dispute Settlement Understanding (DSU) of the World Trade Organization provides that the Dispute Settlement Body (DSB) shall take decisions by consensus.[64] A note to this provision specifies that

> the DSB shall be deemed to have decided by consensus on a matter submitted for its consideration, if no Member, present at the meeting of the DSB when the decision is taken, formally objects to the proposed decision. [65]

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60 See IISD, Earth Negotiations Bulletin [Vol. 12 No. 663] (15 December 2015) p 12; M Raman, *The Climate Change Battle in Paris: An initial analysis of the Paris COP 21 & the Paris Agreement* (Third World Network, 2016) 2.

61 D Akande, What is the Meaning of 'Consensus' in International Decision-making (European Journal of International Law talk blog, 8 April 2013)< http://ejiltalk.org/negotiations-on-arms-trade-treaty-fail-to-adopt-treaty-by-consesnsus>.

62 See generally, Sabel (n 51) 303-312; Depledge(n 35) 91-102; *S Movsisyan, Decision making by consensus in international organizations as a form of negotiation*' (2008).

63 United Nations Convention on the Law of the Sea(adopted on 10 December 1982, Entry into force 16 November 1994) 1833 UNTS 3; 21 ILM 1261 (1982) .

64 Understanding on the Rules and Procedures Governing the Settlement of Disputes(Dispute Settlement Understanding) 1869 U.N.T.S. 401.

65 ibid, Article 2.4.

Lastly, rule 69.4 of the Rules of Procedure of the Conference on Security and Cooperation in Europe defines consensus as

> ... the absence of any objection expressed by a Representative and submitted by him as constituting an obstacle to the taking of the decision in question.[66]

There is no definition of the term in either the treaty texts or the rules of procedure of the major multilateral environmental agreements, including the UNFCCC.

Although the definitions above capture the essential legal meaning of the term 'consensus', they do not fully reveal its intrinsic nuances. In this regard, The Legal Counsel of the United Nations in a memorandum to the Executive Secretary of the Convention on Biological Diversity dated 17 June 2002 provided an elaborate outline of the various essential elements of the term:

> "In the United Nations practice, the concept of 'consensus' is understood to mean the practice of adoption of resolutions or decisions by general agreement without resort to voting in the absence of any formal objection that would stand in the way of a decision being declared adopted in that manner. Thus, in the event that consensus or general agreement is achieved, the resolutions and decisions of the United Nations meetings and conferences have been adopted without a vote. In this connection, it should be noted that the expressions 'without a vote', 'by consensus' and 'by general agreement' are, in the practice of the United Nations, synonymous and therefore interchangeable".
>
> Adoption in this manner does not mean that every State participating in the meeting or conference is in favour of every element of the resolution or decision. States so participating have the opportunity, both prior to and after the adoption to make reservations, declarations, statements of interpretation and/or statements of position ... Provided that the State concerned does not formally object to or challenge the existence of consensus or call for a vote on the resolution or decision, it is understood that consensus or general agreement is preserved.

Thus, parties may put their views on record, explaining their position, either before or after the adoption of a resolution or decision.[67] They could also express disagreement with the text or part thereof by entering a reservation after adoption, thereby indicating that it does not agree to comply with one or more of the text's provisions. A party may also express disagreement with the text by issuing an 'interpretive statement' outlining its position and understanding of the decision. Statements of position, reservations and interpretive statements are normally put on record at the request of the party or parties concerned.

It follows that the existence of consensus is both a question of fact and a question of law. In the absence of a defined 'consensus procedure'[68] the President must determine, first, whether

66 Rules of Procedure of the Conference on Security and Cooperation (adopted on 1 August 1975)14 ILM 1292 (1975).

67 UNGA resolution 2837 (XXVI) (1971) that introduced consensus into the rules of procedure of the United Nations General Assembly made it clear that this was without prejudice to the right of every Member State to set forth its views in full.

68 It is only UNCLOS III that formally adopted a consensus procedure through a Gentlemen's Agreement. According to the Agreement before taking a vote the Conference had to take a positive decision that all efforts at reaching agreement by

there is an expression of disagreement by any party and, secondly, whether such disagreement amounts to a formal objection that would stand in the way of the decision being declared adopted by consensus. This has led some commentators to affirm that from

> a formal point of view consensus is often considered not as being a decision of the body in which it emerged, but rather as coming from the Chairman of that body[69]

and that consensus is

> based on an assumption by the presiding officer.....[70]

The practice of decision-making by consensus in the UNFCCC process reflects inconsistent application of the concept. There are examples of presiding officers presuming consensus, ignoring raised flags requesting the floor and gaveling through a decision.[71] More recently, as noted above, the Doha Amendment and the Paris Agreement were gaveled through, notwithstanding a request for the floor by the Russian Federation and Nicaragua, respectively, before adoption. These are cases of imminent disagreement rather than actual formal objections and the floor would need to be granted in order to determine whether the expression of disagreement would amount to a formal objection in the legal sense. Copenhagen was a clear case of formal objection to the adoption of a decision. When President Rasmussen proposed the Copenhagen Accord for adoption a small number of developing countries led by the ALBA group (Venezuela, Bolivia, Cuba and Nicaragua) objected to the text on both procedural and substantive grounds. They indicted the outcome as the product of a non-transparent, non-inclusive process as well as lacking ambition.[72] In the face of such formidable opposition, at least five formal objections were on the table, the conference simply 'took note' of the Copenhagen Accord. In United Nations practice, the terms 'takes note of' and 'notes' are neutral terms that signify neither approval nor disapproval[73]. Thus, in taking note of the Copenhagen Accord, the COP signified neither approval nor disapproval of the Accord.

A completely different approach was witnessed the following year at the Cancun Conference in 2010. At the closing plenary of CMP 6, Bolivia stated that it was opposed to the draft decisions and that it felt that there was no consensus for their adoption. The President of the COP, Foreign Minister Patricia Espinosa, noted that the position of Bolivia would be duly reflected in the record of the proceedings of the conference and gaveled through the decisions to a standing ovation.

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consensus had been exhausted: see GB Walker, 'Confronting Complex Global Challenges: Comparing the Climate Change & Law of the Sea Negotiations' in Oliver C. Ruppel et al (eds), *Climate Change: international law and global governance* (Baden-Baden: Nomos 2013) 275-311, 296.

69 Daniel Vignes, 'Will the Third Conference on the Law of the Sea Work According to the Consensus Rule?' (Cambridge University Press 1975) 69 The American Journal of International Law 120.

70 RG Feltham, *Diplomatic Handbook* (2nd edn, London, Longman 1997) 103.

71 Layanya Rajamani cites the gavelling through of the text of the Convention in 1992 by the Chair of the Intergovernmental Negotiating Committee, Jean Ripert, with Member States of OPEC and Malaysia requesting the floor and the President of COP 1, Angela Merkel, gavelling through the Berlin Mandate in 1995 with Member States of OPEC waving their flags – see L Rajamani (n 61) 515-516.

72 (n 37) 28-29.

73 See UNGA Decision 55/488 of 7 September 2001.

After adoption Bolivia reiterated its position regarding lack of consensus. The President ruled that

> consensus did not mean unanimity or the possibility of one delegation aspiring to impose a right of veto upon the collective will that had been fashioned and achieved.

The Government of Mexico maintained this interpretation of consensus at the Final United Nations Diplomatic Conference on Arms Trade Treaty (ATT) in 2013.[74] The rules of procedure of the conference required that the text of the treaty be adopted by consensus. Syria, Iran and North Korea objected to the text. Mexico, supported by others, argued that since the overwhelming majority of states were in favour there was consensus. The delegation of the Russian Federation protested pointing out that the rules were being ignored and that this was 'quite unacceptable' and 'a manipulation of consensus'.[75] The President then gave his understanding that one State could block consensus and he "took it that the Russian Federation was blocking consensus." It is instructive that the President arrived at this conclusion only after the intervention of the Russian Federation thus underlining the inequality of states in the practice of multilateral negotiations. In any event, the Arms Trade Treaty was not adopted at the Conference but was referred to the United Nations General Assembly where it was adopted by vote.[76]

It is clear that where decision-making is by consensus without the possibility of a vote, as is the preponderant situation in the UNFCCC process and was the case at the Final United Nations Diplomatic Conference on Arms Trade Treaty, each state and every minority has a veto power over the process. A single state could thus block progress on an issue of immense global importance. Moreover, and even more critically, in such a scenario the outcome often represents the least common denominator. This explains why in many instances there have been efforts by presiding officers to override formal objections where small minorities are concerned. It also explains why decision-making by consensus without the possibility of a vote is the exception rather than the norm in international intergovernmental processes.[77]

V. CONCLUSION

Multilateral negotiations address substantive issues. However, the manner in which negotiations are organized, managed and conducted has a significant impact on the negotiations and their outcomes. The review of the multilateral climate change negotiations from Copenhagen to Paris demonstrates that process and procedural issues were as important as the substantive issues under negotiation. Thus, questions of transparency, inclusiveness, party-drivenness,

74 See Report of the Final United Nations Conference on the Arms Trade Treaty, UN Doc. A/CONF.217/2013/2.

75 See V Caruana, 'The Arms Trade Treaty: the role of legal interpretation and State policy in giving effect to the human rights-based provisions' (Arms Trade Treaty, March 2015) <https://aninternationallawblog.wordpress.com/tag/arms-trade-treaty/> accessed 22 April 2018.

76 UNGA Res. 67/234 (2 April 2013) UN Doc. A/RES/67/234 B.

77 B Buzan, 'Negotiating by Consensus: Developments in Technique at the United Nations Conference on the Law of the Sea' (75 AJIL 324, 1981) 331.

and procedural integrity were critical variables in the success or failure of a conference or the acceptability of its outcome to the generality of the membership. Indeed, where stakes are as high as in the international climate change process, states will constantly interrogate whether the process ensures equity and a level playing field for all parties as well as whether the organizers are ensuring the observance of the rules of the game. The way the Paris Conference was organized, conducted and managed and its successful outcome attests to the fact that vital lessons were learnt since the disaster in Copenhagen.

Chapter 19

Planetary Stewardship of the Hydrologic Cycle

Stephen McCaffrey

I. INTRODUCTION

Charles Okidi has long been synonymous, for me, with water and environmental law in Africa. His contributions to these fields, both in Africa and beyond, have been immense. He has been revered as one of the fathers of environmental law, both in Africa and more generally, practically since the field's inception. It is therefore a great honour to have been invited to contribute to this publication of essays celebrating his many contributions to the law of natural resources, the environment, and development.

I first met Charles several decades ago, in Germany, where we were both participating in events organized by Françoise and Wolfgang Burhenne at the IUCN Environmental Law Centre in Bonn. At that point he had already published his pioneering article in the *Indian Journal of International Law*, 'Legal and Policy Regime of Lake Victoria and Nile Basins'.[1] This was to be the first of a series of articles on international water law that I came to rely upon in my own work on the subject.[2]

I would like to take this opportunity to pay tribute to Charles by delving a bit further into a concept that I have broached briefly in other publications, namely, the extent to which there is, or should be, an international legal regime governing the hydrologic, or water, cycle.

I. THE HYDROLOGIC CYCLE

As is well known, virtually all water on Earth – excepting only that which is entombed in deep, 'fossil' aquifers, and that which is frozen in polar ice caps and glaciers – is in constant motion through the hydrologic cycle. The fundamental elements of the cycle are global precipitation,

1 Charles Odidi Okidi, 'Legal and Policy Regime of Lake Victoria and Nile Basins', 20 Indian J. Int'l L 395 (1980).

2 Charles Odidi Okidi, 'A Review of Treaties on Consumptive Utilization of Waters of Lake Victoria and Nile Drainage Basins', in PP Howell & JA Allan, eds., *The Nile, Resource Evaluation, Resource Management, Hydropolitics and Legal Issues*, p. 190 (Univ. of London, London, 1990); and *ibid.*, 'International Law and Water Scarcity in Africa', in EHP Brans, EJ de Haan, André Nollkaemper & Jan Rinzema eds., *The Scarcity of Water: Emerging Legal and Policy Responses*, p. 166 (Kluwer, London, 1997).

evaporation, evapotranspiration and runoff.[3] While scientists tell us that global climate change is speeding up the water cycle,[4] the cycle itself will remain a constant and vital feature of Planet Earth. And since life depends on water, it also depends on the hydrologic cycle to distribute and constantly renew freshwater resources.

However, the fact that water on Earth circulates through the hydrologic cycle does not mean that water is evenly, or even optimally, distributed on the planet. The opposite is in fact the case. Much of the world's surface water is located far from where human settlements are concentrated and is thus difficult to use, except at great expense.[5] Furthermore, the quantity of water available for human use in the whole of some regions of the world, such as Africa, the Middle East, and Western Asia, is less than the global average.[6] This shortage is exacerbated by population growth, as a result of which water availability for human use decreased from 12,900 cubic metres per capita per year in 1970 to less than 7,000 cubic metres in 2000.[7] Availability – again, on a global scale – is projected to decrease further, to some 5,100 cubic metres per capita per year by 2025.[8]

The problem, of course, is that while even this comparatively low quantity of water would be sufficient to meet individual needs if it were distributed in a uniform fashion, the uneven distribution of the world's fresh water means that availability for some 3 billion people will only be an estimated 1,700 cubic metres per capita per year, putting these individuals in the category of water scarcity.[9] And the uneven distribution can be striking on a regional level: while some 60 per cent of the world's population lives in Asia and the Middle East, the two regions combined have only 36 per cent of global runoff; by contrast, some 6 per cent of the global population is located in South America, but that region has 26 per cent of the world's runoff.[10]

The effects of uneven distribution are also being felt in the Horn of Africa, including in parts of Charles Okidi's home country, Kenya.[11] There, maldistribution is exacerbated by the impacts of climate change, which have resulted in a severe drought. In the Turkana region of northwestern Kenya, women walk an average of some seven miles every day to fetch water due to its scarcity.[12]

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3 For a helpful graphic representation, see UNEP, 'Vital Water Graphics', available at http://wedocs.unep.org/bitstream/handle/20.500.11822/20624/Vital_water_graphics.pdf?sequence=1&isAllowed=y accessed on 29 March 2018.

4 See, e.g., Intergovernmental Panel on Climate Change, 'Fifth Assessment Report' http://www.ipcc.ch/report/ar5/wg1/ accessed on29 March 2018.

5 For a very readable account of how Colorado River water is moved hundreds of miles, at great expense, through canals and pipes, over and through mountains, to slake the growing thirst of metropolises like Los Angeles and San Diego, California, and Phoenix and Tucson, Arizona, see David Owen, *Where the Water Goes: Life and Death along the Colorado River*, especially chapters 10 and 11 (Riverhead Books, New York, 2017).

6 See UNEP, 'Vital Water Graphics', available at http://wedocs.unep.org/bitstream/handle/20.500.11822/20624/Vital_water_graphics.pdf?sequence=1&isAllowed=y accessed on 29 March 2018., p. 9.

7 Ibid.

8 Ibid.

9 Ibid.

10 Ibid.

11 Somini Sengupta, 'In Horn of Africa, Drought Is the New Normal', *New York Times*, 12 March 2018, p. A1.

12 Ibid., p. A7.

And the outlook is bleak. The drought in the Horn of Africa, which has been referred to as the 'new normal',[13] has been attributed to human-induced climate change, resulting in the long-term warming of the western Pacific Ocean and higher temperatures in East Africa, both of which result in "protracted drought and food insecurity."[14] Those studying the situation point to the urgent need to adopt radical forms of adaptation, such as switching from crops traditionally grown and constructing reservoirs to store water.[15] Such adaptation costs money, something that is not plentiful in many countries experiencing the most severe effects of climate change, including drought.

The "major problems of access and availability"[16] created by the disparities between water supplies and population are only projected to become worse in the present era of climate change. The IPCC has projected that, perversely, arid areas of the world will become increasingly dry due to climate change.[17] All of this adds up to human hardship, and a veritable perfect storm creating conditions for potential conflict between peoples and states. A critical question facing human civilization is whether the peoples of the world, ordered according to the Westphalian nation-state model and acting together through the organized international community, the United Nations, can rise to meet these challenges.

III. A PLANETARY TRUST

When the international community, having been awakened to the imperatives of shared humanity by the unthinkable atrocities perpetrated by Nazi Germany, was confronted anew at the end of the Second World War with the scourge of colonialism, it established the International Trusteeship System as part of the new United Nations Organization.[18] The system was administered by the Trusteeship Council, which operated under the authority of the General Assembly.[19] The overall objective of the Trusteeship System was to achieve the independence and self-governing status of territories that were held under the League of Nations mandate or that were otherwise non-self-governing.[20] The system worked well enough that, a half-century after it was established:

> The Trusteeship Council suspended its operations on 1 November 1994, a month

13 Ibid., p. A1.

14 Ibid., p. A7, quoting Chris Funk, a climatologist at the Famine Early Warning Systems Network (FewsNet) and the University of California, Santa Barbara.

15 Ibid., referring to a study of 30 years of weather data by a Kenyan meteorologist Gideon Galu, with FewsNet.

16 UNEP, 'Vital Water Graphics', available at http://wedocs.unep.org/bitstream/handle/20.500.11822/20624/Vital_water_graphics.pdf?sequence=1&isAllowed=y accessed on 29 March 2018.

17 The IPCC's Working Group 2, 'Impacts, Adaptation and Vulnerability (Summary for Policymakers)' available at < http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf>

18 UN Charter, Chapter XII. See also ibid., Chapter XI, "Declaration regarding Non-Self-Governing Territories."

19 Ibid., art. 87.

20 Ibid., art. 76.

> after the independence of Palau, the last remaining United Nations trust territory. By a resolution adopted on 25 May 1994, the Council amended its rules of procedure to drop the obligation to meet annually and agreed to meet as occasion required -- by its decision or the decision of its President, or at the request of a majority of its members or the General Assembly or the Security Council.[21]

The Trusteeship System was directly concerned with the welfare and rights of human beings, and in particular, those inhabiting territories placed under the system. The question to be asked is whether a similar system would not be appropriate for dealing with the increasingly acute situations in which some countries find themselves due to the combined effects of maldistribution of water resources, global climate change, and population growth. In this case, however, the corpus of the global trust would be water, or related benefits; the trustee would be the international community, acting through the United Nations; and the beneficiaries would be water-short countries, in particular those without the means to cope with water scarcity.

In concrete terms, the proposal would be to re-vitalize and re-purpose the United Nations Trusteeship System, or to create a new system modeled upon it, to provide governance for redressing the maldistribution of the Earth's freshwater resources.[22] Such a Global Hydrologic Cycle Trusteeship System (GHCTS) could be administered by a Council (GHCTC), operating under the authority of the General Assembly, and could have as its fundamental purposes the following, in addition to others to be identified once the GHCTS was established:

- Determining threats to humanity posed by changes in the hydrologic cycle, particularly those caused by climate change;
- Determining, in coordination with the relevant Working Groups of the Intergovernmental Panel on Climate Change, appropriate steps that can be taken to reduce or respond to the threats caused by climate change;
- Considering reports submitted by United Nations member states concerning challenges they face in respect of water supply and distribution;
- Identifying states in need of assistance in adapting to hydrologic changes brought about by climate change, population growth, and other factors;
- Serving as a clearing house for programmes of assistance to the needy states; and
- Launching education campaigns, on all levels, and in all countries, concerning the dangers to the hydrologic cycle and water supply from global climate change.

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21 United Nations, Trusteeship Council, Status, available at <http://www.un.org/en/sections/about-un/trusteeship-council/>accessed on April 12, 2018.

22 Thomas Franck made a similar proposal when he suggested that the Trusteeship Council might be utilized "to supervise the administration of certain global resources … which would be held in trust by the administering power …" Thomas M. Franck, 'Soviet Initiatives: US Responses – New Opportunities for Reviving the United Nations System', 83 AJIL p. 531 (1989).

The concept that states have rights in natural resources forming part of the global commons is not without precedent.

IV. CONCEPTUAL LEGAL BASIS FOR PROGRAMMES TO ASSIST HYDROLOGICALLY-DISADVANTAGED STATES

The International Court of Justice has recognized that there is a 'community of interest' in shared freshwater resources.[23] In the *Gabčíkovo-Nagymaros Project* case,[24] the court first quoted from the judgment of its predecessor, the Permanent Court of International Justice, in the *River Oder* case,[25] which concerned navigation rights on an international river. The ICJ then applied the principle articulated in *River Oder* to non-navigational uses:

> "[the] community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the user of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others".[26]
>
> Modern development of international law has strengthened this principle for non-navigational uses of international watercourses as well, as evidenced by the adoption of the Convention of 21 May 1997 on the Law of the Non-Navigational Uses of International Watercourses by the United Nations General Assembly.[27]

The applicability of these concepts to water moving through the hydrologic cycle is obvious, and it becomes even more so when it is recognized that the cycle, and the water it carries, form part of the global commons that should be shared equitably by all states. There is clearly a 'community of interest' in the world's fresh water, in the sense that all states, and peoples, share an interest in it. Life depends on water, after all, a fact that has led, if belatedly, to the recognition of the human right to water.[28] Such a community of interest, according to the court, forms "the basis of a common legal right, the essential features of which are the perfect equality of all … States in the user of the whole [of the cycle] and the exclusion of any preferential privilege of any one … State in relation to the others." In the case of water moving through the hydrologic cycle, it is not so much that one state would arrogate to itself an inequitable share, depriving other states of the right to

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23 The Gabčíkovo-Nagymaros (Hungary v Slovakia)Project 1997 ICJ Reports 7, at p. 56.

24 Ibid.

25 Territorial Jurisdiction of the International Commission of the River Oder, Judgment No. 16, 1929, P.C.I.J., Series A, No. 23

26 Ibid, page 27.

27 *Supra, note 23*., p. 56, para. 85.

28 General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), para. 2, adopted at the Twenty-ninth Session of the Committee on Economic, Social and Cultural Rights, 20 Jan. 2003, UN Doc. E/C.12/2002/11. Available at http://www.refworld.org/pdfid/4538838d11.pdf , accessed on 17 April 2018. The right has also been recognized by the UN General Assembly and the Human Rights Council. See General Assembly Resolution A/RES/64/292 (2010); and Human Rights Council Resolution A/HRC/RES/15/9 (2010).

participate equitably in the use of the resource – which could occur in the context of uses of an international watercourse – as that circumstances such as climate change and population growth could well leave, and in fact already have left, states water-short, with dire consequences for the health and welfare of their populations. This is a situation that the international community must address in order to rectify current imbalances and to ensure a more equitable global distribution of the water moving through the hydrologic cycle, or benefits resulting therefrom.

It is well known that the international community has developed a system for equitably sharing the resources of the sea, part of the global commons, with land-locked, developing and geographically-disadvantaged states.[29] Article 69 of the United Nations Convention on the Law of the Sea (UNCLOS) recognizes a right in land-locked states "to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zones of coastal States of the same sub-region or region …"[30] The right of landlocked and geographically-disadvantaged states to participate equitably in sharing the benefits of the living resources of, again, even the exclusive economic zones of coastal states of the same sub-region or region is recognized in article 70 of UNCLOS.[31] Should water-short states – those that are *hydrologically* disadvantaged – not be recognized as having rights to participate equitably in the benefits of the hydrologic cycle in a similar way?

But an even closer analogy to the hydrologic cycle is the deep seabed, or the 'Area', as UNCLOS calls it. The 'Area' is defined as "the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction."[32] Similarly, the hydrologic cycle is largely beyond the limits of national jurisdiction. This is particularly true of the largest portion of the cycle, involving evaporation from the sea and precipitation back into it. According to the United Nations Environment Programme (UNEP) – UN Environment, some 502,800 km^3 of water evaporates from the sea while 458,000 km^3 of water falls into it. The next largest source of evaporation is evapotranspiration from plant surfaces, which yields 65,200 km^3 of evaporated moisture.[33]

The Area is declared, together with its resources, to be "the common heritage of mankind".[34] The hydrologic cycle should be viewed similarly. Humankind has an interest not only in the protection and preservation of the cycle – which anthropogenic climate change is already speeding up, as noted earlier – but also in the equitable distribution of its benefits. The process for effecting such a distribution could be established and implemented – or at least overseen – by a newly repurposed Trusteeship Council, a GHCTC, described above. The process for implementing

29 See United Nations Convention on the Law of the Sea, 10 Dec. 1982, arts. 69, 70, 148, 254, in United Nations, The Law of the Sea (New York, 1983).

30 Ibid., art. 69(1).

31 Ibid., art. 70.

32 Ibid., art. 1, para. 1(1).

33 UNEP, 'Vital Water Graphics', available at http://wedocs.unep.org/bitstream/handle/20.500.11822/20624/Vital_water_graphics.pdf?sequence=1&isAllowed=y accessed on 29 March 2018.

34 Ibid., art. 136.

this responsibility could be modeled upon one that already exists, that which is followed by the Authority under UNCLOS, as described below.

One of the consequences of the Area being "the common heritage of mankind" is that no state may unilaterally exploit its resources. Article 137 of UNCLOS, 'Legal status of the Area and its resources', provides in paragraph 2:

> 2. All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals recovered from the Area, however, may only be alienated in accordance with this Part and the rules, regulations and procedures of the Authority.[35]

The responsibility for allocating the resources of the Area, belonging to "[hu]mankind as a whole", is vested in the International Sea-Bed Authority[36] by Article 140(2):

> 2. The Authority shall provide for the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism, on a non-discriminatory basis, in accordance with article 160, paragraph 2(f)(i).

Article 160 then provides generally for the manner in which the Authority, acting on the recommendation of its executive organ, the 'Council',[37] is to carry out this responsibility. Among the powers and functions of the Assembly are:

> (f) (i) to consider and approve, upon the recommendation of the Council, the rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of developing States and peoples who have not attained full independence or other self-governing status ...[38]

UNCLOS in fact goes beyond allocation of the benefits derived from the Area, extending the interest of the international community to resources of portions of a continental shelf that extends beyond 200 nautical miles. In this case, UNCLOS provides for equitable sharing of resources of such continental shelves. Since they extend beyond 200 nautical miles, they are in effect treated as constituting part of the common heritage of humankind:

> Article 82
>
> Payments and contributions with respect to the exploitation of the continental shelf beyond 200 nautical miles

35 Ibid., art. 140(2). Article 137 goes on in para. 3 to provide that: "3. No State or natural or juridical person shall claim, acquire or exercise rights with respect to the minerals recovered from the Area except in accordance with this Part. Otherwise, no such claim, acquisition or exercise of such rights shall be recognized."

36 The 'Authority' is established by art. 156 of UNCLOS, ibid.

37 The Council is established in arts. 161-165 of UNCLOS, ibid.

38 Ibid., art. 160, para. 2(f)(i).

1. The coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.[39]

2. [Paragraph 2 provides for a phasing-in of payments and contributions up to a point, when they level off at a rate of 7 per cent of the value or volume of production at the site in the twelfth year of production.]

3. . . .

4. The payments or contributions shall be made through the Authority, which shall distribute them to States Parties to this Convention, on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked among them.

As with the provisions of UNCLOS relating to the Area, the scheme of UNCLOS relating to the exploitation of the continental shelf beyond 200 nautical miles could be applied to the hydrologic cycle, and could include, conceptually, water in the cycle evaporated from land-based plant surfaces through evapotranspiration. If states' continental shelves beyond 200 nautical miles can be subject to the UNCLOS regime of equitable benefit-sharing, it would not seem an undue stretch to include in a planetary trust for the hydrologic cycle the land-based elements thereof. This is even more the case in view of the fact that while the corpus of the planetary trust would conceptually be water in the hydrologic cycle, its actual corpus for the purpose of equitable sharing would be – as can be the case of the resources of the deep seabed and continental shelf beyond 200 miles[40] – the benefits thereof.

V. CONCLUSION

When natural factors such as geography and topography combine with human-related ones such as overpopulation and climate change to leave countries short of the water or critical benefits therefrom, the international community should be regarded as having the responsibility to take all necessary measures to ensure that the populations affected have safe access to sufficient quantities of fresh water or benefits therefrom, such as food, not only to survive, but to develop in a sustainable way. The Committee on Economic, Social and Cultural Rights has defined the minimum necessary quantity of water as follows:

> The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of

39 Such an extensive continental shelf is relatively unusual, and a coastal State claiming one of this breadth is required by art. 76(8) to inform the Commission on the Limits of the Continental Shelf established by Annex II to the Convention. Ibid., art. 76(8). (Author's footnote.)

40 Art. 160(2)(f)(i) of UNCLOS provides for "equitable sharing of financial and other economic benefits derived from activities in the Area;" and Art. 82(1) of UNCLOS refers to "payments or contributions in kind" to be made by the coastal State, which are to be subject to the regime of equitable sharing. Ibid (emphasis added).

> safe water is necessary to prevent death from dehydration, to reduce the risk of water-related disease and to provide for consumption, cooking, personal and domestic hygienic requirements.[41]

But since water is not only necessary for these uses but also is an integral part of a country's economic and development activities,[42] a planetary trust for the hydrologic cycle should recognize the fiduciary responsibility of the international community to provide for the equitable sharing of the benefits of the cycle. Just as the international community has determined to share equitably the benefits of deep seabed mining with developing and geographically disadvantaged states, so it should recognize its responsibility to share equitably the benefits of a far more vital resource, fresh water. There is nothing except air itself that it both so vital and, through the global hydrologic cycle, so widely shared, as fresh water.

There is an urgent need to establish a planetary trust for fresh water. In addition to causing hardships domestically, the shortage of fresh water undermines international stability by giving rise ultimately to such serious problems as famine, unrest and population flows into urban centres and other countries. As a practical matter, the international community's assistance to water-short countries through a Global Hydrologic Cycle Trusteeship System (GHCTS) could take many forms: it would not necessarily entail provision of water, per se, but would focus on making available needed benefits that the lack of water has prevented water-short countries from realizing – in effect, on making up the opportunity cost of the lack of water. This could take the form of support for, e.g., water conservation and recycling, protection of water resources, more efficient water use, upgrading of sanitation facilities, capacity building, and enhancing the role of women. All of these measures, and others, are suggested in Agenda 21, especially Chapter 18 thereof, adopted at the 1992 Rio Conference on Environment and Development.[43] They are thus hardly novel ideas.

Speaking of freedom of passage on the sea, Grotius quotes Libanius as follows:

> God did not bestow all products upon all parts of the earth, but distributed His gifts over different regions, to the end that men might cultivate a social relationship because one would have need of the help of another. And so He called commerce into being, that all men might be able to have common enjoyment of the fruits of earth, no matter where produced.[44]

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41 General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), para. 2, adopted at the Twenty-ninth Session of the Committee on Economic, Social and Cultural Rights, 20 Jan. 2003, UN Doc. E/C.12/2002/11. Available at http://www.refworld.org/pdfid/4538838d11.pdf , last visited April 17, 2018.

42 Water is necessary not only to agriculture, but also, e.g., to virtually all industrial activities, from mining to manufacturing.

43 Report of the United Nations Conference on Environment and Development, vol. 1, UN Doc. A/CONF.151/26/Rev.1 (Vol. I), Annex II, p. 9 (1993). Ch. 18 on fresh water appears at pp. 275, et seq. Desalination Wwould be a possibility for coastal states.

44 Hugo Grotius, 'De juri belli ac pacis libri tres' (1620-1625), vol. 2, The Translation, XIII, pp. 199–200, Francis W. Kelsey, Clarendon Press, Oxford, 1925.

As I have written elsewhere, "[a]mong the 'gifts' that are 'distributed ... over different regions,' fresh water is perhaps the most precious. Whether by the design of Providence or otherwise, the uneven distribution of fresh water on Earth has brought neighbouring nations together in the past; it appears almost inevitable that it will bring more disparate members of the international community together in the future."[45] The notion of a planetary trust for the hydrologic cycle may, and should, have a significant role to play in this process.

45 Stephen C McCaffrey, *The Law of International Watercourses*, p. 160, Oxford University Press, 3rd ed. 2019.

Chapter 20

Kenya's Water Law: A Thirty-Year Reform Process

Albert Mumma

I. BACKGROUND

The present institutional arrangements for the management of the water sector in Kenya can be traced to the launch of the National Water Master Plan in 1974, whose primary aim was to ensure availability of potable water at reasonable distance to all households by the year 2000. The plan aimed to achieve this objective by actively developing water supply systems. Doing so required that the government directly provide water services to consumers -- a function the government assumed in addition to its other roles of making policy, regulating the use of water resources and financing activities in the water sector. The legal framework for carrying out these functions was found in the Water Act, Chapter 372 of the Laws of Kenya, which had been enacted in the pre-independence period.

In line with the Master Plan, the government upgraded the Department of Water Development (DWD), which was housed in the Ministry of Agriculture, into a full ministry. DWD, which continued to exist in the newly created ministry, embarked on an ambitious water supply development programme. By the year 2000, it had developed, and was managing, 73 piped urban water systems, which were serving about 1.4 million people; and 555 piped rural water supply systems serving 4.7 million people. Besides these state operated systems, communities developed and ran several of their own water schemes, particularly in rural areas where state schemes were generally fewer. An estimated 2.3 million people were receiving some level of service from the systems operated by community (self-help) groups, which had built them, often with funding from donor organizations and technical support from the Department of Water Development's officers at the district level.[1]

In 1988, the government established the National Water Conservation and Pipeline Corporation (NWCPC) with a mandate to take over the management of government-operated water supply systems that could be run on a commercial basis. By 2000, the corporation was operating piped water supply systems in 21 urban centres serving a population of 2.3 million people, and 14 large water supply systems in rural areas serving a population of 1.5 million people.

1 Republic of Kenya, Sessional Paper No 1 of 1999, National Policy on Water Resources Management and Development, (Nairobi, Government Printer, Nairobi) 1-10.

Alongside the DWD and NWCPC, the large municipalities were appointed as "water undertakers" under the provisions of the Water Act. A water undertaker was licensed under the law to supply water within an area on the authority of the minister. By the year 2000, 10 municipalities supplied water to 3.9 million urban dwellers as water undertakers.[2]

Thus, the landscape for water services' provision was a mosaic comprising the DWD, the National Water Conservation and Pipeline Corporation, municipalities operating as water undertakers, and community groups. Persons not served under any of these arrangements did not have a structured system of water supply, and had to rely on whatever supply they were able to provide for themselves, typically by directly collecting water from a watercourse or some other source on a daily basis. Indeed, despite the government's ambitious water supply development programme, by the year 2000, less than half the rural population had access to potable water. In urban areas, only two thirds of the population had access to piped water supply, with variable reliability.[3]

In this initial phase, the focus was on water supply for domestic consumption. Commercial and other large-scale irrigation was dealt with under the Irrigation Act, which was enacted in 1967. The Irrigation Act established the National Irrigation Board with a mandate to develop, control and improve national irrigation schemes in Kenya. Once an area was designated as a national irrigation scheme, the National Irrigation Board would assume responsibility for administering it, including making arrangements for the supply of irrigation water to the scheme. Private individuals and entities engaging in irrigated agriculture tended to fend for themselves, since there was no entity mandated to supply of water for irrigation purposes.

During this initial phase of development in the water sector, the government gave priority in its policies, budgetary allocations and overall effort to the extension of water supply. Limited attention was paid to water resources management or to the implications or threats to the water resource base arising from an ever-growing demand for water abstraction and diversion to meet the consumptive demands of the domestic and irrigation sectors. The resource base began to manifest signs of degradation and decline, later extending to groundwater resources -- particularly in centres of heavy population such as Nairobi.

In the 1980s, government revenues declined – particularly as development partners began to hold back funds. This resulted in increasingly severe budgetary constraints, which seriously undermined the government's ability to undertake capital projects, including in the water sector. Consequently, it became clear that the government could not deliver water to all Kenyans by the year 2000 on its own. Attention, therefore, turned to finding ways of involving other stakeholders – other than the government -- in the provision of water services.

As the government's policy shift was greatly influenced by the inclination among development partners during the 1990s to channel development financing to community groups and non-governmental

2 ibid.

3 ibid.

organizations in preference to the government, the water ministry found it necessary to 'hand over' responsibility for its projects to stakeholder groups. For this reason, the reform process came to be known popularly as 'handing over'.[4] Although there was general consensus among sector players on the need for a policy shift from direct service provision by the government to a handover of state water supply systems to other 'non-government' entities, there was little clarity about the meaning, process and implications of such a handing over of public water supply systems to other entities.

II. A HISTORICAL OUTLINE OF THE REFORM PROCESS

A. Early legislative initiatives

The start of the reform of Kenya's water services sub-sector can be traced to the publication in 1992 of the Water Act (Amendment) Bill.[5] The Bill focused on improved management of water resources, and in particular, the introduction of controls on pollution of watercourses and the enhancement of penalties for offences. The Bill met with little public enthusiasm since it was not perceived as addressing the pertinent issues of the day, in particular, 'handing over'. It was consequently not presented to the National Assembly. In essence, the lack of public and political support for this draft law underscored the fact that water sector policy makers – and the public generally -- at the time, tended to give priority to water supply issues, and paid little attention to water resources management.

B. The handover manual

In 1997, the government published a manual giving guidelines on the handing over of rural water supply systems to communities.[6] The manual indicated, "... At the moment the Ministry is only transferring the *management* of the water supply schemes. The communities will act as custodians of the water supply schemes, including the assets, when they take over the responsibility for operating and maintaining them."[7] However, the goal of community management should be *ownership* of the water supplies, including the associated assets.[8]

The manual stated the criteria for handing over to be: the capacity of the community to take over; the ability to pay; the capacity to operate and maintain the system; the involvement of women in management; and the ability and willingness to form a community-based group with legal status. Through this process, 10 schemes serving about 85,000 people were handed over to community groups, with the focus on management and revenue collection, not full asset transfer.[9]

4 ibid at p. 47

5 Water Act (Amendment) Bill, Parliament of Kenya Bill (1992-07) [12]

6 Republic of Kenya, Regional and Water Development, Community Management of Water Supplies Projects: Guidelines, Modalities, and Selection Criteria for Handing Over Water Supply Schemes, (Nairobi, Government of Kenya 1997.

7 ibid at p.1

8 ibid at p. 1

9 A Njonjo, 'Study of Community Managed Water Supplies – Final Report on Case Studies and Experience Exchange' World Bank (eds) World Bank RWSG-EA, 1994: *Survey of Community Water Supply Schemes* (NairobI. JICA, Republic of Kenya 1997)

C. National Water Policy

Building on this experience, the government developed a full-fledged policy, the National Water Policy, which was adopted by the National Assembly as Sessional Paper No. 1 of 1999. The development of the National Water Policy was largely funded by donor organizations, whose primary focus was on domestic water supply, and not water for irrigation in agriculture, or even water resources management. Key among these donor organizations were the German Technical Cooperation agency (GTZ) who were interested primarily in urban water supply, the Swedish International Development Agency (Sida) who were interested largely in rural domestic water supply, and the World Bank, particularly its water and sanitation programme (WSP).

The National Water Policy stated that the government's role would be redefined to move away from direct service provision to regulatory functions. Service provision would be left to municipalities, the private sector and communities. The policy also stated that the Water Act would be reviewed and updated, with attention paid to the transfer of water facilities. Regulations would be introduced to give other institutions the legal mandate to provide water services and to create mechanisms for regulation.

The policy justified handing over water services, arguing that ownership of a facility encourages proper operation and maintenance. Facilities should therefore be handed over to those responsible for their operation and maintenance. The policy stated that the government would hand over urban water systems to autonomous departments within local authorities and rural water supplies to communities.

While developing the National Water Policy, the government also established a National Task Force to review the Water Act and draft a Bill to replace this law. The Water Bill, 2002, was published on 15 March 2002 and passed by Parliament on 18 July 2002. It was published in the *Kenya Gazette* in October 2002 as the Water Act, 2002, and came into effect in 2003 when effective implementation of its provisions commenced.

D. The development partners' sector review mission

In 2000, the World Bank[10] carried out a detailed review of the water sector and observed that the coverage for improved water and sanitation service remained limited at about 65 per cent. The service was of poor quality, water resources were poorly managed, thus undermining the security of many water supply systems as water resource availability was not dependable and operation and maintenance was poorly resourced, leading to the collapse of infrastructure. Additionally, the review found that the current sector framework was not geared to meet the challenge of providing a sustainable, affordable and reliable service.

10 Republic of Kenya, Review of Water Supply and Sanitation Sector: Joint World Bank, KfW, GTZ and AFD Mission, 20 November to 17 December 2000, Aide Memoire

The sector review made recommendations and suggested a roadmap for the reforms. This dealt with: the management of the reform process, the strategy for reforming the sector, decentralization of water and sanitation services, regulatory arrangements and capacity building.

On managing reform, the sector review recommended that an autonomous 'Transitional Commission', reporting to the Office of the President, be established to spearhead the process. This would avoid potential conflicts of interest with the then service providers, which could hamper a rapid handing over. The Transitional Commission would later evolve into an independent regulator of the sub-sector, with regulatory oversight being transferred to the ministry in charge of local authorities.

On strategy, the sector review recommended that water resources and water services be dealt with as two separate and distinct sub-sectors to enhance clarity and help to focus responsibility. It proposed that the Water Bill should thus be split into two: one dealing with water resources and the other with water services. It also proposed that two strategies -- on water resources and on water services -- be developed.

On decentralization, the review recommended that services be handed over to water and sanitation services' companies, which would be established by local authorities and syndicated into viable units. Pending the establishment of these companies, financially ring-fenced water departments would be created within local authorities to which staff from the DWD and the National Water Conservation and Pipeline Corporation could be transferred.

These recommendations were largely in line with the National Water Policy and interim Poverty Reduction Strategy Paper (PRSP) developed in 2000, which had identified institutional reforms as the entry point for activities aimed at reducing poverty. The PRSP had argued that inappropriate institutional arrangements hampered investments and led to a waste of public resources. It stated its policy for the water services sub-sector as being inclusive of finalizing the preparation of a legal and institutional framework that would facilitate handing over of government-run water supplies to the private sector and to communities, while developing arrangements for independent regulatory oversight of the sector.

E. The ministry's approach to reforms

The water ministry's approach to the reforms can be gleaned from its response to the recommendations of the sector review mission.

The water ministry did not accept that water services should be handed over to local authority companies. It opted to establish 'water services boards' as state corporations to which DWD and the National Water Conservation and Pipeline Corporation would hand over publicly owned water supply assets. The boards would not be expected to provide services directly to consumers. Instead, they would engage 'water services providers', such as private sector operators, local authorities and community groups and concentrate on developing the infrastructure.

The ministry agreed to separate water resources from water services. It developed two strategies but thought that it was best to prepare only one Bill, citing the difficulty of securing parliamentary time for two and the need to avoid further fragmentation of the statutes that relate to water.

The Ministry did not think that the establishment of a 'Transitional Commission' would necessarily facilitate reforms. On the contrary, it argued that such a commission might even hamper reforms, as it would introduce an extra institution, adding to the bureaucratic overload. The ministry also thought it imprudent for a transitional body to evolve into the regulator as this might create a bias in the design of the regulatory body.

To drive the reform process in the transitional period, the ministry opted to set up an internal unit. Originally called the Water Sector Reforms Unit, its name was later changed to the Water Sector Reforms Secretariat (WSRS). The ministry proposed that the regulator be set up through an independent process, and that the WSRS be dissolved once the Water Sector Regulatory Board was established. The reforms were implemented on the basis of the recommendations of the sector review as modified by the ministry.

III. REFORMS UNDER THE WATER ACT, 2002

The Water Act, 2002, introduced comprehensive and, in many instances, radical changes to the legal and institutional framework for the management of the water sector in Kenya. These reforms revolve around the following four themes:

- Separation of the management of water resources from the provision of water services;
- Separation of policy making from day to day administration and regulation;
- Decentralization of functions to lower level state organs; and
- Involvement of non-government entities in the management of water resources and in the provision of water services.

A. Separation of functions

Under the previous law, DWD carried out all the key functions in the water sector, which extended to:

- The development and operation of schemes supplying water for domestic consumption and for productive use in irrigated agriculture, among other uses;
- Regulation of the water services sub-sector, and making recommendations to the minister the appointment of water undertakers and the withdrawal of such appointments;
- Regulation of the water resources sub-sector as the ultimate authority over decisions to issue water abstraction, obstruction and diversion permits, notwithstanding that the

law made provision for a Water Apportionment Board, which determined applications for water abstractions and use;

- Monitoring, policing, and enforcement over water sector institutions;
- Catchment conservation and management of water resources; and
- Funding allocations between water resources management and water supplies, respectively.

Over the years it became clear that these various functions were of a competing and conflicting nature, and that DWD gave greater priority to its role as a water supplier. The financial resources and the attention that DWD gave to water resources management declined markedly, resulting in an adverse impact on the water resource base arising from a significant deterioration in the effectiveness of the systems and arrangements that were in place for managing water resources. Given the water scarcity in Kenya generally, inattention to water resources management did not augur well for the sustainability of the resource.

A major policy, legal and institutional overhaul as was initiated under the Water Act, 2002, was initiated by separating the responsibility for water resources management from that for the water supply development and operation. This separation was reflected in the arrangement of the new law. Part III of the Water Act was devoted to water resources management while Part IV was devoted to the provision of water and sewerage services. The law establishes two autonomous public agencies: the one to regulate the management of water resources, and the other to regulate the provision of water and sewerage services.

The law divested the DWD and the minister in charge water affairs of regulatory functions over the management of water resources. This became the mandate of a new institution, the Water Resources Management Authority (the Authority), established in section 7 of the law. The Authority was responsible for, among other things, the allocation of water resources through a permit system. The framework for the exercise of the water resources allocation function comprised the development of national and regional water resource management strategies, which were intended to outline the principles, objectives and procedures for the management of water resources.

Similarly, the law divested DWD and the minister in charge of water affairs of regulatory functions over the provision of water and sewerage services, and vested this function in another public body, the Water Services Regulatory Board (the Regulatory Board). The Regulatory Board was mandated to license all providers of water and sewerage services who supply services to more than 20 households. Community managed water systems, therefore, needed to obtain a licence from the Regulatory Board to continue providing water to their members. This was a departure from the previous practice under which community water systems, unlike the other systems, operated without a licence.

Under the new law, an office of Director was created to provide technical assistance to the minister in discharging her or his functions, which included policy making, designation of boards and appointment of members, making rules under the law, and determination of budgetary allocations for sector institutions. This institutional change further underscored and supplemented the separation of roles, which was at the core of the paradigm shift introduced by the Water Act, 2002.

The responsibility for developing large-scale infrastructure for harnessing water resources, including the building of dams and other infrastructure for flood control and water conservation, was given to the NWCPC. Projects undertaken by the NWCPC were funded by the state and designated as 'state schemes'.

B. Decentralization of functions

The Water Act, 2002, decentralized functions to lower-level public institutions. It did not, however, go as far as to devolve these functions to the lower level entities because ultimate decision-making and direction remained centralized.

With regard to water resources management, the law provided that the Authority may designate catchment areas, defined as areas from which rainwater flows into a watercourse. The Authority would formulate 'a catchment area management strategy' for each area, which should be consistent with the national water resources management strategy. The Authority was also expected to establish regional offices in, or near, each catchment area. A committee of up to 15 persons was to be appointed in respect of each catchment area to advise the Authority's officers at the appropriate regional office on matters concerning water resources management, including the grant and revocation of permits.

With regard to the provision of water and sewerage services, section 51 of the law established water services' boards (WSBs), whose area of service would encompass the area of jurisdiction of one or more local authorities. A water services board was responsible for the provision of water and sewerage services within its area of coverage, and, for this purpose, would obtain a licence from the Regulatory Board. The water services board (WSB) was prohibited from engaging in direct service provision and had to identify another entity, a water service provider, to supply water services as its agent.

The agent was required to be a corporate entity whose sole mandate was the provision of water services. This mechanism was intended to ring-fence revenues from water services, particularly from the parent local authority. Pooling of revenues from water services in the local authority's general fund was the primary reason for the failure by municipality-operated water undertakers to invest in water services' provision. The law allowed WSBs, however, to supply water directly in situations where it had not been able to identify a provider who was able and willing to serve this need. WSBs were established as regional institutions. Their service areas were demarcated to coincide largely with the boundaries of catchment areas and represented an effort to decentralize functions to regional institutions, which were operationally autonomous.

The Water Act, 2002, did not make reference to the district water office (DWO), which under the previous institutional arrangements, was the key institution at the local level under which the government generally decentralized functions. The district office structures were outlined in elaborate detail in a 1986 policy paper, the Sessional Paper on the District Focus on Rural Development. In line with this arrangement, the ministry in charge of water affairs established a DWO and decentralized functions to it. The DWO was a replica of the DWD, and performed functions that encompassed the whole range of activities of its parent office, including water supply and water resources management.

The implied policy intention arising from the establishment of the regional institutions – the catchment areas offices for water resources management and the WSBs for water services provision – was that district structures would be replaced by the regional ones. It was assumed, therefore, that in line with the reforms, the DWO would be wound up. In reality, the DWO was not wound up and continued to receive substantial budgetary allocations from the ministry.

The functions to be performed by the DWO were, however, not clearly articulated. The budgetary allocations assigned to it came at the expense of investment in water supply, and it was widely believed in the sector that the continued existence of the district structure was not in line with ongoing reforms. Dismantling the district structures, however, proved difficult in light of the fact that the rest of the government continued to operate on the districts' model since there had not been a change to the Sessional Paper on the District Focus for Rural Development. This remained an unresolved policy question in the water sector until the promulgation of the Constitution of Kenya 2010.

C. The role of non-government entities in the water sector

The Water Act, 2002, continued – and even enhanced -- a long-standing tradition in Kenya of involving non-government entities and individuals in the management of water resources as well as in the provision of water services.

The law envisaged the appointment of private individuals to the boards of both the Authority and the Regulatory Board. The First Schedule to the Water Act, which dealt with the qualification of members for appointment to the boards of the two public bodies, stated that in making appointments, regard had to be paid to, among other factors, the degree to which water users were represented on the board. More specifically, the law stated that the members of the catchment advisory committee would be chosen from among, *inter alia*, representatives of farmers, pastoralists, the business community, non-governmental organizations, as well as other competent persons. Similarly, membership on the board of the water services boards would include private persons.

More significantly, however, the Water Act provided a role for community groups, organized as 'water resources users associations' (WRUAs), in the management of water resources. WRUAs is a concept that built on associations (previously known as 'water users associations' (WUAs) under

which local community members who wished to develop water projects for domestic use or even irrigation in small holder agriculture organized themselves. The Water Act, 2002 opted to rely on voluntary membership associations rather than on other institutional mechanisms such as local authorities. The reason for this was the belief that, being voluntary in nature, these associations could draw on the commitment of the members as social capital, as opposed to attempting to rely on more formal statutory structures, which might not necessarily be able to call on that social capital.

The law thus stated that these associations would act as fora for conflict resolution and cooperative management of water resources. Consequently, WUAs, where they already existed, would have to reconstitute themselves to take on board water resources' management issues. Where such associations did not exist, which was the case in most parts of the country, new associations would need to be formed to carry out the role that the new law had given to WRUAs. Inevitably, there would be financial and time implications for setting up new institutions. Despite the fact that these institutions' success depended on the initiative of the members and members' belief in their usefulness in meeting their water resources' management needs, it was thought that the investment of time and resources in setting up an association was likely to strengthen the commitment of the members to sustain the association.

WRUAs are a useful institutional mechanism for carrying out local level consultations on development activities, which can potentially have an impact on water resources. The Water Resources Management Rules stipulated that the WRMA would seek the comments of the WRUA on applications for permits for water resources' use.[11] This was in addition to the requirement for general public consultation.

The Act stipulated that water services would only be provided by a water services provider (WSP), which was defined as "a company, non-governmental organization or other person providing water services under and in accordance with an agreement with a licensee (the WSB)." Community self-help groups providing water services may, therefore, qualify as WSPs. In the rural areas where private sector WSPs were likely to be few, the role of community self-help groups in the provision of water services remained significant, despite the new legal framework.

The role of non-government entities in the management of water resources and in the provision of water services was thus clearly recognized. However, given the state-centric premise of the Water Act, 2002, the role assigned to non-government entities, particularly self-help community groups, was rather marginal, and fell short of the objectives outlined in the handover manual. The law clearly stated that the statutory mandate of providing water services lay with the WSBs. Consequently, a community WUA could only supply water within the area of the Water Services Board if it had a sub-contract with the Water Services Provider appointed by the board in that area.

11 Water Resources Management Rules, 2007 L.N. No 171 of 2007.

IV. THE CONSTITUTION OF KENYA 2010: CONTINUITY AND CHANGE

The future of the reforms undertaken in the water sector suddenly became somewhat uncertain after the passage of the Constitution of Kenya 2010.[12] The Constitution created two levels of government: national and county. The Fourth Schedule distributes functions between the national and county governments. Whereas the use of water resources has been assigned to the national government, soil and water conservation, and water and sanitation services have been assigned to county governments. This threw into doubt the feasibility of being able to continue with the institutional arrangements introduced over the 20 years of reform, under which water services were delivered by or under the authority of WSBs with a regional mandate.

Laws enacted to implement the Constitution created further uncertainty. The Urban Areas and Cities Act 2011,[13] made provision for urban areas and cities. A separate law, the County Governments Act, 2012, made provision for service provision by county governments. The Constitution and implementing laws empowered county governments to impose tariffs and collect charges for services they render. This arrangement threatened the ring-fencing of revenues, a key reform objective, as comingling of revenues was now likely to recur.

The law also allowed county governments to design the appropriate mechanism in their area for supplying water to urban and rural areas, opening up the possibility that counties would establish a single entity to provide water services in the whole area of their jurisdiction, without regard to viability. Counties could also opt to provide water services through their own in-house utilities operating as departments, marking a return to the pre-reform institutional arrangements.

The key lesson from the reform process of the two previous decades had been that the confidence of development partners in the ability of the institutions mandated to deliver water services to ring-fence revenues is critical to unlocking development financing and that ring-fencing ensured that investments in capital development was followed by proper maintenance. The ministry decided that, in aligning the water law to the Constitution, the key policy objective should be constitutional alignment combined with preservation of the gains of the reform process. The theme therefore was one of continuity, but with adjustments to align the legal and institutional arrangements to the Constitution.

A second key consideration in aligning the water sector frameworks to the Constitution was that the latter makes access to potable water and basic sanitation a human right and assigns the responsibility for water supply and sanitation service provision to the 47 county governments. Certain functions are also assigned to the national government and therefore water related functions are a shared responsibility between the national and the county governments. This shared responsibility was also reflected in the alignment.

12 The Constitution of Kenya, 2010, radically changed the governance structures of the country.

13 No 13 of 2011

The organogram below depicts the new institutional framework, which has been formulated in the Water Act, 2016, followed by a brief summary of the new institutional mandates.

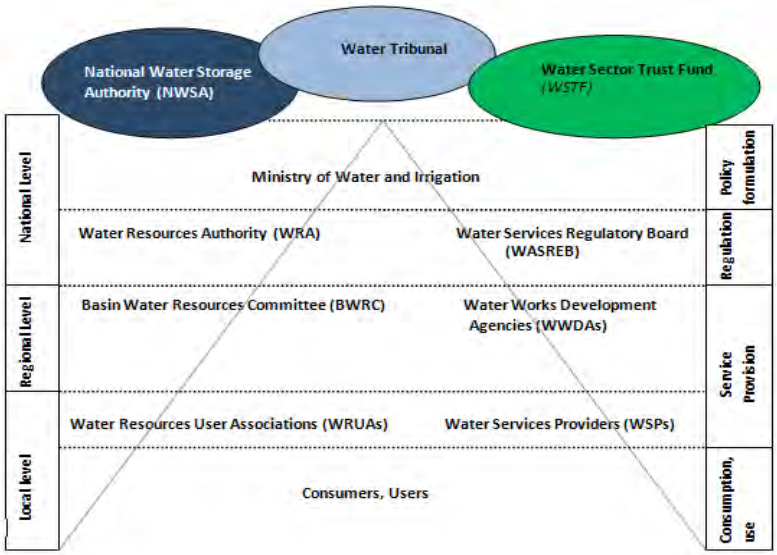

Figure 20:1 Institutional framework for managing water resources

Water resource management

Water Resources Authority (WRA)

The mandate of the Water Resources Authority (which was previously the Water Resources Management Authority) is now restricted to only regulation of water resources, all catchment management activities having been removed. This is due to the fact that under the Constitution, catchment management is a county government function. WRA's role focuses on:

- developing principles for water resources allocation
- determining applications for permits for water use through abstraction, diversion, impoundment, discharges etc
- monitoring water use
- enforcing rules on water use, and
- setting and collecting water use charges.

The WRA is set up as a national agency because the Constitution vests ownership and control of water resources and regulation of its use in the national government.

Basin Water Resource Committee (BWRC)

Basin Water Resources Committees were previously Catchment Areas Advisory Committees. They are established as regional committees, which are to be formed by the WRA at the basin (or catchment) level. The members will be drawn from stakeholders (including representatives of county governments) within the basin and aim to achieve wide stakeholder participation in the management of water resources at the basin level. The BWRCs will play an advisory role to the regional office of the WRA and also facilitate establishment of Water Resource User Associations.

Water Resource User Associations (WRUAs)

The Act provides for establishment of WRUAs, which are community-based associations for collective management of water resources and resolution of conflicts concerning the use of water resources. The BWRC may contract WRUAs as agents to perform certain duties in water resource management. WRA may also contract WRUAs to perform defined regulatory functions on its behalf.

Implications for the water sector frameworks

The legal and institutional framework set up by the Water Act, 2016, has important implications for the water sector institutional framework.

As regards provision of water and sewerage services the changes will be as follows:

- The functions exercised by the WSBs established under the Water Act, 2002, will be assumed by WWDAs established under the Water Act, 2016. The transition period provided for in the Act is three years during which the Cabinet Secretary will determine the WWDAs to be gazetted and WSBs will transition to the WWDAs, which are established.
- The licence to provide water services will no longer be issued to the WSB or its successor – the WWDA -- but instead it will be issued by WASREB directly to the WSP within the area of supply.
- The responsibility for infrastructure development will be split between WWDAs (which will assume responsibility for cross county asset development) and WSPs (which will assume responsibility for development of county specific assets for water service provision).
- The national government, the county government, the WWDA and the WSP may all invest in infrastructure for water services, this being a shared function. Where the national government makes the investment the implementing agency would be the WWDA whereas if the county government makes the investment either the county department concerned or the WSP will be the implementing agency. The implementing agency may also own the resultant assets.

- Being public entities, the water sector institutions are governed more broadly by the provisions of the Constitution dealing with public finance and the Public Finance Management Act, 2012 (as amended) from time to time. These require that a borrowing by the national or county government create a contingent liability on the Consolidated Fund. All borrowing by the county government must therefore be guaranteed by the national government.

Water supply and sewerage services

Water Services Regulatory Board (WASREB)

WASREB is a regulatory body. Its mandate is to regulate water and sewerage services provision with the objective of protecting the interests and rights of consumers. In this respect WASREB will:

- set minimum national standards for water and sewerage services provision
- licence water service providers
- approve tariffs and
- enforce water service standards.

WASREB is set up as a national regulatory body as consumer protection is a national government role. Government policy currently is that tariff setting is a consumer protection tool best undertaken by a national agency. WASREB will however need to collaborate with county level structures in regulating water service providers, since direct regulation by WASREB may prove difficult, particularly in relation to the small-scale water service providers.

Water Works Development Agencies (WWDAs)

The Constitution addresses infrastructure development as a shared function. It provides for national public works, which are the mandate of the national government and county public works, which are the mandate of the county government.

The 2016 Water Act defines national public water works as water works:

- whose source is cross county in nature in that the water is abstracted in one county and is to be piped to another county;
- is financed out of the national government share of national revenue and
- is intended to serve a function of the national government.

National public water works may include assets such as water storage and water works for the bulk distribution of water services.

The development and management of national public works will be undertaken by the WWDAs whilst county public works will be a responsibility of the respective county government.

The Water Act, 2016, provides that national public water works may be handed over from WWDAs to the county government, joint committee or authority of the county governments if there is an agreement between the WWDA and the county government or joint authority or committee.

In case several county governments collectively want to assume management of national public waterworks from WWDA, they can establish an authority of county governments or a joint committee. This is in line with Article 189(2) of the Constitution.

WWDAs are an agency of the national government and are responsible for the:

- development, maintenance and management of national public works;
- operation of the national public waterworks and provision of water services as a water service provider, until the responsibility for the operation and management of the waterworks is handed over to the county government, joint committee or CCA;
- provision of technical services and capacity building to county governments and water service providers within its region.

Where waterworks are handed over to county government entities for use in providing water services the agreement entered into between the county government entities and WWDAs will provide that the county government entities will assume responsibility for repaying the loans associated with the assets.

In case of default in repaying the loans the WWDAs may petition WASREB to declare a default and order that the WWDA may assume the function of providing water services until the loans are repaid in full. This is a mechanism, which enables the WWDA, which developed the assets to exercise step in rights but only in respect to assets developed by the WWDA. This is provided in section 69 of the Water Act, 2016.

Water Services Providers (WSPs)

Water Service Providers are entities formed by county governments who under the Constitution have the mandate to provide water services. Previously local authorities owned these companies but now they have been taken over by county governments.

WSPs are responsible for:

- provision of water services within the area specified in the license issued by WASREB; and
- development of county public water works and assets for water services provision
- collection of revenues charged for the service of provision of water and sewerage and these revenues are ring fenced and may be used entirely for purposes of covering operation and management costs of provision of water services, asset development

and repayment of loans acquired for the development of the assets for water services provision. This is provided in section 131 of the Act.

Water Tribunal

The Water Tribunal is a dispute resolution body. It is mandated to determine appeals emanating from persons who are aggrieved by decisions of the WASREB, WRA and the Cabinet Secretary. This body was known as the Water Appeals Board in the 2002 Water Act. Its mandate continues unchanged.

Water Sector Trust Fund (WSTF)

This is established as a financing institution in the water sector and may finance initiatives in the water resources sub-sector as well as in the water and sewerage services sub-sector. The sources of funds for the WSTF include the national budget, county government, the Equalization Fund, donations and grants, and additionally a levy on consumers of water. The details of the levy will be set out in regulations. The WSTF under the 2016 law has an expanded mandate from the one under the 2002 law. It incorporates funding for water resource management activities primarily to protect catchment areas.

National Water Storage Authority (NWSA)

The NWSA is responsible for development and management of national public water works for water storage, water resource management and flood control. It is also established as a national government agency but does not have an exclusive mandate over these functions.

V. TAKING STOCK OF REFORMS

The water sector reform process has exhibited a number of features, combining strengths and weaknesses. These can be grouped as follows: the process, the reform drivers, public consultation, and the role of development partners.

A. The reform process

Justified or not, the water sector has been dominated by a widely held belief that the enactment of a new law was a necessary precondition for implementing fundamental reforms in the water services sub-sector in Kenya.[14] In many quarters, it was thought that the reforms, and more particularly reforms involving the 'handover' of water utilities by the government to other service providers, could not be implemented under the then prevailing law. The enactment of a new law was considered essential to kickstart the reform process.

Consequently, activities to put in place a new law became the centrepiece of the reform effort. Indeed, the ministry initiated the reform effort by producing a draft Bill, the Water Act (Amend-

14 The Water Act, Chapter 372, Laws of Kenya, described in some literature as a 'colonial legacy', is seen (unjustifiably) as not making adequate provision for the involvement other service providers in the delivery of water services.

ment) Bill, 1992, and continued to place emphasis on the law review process. In fact, in the 10 years of efforts to reform the sector in the 1990s, little had been done to *actually* hand over systems. Emphasis was almost exclusively placed on reforming the law so much that reforming the sector became an exercise in legal reform.

The perception that reforms required a change in the existing law led to several false starts. This was due to the fact that proposals for legal reform were not preceded, or at least matched, by a clear identification of the policy objective to be achieved through the legal reform. Thus, both the Bills published in 1992 and 1999, which preceded the National Water Policy, did not address 'handing over', the key preoccupation of all those working in the sector.

Subsequent bills addressed handing over, but differently from the proposals outlined in the National Water Policy. The policy had stated that water services would be handed over to autonomous departments of local authorities in urban areas, but the Water Bill, 2002, stated that water services would be handed over to WSBs established under the new law. The government explained this change in policy as having come about when it became clear that there would not be sufficient public support for the wholesale handover of water services to local authorities, given their generally poor track record in service provision.[15]

The deviation from the stated policy was controversial. Development partners, the ministry in charge of local authorities, and local authorities themselves viewed it as evidence of the lack of commitment to the handover policy by the ministry in charge of water. They argued that the WSBs represented a 'top-down' approach to reforms since the water ministry would set up the boards, seen as contrary to the principles of participatory development and decentralization of service provision.

But the water ministry argued that the policy shift showed that the National Water Policy, 1999, did not capture accurately the public mood on handover, and that it would have been a mistake to base reforms on it when it had become clear that it did not represent prevailing thinking on the issue.[16] Significantly, the exact same differences of opinion have followed the enactment of the Water Act, 2016, with county governments objecting to the establishment of WWDAs, which they view as usurping functions that belong to county governments.

This controversy provides lessons for reform processes. On the one hand, it may suggest that the process typically adopted by the ministry in reforming the sub-sector is wrong: the government should first clarify its policy objectives and seek consensus among stakeholders before drafting a Bill. The Council of Governors (CoG), for one, has argued that the review of the water law should have been put on hold until consensus was reached on key policy issues. On the other hand, it may suggest that policy objectives are dynamic and that the government of the day should be free to change policy in line with changing circumstances: it must not be tied to a stakeholder driven process which could amount to a veto.

15 Interview with Mr JR Nyaoro, Director of Water Resources, Ministry of Water and Irrigation on 14 June 2012.

16 ibid.

In reality, policy making and policy implementation overlap, and do not fall into two neatly compartmentalized processes. The process of drafting a law often provides the opportunity for clarifying policy objectives. In practice, it is difficult for a government, which is under pressure to implement reforms, to keep things on hold as it clarifies policy objectives. In effect, a pragmatic approach, which is capable of responding to evolving scenarios, must guide reforms in any sector. However the effect of disputes among sector stakeholders over the policy direction typically delays reforms, and this was the case in the water sector. In the case of the 2010 Constitution, which imposed a five-year timeline for aligning laws to it, awaiting consensus became even more difficult.

B. Leadership in the reform process

The reforms have always been spearheaded by the ministry in charge of water affairs, which, on account of its role as the sector ministry, has the legal mandate for leadership throughout the process. Over its life, it has been known by several names.[17] The ministry has performed a diverse range of functions during the 30-year reform process, key among them:

- Initiation of Bills;
- Definition of the reform agenda;
- Elaboration of the policy objectives to be achieved;
- Organization of consultations to discuss the various drafts and to clarify the way forward;
- Liaison with development partners;
- Procurement of external technical services;
- Seeking Cabinet approval for the Bill;
- Sponsorship of the Bill in Parliament;
- Establishment of the new institutions for which provision was made in the new law;
- Transfer of functions; and
- Provision of budgetary support to the new institutions.

The ministry played such a pre-eminent role because of its mandate as the policy leader in charge of water affairs. Under the Constitution of Kenya, 2010, the President assigns functions to ministries through executive orders. This is reinforced by the practice of conducting government business strictly along ministerial lines. Thus, proposals for legislative reform are the responsibility of the ministry under whose mandate the law in question falls.

Given the fundamental nature of the reforms proposed, one question has always dogged efforts in the sector: Could the ministry reform itself and its institutions? Is it not likely that insiders will tend to subvert the reform process to suit their circumstances? The reforms have required that the ministry and its institutions divest themselves of their functions of licensing, services provision, regulation and enforcement in favour earlier on, of local authorities, and subsequently of county governments. These changes, once implemented, will have far-reaching impacts on the structure, size and functioning of the ministry and its institutions. In effect, they will result in a

17 Currently, it is known as the Ministry of Water and Irrigation. Previous to that, it was the Ministry of Environment and Natural Resources bringing together the Departments of Water, Forestry, Environment, and Mining.

fundamental restructuring of the ministry and its institutions as well as a significant downsizing of its staff complement in favour of county governments.

That the ministry and its institutions should be placed in a position where they have to preside over their own dismemberment is thought to be inimical to the reform process. Indeed, many have argued that the apparent slow pace of reforms is due to the ministry and its institutions' lack of enthusiasm for reforms required by the Constitution. There has been talk therefore that the reforms should be driven by a 'neutral' body or, at the very least, a body that is external to the ministry. However the Transition Authority that was set up under the Constitution as well as the Commission for the Implementation of the Constitution both ended their mandates without effectively playing the role of 'neutral arbiter' in the water sector.

The ministry has never considered the necessity of an external body at all.[18] It has argued that it is best placed to drive reforms in the sector, being the one entity that best knows what the sector needs, and what can be done to reform it. The ministry has always preferred to rely on administrative arrangements similar to those that have been used by the government in reforms in other public sectors, specifically an Inter-Ministerial Steering Committee and an in-house Reforms Secretariat or Unit.

It is still difficult to tell which of the two arrangements would drive the reforms process more effectively. It is clear, however, that on the whole, the reform efforts have lacked vigour particularly once they get past the legislative stage into actual implementation. Once the law is passed, key reform actions, such the transfer of assets and staff and disbandment of existing entities is implemented half-heartedly. This could be attributed, on the one hand, to the perceived lack of enthusiasm within the ministry and its institutions for the reforms proposed. On the other hand, it could be attributed to the lethargy and bureaucracy in the governmental system generally, since ordinarily, it would be difficult for one sub-sector to implement reforms vigorously against a background of system-wide bureaucratic lethargy and disharmony in policy objectives.

C. Stakeholder participation in the reform process

The water sector is governed under a policy, legal and institutional regime premised on the primacy (indeed monopoly) of central state organs and state systems in the management of water resources as well as in the provision of water and sewerage services. It makes only limited provision for reliance on non-state based systems, institutions and mechanisms. More fundamentally, the water sector framework mirrors the legal paradigm in Kenya, based on a tradition of the law inherited from the colonial era and which does not recognize the existence of a pluralistic legal framework. It assumes that the legal framework in Kenya is comprised of a monolithic and uniform system, which is essentially state-centric.

For this purpose, legal pluralism is understood as referring to a situation characterized by the co-existence of multiple normative systems, all enjoying validity.[19] Kenyans, urban and rural

18 However, experience elsewhere has shown that institutional reforms will move forward if the champion/reform driver is located outside of the potentially affected agencies.

19 Mumma, A. 'The Role of Local Communities in Environmental and Natural Resources Management: The Case of

dwellers alike, typically live within normative frameworks in which state-based law is no more applicable and effective than customary and traditional norms. Kenya's water law, however, does not give effect to this reality.[20]

Thus, the paradigm on which the Water Act, 2016, is based relies on formal legal and institutional structures and systems. Like its predecessor, it has vested all water resources in the country in the state, centralized control of water resources in the national government and subjected the right to use water to a permit requirement. This has far-reaching implications for the management of water resources and provision of water services by communities and non-government actors who have only limited access to state-based systems.[21] Matters are compounded by the administrative, financial and technical constraints inhibiting the ability of the Kenyan state to implement the Water Act, 2016, and to enable citizens to derive full benefits from its provisions.

This notwithstanding, the Constitution and government policy and practice in Kenya require that the public ('stakeholders') be consulted with regard to major policy proposals. These consultations often take the form of workshops and visits to counties. As conducted, the workshop model suffers from a number of limitations and thus falls short of being a true 'public consultation'.[22] First, only a small number of people can be accommodated in a workshop, and so attendance is by invitation. This is invidious because, in inviting some, others are left out. Furthermore, invitations are typically based on a standard list and, therefore, the same persons tend to get invited to all the workshops, and others rarely, if ever, get a chance. Second, draft proposals are not circulated widely, and only those invited to the workshop tend to get a copy on arrival. This limits the range and scope of public consultation. Additionally, there is no clear mechanism for receiving public comments. Rarely is a particular officer designated to receive and collate comments. A member of the public wishing to send in comments does not know to which officer to address them.

These limitations were clearly evident with respect to the public consultations on the water sector reforms. That considerable effort was made to consult the public about the proposals for reform and alignment of the water laws to the Constitution cannot be denied. Workshops were held at national and regional levels over a period of two years. But the consultations did not result in broad awareness about the reforms or a consensus built around the proposals. As a result, even after the Water Act, 2016, was passed, the Council of Governors opposed it and lodged a petition in the High Court challenging several of its provisions as unconstitutional.[23] These are yet to be determined.

Kenya" in Paddock, L; Qun D, Kotze, L; Markell D; Markowitz, K and Zaelke, D eds *Compliance and Enforcement in Environmental Law: Towards More Effective Implementation* (Edward Elgar, Cheltenham UK, 2011) 619

20 See the Water Act, 2002

21 Kameri-Mbote P & Kariuki F 'Human Rights, Gender and Water in Kenya: Law, Prospects and Challenges' in Hellum A et al (eds) *Water is Life: Women's Human Rights in National and Local Water Governance in Southern and Eastern Africa* (Weaver Press2015) 81-117

22 The observations that follow are drawn from the author's experiences in participating in stakeholder consultations in the sector over the years.

23 Council of Governors v The Attorney General and Cabinet Secretary Ministry of Water & Sanitation, In the High Court of Kenya at Nairobi [2016] eKLR

The lesson from this experience is that for effective public consultation to occur, it is necessary that documents containing the proposed reforms be widely circulated and that they remain easily accessible. Further, an officer must be publicly designated to distribute documents and to receive and collate comments. The use of websites for posting reform proposals is gaining ground and is likely to mitigate this problem in the future.

±The key external actors who make a significant contribution in the water sector reform process are the development partners, in particular those who contribute significantly to the budget for capital investments in the sector. These include the World Bank, Sida, GIZ, AFD, Finnish International Development Agency, the Dutch, Belgian Administration for Development Cooperation, Austria, the African Development Bank, Japanese International Cooperation Agency, and others.

Development partners play a role both bilaterally and through multilateral fora. Many have bilateral financing arrangements with the government. Multilaterally, development partners come together in a 'Government/Development Partners Group Meeting', which holds regular meetings with the ministry to review developments in the sector and to advance the reforms agenda. Occasionally, they come together for a specific exercise. The Joint World Bank, KfW, GTZ, Sida and AFD Sector Review Mission,[24] for instance, was carried out in collaboration. However, at times, development partners pursue separate agenda and give conflicting signals.

The support of development partners for the reform effort is significant. Such support was critical to the ability of the government to finance the reform efforts. Development partners do not simply provide financial support for the reform efforts. They play a critical role in shaping the reforms agenda; in refining the policy objectives and the methods for pursuing them; and in influencing the pace of the reforms. The decline in development finance for the ministry in charge of water services directly influenced the adoption of 'handing over' as the key policy objective for the sector, and the global move towards private sector provision of services. Indeed, financing agencies linked progress on the reforms to the resumption of development finance.[25]

Clearly, development partners facilitate much that would otherwise not happen, either at all or as rapidly. At the same time, at times, they insist on reform proposals that do not have the support of the national government or of county governments.

The observation here is self-evident: in the circumstances in which Kenya finds itself presently, and given the pressing need for massive investment finance in the sector, it is unavoidable that development partners will play a critical role in reform efforts. Continuous dialogue between development partners and the government facilitates clarification of policy positions and appreciation of the factors influencing the adoption of particular stances. The government must nevertheless be allowed to determine its policy objectives. If that is not done, then the reforms adopted would not be embraced and implemented in the way that they should.

24 Republic of Kenya (n 6)

25 A perusal of Republic of Kenya, Review of Water Supply and Sanitation Sector: Joint World Bank, KfW, GTZ and AFD Mission, November 20 to 17 December 2000, *Aide Memoire* more than amply bears this out.

VI. CONCLUSION AND RECOMMENDATIONS

The Water Act, 2016, was commenced on 21 April 2017. However, the reform process in the water services sector is not considered complete simply because a new law has been enacted. Indeed, in terms of actual reforms on the ground (namely, transfer of functions to the new institutions), the work has just begun. What had been achieved by the enactment of the law was the reform of the *legal* framework.

Some of the achievements of the reform efforts contributed to the elaboration of a clear framework which endeavours to align the sector to the 2010 Constitution while maintaining key reform objectives include: liberalization of the sector; autonomous regulation of the sector; separation of water resources management from the water services provision; and devolution. Transferring responsibility for service delivery is contentious in any country. That it has continued to be controversial in Kenya is therefore not a surprise.

From the Kenyan experience, a number of issues can be highlighted that need to be addressed if reforms are to be effective. First, an in-house reforms secretariat is unlikely to be effective. For a reforms unit to be effective, its mandate and authority must be such that it can confidently perform its duties. It is unlikely that such far-reaching reforms can be implemented effectively through internal processes and by relying on internal staff, who depend on the same reporting systems. The reforms unit needs to have input from external persons and authority from external sources to carry through fundamental reforms.

Second, it is necessary to develop and publish a plan and a timetable giving a clear timeframe and benchmarks for the reform activities, in particular, the setting up of the new institutions and the transfer of functions. This would enhance confidence in the government's commitment to reforms and assist in 'concentrating minds' across the entire government system on reform activities. It is also a necessary tool for mobilizing the financial resources needed for investment.

Third, it is necessary to strive for consensus on key features of the reforms proposed, in particular the contentious ones, such as the role of WWDAs. Ultimately the implementation of the Constitution must be undertaken in a way that does not unduly undermine gains made over 30 years of reforms.

Fourth, it is necessary to begin capacity building activities early so that the new institutions can take off smoothly, and to assist them in adjusting to the new regulatory environment. This will reduce the chances of costly mistakes following the implementation of the new law. Finally, a corollary step is to educate other government departments about the requirements and expectations of the new law so that they can facilitate its implementation.

Chapter 21

Water Law and Development: Comparative Perspectives

Philippe Cullet

I. INTRODUCTION

Among the various areas of research to which Professor Okidi has been drawn, water law has been a central concern that he has engaged with in various forums and on various occasions. His concerns have centred around water in general and particularly water-related legal issues at the basin and international level.[1] Environmental concerns have progressively been integrated in international water law, and water scholarship in part because of the effort of early environmental law scholars, such as Professor Okidi.

At the domestic level, water law has been an important concern in many countries but the main areas of focus have been for long relatively narrowly defined, with the emphasis being put mostly on property rights-related issues and irrigation. Drinking water has been a concern for a long time but the main issues that have attracted lawyers' attention relate to distribution of water, mostly in urban areas, including issues of quality. Professor Okidi has contributed to fostering a broader reading of water law that in a sense led to the explosion of interest in the subject witnessed over the past couple of decades, as reflected, for instance, in the fast-growing interest that lawyers developed in the human right to water from the late 1990s onwards.

Many countries in the Global South now put significant emphasis on water regulation. This is in keeping with the progressive realisation that the old frameworks that give landowners priority access to water lead to increasingly socially inequitable and environmentally unsustainable outcomes.[2] This is particularly the case in a context of increasing water use, changing inter-sectoral allocation and increasing pressure on ecosystems that support surface flows and groundwater recharge. All this takes place within the context of global environmental change that brings additional uncertainty to rainfall patterns. The increasing fear that there may not be enough water for all water uses has led most countries of the world to use the concept of physical water scarcity as

1 See Charles Odidi Okidi, 'International Law and Water Scarcity in Africa' in Edward HP Brans et al (eds), *The Scarcity of Water – Emerging Legal and Policy Responses* (Kluwer Law International 1997) 166-80; Charles Odidi Okidi, 'Legal Issues in Sustainable Management of Fresh Water Resources' 278-95.

2 For instance for South Africa, Synne Movik, The Dynamics and Discourses of Water Allocation Reform in South Africa (2009) STEPS Working Paper 21 <https://steps-centre.org/wp-content/uploads/Reform_web_version.pdf> accessed 4 November 2018 7-8.

a premise for water law and policy making since the 1990s.[3] This has taken place in a context of wide-ranging economic and policy reforms whose main underlying rationale has been the transformation of water from a shared substance not subject to appropriation by anyone to a commodity that can be traded, including separately from the land, like any other 'natural resource'.[4]

This chapter examines some of the issues that arise in terms of the development of water law in a context where (sustainable) development, which remains in practice largely focused on economic growth, has remained the ideal that all countries want to attain.[5] It is ironical that more than 30 years after the publication of the Brundtland Report,[6] while sustainable development has been mainstreamed to the extent of becoming the standard bearer of existing development policy with the adoption of the Sustainable Development Goals,[7] most countries still focus on economic growth as the main driver of poverty eradication. In this context, water remains trapped in a policy context that looks at it mostly in terms of the economic value that it can contribute to the process of development. This is so despite the fact that water is central to any effort to eradicate poverty and to realise a variety of human rights.

II. WATER POLICY EVOLUTION: COMMODIFICATION, POVERTY AND IMPOVERISHMENT

In the past few decades, water has become an increasingly visible and contested policy issue. This is not to say that it was not significant earlier. Rather, in the context of the neoliberal reforms that accelerated exponentially after the end of the Cold War, the search for new expansion opportunities led to identifying water as having immense growth opportunities because of its central role in human survival, livelihoods and economic growth.[8] Bringing water to the market economy was in one sense an extension of water rights being linked to land ownership and land rights being tradable. This constituted a premise towards considering water as a commodity like other land-based natural resources. At the same time, this went completely against the widely held view that water is a shared resource that cannot be appropriated by anyone and should be available for free, at least for fulfilling domestic and livelihood needs.

The project of turning water into a new commodity that should be paid for and that could be traded like any other good was thus started against the prevailing view that water should not be

3 See The Dublin Statement on Water and Sustainable Development (Adopted January 31, 1992) International Conference on Water and the Environment.

4 cf Mark W. Rosegrant and Hans P. Binswanger, 'Markets in Tradable Water Rights: Potential for Efficiency Gains in Developing Country Water Resource Allocation' (1994) 22 World Development 1613-25.

5 Eg World Bank, Inclusive Green Growth – The Pathway to Sustainable Development (The World Bank, 2012).

6 WCED, 'Report of the World Commission on Environment and Development: Our Common Future' (20 March 1987) UN Doc A/42/427.

7 UNGA, Transforming our World: The 2030 Agenda for Sustainable Development' (25 September 2015) UN Doc A/RES/70/1.

8 Eg Erik Swyngedouw, 'Dispossessing H2O: The Contested Terrain of Water Privatization' (2005) 16 Capitalism Nature Socialism 81-98.

commodified.[9] Another reason water had always been treated separately from natural resources was its fluidity, which ensured that it was impossible to impose the same rules of ownership as for resources attached to the land permanently.[10] Addressing these multiple and long-standing concerns thus required a strong policy push that would lead to persuading water users (that is all of us) that the substance they had always understood as a gift of nature that belonged to no one was a tradable resource like any other good.

The Dublin Statement adopted in early 1992 as part of the process of preparation of the Earth Summit provided an ideal opportunity for not only pushing the boundaries of the policy consensus on water but also for redefining it altogether.[11] In a statement adopted by a technical meeting that had little political legitimacy, an entirely new view of water was proposed that sought to emphasise water as being exclusively an economic good in all its uses.[12] It went even further and introduced what is in principle unthinkable, the subordination of the human right to water understood as an economic good.[13]

The Dublin Statement was never incorporated in the Earth Summit outcomes or endorsed by the UN General Assembly and should have remained a footnote in the history of water law and policy. In reality, however, various actors quickly used it to provide legitimacy for a view they could not have voiced in other forums at that point. A clever clubbing of Rio and Dublin led some people to refer to the Dublin/Rio principles,[14] thereby giving the Dublin Statement a moral authority it never had. This was particularly problematic because Agenda 21 carefully stayed away from the extreme rhetoric of the Dublin Statement. At the same time, this is not to say that Agenda 21 rejected the general orientation of water policy since its own push for a socio-economic approach to water was only a slightly more refined and politically acceptable formulation seeing "water as an integral part of the ecosystem, a natural resource and a social and economic good".[15]

The push towards turning water into an economic good in all its uses would have quickly been rejected in a world facing immense poverty if it had not been supported by a sustained campaign "to communicate the message that water is a scarce resource and must be managed as an economic good",[16] and if its promoters had not sought to address the impacts of the policy changes on the poor. This led to the extraordinary move to justify the new policy in the name of its benefits for the

9 cf Riccardo Petrella, *Le manifeste de l'eau : Pour un contrat mondial* (Lausanne : Editions Page deux, 1999) 109.

10 Eg Dante A. Caponera, National and International Water Law and Administration – Selected Writings (Kluwer Law International, 2003) 83.

11 Dublin Statement (n 3).

12 ibid, principle 4.

13 ibid.

14 eg Richard Hoare et al, *External Review of Global Water Partnership – Final Report* (Performance Assessment Resource Centre 2003) 4.

15 UNCED (Agenda 21) 'Report of the United Nations Conference on Environment and Development, Rio de Janeiro' (3-14 June 1992) UN Doc A/CONF.151/26/Rev.1 (Vol. 1, Annex II) c 18(8).

16 World Bank, 'India- Water Resources Management Sector Review – Rural Water Supply and Sanitation Report' (28 January 1998) Report No. 18323, 53.

poor. One of the central arguments used was that the poor were displaying 'willingness to pay' and therefore pricing water was not the issue in itself.[17] Further, it was argued that the poor would be the first beneficiaries of policies imposing pricing on everyone because it was the poor that were at the mercy of private vendors overcharging people without access to water supply from the local utility whose per litre charge was much lower.[18] As a result, by 2001, the Asian Development Bank could adopt a policy advocating "the phased elimination of direct subsidies to the poor for accessing basic water services".[19]

This is in fact an inappropriate basis for policy-making as seen in different parts of the world. In Kenya, the World Bank noted that "the unit costs incurred by both the poor and the non-poor are very high, and there is no statistically significant difference in the mean unit costs that they incur for their water".[20] In India, until recently not only did virtually everyone in rural areas get access to free water but even in urban areas, most of the poor unserved by piped water services were accessing water through a variety of free options provided by the government or their representatives (Member of Legislative Assembly and/or Member of Parliament).[21] In all, the argument that the poor are willing to pay should rather be reframed as desperation to stay alive and live a dignified life, a very different starting point for paying for water.

Another argument used was the distrust of the state at the root of neoliberal reforms. In the water sector, this translated in part in a push for privatisation of water services in urban areas, something that has often been justified as a way to foster 'participation' of private sector actors in sectors previously under the control of state utilities.[22] The same idea of 'participation' was also used to foster disengagement of the state in favour of rural water users taking control of the infrastructure used to access drinking water. The justification given for the disengagement of the state was the promotion of 'ownership' by users.[23] This increased 'participation' was meant to ensure that users would get the infrastructure that they were 'demanding' rather than something supplied by the state without consultation with users. The quid pro quo was that the state would disengage from not only infrastructure but also from operation and maintenance that would become the responsibility of users.

17 eg World Bank, 'Rural Water Supply in India – Willingness of Households to Pay for Improved Services and Affordability' (1 June 2008) Policy Paper 44790.

18 eg Ashok Nigam, 'Urban poor pay for water: evidence and implications for going to scale' (2000) UNICEF Staff Working Papers, Number EPP 00-002 <https://www.unicef.org/evaldatabase/files/Global_2001_Urban_Poor.pdf> accessed 4 November 2018.

19 Asian Development Bank, 'Water for All – The Water Policy of the Asian Development Bank' (16 January 2001) para 45.

20 Sumila Gulyani, Debabrata Talukdar and R. Mukami Kariuki, 'Water for the Urban Poor: Water Markets, Household Demand, and Service Preferences in Kenya' (2005) 5 World Bank: Water Supply And Sanitation Sector Board Discussion Paper Series 27.

21 eg Philippe Cullet, 'Right to Water in India – Plugging Conceptual and Practical Gaps' (2013) 17/1 International Journal of Human Rights 56, 68.

22 eg UNESCO, 'Water – A Shared Responsibility; The United Nations World Water Development Report 2' (22 March 2006) UN Doc UN-WATER/WWAP/2006/3, 75.

23 Agenda 21 (n 15) 18.76 stating that states should 'promote community ownership'.

One of the places where this was implemented with much gusto was the World Bank's Swajal project, started in 1996 in northern India, that sought not only to make users pay for the full operation and maintenance of the infrastructure built to ensure access to drinking water but also to make them pay for capital costs.[24] In a context of poverty where the state had entirely subsidised infrastructure for accessing drinking water supply, it was understood that it would be impractical, in addition to being unacceptable; to impose full cost recovery immediately. A 10 per cent contribution was thus requested as a starting slab but this was meant to increase progressively towards full cost recovery and an increase from 40 litres per capita per day (lpcd)[25] to 55 lpcd already attracted a 20 per cent contribution in the late 1990s.[26] In any event, while the World Bank policy framework became national policy for seven years from 2002 onwards under the name of Swajaldhara,[27] the very idea of capital cost contributions by users was eventually abandoned in 2009.[28] This was due to people obstinately believing that drinking water should not be paid for and in more pragmatic terms to the absence of resources to pay. The option to pay the contribution only partly in cash and the rest in kind had been provided for from the time of the Swajal project.[29] The cash contribution was increased to half under the Swajaldhara Guidelines,[30] but eventually abandoned under the National Rural Drinking Water Programme.[31]

While the story of rural India is not well known, that of the impacts of privatisation in cities is much better documented. The first decade of so-called big bang privatisation in the 1990s led to disasters of the kind witnessed in Cochabamba, Bolivia.[32] This was not only a disaster for the World Bank and private investors, since the project had to be abandoned, but also a disaster from the point of view of demonstrating to the world that private sector actors would necessarily do better than the state in providing water to the unserved poor.

Since the beginning of the century, water privatisation has become much more insidious insofar as it is implemented much more progressively, on a task-specific basis and without much publicity. This has made it less controversial politically but the impacts on the ground are not very different. The negative impacts of privatisation have been felt in different ways in various parts of the world. In England and Wales where full privatisation was kick-started in the late 1980s, there is an increas-

24 World Bank, 'Staff Appraisal Report – Uttar Pradesh Rural Water Supply and Environmental Sanitation Project' (18 May 1996) Report No 15516-IN.

25 The minimum level set by the Government of India in the 1970s as a first step in ensuring sufficient access to water, always considered only as a first step.

26 Government of India, 'Accelerated Rural Water Supply Programme Guidelines' (1999-2000) s 2(3)(1).

27 Government of India (Ministry of Rural Development, Department of Drinking Water Supply), 'Guidelines on Swajaldhara' (25 December 2002).

28 Government of India (Ministry of Rural Development, Department of Drinking Water Supply) 'National Rural Drinking Water Programme – Movement Towards Ensuring People's Drinking Water Security in Rural India – Framework for Implementation' (23 April 2010) [hereafter NRDWP].

29 Uttar Pradesh Rural Water Supply (n 24) 142.

30 Swajaldhara Guidelines (n 27) s 5.3.

31 NRDWP (n 28).

32 eg Degol Hailu, Rafael Guerreiro Osorio and Raquel Tsukada, 'Privatization and Renationalization: What Went Wrong in Bolivia's Water Sector?' (2012) 40(12) World Development 2564-77.

ingly shared consensus that this has neither worked out for water users nor for the country.[33] In the Global South, there have been an increasing number of campaigns against privatisation projects.[34]

III. WATER LAW DEVELOPMENT IN COUNTRIES OF THE GLOBAL SOUTH

Water law is a relatively old field of law, in particular compared to human rights and environmental law. It has progressively evolved over time and in some ways, acceleration can be noted over the past few decades. This increasing pace of change is linked in large part to the policy changes highlighted in the previous section. Water law reforms adopted since the 1990s thus tend to be largely influenced by the perspective on water propounded by the Dublin Statement. The focus on law reform in different countries is not fortuitous. The 1990s saw an increasing number of controversies linked to the attempt to impose privatisation of water services in developing countries through full-scale handover of operations to a private sector actor, often with the financial backing of a development agency. Progressively, a new strategy was introduced in the 2000s that privileged law reforms as a first step towards enshrining a new water ethics before letting local governments implement these laws progressively on the ground.[35]

India constitutes one of the most important examples of this strategy that saw significant emphasis being put, first on the adoption of water policies (at the centre and state level) and progressively of specific water laws in a number of states.[36] Where the reform agenda was not shared by the political dispensation in place, funding for specific water projects was sometimes made conditional on the adoption of certain specific laws.[37] Interestingly, a series of laws adopted from the mid-1990s onwards fall into two main categories. The first is laws on water user associations (WUAs), based on the international model of participatory irrigation management and legislated upon without making the effort of aligning the institutions set up with the existing institutions of local governance already in charge of irrigation at their level.[38] The second is laws seeking the setting up of so-called independent water regulatory authorities meant to divest the state from some of its water-related functions to ensure more efficiency in allocating water, and in some cases to foster the setting up of tradable water entitlements.[39]

33 Eg Jonathan Ford and Gill Plimmer, 'Pioneering Britain has a Rethink on Privatisation' *Financial Times* (London, 22 January 2018) <https://www.ft.com/content/b7e28a58-f7ba-11e7-88f7-5465a6ce1a00> accessed 4 November 2018.

34 eg Gaurav Dwivedi, Rehmat and Shripad Dharmadhikary, Water: Private, Limited: Issues in Privatisation, Corporatisation and Commercialisation of Water Sector in India (Revised edn, Manthan Adhyayan Kendra 2010).

35 Cf John Briscoe and RPS Malik, *India's Water Economy – Bracing for a Turbulent Future* (The World Bank and Oxford University Press 2006) 41 arguing that building the new Indian water state will involve among others ensuring that 'the government will develop a set of laws, policies, capacities, and organizations for defining and delivering an enabling environment'.

36 See generally Philippe Cullet, *Water Law, Poverty and Development – Water Law Reforms in India* (Oxford: Oxford University Press 2009).

37 eg Andrés Olleta, 'The Role of the World Bank in Water Law Reforms' in Philippe Cullet et al.(eds), *Water Law for the Twenty-first Century: National and International Aspects of Water Law Reforms in India* (Routledge 2010) 81.

38 eg Roopa Madhav, 'Law and Policy Reforms for Irrigation' in Philippe Cullet et al. (eds), *Water Law for the Twenty-first Century: National and International Aspects of Water Law Reforms in India* (Abingdon: Routledge 2010) 205, 225.

39 *See* generally Priya Sangameswaran and Roopa Madhav, 'Institutional Reforms for Water' in Philippe Cullet et al. (eds), *Water Law for the Twenty-first Century: National and International Aspects of Water Law Reforms in India* (Abingdon: Routledge 2010) 138.

WUAs are interesting in the context of this chapter because they align with the discourse on participation of users in decision-making. At the same time, they are part of the broader model of participation that sees public participation as an end in itself and that does not equate 'participation' with the right to decide. In other words, participation, as it has developed over the past few decades is in effect a misnomer for a process of consultation that does not directly affect the process of decision-making. This thus happens to fit the jargon pushing for state disengagement in favour of 'users', without significantly affecting power structures in place. Indeed, all that farmers can do is participate in the 'management' of existing infrastructure. In addition, in the Indian context, the introduction of WUAs modelled after the international model is odd. First, local irrigation control already existed in some parts of the country and the laws could have been modelled on the basis of the experience gained with those bodies.[40] Second, panchayats already have control over irrigation and there was no need to set up an additional body to do this.[41] Third, water user associations are more regressive than panchayats in terms of membership because they only include landowners and apart from one exception, do not include reservation in favour of women and/or scheduled castes/scheduled tribes.[42] In this sense, WUA laws constitute an example of a one-size fits all development intervention that is at best inappropriate, at worst unwelcome, in particular where in the name of decentralisation and participation, a single model is adopted in the laws of different states all around India despite the wide variations in irrigation practices in different states with different socio-economic histories, climate and agricultural practices.

The case of water regulatory authorities (WRAs) is much more problematic since it constitutes an attempt to impose a new water management system that Indian states were not likely to adopt on their own. WRA legislation is the brainchild of policy makers wanting to enforce the concept of water as an economic good. The rationale given is the need for the state to be sidestepped because of its inefficiency and the need to ensure transparency, in a context of water scarcity.[43] WRA laws were indeed passed in a number of states but interestingly, there has only ever been one that has really been set up and made to work -- the Maharashtra Water Resources Regulatory Authority (MWRRA).[44] In other states where legislation was adopted, its implementation was left at different stages but on the whole, state governments did not feel particularly enthused by the legislation adopted.[45] The MWRRA is thus the only example that can be used to assess the proposed model.

40 Madhav (n 38) 217.

41 eg Uttar Pradesh Panchayat Raj Act 1947 (as amended in 1994), s 15.

42 The exception is the Chhattisgarh sinchai prabandhan me krishkon ki bhagidari adhiniyam 2006, s 5.

43 eg Esther Gerlach and Richard Franceys, 'Economic Regulation' in Richard Franceys and Esther Gerlach (eds), R*egulating Water and Sanitation for the Poor - Economic Regulation for Public and Private Partnerships* (Earthscan 2008) 21.

44 While the Andhra Pradesh Water Resources Development Corporation Act 1997 came earlier, it was of an earlier model of reform, as confirmed by the fact that it was meant to be superseded by the Andhra Pradesh Water Resources Regulatory Commission Act 2009 (not yet set up).

45 At some point, the Central Government decided to try and impose the introduction of water regulatory authorities on states through financial conditionality. Government of India, 'Thirteenth Finance Commission 2010–2015' (Volume I. Report, 2009) para 12(5).

Despite a lot of attention and prodding from diverse institutions, including the World Bank,[46] the Authority has not yet managed to fully implement all the tasks that were originally assigned to it. In particular, it has remained cautious with regard to tradable entitlements.[47] More importantly, the very basis on which the MWRRA was adopted essentially collapsed within five years. Indeed, one of the major things that WRAs are supposed to do is to ensure that bulk allocation is done on a non-political basis. This is to be achieved by making the authority 'independent' of the government. Even in the case of the MWRRA, this was never fully achieved as the chairperson had from the start to be someone "who is or who was of the rank of Chief Secretary".[48] Yet, even in this context, the strongly political nature of water ensured that the government decided as early as in 2011 that it needed to repatriate some of those powers to itself.[49] The broader lessons of the attempt to set up WRAs is that in the name of efficiency, they end up bypassing elected representatives with a technical body that does not understand the social, cultural or environmental dimensions of water. In addition, it replaces a top-down institution with another top-down institution, thus not providing the basis for locally based decision making.

The example of India can be compared with that of Kenya that has adopted two water statutes since the beginning of the century. Both the 2002 and the 2016 acts are framed around an understanding of water as ultimately governed and owned by the state. Indeed, even the more recent legislation stating that water is held in trust by the national government does this in a provision entitled 'ownership of water'.[50] The Kenyan acts distinguish themselves by a relatively high level of proposed centralisation that makes little attempt to provide for effective decentralisation, let alone subsidiarity. In addition, the two acts are overwhelmingly focused on water use. This is even more marked in the 2016 legislation whose long title does not even mention conservation anymore. Beyond this, conservation and protection dimensions are reflected, for instance, in the establishment of a reserve and in water pollution-specific provisions.[51] There is, however, no focus on conservation as a pre-condition for use and no basin-wide or aquifer-wide conservation and regulation framework. At the same time, the law provides for inter-basin transfers, a very controversial issue from an environmental perspective.[52] On commodification, the 2016 legislation recognises that the basis for domestic water supply is commercial services. At the same time, it

46 World Bank, 'Maharashtra Water Sector Improvement Project (23 June 2005) Project Appraisal Document Report No. 31997-IN, 1 wherein the Bank lauds the Government of Maharashtra for having 'taken a number of bold and path-breaking actions' between 2003 and 2005, a period during which the Bank acknowledges that it was 'a critical knowledge/advocacy partner to the state'.

47 eg Shripad Dharmadhikary, 'Value as a Justification in Water Resource Development' in Kanchi Kohli and Manju Menon (eds), *Business Interests and the Environmental Crisis* (Sage 2016) 105, 117.

48 Maharashtra Water Resources Regulatory Authority Act 2005, s 4(1). The one change introduced by the 2016 amendment is that a retired high court judge can now also be appointed as chairperson. See Maharashtra Water Resources Regulatory Authority (Amendment) Act 2016, s 5.

49 Maharashtra Water Resources Regulatory Authority (Amendment and Continuance) Act 2011.

50 Kenya Water Act 2016, s 5.

51 Ibid, s 2(1), 58.

52 eg WWF Global Freshwater Programme, 'Pipedreams? Interbasin Water Transfers and Water Shortages' (June 2007) Concerning India's 'interlinking of rivers', see Dharmadhikary (n 47) 113.

specifically provides that in some rural areas, commercial services may not be viable and counties need to take appropriate action to ensure that no one is deprived of water.[53] This is the least one would expect in a context where the law specifically refers to the human right to water recognised under the Constitution.[54]

IV. HUMAN RIGHT TO WATER AND PRIVATISATION: CONFLICT AND CONTRAST

Water law reforms that have been introduced since the 1990s are to be seen in relation to other developments taking place in parallel. Among these are the progressive recognition of the human right to water at the international level and its formal recognition in a number of countries of the Global South. At first sight, it seems anomalous that the right to water would not have been recognised earlier. Indeed, it is impossible to think of a catalogue of human rights that does not include water,[55] and the only explanation that can be given to its invisibility in early human rights treaties and constitutions before the 1990s is that it was too obviously linked to life to need separate mentioning.

In any event, the absence of formal recognition was eventually taken up. At the international level, efforts including the adoption of a General Comment on the right to water have contributed to giving the right more visibility.[56] At the same time, while the UN General Assembly has in the meantime adopted a series of resolutions on the right to water, the first such resolution was met with hostility by more than 40 countries that abstained.[57] At the national level, the formal recognition of the right to water has progressed relatively fast over the past two decades but with a clear North-South divide, whereby only countries of the Global South have sought to formalise the right. This is particularly important since water law reforms have also taken place mostly in the Global South where water is on the whole even more important than in the Global North because irrigation is a key dimension of agriculture that remains the main livelihood of most people.

The recognition of the right to water is a major step forward in formalising the importance of water for survival, a life of dignity and as an input for the livelihoods of hundreds of millions. At the same time, the form of the recognition warrants further comments. Indeed, in most cases, the formulation used in recognising the right to water qualifies it with the word 'access'.[58] This is meant to distinguish it from 'provision' that implies a positive duty for the state. This is of central importance because human rights are based on the dichotomy between rights holders and the state as the duty

53 Kenya Water Act 2016, s 93.

54 Constitution of Kenya 2010, s 43.

55 Peter H Gleick, 'The Human Right to Water' (1999) 1(5) Water Policy 487, 493.

56 Committee on Economic, Social and Cultural Rights, 'General Comment 15: The Right to Water (Articles 11 and 12 of the International Covenant on Economic, Social and Cultural Rights)' (20 January 2003) UN Doc E/C.12/2002/11 [hereafter General Comment 15].

57 United Nations, 'General Assembly Adopts Resolution Recognizing Access to Clean Water, Sanitation as Human Right, by Recorded Vote of 122 in Favour, None against, 41 Abstentions' (*United Nations*, 28 July 2010) <https://www.un.org/press/en/2010/ga10967.doc.htm> accessed 4 November 2018.

58 eg South Africa Constitution 1996, s 27.

bearer. A formulation that seeks to diminish the central role of the duty bearer implies conversely that rights holders may have duties related to the realisation of their rights.

In the context of water, a dangerous paradigm has progressively creeped into the recognition of the right at the international level and in various countries. This starts with the qualification of the right to water as a right of 'access'. That access is then divided into different categories, which according to General Comment 15 are physical accessibility, economic accessibility, non-discrimination and information accessibility.[59] Economic accessibility should have nothing to do with the definition of a human right, especially where the realisation of human rights is meant to focus in priority on the most marginalised and disadvantaged. Its introduction and the related concept of 'affordability' indicate a new conceptualisation of human rights that makes pricing of water a central element of the recognition of the right. This not only implies that free water is seen as an anomaly that needs to be rectified but also that disconnections of water supply are not banned *per se* and indeed all that General Comment 15 seeks to ban are 'arbitrary disconnections'.[60] The inappropriateness of such policies is well illustrated in the case of Kenya. Disconnections have been part of water services policy for decades as in many other countries.[61] What is more surprising and worrying is the fact that recent legislation that has among its objectives to 'secure and sustain progressive realization of the human right to water',[62] not only assumes that disconnections are acceptable but goes much further and makes it an offence for employees of the corporation to "willfully fail[ing] to disconnect water services for customers in default, in accordance with rules established by the Board".[63] This is probably to be expected in a context where the act only knows rights holders as 'customers'.

In such a context, the right to water can become a vehicle for the spread of the concept of water as a commodity, as has in fact happened over the past couple of decades. It is then unsurprising to find that the biggest multinational water companies not only do not oppose the recognition of the right to water, as could have been expected, but in fact welcome it as long as water is not free.[64] This has led to unfortunate developments in different parts of the world. The *Mazibuko* case is to-date the only constitutional court discussion in South Africa of the right to water. It confirms that the recognition of a right of 'access' to water to which a free water policy has been added can still lead to a result where the constitutional court can find that the minimum content of the right does not need to be raised beyond 25 lpcd, a level widely understood as failing to ensure a life of dignity on top of not allowing for the realisation of water-dependent rights, such as the rights to sanitation and health.[65] Further, the same decision finds that the state cannot be forced to allocate

59 General Comment 15 (n 56) para 12.

60 ibid, paras 10, 44(a).

61 City of Nairobi (Water Supply) By-Laws 1974, s 7.

62 Mombasa County Water and Sewerage Services Act 2016, s 3.

63 ibid, s 25(3).

64 Anna FS Russell, 'Incorporating Social Rights in Development: Transnational Corporations and the Right to Water' (2011) 7(1) International Journal of Law in Context 1, 19.

65 cf Guy Howard and Jamie Bartram, *Domestic Water Quantity, Service Level and Health* (World Health Organisation 2003) WHO Doc WHO/SDE/WSH/03.02.

the necessary resources to provide better water services.[66]

This can be compared with the understanding of the right to water in Delhi where a privatisation project was stopped in 2005.[67] Within a decade, the new government elected to replace the one that had proposed privatisation in the first place chose as one of its key policy measures the introduction of a free water policy that provides 20kl per month to each family, or around 133 litres a day for an average family of five.[68] This policy has its own shortcomings because it only covers households that have access to piped water supply and because any household (even a much larger poor household) consuming more than 20kl a month must pay for all water, including the first 20kl.[69] At the same time, it shows that a free water policy that seeks to ensure a life of dignity is possible, even in a country that is much poorer on a per capita basis than South Africa, confirming that resources is not the issue. It boils down to prioritisation in the allocation of existing resources.

The example of free water policies confirms that the recognition of the right to water can be used as a starting point for positive steps that strengthen the position of rights holders. At the same time, in the broader context of neoliberal economic policies, the right to water is also often used to introduce measures that are at best doubtful in their intent and at worst harmful. The latest in a string of such initiatives that bear the direct hallmark of attempts to turn water into a commodity is the introduction of so-called water automated teller machines (ATMs). These devices have been given various names, sometimes quite neutral like water dispensers, but the term water ATMs has stuck in quite a few places and reflects quite accurately what these are and the message they want to convey to water users. In general, a water ATM is a machine that provides water on a per litre basis (often in 1 and 20 litre increments) that is accessed with a pre-payment card. The touch of the card against the machine triggers the dispensing of filtered water, which is usually the selling point of the said water ATM. Such ATMs have rapidly become ubiquitous in public spaces in some cities in India or on railway platforms. In this sense they contribute to the privatisation and commodification of water, particularly where water used to be provided free to all, as was the case in railway stations in India until now. These developments have not gone unnoticed and the push towards making travellers pay for water is being challenged, as in the case of an ongoing dispute concerning access to free water in the Delhi Metro.[70]

Water ATMs are even more controversial where they are used as the main source of drinking water supply in certain urban areas deprived of piped water, or in villages where they may provide the only source of safe drinking water. In such cases, while water ATMs may offer 'access' to water for

66 *Lindiwe Mazibuko v City of Johannesburg* [2009] Case CCT 39/09 ZACC 28 (Constitutional Court of South Africa).

67 eg Amit Bhaduri and Arvind Kejriwal, 'Urban Water Supply: Reforming the Reformers' (2005) 40(53) Economic and Political Weekly 5543.

68 Delhi Jal Board, 'Notification – Free water supply upto 20 Kl per month to every house hold having domestic water connections including Group Housing Societies' (27 February 2015) Doc No DJB/DOR/Policy/2014-15.

69 eg Philippe Cullet, 'In Defence of Free Water – Beyond the Delhi Experiment' *The Statesman* (Kolkata, 2 March 2014) 6.

70 *Kush Kalra v Union of India* [2017] WP(C) 4273/2015 (High Court of Delhi, Order of 21 August 2017).

residents, this is on an affordability basis. In addition, they raise concerns with regard to quality. Water ATMs are sometimes installed under direct supervision of the government but often set up either by local private enterprises or as part of corporate social responsibility (CSR) initiatives where quality control is essentially within the hands of the promoter. Even more worrying, in various situations, water ATMs do not actually provide water on a continuous basis even if the machine is functional because the possibility to recharge cards is not available continuously.[71] This is without taking into account the basic conceptual shortcoming of water ATMs that can lead to disconnection of supply without procedural safeguards. Where credit has run out, the rights holder is left without access to water until such time as they have the necessary cash to recharge their card. This can be compared to the situation with piped water supply where water users are always warned before disconnection for non-payment and where a procedure exists that allows the rights holder to discuss their case with the provider. Water ATMs offer none of that and where the water is provided by a commercial enterprise, the personal circumstances of the individual will likely only be taken into account on the basis of a personal relationship that transcends access to water.

The introduction of water ATMs in such diverse countries as India and Kenya under the same name confirms that these are understood as being part of a broader movement towards ensuring that rights holders pay for their water, whether they can afford it or not. The reality is that water is so important and vital for survival that everyone will allocate sufficient resources to water before, say non-emergency health expenses. This is unacceptable because it involves trading the realisation of one human right for another. This is, however, what people on the ground seem to be doing, for instance, where groundwater has become unsafe to drink (including for cattle) and where the only options left to people are to purchase from whichever provider will be selling water.

On the whole, the progressive recognition of the human right to water is not as positive as one would have assumed 20 years ago. Both Kenya and India have recognised the right to water, yet this has not provided human rights activists an effective tool to counter privatisation. This is probably not surprising since at the UN level, it has been emphasised specifically that there is no contradiction between the two.[72] As a result, privatisation has flourished alongside the recognition of the right to water and in fact can be said to have been further fostered by the latter because it puts stronger obligations on the state to provide the infrastructure through which people will 'access' water. This is possibly not surprising because human rights have been realised in part through private sector interventions for decades. What is more surprising is the specific policy push to ensure that private sector actors be given a central role they did not have earlier, something that would not have happened by itself because of the widespread understanding that water must not be appropriated by anyone and is a public resource that should not be privately owned.

71 eg in Jhunjhunu district, Rajasthan, some cards for use at the water ATM are only rechargeable once a month when someone visits the village where the water ATM is installed.

72 UN Human Rights Council, 'Human Rights and Access to Safe Drinking Water and Sanitation' Res 15/9 (30 September 2010) UN Doc A/HRC/RES/15/9 para 7; Catarina de Albuquerque and Inga T. Winkler, 'Neither Friend nor Foe: Why the Commercialization of Water and Sanitation Services is not the Main Issue in the Realization of Human Rights' (2010) 17 Brown Journal of World Affairs 167.

V. EMERGING RESPONSES TO FOSTER EQUITY AND CONSERVATION

The previous section has shown that the recognition of the right to water has not been the antidote to commercialisation and commodification one could have expected it to be. As a result, the human right to water has not necessarily provided the basis for resistance to neoliberal policies. While the recognition of the right is something to celebrate since it was long overdue, it does not provide all the necessary keys to fight the assault both against the understanding of water as a public substance to be shared equitably and the provision of free domestic water. Other forms of resistance have thus progressively emerged.

At a legislative level, the wave of water laws supported and informed by the idea of its commodification has given way to a broader variety of interventions. Thus, in India, after 15 years marked by the relentless push for 'water sector reforms' and a strong policy presence by the World Bank that sent its main water representative to Delhi for more than five years, the government has started coming up with proposed laws that are informed by a partly different imagination. This is the case of the Draft National Water Framework Bill, 2016, and the Groundwater (Sustainable Development) Model Act, 2016.[73] Both draft laws propose a return to an understanding of water based on its shared nature, its social dimensions, its environmental dimensions, its livelihood dimensions and its local nature that requires decentralised regulation. Both proceed from the basis of existing laws and principles and can thus be criticised on this basis for not going far enough. At the same time, they would force the government at all levels to reconsider its view of water and to prepare itself for a new regulatory framework able to address existing crises.

At another level, there has been resistance around the world to privatisation. Further, remunicipalisation – the return of previously privatised water supply to public service delivery[74] – has been taken up in various places, based on complaints with private service provision, including poor performance, under-investment, soaring water bills, monitoring difficulties, lack of financial transparency and poor service.[75] This can also be seen in parallel to the development of the Alternative World Water Forum (AWWF) that seeks to reclaim water policy making from the World Water Forum that has been one of the main instruments for the propagation of water sector reforms, privatisation and commodification of water over the past couple of decades. The last AWWF organised in 2018 was in fact specifically premised on the idea that 'water is a right, not a commodity'.[76]

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73 Draft National Water Framework Bill 2016 <http://mowr.gov.in/sites/default/files/Water_Framework_18July_2016%281%29.pdf> accessed November 2018; Groundwater (Sustainable Development) Model Act 2016 <www.ielrc.org/content/e1605.pdf> accessed 4 November 2018.

74 Emanuele Lobina, 'Calling for Progressive Water Policies' in Satoko Kishimoto, Emanuele Lobina and Olivier Petitjean (eds), *Our Public Water Future – The Global Experience with Remunicipalisation* (Transnational Institute 2015) 6,7.

75 Satoko Kishimoto, Olivier Petitjean and Emanuele Lobina, 'Reclaiming Public Water Through Remunicipalisation' in Satoko Kishimoto, Emanuele Lobina and Olivier Petitjean (eds), *Our Public Water Future – The Global Experience with Remunicipalisation* (Transnational Institute 2015) 112, 118.

76 Fórum Alternativo Mundial da Água, 'Call to the People for the Alternative World Water Forum - Fama 2018' (*Fórum Alternativo Mundial da Água*, 12 June 2017) <http://www.fenae.org.br/portal/main.jsp? lumPageId=8A8A81BD5C77F84B015C781718AA7E40&lumA= 1&lumII=8A8A81BD5C77F84B015C781719937E46&locale=en_US&doui_processActionId=setLocaleProcessAction> accessed 4 November 2018.

Finally, there has also been specific resistance to large-scale water infrastructure, in particular dams. One of the major flashpoints over dams was the crisis of confidence triggered by the World Bank's withdrawal from the Sardar Sarovar Project (SSP) in India, the one and only time in the bank's history that it had to withdraw from an incomplete project on the basis of non-compliance with its own policies.[77] This led to the setting up of the Inspection Panel that has dealt with a number of dam-related cases in the past two decades. This also led to the setting up of the World Commission on Dams, whose 2000 report gave a new lease of life to large dam building in the Global South but within a context that imposed new procedural safeguards, in particular for displaced people.[78] These limited steps were made possible by the strong push of civil society actors, in this specific case the Narmada Bachao Andolan (Save the Narmada Movement, NBA) that was instrumental in getting the World Bank to withdraw from the SSP.[79] The success of the NBA in the 1990s was not the end of a process but rather one step in a long process of trying to ensure that the legal framework governing the project be effectively implemented, and in particular that the hundreds of thousands of displaced people be given land for land as agreed by a tribunal set up for this purpose.[80] While the SSP was inaugurated in 2017, the struggle is ongoing in courts and on the ground as the process of resettlement and rehabilitation is not complete.[81]

Overall, the inequity of some older water laws and the additional burden put on the majority of the population in the Global South through the law and policy reforms introduced since the 1990s seeking to turn water into a commodity have been met with various forms of resistance. This has taken diverse forms and the outcomes are varied. There is as yet no rollback of the commodification and privatisation reforms at a global level, but significant changes have been introduced progressively in view of the failure of the new policies and resistance by people affected by water laws and policies.

VI. CONCLUSION

Water is one of the most crucial areas of law but one that remains strangely off the radar for most lawyers. At the international level, this is due to the fact that existing water law is essentially limited to a focus on international watercourses that constitutes only one of many crucial issues of concern in the water sector, with global dimensions of the water cycle being for instance, completely absent from policy debates at present. At the national level, water was for a long time addressed primarily through property rights and land and therefore did not attract the attention of environmental lawyers for a number of years beyond the conservation dimension.

77 Bradford Morse and Thomas R. Berger, *Sardar Sarovar – Report of the Independent Review* (Resource Futures International 1992).

78 World Commission on Dams, Dams and Development – A New Framework for Decision-Making (London: Earthscan 2000).

79 eg Chittaroopa Palit, 'Monsoon Risings – Mega-dam Resistance in the Narmada Valley' (2003) 21 New Left Review 81-100.

80 Narmada Water Disputes Tribunal, 'Final Order and Decision of the Tribunal' (12 December 1979).

81 eg Lyla Bavadam, 'Sardar Sarovar - Unkept Promises' *Frontline* -41(Chennai, 13 October 2017) 38.

Since the 1990s, water law has taken centre stage in many countries of the Global South where major reforms were introduced. This coincided with the strong push to turn water into a commodity that could be traded like any other good and would provide new business opportunities to investors in search of new markets. This was bound to meet with stiff resistance because water has always been considered as a separate substance that was too important for human life and life on Earth to be privately owned. The progressive formalisation of the human right to water that happened alongside was partly in reaction to the push for commodification. At the same time, this belated recognition of an implied right has not escaped the commodification trend, as reflected in the focus on affordability.

In recent years, various countries have seen growing resistance to the reform model proposed since the 1990s. This has taken different forms, from civil society opposition to privatisation, to government-led efforts to draft water legislation that is more focused on social equity and environmental conservation. The need to bring back water law and policy to a place where it better reflects the core values of water is undiminished.

Part V.

Selected Themes in Environmental Law and Policy

Chapter 22

Mining Law and Sustainable Development: Lessons from Selected Cases in Africa

Prof Emmanuel Kasimbazi

I. INTRODUCTION

I first met Professor Charles Okidi over 20 years ago when he was the task manager of the UNEP project on environmental law and institutions in Africa. He supervised my work as a consultant under the project. Since then, I have worked with him in different capacities such as the IUCN Academy of Environmental Law and the Centre for Advanced Studies in Environmental Law and Policy (CASELAP).

His guidance has made me an international environmental law expert. During my engagements with him, one of his key foci was on the topic of sustainable development. In one of his works, co-authored with Donald Kaniaru, they argued: "within the African context, the concept of sustainability in relation to development must be understood in juxtaposition to environment. The latter may be defined as the total context within which all natural resources exist and interact, and includes infrastructure constructed to support socio-economic activities".[1]

They further asserted that the numerous bilateral and investment agreements concluded between investors and African governments together with their implementation, if any, were haphazard and geared primarily at the short-term interest.[2] Therefore the question of sustainability of development was outside the vocabulary of either African countries or investors. In the mining sector, African countries produced more minerals, such as copper and bauxite, and sold them in the world market at a loss.

The African continent is home to an abundance of natural resources that include diamonds, gold, oil, natural gas, uranium, platinum, copper, cobalt, iron, bauxite, silver, and more. The following are the most mineral-rich countries in Africa:[3] Botswana is home to 35 per cent of Africa's diamonds, most of which are gem quality, and is the world's leading producer of diamonds by value. While the country also produces other minerals -- including copper, gold, nickel, and soda ash

1 Donald Kaniaru & CO Okidi, 'Sustainable Development and Investment in Africa' (The Cleveland Museum of Natural History, 2001) 3 ILA 316.

2 ibid.

3 Rising Africa, '10 Most Mineral-Rich Countries In Africa' (2015) <http://www.risingafrica.org/storiescountry/10 most-mineral-rich-countries-in-africa/> accessed 27 April 2018.

-- diamonds remain Botswana's main industry and account for the bulk of its gross domestic product. The Democratic Republic of Congo is estimated to have more than $24 trillion worth of untapped raw mineral ore deposits, but even so it remains one of the greatest producers of diamonds (34 per cent) and copper (13 per cent) in Africa.[4] However, the DRC continues to suffer from corruption and crime, and has been forced to shut down many mining operations to curb illegal activity. South Africa is one of the top biggest economies on the continent due its enormous mining industry.[5] While diamonds and gold constituted the largest portion of South Africa's initial mining interests, the discovery of many other minerals allowed the country to diversify its investments. South Africa is the world's largest producer of chrome, manganese, platinum, vanadium, and vermiculite, and the second-largest producer of limonite, palladium, rutile, and zirconium.[6] Tanzania produces approximately 15 per cent of Africa's total mineral wealth and is the third largest producer of gold and diamonds, after Ghana and South Africa.[7] It has significant deposits of iron ore, nickel, copper, cobalt, silver, diamond, and is the fourth-largest gold producer in Africa. Namibia has 46 per cent of the continent's uranium. Mozambique is a critical producer of aluminium, with 32 per cent of Africa's supply. Zambia is home to 65 per cent to 77 per cent of Africa's copper and is the leading producer on the continent. Guinea is responsible for more than 95 per cent of Africa's bauxite production, while Ghana accounts for the remainder. Niger accounts for 44 per cent of Africa's uranium supply and thus it is one of the continent's leading producers. Ghana is Africa's second-largest producer of gold after South Africa, and holds more than 15 per cent of the continent's supply and its mineral exports; gold contributes more than 90 per cent.

Africa's mining sector has both short and long-term negative economic, environmental and social effects and faces sustainability challenges such as ownership and access to land, managing environmental impacts, protecting the rights of local communities and ensuring equitable benefit-sharing from exploitation of the resources. The concept of "sustainable development" was popularized globally by the report of the World Commission on Environment and Development (WCED), Our Common Future.[8] In this report, sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[9] This definition requires that the use of resources should be on a sustainable basis so as to meet the social, economic, ecological, cultural and spiritual needs of present and future generations, and thus incorporates economic, environmental and social concerns.

4 ibid.

5 ibid.

6 ibid.

7 Charles Odidi Okidi, 'How Constitutional Entrenchment Could Mitigate Conflicts and Poverty in Resource-Rich African Countries' (2007) 37 Environmental Policy and Law 2-3 [Okidi].

8 World Commission on Environment and Development, 'Our Common Future: The Bruntland Report' (Oxford:Oxford University, 1987).

9 ibid 8.

In the context of the mining sector, all the stakeholders should maximise the benefits from mining and minimise its negative impacts while fostering short- and long-term economic, environmental and social sustainability. This paper investigates the application of the concept 'sustainable development' to the mining industry based on lessons from selected cases in Africa. The paper is divided into six sections. The first section provides introductory elements of the paper. Section II defines the concept of sustainable development in the context of mining and its pillars. In Section III, the paper describes environmental and social effects of mining. This is followed by section IV, which describes the key elements of mining sustainability as contained in the mining law in selected African countries. Section V analyses the institutional arrangements in the mining sector and how they ensure sustainability, while the final section provides conclusions and recommendations.

II. SUSTAINABLE DEVELOPMENT IN THE CONTEXT OF MINING

Minerals are essential for human welfare. However, their extraction is associated with both opportunities and challenges. Historical concerns around work conditions and the competitiveness of the mining sector have been complemented by a growing number of other issues. Today, an overarching goal is to find ways by which the mining sector can promote sustainable development. The International Mineralogical Association defines 'a mineral' as an element or chemical compound that is normally crystalline and which has been formed as a result of geological processes.[10] The process or business of extracting from the earth the precious or valuable metals either in their natural state or in their ores has implications for sustainable development.[11] The concept of sustainable development is commonly divided into three 'pillars' or 'dimensions': economic, environmental and social.[12] Accordingly, all the three pillars need to be considered in order to achieve sustainable development.

There is a debate within the mining sector whether mining can be considered sustainable. On the one hand, it is argued that mining depletes known deposits, and the time needed for natural replenishment is beyond what can be considered meaningful for humankind. Therefore, a substantial part of the literature on mining and sustainable development focuses on the physical availability of minerals.[13] Consequently, mining can be considered as essentially incompatible with a 'strong' version of sustainability, since by definition sustainability demands the conservation of current stocks of natural capital. On the other hand, according to a 'weak' version, mining is sustainable if the mining rents are reinvested in education, infrastructure, new mines or other

10 EH Nickel, 'International Mineralogical Association, Commission on New Minerals and Mineral Names: Definition of a Mineral' (1995) 55 Mineralogy and Petrology 323 <http://link.springer.com/10.1007/BF01165125> accessed 09 April 2018.

11 Black's Law Dictionary, 'What Is MINING? Definition of MINING (Black's Law Dictionary)' <https://thelawdictionary.org/mining-2/> accessed 09 April 2018.

12 Tom Waas and others, 'Sustainability Assessment and Indicators: Tools in a Decision-Making Strategy for Sustainable Development' (2014)

13 Gavin M Mudd, 'The Environmental Sustainability of Mining in Australia: Key Mega-Trends and Looming Constraints' [2010] Resources Policy 95-115.

forms of capital, which can generate future welfare.[14] The dispute between proponents of 'strong' and 'weak' sustainability has also been framed as a dispute between two different paradigms: the 'fixed stock paradigm', which is concerned with absolute stocks and their rate of depletion; and the 'opportunity cost paradigm', which purports that the market and price incentives will regulate and balance supply and demand. The proponents of the former tend to be ecologists, and the latter economists.[15]

It is important to note that metals generally can be recycled and reused. Furthermore, the amount of available natural resources may actually grow over time as technological progress and increased demand make new sources identifiable and profitable. This implies, for instance, that the stock of economically exploitable materials will be dynamic and largely influenced by technical competence, prices, and the presence of exploration activities. Despite increased rates of extraction, reserves have grown. And society has been able to develop substitutes for a number of natural resources. Therefore, alternative definitions of sustainability have been proposed. One example is Allan, who suggests that "the rate of use of minerals should not exceed our capacity to find new sources, acceptable substitutes or recycle"[16] Notwithstanding this, a number of important questions remain. How should different types of capital be valued in different contexts? People disagree on the methods of valuation, which may be subject to both practical and philosophical challenges.[17] Though there is no consensus around a single interpretation, a perhaps more fruitful approach is to consider the environmental, social and economic effects of mining in a given setting.

III. ENVIRONMENT, SOCIAL AND ECONOMIC EFFECTS OF MINING

Most mining activities will have an impact on the environment and natural resources such as water, air, land and wildlife. It may also affect social life.

A. Environmental effects of mining

Mining projects can have diverse effects on water, air, land and wildlife, as discussed here.

(i) *Water quality and quantity:* Perhaps the most significant effect of a mining project is its effects on water quality and availability of water resources within the project area. The effects of mining on water resources include acid mine drainage and contaminant leaching.

14 Petter Hojem, 'Making Mining Sustainable: Overview of Private and Public Responses' (Luleå University of Technology, 2014).

15 John E Tilton, 'Exhaustible Resources and Sustainable Development: Two Different Paradigms' (1996) 22 Resources Policy 91 -97 <https://www.sciencedirect.com/science/article/abs/pii/S0301420796000244> accessed 10 April 2018.

16 Rod Allan, 'Introduction: Sustainable Mining in the Future' (1995) 52 Journal of Geochemical Exploration 1 <https://www.sciencedirect.com/science/article/pii/037567429400051C> accessed 10 April 2018.

17 Patrik Söderholm, 'Pricing the Environment in the Mining Industry: An Introduction and Overview' (2000) 15 Minerals & Energy - Raw Materials Report 3-11.

Acid mine drainage[18] refers to the outflow of acidic water from a mining site. Acid mine drainage is considered one of mining's most serious threats to water resources.[19] Over the years, South Africa has produced over 468 million tonnes of mine waste yearly, in which gold mining waste accounted for 221 million tonnes (47%) of all mine waste produced, making it the largest single source of waste and pollution.[20] Acid mine drainage is a concern at many metal mines because metals such as gold, copper, silver and molybdenum are often found in rock with sulfide minerals. When the sulfides in the rock are excavated and exposed to water and air during mining, they form sulfuric acid. This acidic water can dissolve other harmful metals in the surrounding rock. If uncontrolled, the acid mine drainage may run off into streams or rivers, or leach into groundwater. Acid mine drainage may be released from any part of the mine where sulfides are exposed to air and water, including waste rock piles, tailings, open pits, underground tunnels, and leach pads. If mine waste is acid generating, the impacts on fish, animals and plants can be severe. Many streams impacted by acid mine drainage have a pH value of 4 or lower – similar to battery acid. Plants, animals, and fish are unlikely to survive in streams such as this. The second effect is erosion of soils and mine wastes into surface waters. For most mining projects, the potential of soil and sediment eroding into and degrading surface water quality is a serious challenge. For example, the mining and processing of copper in Kilembe, western Uganda, from 1956 to 1982 left over 15 metric tonnes of tailings containing cupriferous and cobaltiferous pyrite dumped within a mountain river valley of River Nyamwamba.

The second effect of mining projects on water resources is tailing impoundments, waste rock, heap leaching, and dump leaching facilities. The effects of wet tailings impoundments, waste rock, heap leaching, and dump leaching facilities on water quality can be severe.[21] These impacts include contamination of groundwater beneath these facilities and surface waters. For example, the uncovered pyrrhotite-containing tailing dump in Selebi-Phikwe, Botswana, exists in a semiarid climate with an average annual temperature of 21°C. Toxic substances can leach from such facilities, percolate through the ground, and contaminate groundwater, especially if the bottom of these facilities is not fitted with an

18 J Donald Rimstidt and David J Vaughan, 'Acid Mine Drainage' (2014) 153.

19 G Ochieng, ES Seanego and OI Nkwonta, 'Impacts of Mining on Water Resources in South Africa: A Review' [2010] 5 Scientific Research and Essay 3351-3357.

20 Oluseyi Ayokunle Abegunde, 'Geologic and Geological Assessment of Acid Mine Drainage and Heavy Metals Contamination in the West Rand, Witwatersrand Basin, South Africa' (2015)<http://etd.uwc.ac.za/xmlui/handle/11394/4785> accessed 10 April 2018.

21 Tailings impoundments are ponds used to store the waste made from separating minerals from rocks. Waste rock is the primary and most prevalent waste generated by many mining operations and consists of rock and target minerals in concentrations too low for economic recovery, and is removed along with the ore. *Heap leaching* is the process of extracting precious metals like gold, silver, copper and uranium from their ore by placing them on a pad (a base) in a *heap* and sprinkling a *leaching* solvent, such as cyanide or acids over the *heap*. Dump leaching is carried out on rejected low-grade material that during normal mining has been put aside in big dumps at the mine site. The particle size of the material is generally big and the ore is processed for many years by sprinkling acidified water on the dump surface. The leach solution percolates through the dump and is collected in ditches at the base of the dump. This might become a source of environmental pollution if leach escapes collection and flows into natural water supplies.

impermeable liner. When wet tailings impoundments fall, they release large quantities of toxic waters that can kill aquatic life and poison drinking water supplies for many miles downstream of the impoundment.[22]

The third effect of mining projects on water resources is mine dewatering. This happens when an open pit intersects the water table, and groundwater flows into the open pit. For mining to proceed, companies must pump and discharge this water to another location. Pumping and discharging mine water causes a unique set of environmental impacts. Impacts from ground water drawdown may include reduction or elimination of surface water flows; degradation of surface water quality and beneficial uses; degradation of habitat, reduced or eliminated production in domestic supply wells; water quality/quantity problems associated with discharge of the pumped ground water back into surface waters downstream from the dewatered area. For example, an assessment of the impacts of Gypsum mining on water quality in Kajiado County, Kenya revealed that there was a relationship between the poorly stored gypsum tailings and mud waste that were dumped near the mine pits that eventually got deposited in the surface water bodies by runoff and wind erosion.[23] Unfortunately, the impacts could last for many decades.

(ii) Air quality: Mining operations mobilize large amounts of material, and waste piles containing small size particles that are easily dispersed by the wind.[24] The largest sources of air pollution in mining operations are particulate matter transported by the wind as a result of excavations, blasting, transportation of materials, wind erosion (more frequent in open-pit mining), fugitive dust from tailings facilities, stockpiles, waste dumps, and haul roads. For example, the Air Quality Impact Assessment for the proposed mining rights application for the Mopane Project area in Limpopo, South Africa,[25] linked particulate matter to a range of serious respiratory and cardiovascular health problems. Further, mobile sources of air pollutants include heavy vehicles used in excavation operations, cars that transport personnel at the mining site, and trucks that transport mining materials. Even though individual emissions can be relatively small, collectively these emissions can be of real concern. These pollutants can cause serious effects to people's health and to the environment.

(iii) Noise pollution: Noise pollution associated with mining may include noise from vehicle engines, loading and unloading of rock into steel dumpers, chutes, power generation, and other sources. Cumulative impacts of shoveling, ripping, drilling, blasting, transport, crushing, grinding, and stock-piling can significantly affect wildlife and nearby residents. Vibrations are associated with many types of equipment used in mining operations, but blasting is considered the major source. Vibration has affected the stability of infrastruc-

22 RGoB, 'Overview of Mining and Its Impacts' [2014] Guidebook for Evaluating Mining Project EIAs 3.

23 Kefa M Omoti and Jackson J Kitetu, 'An Assessment of Impacts of Extractive Industries on Landscape: A Case Study of Gypsum Mining in Kajiado , Kenya' (2016) 4 75.

24 RGoB (n 22).

25 Royal Haskoning DHV, 'Final Air Quality Impact Assessment for Coal of Africa Limited (Pty) Ltd: Mopane Project'(2013).

ture, buildings, and homes of people living near large-scale open-pit mining operations. According to a study commissioned by the European Union[26] in 2000, shocks and vibrations as a result of blasting in connection with mining can lead to noise, dust and collapse of structures in surrounding inhabited areas. The animal life, on which the local population may depend, might also be disturbed.[27]

(iv) Wildlife species survival: Wildlife species live in communities that depend on each other. Survival of these species can depend on soil conditions, local climate, altitude, and other features of the local habitat. Mining causes direct and indirect damage to wildlife. The impacts stem primarily from disturbing, removing, and redistributing the land surface. Some impacts are short-term and confined to the mine site; others may have far-reaching, long-term effects. For example, in Uganda, Hima Cement (U) Ltd operates the Dura Quarry located in Queen Elizabeth National Park. The large disturbances caused by mining in the Dura Quarry have disrupted the environment around the quarry, adversely affecting the aquatic habitats (streams and rivers), terrestrial habitats (grasslands, forests), and riverine[28] wetlands that many organisms rely on for survival.[29] Further, mining projects may lead to habitat fragmentation, which occurs when large areas of land are broken up into smaller and smaller patches, making dispersal by native species from one patch to another difficult or impossible, and cutting off migratory routes. Isolation may lead to local decline of species, or genetic effects such as inbreeding.

(v) Soil quality: Mining can contaminate soils over a large area. Agricultural activities near a mining project may be particularly affected. Mining operations routinely modify the surrounding landscape by exposing previously undisturbed earthen materials. For example, a study of the mining communities in Ghana[30] showed that the mining process scrapes the topsoil with bulldozers and other heavy machinery and the soils are taken to the laboratory for the purpose of extracting minerals. It also indicated that as topsoil is only about 20 cm deep, and contains most of the plants' available nutrients, the scraping action with bulldozers and other heavy machinery depletes the soils of its fertility and productivity, exposing the subsoil, which is unsuitable for crop production.[31]

26 MIMEO Consortium, *'Review of potential environmental and social impact of mining'* (2000) <http://www2.brgm.fr/mimeo/UserNeed/IMPACTS.pdf> accessed 22 March 2018.

27 Greater Soutpansberg and Mopane Project, 'Noise Study for Environmental Development of the Proposed Greater Soutpansberg Mopane' [2013] Gudani Consulting.

28 Riverine Wetlands are those systems that are contained within a channel (such as a river, creek or waterway) and their associated streamside vegetation.

29 National Association of Professional Environmentalists, 'Environmental Costs Related to Limestome Mining at the Dura Quarry Site in Queen Elizabeth National Park, Kawenge' (2015) <http://www.nape.or.ug/blogs/environmental-costs-related-to-limestome-mining-at-the-dura-quary-site-in-queen-elizabeth-national-park-kawenge> accessed 10 April 2018.Top of Form

30 Albert K Mensah and others, 'Environmental Impacts of Mining: A Study of Mining Communities in Ghana' (2015) 3 Applied Ecology and Environmental Sciences, Vol. 3, 2015, Pages 81-94 81 <http://pubs.sciepub.com/aees/3/3/3/#Sec5> accessed 10 April 2018.

31 Albert K Mensah, 'Role of Revegetation in Restoring Fertility of Degraded Mined Soils in Ghana: A Review' (2015) 7 International Journal of Biodiversity and Conservation 57 -80 <http://academicjournals.org/journal/IJBC/article-abstract/D066DAE50769>.

(vi) Deforestation: Demand for minerals poses significant risks, particularly where mineral resources and forests co-exist in developing countries that seek revenue from mining but lack regulatory oversight and enforcement capability.[32] Mining causes deforestation both within and beyond lease boundaries. For example, mining in Ghana has had a tremendously detrimental effect on the country's tropical forests, which blanket one-third of the nation. Up to 60 per cent of rainforests in Ghana's Wassa West District have already been destroyed by mining operations.[33]

(vii) Land degradation: Mining and processing of mineral resources generally has a considerable impact on land. Mining operations disturb the land by directly removing material from some areas and dumping waste in others, thus changing the topography.[34] Mining tends to increase the susceptibility of the land to erosion; it increases the occurrence of landslides, mudflow, and slumps as a result of the exploration, processing and miscellaneous activities of the mining.[35] The extraction of minerals especially by the open cast process leaves undesirable effects on the land surface. Indeed, environmentalists and conservationists alike view mining operations as causing some of the most devastating and far-reaching consequences to the environment -- especially land degradation.[36]

B. Social effects of mining projects

The social effects of mining projects include displacement of communities and disruption of livelihoods, increased poverty through damaging subsistence agriculture, and increased inequalities.

(i) Displacement of communities and disruption of livelihoods: According to the International Institute for Environment and Development,[37] the displacement of settled communities is a significant cause of resentment and conflict associated with large-scale mineral development. Entire communities may be uprooted and forced to shift elsewhere, often into purpose-built settlements not necessarily of their own choosing. Besides losing their homes, communities may also lose their land, and thus their livelihoods. Community institutions and power relations may also be disrupted. For example, since 1996, many San communities in Botswana have been forced out of the Central Kalahari Game Reserve on the grounds of conservation. In 2007, Gem Diamonds Botswana, a subsidiary of Gem Diamonds, acquired Ghaghoo Diamond Mine in the reserve, contradicting the

32 Diego I Murguía, Stefan Bringezu and Rüdiger Schaldach, 'Role of Revegetation in Restoring Fertility of Degraded Mined Soils in Ghana: A Review' (2015) 7 International Journal of Biodiversity and Conservation 57 -80 <http://academicjournals.org/journal/IJBC/article-abstract/D066DAE50769>0.

33 World Rainforest Movement, 'Mining: Social and Environmental Impacts'(2004) <https://wrm.org.uy/> accessed 10 April 2018.

34 Olagoke Akintola, *'Mineral and energy resources'* (1978) in J Oguntoyimbo, O Areola, and M Filani (eds), A Geography of Nigerian Development (Heinemann Educational Limited, Ibadan).

35 Arthur David Howard and Irwin Remson, *'Geology in Environmental Planning'* (McGraw-Hill 1978).

36 E A Ripley, R E Redman and J Maxwell, *'Environmental impacts of mining in Canada'* (1978) in National Impact of Mining Series (Queen's University Centre for Resource Studies, Kingston)7.

37 Instituto Internacional de Medio Ambiente y Desarrollo, 'Local Communities And Mines' [2002] Breaking new Ground: Mining, Minerals and Sustainable Development 34 <http://pubs.iied.org/pdfs/G00901.pdf>.

environmental reasons the government gave for evicting the San.[38] In South Africa, almost 10,000 people relocated from Ga-Pilain 1990s and Motlhotlo in 2007, were resettled by Anglo Platinum near its Mogalakwena mine.[39]Displaced communities are often settled in areas without adequate resources or are left near the mine, where they may bear the brunt of pollution and contamination. Forced resettlement can be particularly disastrous for indigenous communities who have strong cultural and spiritual ties to the lands of their ancestors and who may find it difficult to survive when these are broken.

(*ii) Increased poverty through damaging subsistence agriculture:* There is concern about the increased competition between mining and agriculture.[40] Mining gradually destroys agricultural lands as well as crop production, ultimately resulting in a net food deficit. The fast shift of labour from agriculture to mining has consequently led to a fall in the general level of food production. For example, in Uganda (Lubaali-Kayonza, Kitumbi Sub-County in Mubende District) most people were subsistence farmers who used to earn their livelihoods from growing maize, beans, sweet potatoes and cassava but the area has turned into a settlement for artisanal miners whose population comprises thousands of people -- women, men, teenage girls and boys, and a few babies.[41] Farmlands in such areas are usually taken over by estate developers as well as mining support companies who have also acquired vast lands for construction and other purposes. The result is that there is always a reduction in food production in those areas and the need for food to be brought from distant areas at exorbitant prices leads to poverty.

(iii) Increased inequalities: Mining increases inequalities within communities between those who benefit directly from the mine and those who do not.[42].There is an inherent tension between local and national rights to mineral wealth and the other benefits brought about by mining. People living near mines or adversely affected by them demand that they should be compensated for any inconvenience, hardship, or loss of opportunity suffered. But the question is; should they receive a larger share of the benefits? If so, how should that share be determined? For example, in Uganda, mining revenues are generated through a mix of consistently applied corporate income taxes and competitive royalties. Royalties are shared between national and local budgets. A variable tax rate based on profit addresses the unique nature of mineral profits. However, royalty payments often do not reach landowners, and payment problems are compounded by the complex nature of land

38 Catholic Commission for Justice and Peace (CCJP), 'Land Displacement, Involuntary Resettlement and Compensation Practice in the Mining Sector: A Comparative Analysis of Legal and Policy Frameworks in Southern Africa' (2014) <http://www.ecmmw.org/new/wp-content/uploads/2014/12/Report-on-Land-Displacement-Inviluntarry-Resttlement-and-Compensation-Practices.pdf> accessed 12 April 2018.

39 Bogumil Terminski, 'Mining-Induced Displacement and Resettlement: Social Problem and Human Rights Issue (A Global Perspective)' [2012] Ssrn.

40 International Business Management and Ignitious Tetteh Ocansey, 'Mining Impacts on Agricultural Lands And Food Security' (Barchelor's Thesis, IBM, 2013).

41 Robert Musoke, 'Uganda: Inside Mubende's Golden Villages' AllAfrica.com <https://allafrica.com/stories/201611010300.html> accessed 10 April 2018.

42 The Africa Mining Vision, 'Mining in Africa: Managing the Impacts' 5.the considerable disruption to live-lihoods and to the social fabric of communities adjacent to mines can negate any positive contri-bution that mining makes. Although negative impacts from mining activi-ties are inevitable, many can be avoided during the mining cycle (during the pre-development, development and post-development stages

ownership. Royalty payments are distributed with limited transparency via the national budget and the revenue from mining generally does not translate into long-term social and economic development in communities located near mining projects.[43]Sustainable development of the local community requires an equitable sharing of benefits; if there is obvious inequity, there will be strife, which impedes the development process.

C: Economic effects of the mining projects

Mining projects cause economic dependency, which makes local communities vulnerable when the mines close or scale down operations. In addition, all mines have a finite life span, and it is difficult to sustain the direct benefits they bring to communities in terms of wages and improved welfare after mine closure. The infrastructure that develops with a mine may be scaled down or neglected when the mine closes unless provision has been made for maintenance and upkeep well in advance.[44] Communities are particularly vulnerable where linkages with other sectors of the economy are weak.

IV. KEY ELEMENTS OF SUSTAINABILITY IN THE MINING LAW

There are key elements that are contained in the mining law that relate to sustainability. The key ones include: ownership, access and sustainability; environmental and social impact assessment; benefit sharing frameworks; land acquisition and compensation; transparency and accountability; and decommissioning and closure.

A. Ownership, access and sustainability

In all constitutions and mining laws in Africa mineral rights are held by governments.[45] This implies that mineral resources are held in trust under the public trust doctrine, which is the principle that certain resources are preserved for public use, and that the government is required to maintain them for the public's reasonable use.[46] For example, in Botswana, under section 3 Mines and Minerals Act,[47] all mineral rights are vested in the state and one requires a licence to carry out mineral activities in the country. The Public Trust doctrine is important as a shield for protecting the environment and affirmative instrument, linking environmental protection of the biotic community with resource utilization.

43 Alec Crawford, Kristi Disney and Melissa Harris, 'Uganda: Assessment of Implementation Readiness' (2015) 1 <http://www.iisd.org/sites/default/files/publications/mpf-uganda-assessment-of-implementation-readiness.pdf>.

44 Instituto Internacional de Medio Ambiente y Desarrollo (n 37).

45 Roderick G Eggert, *Mining and the Environment:international perspective on public policy* (1st edn, RFF Press 1994).

46 Asha Poonia, 'Public Trust Doctrine and Natural Resources Protection in India Public Trust Doctrine and Natural Resources Protection in India' (2015) 1 International Journal of Languages, Education and Social Sciences(IJLESS) 1.

47 S 3, Mines and Minerals Act of Botswana, 1999 (Cap. 66.01)

B. Environmental and social impact assessment

Environmental Impact and Social Assessment is a study conducted to determine the possible negative and positive impacts a project may have on the environment.[48] It is a study conducted before the commencement of the actual project. By studying the possible impacts, it is possible to avoid the adverse impacts by either redesigning the project or by taking other mitigation measures. It also identifies the positive impacts on the environment and the likely socio-economic benefits. In some cases, it is possible to stop a project all together. It helps industries avoid possible litigation by ensuring that they do not undertake obviously environmentally harmful projects. Since EIA involves public participation in deciding whether or not a project is desirable, the investor may know beforehand the public perception which, when positive, is a good indicator for gainful investment. Mining activities can be very diverse and therefore the challenges are manifold. Most mining activities have an impact on water -- both surface and groundwater, either due to direct use of water in the processing, leakage from mine tailing or other direct or indirect contacts with water. At the same time, water is the key factor for sustaining a healthy environment and also for human development. Any type of mining activity demands an EIA to assess potentials for both positive and negative impacts to the environment and to use the produced results to mitigate the negative and optimise the positive. Most African countries have enacted framework environmental laws and environmental impact assessment (EIA) regulations to implement the laws.[49] Some have added social impacts assessment in the regulations. For example, in Uganda, section 19 of the National Environment Act[50] provides for EIA to be undertaken by a developer of a project described in the Third Schedule to the Act, which activities include mining.[51] The developer is required to submit a project brief to the lead agency, in the prescribed form, and giving the prescribed information.

C. Benefit sharing framework in the mineral sector

Benefit sharing refers to the distribution of the monetary and non-monetary benefits that are generated through the implementation of a mining project.[52] The purpose of benefit-sharing mechanisms is to ensure that a significant part of the economic benefits is retained in the region in which the rent is generated. Usually, the government either imposes these mechanisms in the form of explicit law, or alternatively, companies engage in benefit sharing voluntarily within the framework of their corporate social responsibility policy. The monetary benefits include, for instance, development and investment funds, equity sharing and tax sharing with governments. The non-monetary benefits include education facilities, medical facilities, employment goals, local

48 Kenneth Kakuru and Irene Ssekyana, 'Handbook on Environmental Law in Uganda' (2009) I Journal 177 <www.greenwatch.or.ug>.

49 Okidi, supra note 7.

50 The National Environment Act (Cap. 153), Laws of Uganda.

51 Projects to be considered for environmental impact assessment under the Third Schedule include mining; which includes quarrying and open-cast extraction of precious metals, diamonds, metalliferous ores, coal, phosphates, limestone and dolomite.

52 Patrik Söderholm and Nanna Svahn, 'Mining, Regional Development and Benefit-Sharing in Developed Countries' (2015) 45 Resources Policy 78 <https://www.sciencedirect.com/science/article/abs/pii/S0301420715000288> accessed 16 April 2018.

procurement, training of staff and improved service access. The non-monetary benefits can be particularly important, when they stress the importance of providing jobs to local people, training and education of staff as well as local procurement. In Uganda, section 98 of the Mining Act, 2003, provides that all minerals obtained or mined shall be subject to the payment of royalties, which shall be shared by the government, local government and owners or lawful occupants of the land. Under section 103, failure to pay the royalty attracts a 2 per cent interest per annum above the commercial bank lending rate. In Kenya, Article 69 of the Constitution[53] requires the state to ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits. Under the Kenyan Mining Act,[54] royalties are payable by the holder of a mining right and are shared by the national government taking 70 per cent, the county government 20 per cent and the community where the mining operations occur taking 10 per cent.

In Ghana, a holder of a mining lease, restricted mining lease or small-scale mining licence pays royalty in respect of minerals obtained from its mining operations to the Republic, except that the rate of royalty cannot be more than 6 per cent or less than 3 per cent of the total revenue of minerals obtained by the holder.[55]Although communities are entitled to 10 per cent of total royalties paid to government, the government of Ghana is indebted to mining communities in royalty arrears (since 2012) in millions of Ghana Cedis. Tarkwa, Prestea, Kenyase and Obuasi are some of the major mining communities in Ghana. In the midst of the deprivation in these communities, funds meant for developments are almost always locked up while fingers are pointed mostly at multi-national mining firms for little or no commitment to communities living in areas where they make lots of money.[56]

The Mineral and Petroleum Resources Development Act of 2002 paved the way for the introduction of mineral royalties in South Africa by transferring mineral right ownership from private owners to the state. The Mineral and Petroleum Resources Royalty Act of 2008 requires mining companies to pay royalties on gross sales of refined and unrefined mineral resources of up to 5 per cent and 7 per cent, respectively.[57] The law provides an exemption for small businesses on condition that they fulfill certain requirements, based on the amount of gross sales for the assessment year, the amount of royalties owed for the assessment year, and residence and registration requirements.[58]

53 Constitution of Kenya, 2010

54 Mining Act No 12 of 2016, s 183.

55 The Minerals and Mining Act of Ghana, 2006, s 26.

56 Business News, 'Gov't Owes over GHC100M in Mining Royalties | Business News 2015-12-29' (2015) <https://www.ghanaweb.com/GhanaHomePage/business/Gov-t-owes-over-GHC100M-in-mining-royalties-404009> accessed 16 April 2018.

57 Mineral and Petroleum Resources Royalty Act of South Africa (No. 28 of 2008), s 3,4.

58 ibid s 7

D. Land acquisition and compensation

Large-scale mining projects may require acquisition of private land and this leads to displacement and involuntary displacement of communities in many cases. The government may under specific circumstances, compulsorily acquire land under which minerals occur.[59] The compulsory acquisition of land for development purposes may ultimately bring benefits to society but it is disruptive to people whose land is acquired. It displaces families from their homes, farmers from their fields, and businesses from their neighbourhoods. Therefore adequate and fair compensation is required. If compulsory acquisition is done poorly, it may leave people homeless and landless, with no way of earning a livelihood, without access to necessary resources or community support, and with the feeling that they have suffered a grave injustice. If, on the other hand, governments carry out compulsory acquisition satisfactorily, they leave communities and people in equivalent situations while at the same time providing the intended benefits to society. Several countries have statutes that cover compulsory land acquisition and compensation. For example, in Ghana, the President has powers under appropriate legislation such as State Lands Act 1962 (Act 125), to compulsorily acquire any land for mineral exploitation. Land can also be acquired through private negotiations for specific purposes, including mineral prospecting. By whichever means land is acquired, the law requires prompt payment of fair and adequate compensation and resettlement of people where the proposed operations would lead to their displacement.[60] Just like is the case in several countries, under the Constitution of the Federal Republic of Nigeria, the right of every Nigerian to own land is guaranteed[61] but the ownership of mineral resources found in, or over land in the federation is vested in the Federal Government.[62] Compulsory acquisition of land necessarily implies the constitutional and statutory obligation to pay compensation to the landowner, whether an individual, family or community.

The issue of what constitutes adequate and fair compensation remains controversial, and has provoked tensions between the host communities and mineral licencees.[63] While officials of mining companies maintain that the compensation paid so far to deprived landowners is fair, adequate and consistent with the compensatory laws, landowners often reject such compensation as paltry and unreasonable, and have resorted to violence and vandalizing of the multi-national mining companies' properties to press home their demands for just compensation.[64]

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59 Food and Agriculture Organization of the United Nations., 'Compulsory Acquisition of Land and Compensation.' 56 (2008) 1-2.

60 Jonathan Ayitey, JK Kidido and EP Tudzi, 'Compensation for Land Use Deprivation in Mining Communities, the Law and Practice: Case Study of Newmont Gold Ghana Limited' (2011) 4 The Ghana Surveyor 32.

61 Constitution of the Federal Republic of Nigeria 1999, art 43.

62 Ibid s 44.

63 O G Amokaye, *'Compensation for compulsory acquisition of land for mining activities in Nigeria: The search for a viable solution'*(2011) <https://www.google.com/ search?q=Compulsory +acquisition+of+land+for+mining+in+africa&oq= Compulsory+acquisition+of+land+for+mining+in+africa&aqs=chrome..69i57.14726j0j8&sourceid=chrome&ie= UTF-8#> accessed 18 April 2018.

64 Cyril I Obi, 'Globalisation and Local Resistance: The Case of the Ogoni versus Shell' (1997) 2 New Political Economy 137-148 <https://doi.org/10.1080/13563469708406291>.

E. Transparency and accountability in the mining sector

Transparency and accountability in the mining sector are closely related and involve giving people access to relevant information, encouraging fairness and promoting the active participation of local people in the process of licensing, exploration, contracting, generation of revenue as well as how the revenues are allocated. There has been a proliferation of global initiatives to promote transparency and accountability thereby enhancing the governance structures of the extractive industries. The Kimberley Process Certification Scheme (KPCS)[65] was established in 2000 and this was followed by the Global Witness/Publish What You Pay (PWYP) Coalition in 2002,[66] which was followed by the Extractive Industries Transparency Initiatives (EITI) in 2003.[67]

There has been an increasing interest in the promotion of transparency and accountability of the mining sector in mineral wealth countries due to the huge contribution it can make to reduce corruption and promote the judicious use of mineral rents. The EITI, for example continues to grow with 26 countries in Africa currently implementing it. These are: Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Guinea, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nigeria, Republic of the Congo, Senegal, Seychelles, Sierra Leone, Tanzania, Togo and Zambia.[68] Some countries in Africa have gone ahead to develop EITI laws. These include Nigeria, which enacted the Nigeria Extractive Industries Transparency (NEITI) Act, 2007, and Tanzania, which enacted Extractive Industries Transparency and Accountability Act, 2015.

F. Decommissioning and closure of mining and minerals processing facilities

The objectives of closure are to ensure that the waste management facilities are left in a condition that will ensure their continued compliance with the requirements for the protection of human health and the environment. In Ghana, closure and decommissioning of the mining project is done according to the Mining and Environmental Guidelines (1994) and the mining company's policy and standards. Generally, post-mining regeneration priorities for most African countries include: restoration of land surface of sufficient quality to support pre-mining land use potential, restoration of the ecological function of mined land and in the case of previously degraded land, the ecological function must be improved, and efficient alternative use of mine infrastructure is

65 The Kimberley Process Certification Scheme (KPCS) is the process established in 2000 to prevent 'conflict diamonds' from entering the mainstream rough diamond market by United Nations General Assembly Resolution 55/56 following recommendation. See also Kimberly Process, 'What Is the KP | KimberleyProcess' <https://www.kimberleyprocess.com/en/what-kp> accessed 16 April 2018.

66 Publish What You Pay was launched by six London based organisations in 2002 to call for extractive companies to publish their payments. See also Publish What You Pay, 'Publish What You Pay' <http://www.publishwhatyoupay.org/> accessed 16 April 2018.

67 The Extractive Industries Transparency Initiative (EITI) is a voluntary initiative founded in 2003 through which countries commit to publish reports on how the government manages the oil, gas, and mining sectors. These reports include a reconciliation of revenues paid by extractive companies and revenues received by governments. The process is managed in each country by a multi-stakeholder group of government, civil society, and company representatives.

68 Extractive Industries Transparency Initiative, 'EITI Countries | Extractive Industries Transparency Initiative' <https://eiti.org/countries> accessed 27 April 2018.

encouraged where this can be economically justified. On the other hand, where no economic alternative uses exist, mine infrastructure is removed and the site rehabilitated to pre-mining condition, job creation through education and stimulation of economic activity, development projects to enable equitable participation in post mining economies by all members of the community, especially marginalized groups and enhancement of leadership capacity within the community and local government may be required to ensure that development continues post-closure.

V. INSTITUTIONAL ARRANGEMENTS AND GOVERNANCE

The design of a sound institutional architecture is key to the governance and sustainable development of the mining sector. Key institutional arrangements in Africa include state governance, mining company, joint venture, local governments and civil society.

A. State governance

In almost all African countries, the mining industry is governed by the ministries responsible for mines, with other administrative entities intervening such as the mines directorates, geology directorate and mining environment protection directorate. For example, in South Africa, the Minerals and Petroleum Resources Development Act of 2004 vests mining rights in the state, which has a duty through the Department of Mineral Regulation to issue, regulate and administer mineral rights. In Zimbabwe the Mines and Minerals Act[69] vests mineral rights in the president, who has an obligation to fulfill the public good or hold the minerals in trust for the benefit of all citizens. In Botswana, the Mines and Minerals Act, as read together with the Mineral Rights in Tribal Territories Act, also vests mineral rights in the state. Indeed, the law in Botswana goes further since it compels all tribes to surrender mineral rights to the state, which is arguably a deprivation of community rights. These laws require any company that intends to prospect, explore or mine to apply for a mining licence and give a mandate to governments to regulate and set standards and conditions under which mining can take place. Such conditions can be codified in mining contracts or agreements and may also be stated in national legislation. Depending on country practice, mining contracts may contain basic obligations that companies must comply with relating to issues such as revenue sharing, royalty payments, resettlement plans, environmental requirements, labour laws, mine closure, community development and employment of local residents. These are contractual provisions that can be used by the state to promote environmental and social accountability as well as protect the land and its precious biodiversity.

B. Public Private Partnerships (PPP) arrangements in the mining sector

There are public-private partnership arrangements in the mining sector in Africa. These have taken the form of socio-economic joint venture agreements meant to address economic development and ensure socio-economic reporting for mining projects, and environmental agreements negotiated between government and industry focusing on mining project mitigation, monitoring, follow-up, and closure.

69 Mines and Minerals Act of Zimbabwe (Cap 21:05).

One of the examples of PPP is the 50-50 mining joint venture between the Botswana government and the De Beers Group of Companies. This joint venture has been described as an example of how governments can engage multinational diamond companies.[70] The government no longer sells all the diamonds from Debswana to De Beers, electing to sell some diamonds to its growing government entity Okavango Diamond Trading Company. The company currently buys around 14 per cent of the produced value. Under this model, the Botswana government collects substantial mining revenues, which it invests in social spending. The government also uses its regulatory role to integrate the mining sector into national development plans. The joint venture is the largest mining company and diamond miner in Botswana, as well as the largest private sector employer, and the second largest employer behind the government.[71]

This model represents additional motivations (or means, at least) for corporate actors to ensure sustainability of mining in Africa. These trends have been spurred by the growth of the sustainable development paradigm and governance shifts that have increasingly transferred governing authority towards non-state actors. It is against this backdrop that the need for mineral developers to obtain a social licence to operate from local communities has originated and evolved.

C. Rights of mining companies and individual persons

Since all minerals rights in African countries are vested in the state, no person can prospect or mine minerals without a licence issued by the responsible body. Therefore, licences are issued to conduct reconnaissance, exploration and mining operations. These licences are issued for limited duration, with the applicant required to comply with environment, health, safety and social standards. For example in Namibia, the Minister of Mines and Energy may not issue a mineral licence until the applicant has been furnished with an environmental clearance certificate.

The most challenging aspect in the mining sector in African countries is that the mining is actually done by foreign companies, especially from South Africa.[72] As a result, the minerals leave the country poor as ore is transported for processing outside the African countries only to return as cut stone or finished products to be sold at exorbitant prices, many times the value of the ore.[73] This approach does not promote economic development when countries have to export large volumes while receiving paltry returns.

70 Kurt Davis, 'Africa's Top Mining Opportunities - Ventures Africa' (2015) <http://venturesafrica.com/africas-top-mining-opportunities/> accessed 28 October 2018.

71 Jennifer Wilcox, 'Mining Regulation and Development in Botswana: The Case Study of the Debswana Mining Joint Venture' (Masters thesis, Saint Mary's University, Nova Scotia 2015).

72 Okidi, supra note 7.

73 ibid.

D. Civil society organisation (CSO) governance

The term civil society is generally used to classify persons, institutions, and organizations that have the goal of advancing or expressing a common purpose through ideas, actions, and demands on governments.[74] The call for civil society involvement in sustainable mining has been particularly strong and accelerated by governance shifts and the global embrace of sustainable development. CSOs have become increasingly influential governance actors. They play five major roles in promoting sustainable mining: (1) collecting, disseminating, and analyzing information; (2) providing input to agenda-setting and policy development processes; (3) performing operational functions; (4) assessing environmental conditions and monitoring compliance with environmental agreements; and (5) advocating environmental justice.[75]

In the recent years CSOs have focused greater attention on mining sector issues, including those pertaining to local communities. Both large, multi-issue NGOs and smaller, mining-focused organizations have undertaken public campaigns and government lobbying -- actions which in some cases have resulted in projects halting or companies being taken to court.[76] NGOs have now become critical agents for stimulating greater corporate accountability through their power to influence public opinion and challenge government policies. Where development projects have not satisfied the demands by civil society and local communities in particular, shutdowns and slow-ups have frequently occurred -- events that further highlight the value of building community support for project activities. For example, in South Africa, the Wild Coast Community of Xolobeni has long been fighting companies who want to mine the area for titanium. For more than 10 years the committee has resisted an Australian mining company's attempts to open a titanium mine in Xolobeni.[77]

VI. CONCLUSION AND RECOMMENDATIONS

There is no doubt that the past decade has seen an increased interest in the sustainability of the mining industry. While minerals are essential for human welfare, mining has a great influence on water resources, air quality, noise pollution, wildlife, soil quality, deforestation, and land degradation. It displaces communities and disrupts livelihoods, increases poverty through damaging subsistence agriculture, increases inequalities and causes economic dependency. There have been several attempts to re-conceptualize sustainable mining into something that can be more practically applied, with varying points of departure. Whereas benefit sharing was originally understood as referring to the distribution of financial benefits, the concept has come to encompass broad-

74 Jean L Cohen and Andrew Arato, *Civil Society and Political Theory* (Cambridge, MIT Press 1992).

75 Barbara Gemmill and Abimbola Bamidele-izu, 'The Role of NGOs and Civil Society' [2002] Group 24.

76 George Hood and Windy Craggy, 'An Analysis of Environmental Interest Group and Mining Industry Approaches' (1995) 21 Resources Policy 13-20 <https://www.sciencedirect.com/science/article/abs/pii/0301420795922470> accessed 24 October 2018.

77 Greg Nicolson, 'Xolobeni Mining Saga: Community to Have Its Day in Court, but Mantashe Backs the Economy' (2018) <https://www.dailymaverick.co.za/article/2018-04-19-community-to-have-its-day-in-court-but-mantashe-warns-of-the-impact-on-the-economy/#.WtmSTS5ubIU.> accessed 20 April 2018.

er forms of social accountability and responsibility. Institutional arrangements and governance mechanisms no longer rest on the authority and sanctions of the government alone. Companies, communities and governments in African countries have taken steps to ensure that mining is sustainable. Yet, much has yet to be done, both in practice and research.

Decisions should be reached through comprehensive multi-stakeholder consultation, including government, industry, civil society and the communities. Minority rights should be able to influence decision making since the often marginalized groups such as women, the elderly, and the poor have a role to play in sustainable mining.

African governments need to build and maintain strong relationships and partnerships with all mining stakeholders. The government needs to cooperate with nongovernmental organizations (NGOs) instead of perceiving them as obstructers. Governments in several African countries perceive NGOs as anti-government schemes and often use legislation to frustrate their work. This needs to change because NGOs often have enough resources and expertise to implement some sustainability programmes and also fund relevant research.

Countries on the African continent should have a set of criteria to judge mining operations. Whether or not governments decide to utilize the sustainability criteria, these criteria are useful for companies, communities and other stakeholders affected by mining. This presents an opportunity to raise the bar, to measure and improve performance, and to improve accountability and thereby corporate social responsibility.

Meaningful and effective policy, as well as legislative and institutional arrangements designed to promote sustainability for the region must be put in place, taking into account the social, environmental and economic variables -- including community members' needs and values, past experience with mining and capacity to ensure that these governance and institutional arrangements do not simply remain on paper.

Chapter 23

You are What You Eat: Kenya's Probable Economic Outcomes in Light of Mineral Discoveries

Richard Mulwa

I. INTRODUCTION

The problem of resource scarcity and allocation is centuries' old.[78] Over the years, individuals and societies have been searching for the best resource allocation models given their circumstances. Due to scarcity, three fundamental economic questions of what to produce, how much to produce, and for whom to produce do arise.[79] Different societies have answered these questions using either, centrally planned, free enterprise,[80] or a mixture of these two systems in varying proportions. Free enterprise has given rise to capitalism, while central planning has given rise to communism. In between the two extreme systems are a number of other persuasions. Different explanations and justifications have been given for the alternative systems of allocating the scarce resources. For instance, Karl Marx[81] argues for communism in his writings by stating that, "communism is the annulment of private property, the justification of real human life as man's possession and thus the advent of practical humanism". In this discussion, however, we suspend pro-communism arguments and adopt capitalistic thinking, which is embedded in a majority of Kenyans' mental construct. This thinking is best captured by Adam Smith in *An Inquiry into the Nature and Causes of the Wealth of Nations (1776),*[82] where he states that, "it is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest."[83] Simply put, Adam Smith is saying that in any undertaking, individual action serves the common good, and, in competition, the best solution is achieved when everyone does what is best for him/herself. Thus, capitalistic thinking encourages personal enterprise and competition among economic agents, with individuals striving to maximize either profits (producers) or utility (consumers). This in turn leads to *laissez faire* economic systems where the problem of allocation of resources is addressed through market forces of supply and demand with little, or, in extreme cases, no government regulation.

78 James Steuart, *An Inquiry into The Principles of Political Economy* (1st edn, A Millar and T Cadell 1767).

79 G Mankiw, *Principles of Economics*. (5th Edition, Cengage Learning,2008).

80 In centrally planned economies, all economic decisions are made by the government. In a free enterprise or market economy, decisions are made through the market mechanism without any government interference.

81 K Marx, *Economic and Philosophic Manuscripts of 1844*. Translated by Martin Milligan. Amherst,(NY: Prometheus Books,1844/1988).

82 A Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations. (*W. Strahan and T. Cadell, London,1776).

83 Ibid

In its intense form, capitalism can develop into prey-predator type of relationships such as elite capture among economic agents as articulated by Christopher McDougall in his book, *Born to Run,*[84] where he observes a lion-gazelle relationship in the savannahs of Africa and states that, "… it doesn't matter whether you're the lion or a gazelle. When the sun comes up, you'd better be running."[85] This kind of capitalism lacks a human face and only seeks to benefit those with economic muscle. A toned-down version of capitalism may be one where individuals in capitalistic societies choose to cooperate in decision-making. This version was propounded by John Nash in the middle of the 20th Century writing on Game Theory, where he advances the idea that in competition, *every person* in a group makes the *best* decision for him/*herself* based on what s/he thinks the others *will do*.[86] An individual or a group can therefore choose to play either cooperative or non-cooperative games with other members of the society. Nash argues that the best solution is achieved in cooperative games where everyone in the society does what is best for him/herself and for the society. This is however not always the case as oftentimes, when an external means of enforcing cooperation is missing, individuals or groups in the society usually engage in non-cooperative games, which may lead to perverse outcomes as demonstrated by prisoners' dilemma.[87]

The two schools of capitalistic thinking, i.e. Adam Smith and John Nash, have influenced the evolution of different capitalistic societies -- depending on the persuasion of the individuals in the society. They also guide the behaviour of individuals or groups in different property rights regimes. Individuals or groups leaning towards Adam Smith tend to have little regard for the welfare of other people in the same society as long as they are maximizing their welfare from economic systems. Those leaning towards John Nash and engaging in co-operative games believe that personal enterprise is important, but not at the expense of the society. This outcome is best as long as cooperation can externally be enforced; otherwise non-cooperative games do arise and may lead to similar outcomes as those under Adam Smith or worse. Nowhere else have the different forms of capitalism been playing out more than in the natural resources sector -- especially in the developing countries where lack of cooperation among different groups or individuals, and rent seeking compounded by institutional failure have promoted predatory tendencies for self-aggrandisement. The result has been natural resource curse[88] or the paradox of the plenty,[89] where natural resource-rich countries exhibit dismal economic performance compared to resource-poor countries despite the revenues from natural resources. In Kenya, for instance, the economy is mainly driven by the service sector (47.7% of GDP), agriculture (32.6%), and industry and manu-

84 *C McDougall. Born to Run: A Hidden Tribe, Superathletes, and the Greatest Race the World Has Never Seen (Knopf, New York2009):*

85 Ibid.

86 ibid

87 *Varian, H. L, Intermediate. Microeconomics*: *A Modern Approach(* 8th Edition, W. W. Norton & Company New York *2006).*

88 Sachs, J.D., Warner, A.M,) 'Sources of slow growth in African economies' 1997,Journal of African Economies, 6 (3), 335-376.

89 Karl, T. L.) 'The Paradox of Plenty: Oil Booms and Petro-States' 1997 University of California Press.

facturing (15.2%).[90] There are a host of extractive resources such as gold, iron ore, chromate, silica sand, zircon, niobium, gemstone, manganese, diatomite, gypsum and fluorspar, all of which contribute less than 1 per cent of the country's GDP. In the recent past, however, additional resources of immense value have been discovered. These include, titanium, oil and gas, and coal -- with a potential of yielding up to 10 per cent of GDP. These discoveries are expected to change the economic structure by altering the contribution of different sectors to the national GDP. Depending on the future structure of Kenya's economy and the strength of the institutions, continued discovery and exploitation of these resources may promote economic development or spell doom and misery for most people in the country.

Against the foregoing background, this paper explores the different scenarios that Kenya may experience as a result of the discovering extractives and policy options to adopt to avoid the country making mistakes similar to countries suffering from the natural resource curse.

II. THE PROBLEM WITH NATURAL RESOURCES

It is estimated that the African continent hosts about 30 per cent of the world's mineral reserves.[91] The continent produces over 60 different metals and minerals and has huge potential for exploration and production.[92] New discoveries of oil and gas resources continue to emerge and present unique economic opportunities and challenges. Projections indicate that more than 25 billion barrels of oil reserves exist in the Gulf of Guinea and the Rift Valley in Africa,[93] recoverable largely as a function of improved exploration and extraction technologies. By 2025, at least 12 African nations, Kenya included, will become major oil exporters. At current prices, these new sources of oil and gas could inject close to $3 trillion into the economies of some of Africa's poorest and least developed nations.[94] Historical evidence shows that despite production and exports of natural resource-based products, the resource-rich economies in Africa show little evidence of structural change toward high value added activities outside the natural resources sector. These resource-rich economies trail the non-resource-rich economies (excluding South Africa and Botswana) in many growth indicators. In addition, current non-oil exporting countries in Africa outperform current exporters on governance indicators by some margin[95] and not a single African resource-rich country had been able to keep oil money from being captured by a small elite. Further, all these current oil exporters fall into the bottom half of the UN's Human Development Index (HDI) and, more than a tenth of all children born in oil-rich African countries die before

90 KNBS, *Economic Survey 2017*. (2017): Kenya Bureau of Statistics, Nairobi.

91 Page, J, 'The diversification challenge in Africa's Resource-rich Economies. Mimeo' (2011) African Economic Research Consortium, Nairobi.

92 Ncube, M.,) 'Mining Industry Prospects in Africa' (2012) African Development Bank Group.

93 Ibid

94 Harvey, S. 'Future Oil Revenues and Political Dynamics in West and East Africa: A Slippery Slope?' (2014): SAIIA Occasional Paper No. 188.

95 Diamond, L and Mosbacher, J., 'Petroleum to the People: Africa's Coming Resource Curse—and How to Avoid it', (2013) Foreign Affairs, September/October

the age of five years, which is double the global average. This phenomenon, christened the natural resource curse[96] or the paradox of plenty,[97] postulates that countries rich in natural resources grow slower[98] on average than natural resource poor countries.[99] Recent empirical evidence[100] and theoretical work[101] provide strong support for this hypothesis.[102] For instance, evidence shows that oil has been the cause of recurrent problems in countries like Nigeria, Venezuela and Ecuador, while diamonds seem to have been disastrous for the development of countries like Sierra Leone, Liberia and the Democratic Republic of Congo.[103] Karl (1999)[104] observes that 25 years after the oil price boom of the 1970s most oil-exporting countries were in crisis, especially capital deficient ones, 'plagued by bottlenecks and breakdowns in production, capital flight, drastic declines in efficiency, double-digit inflation, overvalued currencies and budget deficits', which undermined export competitiveness in the manufacturing sectors. There are exceptions to this rule as Norway, a leading oil exporter, has become one of the world's richest economies largely thanks to its oil endowment, while Australia, South Africa and Botswana seem to have used their resources to attain high levels of economic development. These countries have strong institutions, which have discouraged rent seeking and other rent capturing behaviour of individuals and groups; and have also enacted policies and legislation, which have ensured that other economic sectors such as manufacturing have remained competitive despite vibrant natural resource sectors in these countries.

Where present, studies have shown that the resource curse is mainly transmitted through market mechanisms (the Dutch Disease[105]) or institutional failure. The Dutch Disease (DD) explanations have a crowding-out logic where natural resources displace, albeit gradually, certain activity or activities that are deemed important for economic growth.[106] As natural resource incomes increase, the importance of the natural resource sector becomes more pronounced, which in turn worsens the competitiveness of non-natural resource sectors such as manufacturing and services through

96 Sachs, J.D. and Warner A.M, "Fundamental Sources of Long-run Growth", (1997), American Economic Review Vol. 87 No. 2 pp. 184-188.

97 Karl, T. L,'The Paradox of Plenty: Oil Booms and Petro-States' (1997): University of California Press.

98 Mulwa, R. 'Natural resource curse and its causation channels in Africa', (2017) African J. Economic and Sustainable Development, 6 (4): 244–261.

99 Auty, R.M. (ed.), *Resource Abundance and Economic Development*. (2001) Oxford University Press.

100 Sachs, J.D. and Warner, A.M. (1999), "Natural Resource Intensity and Economic Growth", in Mayer, B. Chambers, and Ayisha F. (Ed.), *Development Policies in Natural Resource Economics*, Edward Elgar.

101 Papyrakis, E. and Gerlagh R. (2004), "The Resource Curse Hypothesis and Its Transmission Channels", Journal of Comparative Economics Vol. 32 pp. 181–193.

102 Gylfason, T, *Resources, Agriculture, and Economic Growth in Economies in Transition*. (Kyklos.2000). 53 (4): 545-580.

103 van der Ploeg, F, 'Natural Resources: Curse or Blessing?', (2011), Journal of Economic Literature Vol. 49 No. 2, pp. 366–420.

104 Karl, T.L 'The Perils of the Petro-State: Reflections on the Paradox of the Plenty' (1999): Journal of International Affairs, 53(1):31-49.

105 The term was first used by *The Economist* in 1977 to describe the impact of booming natural gas production from the Groningen fields in the Netherlands on the non-booming tradable sector, i.e. the negative impact of natural resources sector on other economic sectors.

106 Sachs, J.D. and Warner, A.M. 'Natural Resource Abundance and Economic Growth', 1995), NBER Working Paper No. 5398. Cambridge, MA: National Bureau of Economic Research.

market mechanisms.[107] In Kenya, the impact of crowding-out may be pronounced in the services sector, agriculture, and manufacturing -- depending on their interlinkages. Crowding-out could be through the resource movement effect and the spending effect.[108] In resource movement effect, factors of production such as labour and capital are moved from various sectors towards the booming resource sector due to higher marginal returns, i.e. resource sector attracts capital and labour resources from other sectors. This is a likely scenario in Kenya if the resource sector grows and changes the structure of the economy. In such a scenario, capital and labour are likely to move from agriculture, services and manufacturing due to expected higher returns in extractives sector. Such movement implies expansion of the extractives sector at the expense of other economic sectors, which are important for growth. Growth in the resource sector can also cause expansion in non-tradable sectors in the country such as construction due to increased demand of non-tradables. This sector does inject foreign currency into the economy but its growth will attract resources from other important growth sectors, e.g. manufacturing, which have high value addition than the non-tradable sector. This will in turn reduce the economic contribution of sectors affected by capital and labour withdrawal, and depending on the linkages of these sectors with others in the economy, the overall impact may be detrimental for the economy. For example, agriculture has forward and backward linkages with other sectors such as manufacturing, and a decline in agriculture would have a direct impact on these other sectors.

Transmission of the resource curse through the spending effect is through increased incomes from natural resource rents, which are likely to cause economic inflationary tendencies. Natural resource revenues are usually in foreign currency, which once earned are converted into local currency and used within the exporting country, thereby increasing aggregate domestic demand. This in turn leads to more demand for the local currency, which increases the exchange rate and the domestic demand for goods and services. The net effect is excess demand if the economy is at full capacity. Appreciation of the real exchange rate also makes imports cheaper for domestic consumers and leads to loss of competitiveness for different economic sectors since consumers prefer cheaper, imported commodities to locally made ones. This often leads to import dependence, changes in tastes and preferences of consumers, and over time a decline and displacement of domestic industries. Spending effect therefore poses a danger to Kenya's economy since an increase in exported extractive resources is likely to increase the supply of foreign currency, which in turn will increase the demand of the Kenyan shilling causing it to appreciate in value. This will make Kenyan goods more expensive and cause a loss of competitiveness of different sectors. Appreciating exchange rates will also make exports more expensive and act as deterrence to exporters of horticultural, agricultural and other products from Kenya. This would translate to diminished business and in the worst case scenario, a closure of most firms dealing in these commodities, or even relocation of others to more favourable localities. Cheaper imports would also increase consumption of commodities made elsewhere and suppress local competitors already facing high

107 Mulwa, R, 'Natural resource curse and its causation channels in Africa', (2017): African J. Economic and Sustainable Development, 6 (4): 244–261.

108 Corden, W.M. and Neary, J.P. 'Booming sector and de-industrialization in a small open economy', (1982) The Economic Journal, Vol. 92, No. 368, pp.825–848.

production costs but selling their commodities at higher prices than those of imports. Increased consumption of imported goods will eventually lead to increased preference for imported goods at the expense of local manufactures. This dependence will eventually kill the 'Buy Kenya, build Kenya' campaign as fewer consumers will buy locally manufactured goods. The effect will be loss of jobs in different sectors and a decline in overall welfare for the country.

The foregoing explanations of Dutch Disease transmission channels of the resource curse, though valid for dismal economic performance in resource rich countries, may not fully explain the natural resource curse, especially in developing countries. In fact, evidence from Nigeria[109] and other African countries[110] shows that the Dutch Disease story of worsening competitiveness of the non-natural resource sector may not account for the miserable economic performance in resource-rich, developing countries. The dismal economic performances exhibited by these countries are signs of bigger underlying problems that cannot simply be explained by markets and crowding out logic of the Dutch Disease. For instance, the DD theory does not explain why some resource rich economies fall prey to the curse of natural resources while others seem to escape it. This leaves the other key transmission channel, i.e. institutional failure as the single most important explanation of poor economic performance in most resource-rich developing countries. Therefore, how Kenya handles its growing natural resource sector and its institutional infrastructure will, more than Dutch Disease explanations, determine the future development path of the country.

III. ACCOUNTING FOR INSTITUTIONS

Certain resources, due to their physical and economical characteristics such as valuableness, ease of storage, transportation (or ease of smuggling) and ease of selling are, for obvious reasons, more attractive to anyone interested in short-term illegitimate gains, e.g. diamonds, gems, as opposed to agricultural products.[111] Others like agricultural products do not share similar characteristics and are unlikely to attract similar attention. The effect of natural resources on the development of economies is determined by the interaction between the type of resources that a country possesses and the quality of its institutions. This interaction also referred to as appropriability[112] of a resource captures the likelihood that natural resources will lead to rent seeking, corruption or conflicts, which in turn harm economic development.[113] In countries where resources are highly appropriable, resource abundance is problematic and vice versa. However, the potential problem of having certain types of resources can be countered by having good institutions. Given the right institutional framework, oil or diamonds have the potential of boosting a country's economic

109 Sala-I-Martin, X., Subramanian A., 'Addressing the Natural Resource Curse: An Illustration from Nigeria. NBER Working Papers No. 9804. (2003) National Bureau of Economic Research, Cambridge, MA.

110 Mulwa, R. 'Natural resource curse and its causation channels in Africa', (2017*) African J. Economic and Sustainable Development,* 6 (4): 244–261.

111 Boschini, A.D., Peterson, J. and Roine, J, 'Resource curse or not: A question of appropriability', (2007): Scandinavian Journal of Economics, Vol. 109, No. 3, pp.593–617.

112 Resources which are very valuable, can be stored, are transported (or smuggled) and are easily sold are more attractive to anyone interested in short-term illegitimate gains e.g. diamonds, gems thus highly appropriable

113 Ibid

development, while the same resources are likely to lead to problems in a country with poor institutions.[114] Therefore, economies with abundant natural resources, and at the same time better institutional quality and governance,[115] e.g. strong democratic accountability, law and order, less corruption, or higher integration among government institutions have better economic growth and higher human welfare.[116] In Kenya, it's no longer a question of abundance of natural resources, as this has been answered by exploration and exploitation of resources, but that of institutional quality.

Most people would argue that Kenya has the right policies and regulations to govern the emerging natural resource sector. However, based on the six Worldwide Governance Indicators (WGI),[117] which are a measure of institutional quality,[118] the country has a negative score in all of them, indicating weak institutions. This raises a red flag for the country because a combination of weak institutions and abundance of natural resources has proved catastrophic elsewhere. According to Mehlum, et al.[119] the growth effects of resource abundance might depend on a country's governance institutions, returns to entrepreneurial activities and rent seeking, all of which are determined by the institutional context. The authors divide economies into 'grabber-friendly' economies where resource booms trigger a movement of labour from production to rent seeking to the detriment of aggregate growth; and 'producer-friendly' economics, which have strong institutions and a resource boom boosts production. In 'grabber-friendly' economies, the ease of appropriation of resource rents leads to bribes, distortions in public policies, and a diversion of labour away from productive activities and toward seeking public favours.[120] Windfalls from discovery of natural resource deposits lead rent-seekers to compete for shares of the rent and can lead to a 'feeding frenzy' in which competing factions fight for the natural resource rents, and end up inefficiently exhausting the public good.[121]

Increase in natural resources could easily turn Kenya into a grabber-friendly economy where entrepreneurship will be replaced by rent seeking if the estimates of the country's WGIs are anything to go by. Such a development could be extremely injurious to economic development as entrepreneurs would be tempted to abandon productive economic activities and venture into rent seeking, which promises higher returns. Increased rents from these resources would increase the number

114 Mehlum, H., Moene, K. and Torvik, R., 'Institutions and the resource curse', (2006) The Economic Journal, Vol. 116, No. 508, pp.1–20.

115 Bulte, E.H., Damania, R. and Deacon, R.T. 'Resource Abundance, Poverty and Development', (2003) UCSB Working Paper, Department of Economics, University of California, Santa Barbara, CA.

116 Ibid

117 These include voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption. The indices range from -2.5 (weak) to 2.5 (strong).

118 Kaufmann, D., Kraay, A., and Mastruzzi, M.,' The Worldwide Governance Indicators: A Summary of Methodology, Data and Analytical Issues' (2010) World Bank Policy Research Working Paper No. 5430.

119 Mehlum, H., Moene, K. and Torvik, R., 'Institutions and the resource curse', (2006) The Economic Journal, Vol. 116, No. 508, pp.1–20.

120 Bulte, E.H., Damania, R. and Deacon, R.T. 'Resource Abundance, Poverty and Development', (2003) UCSB Working Paper, Department of Economics, University of California, Santa Barbara, CA.

121 Torvik, R., 'Learning by doing and the Dutch disease', (2001) European Economic Review, 45(2):285–306.

of rent seekers and lead to a feeding frenzy, bribes and other accompanying social ills. Allocation of scarce resources in 'grabber-friendly' countries necessarily excludes some individuals or groups. Thus, all potential user groups have an incentive to compete for a larger share of the allocation through the political process. Rent seekers, though competitive among themselves, are also likely prey on more productive agents, i.e. entrepreneurs by encouraging them to join rent seeking, which promises better rents. An increase in the number of rent seekers thus lowers returns to both rent seeking and entrepreneurship, with possibly greater effects on production.[122] This is a potential outcome in Kenya's economy because high returns from rent seeking would attract entrepreneurs to also join rent seeking and earn high returns, too. The effect is that entrepreneurs will abandon gainful investments and focus on rent seeking. The effect will be closure of enterprises and loss of employment. The evidence of increased frequency and magnitude of corruption scandals in the country creates the right atmosphere for rent seeking. The number of individuals or groups seeking to enrich themselves from the rents in the sector is likely to increase, and so is the magnitude of scandals likely to emerge. Instead of investing resources in growth enhancing entrepreneurship activities, individuals or groups will be positioning themselves to harvest more rents through rent seeking activities.

Rent seeking is usually more rampant in polarized and fractionalized societies. Polarization measures the distribution of ethnic groups in a country and has a value of one in the case of bipolar distribution of two ethnic groups of equal size.[123] Such polarized societies with large rival groups of comparable size are more prone to growth-retarding rent seeking behaviour and conflict. Fractionalization, on the other hand measures the probability that two randomly chosen individuals from a given country belong to ethnically distinct groups. It is an indicator with values from 0 to 1 and attains the value of one in situations in which there are many diverse communities, with none or very few of those groups dominating the population. The level of mistrust in such societies is usually high and even with attempts of fronting efforts such celebrating ethnic diversity, individuals are likely to aggregate themselves in small homogenous groups (usually tribal-based) and strategically position themselves to grab any available opportunities at the expense of others in the same society. Kenya is an example of this kind of society as it is a highly fractionalized society with a fractionalization index of over 0.8. What this implies is that if you randomly pick any two Kenyans, there is a more than 80 per cent chance they will belong to two different ethnic groups. This being the case, groups (usually from one ethnic group) might use different modalities of rent seeking to outcompete others from different ethnic groups in amounts of resource rents appropriated, at the expense of gains to the whole society. This is unlikely to be the case in homogenous societies where everyone shares the same cultural values and speaks the same language, e.g. in Botswana where the fractionalization index is very low.

122 Baland, J.-M. and Francois, P., Rent-seeking and resource booms, (2000) Journal of Development Economics, 61, 527-542.

123 Montalvo, J.G. and Reynal-Querol, M., 'Ethnic diversity and economic development', (2005) Journal of Development Economics, Vol. 76, No. 2, pp.293–323.

The effects of weak institutions should also be viewed through a political lens. Nikita Krushchev, a prime minister of the former United Soviet States Republic, once said that "politicians are the same all over. They will promise to build you bridges even where there are no rivers".[124] It is for this reason that institutions are expected to define the political space and delineate politicians' boundaries of operation. The type of institutions in a country will therefore define its governance and the political systems likely to emerge. The situation gets more complex in the presence of abundant resources as this heightens rent seeking and hurts entrepreneurs by crowding out entrepreneurship and inducing more agents to switch into rent seeking until the economy settles on an equilibrium with a higher level of rent seeking.[125] To address the challenges of weak institutions, Kenya promulgated the 2010 Constitution, which endeavours to decentralize governance through devolution. Prior to this, political power was centralized around the presidency and there was widespread perception of alienation among citizens, many of whom have felt marginalized, neglected, and discriminated against on the basis of their ethnicity. It is hoped that the devolved system of government will address the concerns the population had with centralized power. The Constitution of Kenya, 2010, establishes three main institutions to promote participation and accountability in the exercise of governmental power; foster national unity by recognizing diversity; give powers of self-governance to the people; ensure equitable sharing of national and local resources; protect the rights of minorities and marginalized communities; and promote social and economic development and access to public services throughout Kenya. These institutions are the county governments (Article 176), Senate (Article 93) and Commission for Revenue Allocation (Article 176). How these and other institutions in the 2010 Constitution will deal with the challenges of abundance of natural resources is yet to be seen.

Abundance of natural resource also influences the source of government revenue, and just as people are affected by the kinds of food they eat, governments are affected by the kinds of revenues they collect.[126] Most governments receive the same kinds of revenues every year; and it is easy to overlook their significance. Only when there is a sharp change in these revenues, like when valuable resources are discovered, does their underlying importance become clear. Governments require these revenues to run different programmes. Kenya, like many developing countries, gets her revenue from taxes, custom duties, revenue from state-owned enterprises, capital revenues, and foreign aid. One of the common challenges that confront developing nations is the inability to mobilise sufficient domestic revenue. Insufficiency of revenues leads to internal borrowing from domestic markets, or external borrowing in the form of grants or aid to plug financing gaps. External debt obligations are often met with more borrowing at the expense of mobilising revenues domestically. For instance, the average aid to gross national product (GDP) ratio for sub-Saharan Africa countries over the period 1990-2007 was 53 per cent, while tax revenue mobilisation was only 16 per cent of GDP.

124 ibid

125

126 Ross, M.L, '*The Oil Curse: How Petroleum Wealth Shapes the Development of Nations*' (2012) Princeton University Press. NJ, USA. Oxfordshire, UK.

Once natural resources are discovered in these countries, there is a tendency to shift reliance from taxes to resource rents, leading to a form of rentier effect,[127] where financing of government programmes is by natural resource rents. This can be detrimental to tax revenue mobilization -- especially in the absence of good governing institutions. The nature of the political regime and the extent of corruption in an economy can affect both the tax revenue level and mix. In countries where corruption is rampant, citizens have little trust in authority, and have low incentive to co-operate in remittance of taxes. Corrupt countries with more natural resources tend to collect less tax revenue. This is because, faced with an easy inflow of revenue from the natural resource sector, most governments are likely to relax efforts to extract revenues from the non-resource sector, as well as from other potential revenue sources. Revenue from natural resources, therefore, acts as a disincentive to invest in the capacity to collect additional revenues in the form of taxes.

Natural resource-rich countries with good institutions aspire to invest in education, health, infrastructure and other productive investments. In such cases, the incentive to raise sufficient funds for the nation's public expenditures is likely to induce further investment in the capacity to mobilise more revenues from taxes. On the contrary, high resource rents distract resource rich governments with poor institutions from investing in the ability to produce growth supporting public goods such as infrastructure or legal codes, etc. The rents could also lead to a neglect of education since the country can live well over an extended period even with a weak commitment to education.[128] This neglect of investment in infrastructure, legal codes, education, health and other public goods critical for growth should worry countries like Kenya. A collapse in investment in the provision of these basic services would give rise to a lawless, illiterate and sick society. Such a mix would be a precursor for anarchy. Further, resource-rich countries with bad institutions, by focusing more on exploiting natural resource rents for self-gratification and less on overall development, will tend to have weaker apparatus for tax collection capacity. Resource-rich countries with good institutions are, therefore, likely to develop a stronger apparatus for tax revenue collection.

In Kenya, for example, the budgetary expenditure for the 2018/19 financial year stands at Ksh. 2.53 trillion against a projected ordinary revenue of Ksh.1.74 trillion to be collected by the Kenya Revenue Authority (KRA).[129] Kenya therefore needs to finance the deficit by other means -- including grants, domestic borrowing and loans on concessional terms. To narrow this gap in future, the country needs to develop better means of collecting tax such as widening the tax base. It is hoped that the introduction of revenue from natural resources in the near future will help narrow this gap. Depending on the size of the natural resource rents, the need for collecting taxes by widening the tax base or even collecting taxes from individuals and organizations may diminish, as resource rents will negate this need. Over time, the country may become one of the rentier states, which are not usually financed by taxes from their citizens, but by the sale of state-owned assets, i.e. their country's subsoil wealth. In the long term, these countries become less suscep-

127 Ross, M.L., 'Does Oil Hinder Democracy?' (2001) World Politics, 53(3): 325-361.

128 Gylfason, T. 'Resources, agriculture, and economic growth in economies in transition', (2000) Kyklos, Vol. 53, No. 4, pp.545–580.

129 IEA, 'Highlights of Budget 2018/2019 Budget Analysis', (2018): Institute of Economic Affairs.

tible to public pressure as they become less constrained and accountable to their citizens. This helps explain why so many oil-producing countries are undemocratic. For Kenya, transitioning to a rentier state will erode any democratic gains made over the years and the progressive 2010 Constitution will be rendered ineffective. The voice of the people and that of civic based organizations will become irrelevant as the government will not need revenues from them to run the affairs of the state. Slowly, the country will turn into a dictatorship or some other form of polity that is non-responsive to its citizens.

The discovery of mineral resource also invites instability in a country mainly through the volatility of world commodity prices. This volatility, combined with the rise and fall of a country's mineral reserves, can produce large fluctuations in the finances of resource-dependent countries. This saddles governments with revenue-smoothing tasks they have difficulty achieving,[130] and helps explain why they often find it hard to productively invest their resource wealth. In low-income countries, the discovery of oil can set off an explosion in government finances. The resultant revenue booms can be surprisingly difficult for governments to invest productively because of bureaucratic overstretch, where a government's revenues expand more quickly than its capacity to efficiently manage them. This drops the effectiveness of government investments. Volatility can hurt economic growth by creating uncertainty about the future, which in turn discourages private sector investment. It can also make it harder for governments to productively invest their resource revenues by shortening the government's planning horizon, which would subvert major investment projects. Government officials who anticipate this problem may cope by avoiding long-term programmes altogether, and spending their funds quickly before they disappear. The shift from tax-dependence to dependence on mineral funds is real in Kenya, as current taxation and other sources cannot meet the budgetary obligations of the country. However, this will place Kenya in a very difficult situation because fluctuations in prices will make it hard to plan ahead as the expected rents in any year will be uncertain. In times of booms, the government will have more funds than it can absorb but in times of busts, the available income may be unable to meet the budgeted expenditure. This will affect all government plans and introduce a lot of uncertainty, which negatively affects investments.

IV. RESOURCES AND GOVERNANCE

In most developing countries, the problems of abundant mineral wealth are mostly political, not economic. If low-income resource rich countries were governed by wise and benevolent technocrats, their resource wealth would be an unmitigated blessing. However, in these countries, politicians are interested and would like to appropriate the rents from the resources to advance themselves. It is political pressure from the electorate that obliges them to redistribute at least a part of it to voters. Once resource rents are under control of governments and politicians in power, the monies can be spend to achieve different objectives, including to influence election outcomes by offering employment in public sectors, which in the long run are rendered inefficient due to the absorption of high numbers of

130 Ross, M.L 'The Oil Curse: How Petroleum Wealth Shapes the Development of Nations' (2012) Princeton University Press. NJ, USA. Oxfordshire, UK.

often under-qualified supporters. Further, politicians tend to over-extract resources in their first term in office because they only care about the future resources if they remain in power. During election time, the aim of politicians is usually to maximize votes. This is mostly done through distribution of funds to the electorate with the aim persuading them to vote for particular politicians. In most cases, money overrides ideologies and policies, and in some instances wealthy politicians with no development agenda get elected. Abundance of mineral wealth in Kenya combined with grabber-friendly characteristics of the economy are likely to accord such politicians an edge over others as they will have more resources to influence voters. Over time, this is likely to increase kleptocracy and rent seeking among politicians as they try to recoup funds they used to influence elections. The high returns from politics encourage other citizens to join politics, but only with the aim of maximizing wealth. Good governance gets compromised as dominant elites with little regard for the rule of law take over the affairs of the country. Over time, this impedes the rule of law and democratic governance.

Oil is, in general, an impediment to democracy;[131] and oil-rich states in the developing world are less likely to be democratic. Such countries are ruled by autocrats and dominant elites rather than by anonymous laws and institutions. Compliance with the written law may be of little consequence under these circumstances.[132] Resource-rich countries especially those with point resources like oil fields, tend to be dominated by factional and predatory oligarchic polities, and governments that promote narrow sectoral interests.[133] These countries often have unfavourable policies, which postpone the transition to competitive industrialization and diversification of the economy. Such economies are more likely to follow some form of state-led development policies, including import protection. The resource sector therefore ends up supporting a burgeoning non-tradable sector made up of infant industries and an inflated but unproductive public sector. Kenya runs the risk of falling into this trap as dominant elites are likely to promote their own interests, which ensure more wealth accrues to them. To assuage voters, the elites are likely to offer employment to cronies who protect their interests and use political rhetoric to convince the voter that the economy is growing and governance is democratic. Another option is to ensure that they stabilize the voters at poverty level and use fundraising to contribute some of their ill-earned mineral wealth to poor rural communities who, due to poverty, will be unable to question the actions of the elite. Economic growth is likely to stagnate as only the extractive sector would be growing. Other sectors in the economy, however unproductive and competitive, will be maintained only to ensure employment of cronies and sycophants. The downside to this approach of governance is the upsurge of dissenting voices who believe that the elites are appropriating more than their share of extractive wealth at the expense of the economy. The resistance also stems from the frustrations of the dissatisfied factions due to their inability to access the rents from extractives. The survival of the elite regime will depend on their ability to deter these opposing groups in society from cooperation and, using resource rents, buying support from political and military elites.

131 Sandbakken, C., *'The Limits to Democracy posed by Oil Rentier States: The Cases of Algeria, Nigeria and Libya'*, (2006) Democratisation, 13(1): 135-152.

132 Deacon, R.T. and Mueller, B. *'Political Economy and Natural Resource Use'*, in, López, R. and Toman, M.A (Eds.) Economic Development and Environmental Sustainability: New Policy Options. (2006) Oxford University press, NY.

133 Auty, R.M. (Ed.) *Resource Abundance and Economic Development,* (2001) Oxford University Press, Oxford.

However, if one or more of the opposing groups are able to access the resources either through theft or some other illegal means, a dominant bandit is likely to emerge from the kleptocracy by monopolizing and expanding his power base. The bandit has incentives to limit his theft activities on society and provide some public goods since he knows that excessive theft discourages productive activity and reduces future wealth while the provision of public goods enhances income he may exploit for personal gain. Some of the political rents are therefore used to deter citizens from opposition activities and to ensure that he stays in power. The system is likely to evolve into a dictatorship whose sole objective is maximization of personal wealth via the increase of political rents while maintaining political power. Dictators will then collect resources from the population and increase personal and family gain as well as amenities for the ruling elite.

A higher endowment of resources gives the dictator the opportunity to counter cooperation of other opposition groups and increase his probability of staying in power. In order to remain in power, a dictator can choose to invest in increasing the base of supporters and/or repression of opposition groups. Greater natural resource abundance allows the non-democratic regimes to finance repression through the military and thus increases the likelihood to remain in power. However, in cases where the ruling elite insufficiently compensates the generals and soldiers, the army might stage a coup d'état and replace the existing ruling elite with a military dictatorship.[134] These systems tend to be stable but the survival of individual dictators is often challenged by others willing to appropriate resource rents for personal gain. This evolution of the system of governance from democracy to dictatorship is not a far-fetched possibility for Kenya. Already, there is resistance from local communities regarding oil mining in the Turkana County. To ensure the situation does not deteriorate further, the dissent should be resolved amicably. Institutions should also be strengthened to ensure that dominant elites or bandits do not develop as a result of the resource rents. The rents should also be distributed fairly to avoid the view by some communities that they are disadvantaged in the sharing of resource revenues. Otherwise, a system that allows dominant elites to flourish will be a sure path to dictatorship.

V. BENEFITING FROM NATURAL RESOURCE RENTS

Large natural resource revenues help autocrats to stay in power and tend to be squandered by overstretched bureaucracies, which inhibits latent pressure for democratisation and increases incumbents' re-election chances in weak democracies. This is because recipients of state favours or public sector jobs have a diminished appetite for incurring the cost of fighting for political reform in the direction of democracy.[135] For these revenues to be profitable to the whole society, a number of policies for management of natural resource revenues have been suggested. Some policies are more appropriate for low-income countries with weak bureaucracies while others are more likely to work in middle and upper income countries with more sophisticated bureau-

134 Cuaresma, J.C., Oberhofer, H. and Raschky, P. (2010): Oil and the Duration of Dictatorships, Working Papers in Management and Economics, WP No. 2010-03, University of Salzburg.

135 Robinson, J.A., Torvik, R., and Verdier, T., 'Political Foundations of the Resource Curse', (2006) Journal of Development Economics, 79(2):447-468.

cracies. They have been applied in different countries with different levels of success. Some are discussed hereunder:

The first option is to leave the resource in the ground[136] as this acts as saving it in a bank where it will earn 'interest', since its value will rise over time as the rest of the world's natural resource supplies are depleted. During this time, the country can actively strengthen its institutions in readiness for the resource extraction. This option is not practical in Kenya as extraction and transportation of oil for refining has already started. The closest option to this is to extract the oil at a slower pace, so that revenues do not grow more quickly than the government's capacity to spend them effectively or more quickly than civil society's ability to monitor the activities of their rapidly-growing government. The counter argument to this is that deferring the revenues produced by oil extraction carries a high opportunity cost, especially in low-income countries, where people urgently need food, health services, and education. In addition, one can also argue for sustainable utilization of mineral resources, which does not necessarily entail preservation. It is however to be noted that the greater a country's need for additional income, because it is poor and has a weak economy, the more likely its oil wealth will be misused or squandered. Therefore, for low-income countries, the risks created by oil extraction are great, but so are the costs of leaving it in the ground. The argument for the Kenyan government will be that the revenues will be needed for health, education, etc. While this may be valid, the weak institutional infrastructure exposes the revenues to misuse.

The second option is barter contracting,[137] where companies agree to pay host governments with unrelated projects and services instead of cash, in exchange for exploitation of their natural resources. Barter contracts entail a process called bundling, where one transaction (the purchase of exploration or extraction rights) is tied to a second transaction (the construction of roads and bridges). For example, in 2006, Nigeria signed contracts giving Chinese companies exploration licences to four offshore blocks.[138] It was to get US$4 billion in investment such as a new hydropower plant, rehabilitation of an oil railroad, and development of programmes to combat malaria and avian flu. Angola traded oil contracts for new roads, railroads, bridges, schools, hospitals, and a fibre-optic network. Companies use bundling to gain an advantage over competitors. However, bundling can sometimes be beneficial if the costs of carrying out the transactions separately are prohibitive. The advantages of barter contracts is that they might help low-capacity governments bypass the process of collecting the revenues, shuffling it among government agencies, and re-allocating the revenues to government projects. They may also relieve governments of the need to smooth out revenue fluctuations, since revenue smoothing becomes the responsibility of the company. Finally, they can help draw foreign infrastructure companies into low-income countries, which the companies might otherwise shun out

136 Martinez-Alier et al. 'Between Activism and Science: Grassroots Concepts for Sustainability Coined by Environmental Justice Organizations', (2014): *Journal of Political Ecology*, 21(1): 19-52.

137 Rogers, D., 'Oil Without Money: The Significance of Bartered Oil in (and Beyond) Russia' (2012) An NCEEER Working Paper, University of Washington, Seattle.

138 NRGI, 'Inside Nigeria's National Petroleum Corporation (NNPC) Oil Sales: A Case for Reform in Nigeria', (2015): Natural Resource Governance Institute Report Annex.

of fear they would not get paid; and they help governments to make hard-to-reverse commitments to long-term projects that might not otherwise be completed. This option has worked in other African countries including Zambia, Zimbabwe, Angola, and Nigeria. It could also be borrowed and used in Kenya. The contracting should be done before exploitation starts, and the company should be willing to enter into this agreement. Barter contracting is mainly preferred by Chinese companies, but Kenya's oil exploitation is being carried out by Tullow Oil. This company may not be interested in barter contracting, and this may work against this type of arrangement.

Another option would be to transfer a portion of the natural resource rents to regional or local governments. This revenue decentralization can be an effective way to reduce the size of the national government's discretionary windfall. It may even reduce the danger that people in the extractive region will seek independence. Subnational governments, especially those hosting natural resources, should be entitled to funds that compensate them for the social, environmental, and infrastructure costs they bear when hosting oil and gas projects. This money can be paid through a direct transfer to the subnational governments according to some formulae, either before or after smoothing out year-to-year revenue fluctuations; or through levy taxes by the subnational governments directly on the petroleum industry.[139] The challenge with this proposal is the amount to be transferred to subnational governments that host the resources against those that have no resources. In federal governments, this may be easier to implement. In the case of republics with semi-autonomous regional governments, however, this proposal may not be applicable as different subnational governments will bargain on who is entitled to what proportion of the resource rents and why. The potential for this conflict in Kenya has been dealt with in the Petroleum Bill, 2017, and Mining Act, 2016. According to the Petroleum Bill, 2017, the national government is entitled to 75 per cent of the oil revenues while county government and the local community will take 20 per cent and 5 per cent of the revenues, respectively. The Mining Act, 2016, proposes 70 per cent of royalties to accrue to the national government, 20 per cent to the county government, and 10 per cent to the community where mining is done. These proposals solve revenue sharing problems in resource rich communities and counties but may be very uncomfortable especially for non-resource-rich counties and for communities in resource rich counties not living within resource rich areas. Already the discomfort is beginning to show in the 'invention' of natural resources in non-resource rich counties such as the case of water in Murang'a County, where the governor is demanding compensation for water used in Nairobi County by claiming that it is from his county. The mode of transmission of funds to the community is also not clear, and the definition of the community expected to benefit from the share of resource rents is also vague. According to the Natural Resources Bill, community are "the people living in a ward within which the natural resource is situated and are affected by the exploitation of that natural resource". The problem with transferring money to subnational governments is that there is also no *a priori* reason to expect county governments to make better use of these funds than national governments. County governments can be just as corrupt, opaque, and incompetent as their national counterparts. Decentralization of oil revenues is likely to work better in countries with subnational governments that are relatively demo-

139 Harvey, S,'Future Oil Revenues and Political Dynamics in West and East Africa: A Slippery Slope?' (2014)SAIIA Occasional Paper No. 188.

cratic, transparent, and effective at managing their budgets. The success or failure of decentralization will also depend on how it is done.

Cash-to-citizen transfers have also been suggested as policy options for managing resource rents.[140] Diamond and Mosbacher[141] suggest the direct distribution of a proportion of oil revenues to citizens as taxable income. In their argument, when a government receives revenue from oil and gas exports, it can directly redistribute a certain predetermined proportion (say, at least 50%) to the bank accounts of the country's citizens. They appeal the ability of technology (e.g., biometric identification and mobile banking) to overcome certain practical barriers. The government would treat these transfers as income and tax some of it back. This approach of "directly distributing oil revenues as taxable income would create a broad and active constituency of citizens who were directly affected by the government's management of their resources, in place of the often passive populations of corrupt, resource-cursed states". This model has worked in the US state of Alaska and the Canadian province of Alberta, which use direct distributions. In Alaska, for example, the federal government distributes a share of the accrued interest of the Alaskan Permanent Fund to all Alaskan citizens. The advantage of this approach is that it would keep at least part of the government's petroleum revenues away from politicians, who might otherwise steal them or use them for political advantage. It could also help hedge against price volatility if citizens can do a better job than governments of planning ahead; and it might give citizens a powerful incentive to monitor the government's use of resource revenues, creating pressures against corruption and in favour of wise stewardship. The cash-to-citizen transfers system requires open, democratic and less corrupt regimes, with minimal political interference for it to be effective. This option also assumes that domestic political dynamics are not a constraint to the operation of the system, which is quite unlikely in developing countries.[142] Its applicability in developing countries, including Kenya, would therefore be a challenge as most of these countries lack the necessary ingredients for the system to work.

Finally, these resource-rich economies can establish a Petroleum Fund abroad, like Norway or Botswana, to shield them from excessive demand and real appreciation, thus reducing loss of competitiveness. The economies would continue to function with their current budgets and use the resource rents to fund infrastructure, education, and health projects. This will avoid excessive flow of revenue in the countries. This is a more viable option for Kenya and other developing countries, but highly unlikely as politicians would vote to have all resource rents transferred into the country.

VI. CONCLUSION

Prof Charles Okidi, to whom this chapter is dedicated, supported the conventional economic reasoning and wisdom, which suggests that increases in a country's stock of assets provides greater

140 Diamond, L and Mosbacher, J., 'Petroleum to the People: Africa's Coming Resource Curse—and how to Avoid it', (2013) Foreign Affairs, *September/October* .

141 Ibid

142 Harvey, S., 'Future Oil Revenues and Political Dynamics in West and East Africa: A Slippery Slope?' (2014) SAIIA Occasional Paper No. 188.

opportunities for economic development.[143] This reasoning has been proven right in some cases, but also proven inaccurate especially in resource rich developing countries. For instance, all signals in Kenya point to a situation where the country might fall into a similar trap as other resource rich developing countries and suffer from the resource curse. Of course, there have been efforts from the government and other institutions to address the key transmission channels of the curse, i.e. the Dutch Disease and institutional failure. Most of the efforts have been directed towards dealing with institutional failure by creating institutions through Constitution of Kenya, 2010, and the enactment of laws in anticipation of the challenges from resource revenues.

Kenya can draw lessons from other countries, especially in dealing with Dutch Disease effects, and on the management of revenues from natural resources. At present, the current legislation and institutional framework is preparing for a situation where all the sales from natural resources will be absorbed back into the economy and shared between different governments and communities. This approach is likely to trigger spending and factor movement effect within the economy, which demerits have been discussed. Kenya could have borrowed from Norway and Botswana by making sure that a fair share of the earnings are kept as an endowment fund and used to develop infrastructure, education, health, and occasionally plug budgetary deficits. This would protect the economy from the unnecessary influx of funds, curb the spending effect, and keep stabilize the economy.

The country can make the industrial sector the wage leader in line with its vision of being a middle income level industrialized country by 2030 to prevent the natural resource sector from overshadowing the other sectors and cause a factor movement effect. This will ensure that the industrial sector leads the agenda for development and no transfer of factors of production would injure this sector. Such a move would improve industries' competitiveness and growth even as the natural resources sector develops along others . Such diversification will ensure a stable economy and prevent Kenya from becoming a rentier economy.

Kenya can also pursue the policy of developing its natural resource sector by training more of its citizens on natural resource exploitation through government scholarships and the establishment of centres of excellence in natural resources. This will ensure that the country does not rely on expatriates and imported labour but has competent professionals in all aspects of natural resource exploration and exploitation to run the sector. Already, there have been efforts in this direction, e.g. a degree programme in petroleum engineering at the University of Nairobi sponsored by Ministry of Energy. However, more needs to be done locally and globally. It is also important to expose policy makers, government leaders and other interested groups to training on the potential impact of natural resource exploitation on the economy. This will enable them to make informed decisions regarding natural resource exploitation. One such course is the Political Economy of Natural Resources Management taught at CASELAP, University of Nairobi. This and other similar efforts can be tailor-made for different groups in the form of short courses.

143 Okidi, C.O. 'Application of environmental paradigm to tame conflict and poverty in natural resource-rich African countries', in Daibert, A. (Ed.): *Direito Ambiental Comparado, Editora Forum 2008, Belo Horizonte*, (2007) Rio de Janeiro, Brazil.

Chapter 24

Sustainable Mining Practices in Kenya: A Case Study of Titanium Mining in Kwale

Iwona Rummel Bulska And Hildah Mutwiri

I. INTRODUCTION

Kwale County has deposits of diverse minerals, which include titanium (rutile, ilmenite and zircon) in Nguluku and Shimba Hills, and gemstone at Kuranze among others.[144] The discovery of vast deposits of titanium in Kwale is expected to change the county's fortunes as well as those of the entire nation. The minerals are expected to earn the country an estimated Kshs.12.6 billion (US$126 million) each year from exports. In addition, the direct cash flow to the local workers from wages and salaries is estimated to be about Kshs.70 million a year. The project is also expected to provide jobs to many local people.[145] It would be expected that these huge deposits of mineral resources will generate broad-based development in Kwale, but the situation is quite exact opposite.[146]

Base Titanium, a subsidiary of Base Resources Company of Australia, is undertaking titanium mining in Kwale. It bought the mines from the Canadian firm, Tiomin, in 2011 and spent the first two years on infrastructure development to operationalise the mine, ultimately reaching full-scale operational capacity in 2015. It estimates having spent Kshs.21.2 billion (US$212 million) to construct and outfit the mine and Kshs. 5.2 billion (US$52 million) for the flagship projects to operationalise the mines and anticipates to sustain it in full operation for 10 years until its closure in 2026.[147] Base Titanium has become the seventh largest producer of ilmenite and the third largest producer of rutile in the world after the operationalisation of the mine in Kwale.[148]

The mining sector in Kenya is set to immensely contribute to the development of industries, wealth and job creation. This commercial exploitation of mineral wealth is expected to ease life for ordi-

144 Economic and Social Rights Centre (Hakijamii), ' Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti' (2017) p15.

145 Daniel Nyassy, 'Mining expected to change region's fortunes' < https://www.nation.co.ke/counties/Mining-expected-to-change-regions-fortunes/1107872-1489880-26bldmz/index.html> Accessed on 10/11/2018.

146 Economic and Social Rights Centre (Hakijamii), ' Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti' (2017)p15

147 ibid

148 ibid

nary citizens through revenues from royalties and taxation of profits made by the mining firms.[149] Okidi argues that minerals are important because their sustainable exploitation can result in national economic and social progression.[150] Therefore, the importance of mining industries cannot be gainsaid as mining offers a chance to promote broad-based economic development, alleviate poverty and aid countries in meeting internationally agreed development goals.[151]

Base Titanium projects that the exploitation of the titanium in Kwale will result in improvement of the social and economic wellbeing of the local community.[152] However, early evidence points to the reverse effect. [153]The mining operation in Nguluku has led to numerous complaints by local communities, including over loss of land, the displacement of people as well as environmental degradation that has been detrimental to human and animal health.[154] In addition, the project has not enhanced access to basic services such as clean water, electricity, education and healthcare; services that were promised to the local community during the inception of the project.[155]

This paper argues that the current titanium mining in Kwale is unsustainable and a recipe for conflict and poverty for the local community. The paper is divided into seven parts. Following this introduction, section two discusses the right to land and its implications for titanium mining. The fact that land is intertwined with people's livelihood is discussed and the effects of involuntary displacement to pave way for titanium mining are also discussed. Section three delves into the concept of compulsory acquisition of land. The law on compulsory acquisition has been discussed, as are the effects of compulsory acquisition. Section four examines the issue of benefit sharing and equitable utilization of proceeds from mining activities. This section notes that there has been lack of equitable sharing of the mining proceeds, with the result that the local community continues to live in extreme poverty. Section five delves into the issue of public participation, which is a crucial tenet in the management, protection and conservation of the environment. The concept of sustainable development is also highlighted in this section. Section six highlights legal practices and requirements needed towards sustainable mining of titanium in Kwale. Section seven concludes the chapter by showing that an exhaustive legal system is needed to ensure sustainable mining in Kwale that will benefit the current generation of the local population as well as future ones.

149 Moses Michira, 'The billions buried under Kenyan soil',<https://www.standardmedia.co.ke/business/article/2001238312/the-billions-buried-under-kenyan-soil>Accessed on 10/11/2018.

150 P.Kameri-Mbote and Migai Akech (eds), *Environmental Governance in Kenya: Implementing the Framework Law*, (East African Educational Publishers Ltd 2008).pg.355.

151 Sustainable Development Goals Platform<https:// sustainabledevelopment. un. org/index. php? Menu =1259 > Accessed on 10/11/2018.

152 Economic and Social Rights Centre(Hakijamii), ' Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti' (2017)p16

153 Ibid .

154 Ibid

155 ibid

II. THE RIGHT TO LAND AND ITS IMPLICATIONS FOR TITANIUM MINING

Land is the major natural resource that people rely on for survival. Issues of land ownership and land management have become increasingly contentious in Kenya. In addition, land is a finite resource and only a portion of it can be termed as productive because a large part of the country is arid or semi-arid.[156] Despite land being a finite resource, its importance cannot be gainsaid as it is the main driver of the country's social, economic and political discourse.[157] Land is the main factor of production in the Kenyan economy as agriculture and tourism remain the biggest foreign exchange earners. Further, land has aesthetic, religious, cultural and traditional value for Kenyan communities. Land is also the repository of natural resources such as minerals, soil, forests, wetlands, wildlife, and inland water bodies such as rivers and lakes. Given the significance and value of land, land based resources must be managed, utilized and exploited in a sustainable, efficient, productive and equitable manner.[158]

For many people in Kenya, land is closely intertwined with their livelihoods and with issues of cultural heritage and identity. This is especially true for customary land systems. As such, purchases by individuals external to the community, even with due legal process, can be termed as cultural encroachment and invasion.[159] This is the reason many communities where natural resources are discovered are finding it hard to abandon their ancestral land despite receiving compensation.

The Constitution defines land as including: the surface of the earth and the subsurface rock; any body of water on or under the surface; marine waters in the territorial sea and exclusive economic zone; natural resources completely contained on or under the surface; and the air space above the surface.[160] Natural resources are defined to mean the physical non-human factors and components, whether renewable or non-renewable, including sunlight, surface and ground water, forests, biodiversity and genetic resources, rocks, minerals, fossil fuels and other sources of energy.[161] Land is therefore part of the country's natural resources and this definition encompasses what comprises the environment.[162]

The discovery of titanium in Kwale has raised the demand for land for the mineral's mining, exploration and prospecting to remarkable levels.[163] This demand for land can be seen through the current developments where Base Titanium has secured a licence to expand exploration of min-

156 Kariuki Muigua, Didi Wamukoya and Francis Kariuki, *Natural Resources And Environmental Justice In Kenya* (2nd edn, Glenwood Publishers 2011).

157 ibid

158 Ibid, page 166-117

159 Ibid, page 253

160 Article 260, Constitution of Kenya, 2010. Kenya National Council for Law Reporting.

161 ibid

162 Kariuki Muigua, Didi Wamukoya and Francis Kariuki, *Natural Resources And Environmental Justice In Kenya* (2nd edn, Glenwood Publishers 2011).

163 ibid

erals in Kwale County. This licence allows the firm to explore an expanded area surrounding the initial mining zone. The villages affected by the new exploration are Kilole, Magaoni, Zigira and Mwaka, among others.[164]

One of the principles outlined in the Constitution of Kenya is respect for the environment, which is every citizen's common heritage.[165] The Constitution requires that the environment be managed in a sustainable manner utilizing it in a manner that caters for the present generation without compromising the ability of future generations to use the same resources for their development.[166] This is the essence of the concept of sustainable development, which is one of the national values and principles of governance in the Constitution.[167]

Acquisition of land for mining activities on a large scale results into involuntary displacement of people from their homes and farms.[168] Notably, most of the engagements causing involuntary displacement are essential drivers of development; as such the resettlement process should be undertaken responsibly.[169] In Kwale, some 450 households each with an average of seven people were displaced from their land and resettled elsewhere to pave way for the titanium mining project. [170] This affected their livelihoods negatively, in addition the project led to loss of biodiversity in the area through the clearance of the coral rag forest and destruction of the benthic habitat of Wasini.[171] The residents also suffered cultural displacement as their sacred kayas (shrines) and mafingo (gravesites) were lost to the project resulting in the communities' loss of traditional practices, knowledge and culture.[172]

These negative effects and the interference with the local residents' property rights have been the source of conflicts within the mining company for close to a decade.[173] The conflicts revolve around the Tiomin Company, who began the project, the local inhabitants and the government revolving around compensation, land degradation and pollution issues.[174] Resettlement in such circumstances should therefore be well planned and executed so that economic growth is enhanced and

164 ICJ-Kenya, EXTRACTIVES: 'Kwale locals want more say in mining'< https://icj-kenya.org/news/latest-news/179-extractives-kwale-locals-want-more-say-in-mining>Accessed on 9/11/2018.

165 Preamble, the Constitution of Kenya 2010, Kenya National Council for Law Reporting.

166 ibid

167 Article 10(2)(d), the Constitution of Kenya 2010

168 CO Okidi,P Kameri-Mbote and Migai Akech(eds),*Environmental Governance in Kenya: Implementing the Framework Law*,(East African Educational Publishers Ltd2008)pg.360.

169 ibid

170 Francis Kariuki 'Land Rights Issues in Kenya's Extractives Sector' in J Osogo Ambani(ed*), Drilling past the resource curse? Essays on the governance of extractives in Kenya*, Strathmore University Press(2018).pg.143-144.

171 ibid

172 ibid.

173 John Obiri 'Extractive Industries for Sustainable Development in Kenya' (UNDP Final Assessment Report, September 2014) pg. 32.

174 Ibid

poverty reduced, especially for vulnerable people. Okidi argues that at the very least, those who are relocated should not end up worse off than they were before their displacement.[175]

III. COMPULSORY ACQUISITION OF LAND

The right to own property has been recognized under the Constitution of Kenya, 2010, whereby every person has the right either individually or in association with others, to acquire and own property of any description and in any part of Kenya.[176] Further, the Constitution prohibits Parliament from enacting a law that permits the state or any person to arbitrarily deprive a person of property of any description, or of any interest in, or right over any property of any description, or to limit, or in any way restrict the enjoyment of any right to property.[177]

Every mineral in its natural state, in or upon land in Kenya, is the property of the republic and is vested in the national government in trust for the people of Kenya.[178] This is the case despite any right or ownership of or by any person in relation to any land in or under which minerals are found.[179] Consequently, while minerals are on land, they are public property notwithstanding the ownership of the land. This brings into play the process of compulsory acquisition when the mineral needs to be extracted. The Mining Act provides for compulsory acquisition, and the Cabinet Secretary for Mining may take steps under the law relating to the compulsory acquisition of land or rights or interest in land, to vest the land or area in question, or rights or interest in such land or area, in the government or on behalf of the government.[180] The Community Land Act also recognizes the fact that community land may be converted into public land through compulsory acquisition.[181] This latter provision can be relied on in cases where minerals are found in community land.

Compulsory acquisition of land is a sensitive issue, esp ecially in the context of rapid population increase and changes in land use. With governments coming under increasing pressure to deliver public services – ranging from roads, railways, health facilities, learning institutions and other infrastructure development – there is concomitant demand for and pressure on land in the country.[182] The National Land Policy process underscored the tension that compulsory acquisition produces and urged reform in the manner it is undertaken. From the perspective of government and other economic actors, the often conflicting and inefficient aspects of the process are seen as a constraint to economic growth and development.[183]

175 CO Okidi, P Kameri-Mbote and Migai Akech(eds),*Environmental Governance in Kenya: Implementing the Framework Law*, (East African Educational Publishers Ltd, 2008).pg.361.

176 Article 40(1), the Constitution of Kenya 2010.

177 Article 40(2), the Constitution of Kenya 2010.

178 Article 6(1)(2),Mining Act

179 ibid

180 Section 40, Mining Act

181 Section 22(1)(a), the Community Land Act, 2016.

182 Food and Agriculture Organisation of the United Nations, Compulsory Acquisition of Land and Compensation (2009).p1.

183 ibid

From the perspective of the community, on the other hand, the process of compulsory acquisition generates tension for people who are threatened with dispossession. While the development that results from the compulsory acquisition of land may ultimately bring benefits to society, it is disruptive to people whose land is acquired. It displaces families from their homes, farmers from their fields, and businesses from their neighborhoods.[184]It may separate families, interfere with livelihoods, deprive communities of important religious or cultural sites, and destroy networks of social relations. If compulsory acquisition is done defectively, it may leave people homeless and landless, with no way of earning a livelihood, without access to necessary resources or community support, and with the feeling that they have suffered a grave injustice.[185] On the other hand, governments can adopt policies and regulations to carry out compulsory acquisition satisfactorily, thereby leaving communities and people in similar situations as they were while providing the intended benefits to society.[186]

The Constitution of Kenya provides for compulsory acquisition of land. It provides that the state can only deprive a person of property of any description, interest in or right over it if the deprivation:

i) results from an acquisition of land, or an interest in land or a conversion of an interest in land or title to land in accordance with the provisions on land and environment as stipulated in the Constitution;

ii) is for a public purpose or in the public interest and is carried out in accordance with the Constitution and any Act of Parliament.[187]

Such compulsory acquisition requires prompt payment in full of just compensation to the land owner. Persons who have interests or rights over properties being compulsorily acquired have a right of access to a court of law for redress. Further, provision may be made for compensation to be made to a land owner whose land has been compulsorily acquired even if they did not have a title to the land.[188]

The Land Act also provides that title to land may be acquired through compulsory acquisition.[189] Land may be acquired compulsorily if the National Land Commission certifies, in writing, that the land is required for public purposes or in the public interest, as related to and necessary for fulfillment of the stated public purpose.[190] For such acquisition to be valid, there must be a preliminary notice from either the national or county government that deems it necessary to acquire some particular land compulsorily. Thereafter the respective cabinet secretary or the county executive

184 ibid

185 ibid

186 ibidp2.

187 Article 40, The Constitution of Kenya, 2010.

188 Article 40(2)(3), The Constitution of Kenya 2010.

189 Section 7(c), Land Act No. 6 of 2012

190 Section 110,Land Act , No. 6 of 2012

committee member is required to submit a request for acquisition of public land to the National Land Commission (NLC), which will in turn acquire the land on behalf of the national or county government.[191]

The NLC should prescribe a criteria and guidelines to be adhered to by the acquiring authorities in the acquisition of land. A request from an authority may be rejected if it does not follow the stipulated criteria set out by the NLC.[192] It is noteworthy that the NLC has not yet designed the aforementioned criteria and guidelines. Upon the approval of a successful request, the NLC shall publish a notice to that effect in the Kenya Gazette and in the County Gazette, and shall deliver a copy of the notice to the Registrar and every person who appears to the Commission to be interested in the land. Interested persons in this case shall include any person whose interests appear in the land registry and the spouse or spouses of such person, as well as any person actually occupying the land and the spouse or spouses of such a person.[193] The Land Act also emphasizes that for any land that is compulsorily acquired; just compensation has to be made to all persons whose interest in the land has been determined.[194] An award for compensation issued by NLC is final and reflective of the size of the land and the value of the land.[195]

The residents of Kwale lost their homes and land in 2007 when Tiomin-Kenya began titanium-mining operations.[196] The local residents, however, resisted the seizure of their land right from the beginning in 1995 when prospecting on their land began. They filed several cases in court in which they questioned the legality of the forceful acquisition of their land by the state, and the 'unfair' compensation offered by the extractive company.[197] In 2001, the local residents in Kwale sought an injunction to restrain Tiomin Mining Company from mining titanium in Kwale. The Government of Kenya had issued a licence to Tiomin Company, on land that did not belong to the government contrary to the law. [198]As a result, the affected residents opposed the mining activities and filed a case challenging the illegal allocation of their land to the company. This forced Tiomin to halt its operations in order to allow the government to acquire the land as required by the law. The plaintiffs wanted the Tiomin Mining Company to give them reasonable compensation and to settle them in a new location.[199]

Additionally, the plaintiffs were concerned that the excavation of titanium was likely to trigger multifarious environmental and health problems, and they wanted their environment and health

191 Ibid, Section 107(1),

192 Ibid, Section 107(2,3).

193 Ibid, Section 107(5,7).

194 Ibid, Section 111(1).

195 Ibid, Section 113(2)(a).

196 Willice O. Abuya, 'What is in a Coconut? An Ethnoecological Analysis of Mining, Social Displacement, Vulnerability, and Development in Rural Kenya' (African Studies Quarterly Volume 14, Issues 1 & 2 2013).p2.

197 ibid

198 Rodgers Muema Nzioka & 2 Others v Tiomin Kenya Limited [2001]eKLR

199 ibid

to be secure.[200]The court noted that no Environmental Impact Assessment had been carried out by the company, and stated that without the delivery of an environmental impact study, then the project in question that affected the environment could not be assessed.[201] The project was therefore said to be against the principle of sustainable development. The court interpreted the sustainability principle in the law of environment to mean that economic development should not be less and neither should the environment be preserved at all cost but developmental decisions regarding issues likely to harm the environment should be taken with proper regard to their environmental impact.[202]

In 2006, on the issue of compulsory acquisition, the court found that the petitioners' claims were unmeritorious as the government had already initiated compulsory acquisition in respect to their parcels of land, which was meant to have them paid prompt compensation.[203] The petitioners' prayers were therefore deemed to defeat what they were seeking from the beginning, which was to be compensated as per the market value of their parcels of land. In addition, the court observed that the petitioners' consent was unreasonably being withheld to the detriment of others and the mining project because the petitioners were parties to the agreement between a farmers' committee and the government. Therefore, the government was justified to compulsorily acquire the petitioners' land.[204]

After many years of fighting resettlement, in 2007, the farmers were forcibly driven from their land. Over 3,000 residents were consequently displaced to make way for titanium mining.[205] The Kenya Government offered a compensation package to mitigate the impact of displacement, which was to be paid by the extractive company; it included monetary payments for land, crops, and physical structures lost, plus compensatory land, among others to the Kwale community.[206] The compensation offered did little to appease the community, whose members resisted the displacement through a series of court cases from 2001 when Tiomin began prospecting for titanium in Kwale until 2008.[207] This is due to the fact that the envisaged compensation was functionally unable to resolve the task of restoring the residents' incomes and livelihoods. In addition, the compensation provided by the law was in economic terms and did not account for the social, cultural and spiritual significance of the land that the community left behind. [208]

200 Ibid.

201 Ibid.

202 Ibid.

203 Ibid.

204 Ibid.

205 Willice O. Abuya, "What is in a Coconut? An Ethnoecological Analysis of Mining, Social Displacement, Vulnerability, and Development in Rural Kenya" (African Studies Quarterly Volume 14, Issues 1 & 2 2013)p2.

206 Ibid

207 Ibid

208 J Osogo Ambani(ed), Drilling past the resource curse? Essays on the governance of extractives in Kenya, (Strathmore University Press, 2018)pg.163.

In the case of Titanium mining in Kwale, the host communities were displaced from their land and just shown a place where they were to negotiate with land owners how to buy land and put up new homesteads.[209] Most of the affected people felt that they had been undercompensated as the money they were given as compensation was too little to buy the land in the places where they were directed to, while others further said the majority found themselves occupying unfinished houses since the compensation money was not enough to complete construction.[210] Okidi argues that competition for resources should be greater than the market value because such displacement results in decrease in the land, thus making it an expensive resource to purchase at the price that the local communities have been compensated.[211]

A situation that leaves the displaced people in limbo shows how reluctant the government is to assist people whose land it acquired once it has aided the multinationals to strip off the local people their land.[212] In such an instance, a proper working system of compulsory acquisition should have followed up and ensured that the communities involuntarily displaced were settled in conditions closest to what they used to have before the disruption.[213] Such follow-up should entail a compensation structure and mechanism in order to ensure that there is uniformity in the handling of compensation, and to ensure that local communities are adequately protected and compensated if their lands are taken up for large-scale investments by they public.[214] Okidi argues that it is even better to adopt a land-for-land compensation approach in such circumstances to ensure that the communities displaced are not left without a home.[215] This approach should put into consideration the productive value of the vacated land and the costs incurred in relocation.[216] However, in the case of Titanium Mining Company, the process of compulsory acquisition and the resultant compensation led to more misery than satisfaction from the local community. It also was undertaken before some of the reforms in the law on compulsory acquisition heralded by the Constitution of Kenya, 2010.

Despite the reforms envisaged in the Constitution little appears to have changed with regard to titanium mining in Kwale. A recent declaration allows Base Titanium to expand their exploration, which will lead to further displacement of the local population, meaning there will additional compulsory acquisition of land. Local leaders, including the Kwale Members of Parliament, contend that there was no public participation in the decision to strip more people off their land.[217]

209 Economic and Social Rights Centre(Hakijamii), " Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti" (2017).p43.

210 ibid

211 CO Okidi, P Kameri-Mbote and Migai Akech, *Environmental Governance in Kenya: Implementing the Framework Law*, (East African Educational Publishers Ltd, 2008).pg.361.

212 Economic and Social Rights Centre(Hakijamii), " Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti" (2017).p43.

213 ibid

214 Ibid

215 CO Okidi, P Kameri-Mbote and Migai Akech(eds),*Environmental Governance in Kenya: Implementing the Framework Law*, (East African Educational Publishers Ltd, 2008) pg.362.

216 ibid

217 Chari Suche, 'MP Juma storms out of forum, protests mining' (The Star News, 2018)< https://www.the-star.co.ke/news/2018/05/16/mp-juma-storms-out-of-forum-protests-mining_c1758738> Accessed on 9/11/2018.

IV. BENEFIT SHARING AND EQUITABLE UTILIZATION

Benefit sharing can be defined as the distribution of monetary and non-monetary benefits that are generated through the implementation of a mining project.[218] The main objective of benefit sharing is to ensure that a significant portion of the benefits generated from mining in a particular area is retained in that area for the benefit of local mining communities. As such, natural resources must thus be shared equitably to ensure that local mining communities are effectively catered for in the context of socio-economic development and improved livelihoods.[219] Benefit sharing mechanisms can either be voluntary, based on the company's corporate social responsibility activities, or they can be based on government legislation.[220]

The essence of benefit sharing mechanisms is the generation of broad-based socio-economic development that uplifts the standards of living of the mining host communities.[221] Some of these developments include: building the socio-economic infrastructure such as roads, hospitals, schools, water points and access to electricity for the benefit of the local communities; adoption of mitigation mechanisms to minimize the harmful social and environmental impact of mining activities; and training and employment of local people as staff in the mining project.[222] Proper equitable sharing of mining benefits enhances harmony and a seamless relationship between the land user and the local communities, which in turn reflects positively on the productivity of the mining operations.[223]

Sustainable mining processes enhance sustainable development and improve the standard of living among mining host communities.[224] If well managed, exploitation of mineral resources can contribute to improved employment and skills acquisition for the host mining communities; the purchase of local products and use of the same in mining operations; and the growth of small and large-scale businesses inspired by the mining activities. In addition socio economic services are bound to develop and improve greatly. These include: roads, schools, vocational training institutions, water, health care facilities, and generation of revenue and foreign exchange for the government through taxes and royalties.[225]

A comprehensive legal framework and an efficient governance structure is mandatory in order to achieve these benefits. Such a regime is meant to ensure transparent, accountable and sustainable management of natural resources. These legal and governance structures must also put in place

218 Economic and Social Rights Centre (Hakijamii), 'Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti' (2017).p23.

219 ibid

220 ibid

221 ibid

222 ibid

223 Ibid

224 Ibid

225 Economic and Social Rights Centre (Hakijamii), 'Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti' (2017) ...p6.

effective and equitable mechanisms for the sharing of the benefits and burdens of natural resource exploitation among all the relevant natural resource stakeholders, with a focus on the host communities.[226]

In the exploitation of the natural resources, including minerals, the Constitution requires the National Government to ensure that these resources are exploited, utilized, managed and conserved in a sustainable manner.[227] With regard to benefit sharing, the Constitution requires the National Government to ensure the equitable sharing of the benefits accruing from the use of natural resources, inclusive of minerals.[228] In addition, the Constitution stipulates that all natural resources should be used for the benefit of the people of Kenya.[229] Consequently, it is a constitutional edict that benefits that arise from the exploitation of minerals, including titanium, must be shared with the local community.

Some of the benefit sharing techniques envisaged in the Mining Act of 2016 is preference in employment, where the holder of the mining licence shall give preference in employment to the members of the local community. The mining licencee should also progressively replace technical non-Kenyan employees with Kenyans. The mining company is also tasked with facilitating socially responsible investments for the local community. [230]These provisions need to be further operationalised on to ensure that all the aspects of the local community benefiting from the project are well regulated through the enactment and enforcement of the Local Content Bill of 2016.

The other form of benefit sharing contemplated by the law is the payment of royalties to the state by the mineral right holder. The percentage of royalty to be paid is determined by the Cabinet Secretary in charge of mining. Once the royalties have been remitted by the mining company, 70 per cent remains with the national government, 20 per cent goes to the county government, and 10 per cent to the local community.[231] The main issue that arises here is how the 10 per cent of royalties will reach the community. How will this money be used and managed for the benefit of all community members? In order to answer this question, we need an elaborate legal system to actualize these provisions, hence the need to enact the pending Natural Resources (Benefit Sharing) Bill, 2014.

Attempts by the Kwale County Government to negotiate a 5 per cent share of the mining profits from the titanium project backfired after the mining company threatened to sue the County Government.[232] Further, the County Government tried to introduce cess but the mining company

226 Ibid

227 Article 69(1)(a), the Constitution of Kenya 2010.

228 ibid

229 Ibid, Article 69(1)(h).

230 Section 47,Mining Act No.12 of 2016.

231 Ibid, Section 183

232 Economic and Social Rights Centre(Hakijamii), " Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti" (2017).p17.

resisted this move also.[233] The mining company sued the County Government of Mombasa for exercising taxation or revenue raising powers and imposing a cess on the company's trucks transporting processed mineral products for the purpose of exportation, from Kwale County across Mombasa County to Mombasa Port at the rate of Ksh.3000.00 per truck. The court however held that county governments have the power to levy taxes and charges for services that they provide, including road transport services.[234]

This kind of resistance from the mining company has left the county governments with no revenue from the project in their own county. These developments are a reflection that the county government that hosts the project is not sharing in the benefits from the mining project. It further limits the resources at the disposal of the county government, which would contribute to the improvement of livelihoods for the host mining communities.[235]

The barring of the county government from benefitting from titanium mining is ironic and likely to be counter-productive. This is because devolution was meant to promote environmental justice in the exploitation of natural resources. It is also meant to give power of self-governance to the people and enhance public participation in making decisions affecting them.[236] Further, devolution was meant to recognize the right of communities to manage their own affairs and enhance their development and equitable sharing of national and local resources. Devolution was also meant to protect and promote the interests and rights of minorities and marginalized communities. Devolution seeks to promote social and economic development and the provision of proximate, easily accessible services. In addition the devolved government is meant to ensure equitable sharing of national and local resources.[237] The county government is therefore expected to be the key player in addressing challenges of environmental justice and social problems in relation to natural resource management.[238]

Failure to equitably share the benefits of the mining project has seen the host communities continue to live in extreme poverty, with their socio-economic situation actually worse than it is for the general population in Kwale County. The biggest indicator of the multidimensional nature of this poverty is the dire food insecurity situation in Nguluku and Bwiti (the host communities).[239] Apart from food insecurity, there have been health problems, which have been exacerbated by the introduction of mining activities. The poor health situation in Nguluku is far-reaching, with the mining community experiencing increased diseases as a result of the mining operations at Maum-

233 Ibid

234 Base Titanium Limited v The County Government of Mombasa & another [2017] eKLR

235 Economic and Social Rights Centre(Hakijamii), " Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti" (2017).p17.

236 ,Article 174, Constitution of Kenya 2010

237 Ibid

238 Kariuki Muigua Didi Wamukoya and Francis Kariuki, *Natural Resources and Environmental Justice in Kenya*.(Glenwood Publishers Limited 2015).p97.

239 Economic and Social Rights Centre (Hakijamii), 'Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti' (2017).p17.

ba.[240] Major diseases reported include malaria due to the dam that breeds mosquitoes; skin and respiratory diseases from the dust in the mines; diarrhea and typhoid from contaminated river water; and eye problems from the dust.[241]

Notably, nothing has been done to improve the health infrastructure for the host community, especially in Nguluku, despite the fact that it is on the frontline of the mining operation and bears the health burdens of the project. Poor education infrastructure and poor housing also rank high in the host community in Kwale.[242] Thus, despite the promise to uplift the living standards of the host community, the mining project has to a large extent not achieved this purpose since the community is still living in poverty. In addition, the mining activities have created new burdens for the community to shoulder due to the adverse economic, social, environmental, health and other negative outcomes of mining. This, therefore, raises the question of equity and fairness in sharing the benefits and burdens of mining.[243]

V. PUBLIC PARTICIPATION

It is a constitutional duty for the state to encourage public participation in the management, protection and conservation of the environment[244] The Public Participation Bill of 2016 states that public participation in governance processes shall be guided by several principles, including: that the public, communities and organisations to be affected by a decision shall have a right to be consulted and involved in the decision making process; provision of effective mechanisms for the involvement of the public, communities, organizations and citizens that would be affected by or that would be interested in a decision; participants' equitable access to the information they need to participate in a meaningful manner; that public views shall be taken into consideration in decision making; development of appropriate feedback mechanisms; and promotion of sustainable decisions recognising the needs and interests of all participants, including decision makers.[245] Properly executed public participation has the capability of enhancing accountability and therefore the acceptability of environmental decisions. This results in less litigation, fewer delays and better implementation of decisions.[246]

Additionally, to ensure proper public participation the national values as envisaged under the Constitution should be upheld, including but not limited to sustainable development.[247] Public participation and sustainable development are central and interconnected in the development

240 ibid

241 ibid p18.

242 Ibid.

243 Ibid,p20.

244 Article 69(1) (d), The Constitution of Kenya 2010.

245 Section 4, Public Participation Bill, 2016.

246 Benjamin J Richardson and Stepan Wood(eds), *Environmental Law for Sustainability*, (Hart Publishing 2006).p.166.

247 Section4,Public Participation Bill,2016.

discourse.[248] This is because sustainability relies heavily on the way economic, social and environmental considerations have been integrated in decision-making.[249] Nationally, the state is the representative of the people and is expected to represent their interests, but the reality is the opposite. This can be attributed to a number of competing interests and points of view. As a result, segments of the population, especially the host communities, have been disenfranchised and become passive spectators of the development projects in their locality.[250] This has been evident in the case of titanium mining in Kwale.

Community-based initiatives and collaborative planning processes among the mining companies, the affected citizens, the government and environmental groups lay a strong foundation for sustainable development strategies.[251] This means that broad public involvement helps to address both environmental protection and economic growth concerns. This is because when these stakeholders are involved in decision-making, they are able to mutually define problems and co-author solutions.[252]

In order to ensure a wider reach for public participation purposes the authority leading the exercise may employ television stations, information communication technology centres, websites, community radio stations, public meetings and traditional media.[253] This is in an attempt to ensure that stakeholders have fair and equal access to the public participation process and the opportunity to influence the intended decision.[254]

The High Court of Kenya has pronounced itself concerning the issue of public participation in environmental governance in the *Mui Basin Coal Local Community* case. The court stipulated the minimum requirements for public participation to be deemed proper.

The first aspect is that the government agency or public official involved should craft a programme of public participation that corresponds with the nature of the subject matter.

Second, public participation calls for innovation and personalization, depending on the nature of the subject matter, culture, logistical constraints and so forth. Thus, no single regime or programme of public participation could be prescribed for all types of projects. As such, the court can only test the effectiveness of the mechanisms used in achieving public participation.[255]

248 UNECA, 'Improving public participation in the sustainable development of mineral resources in Africa'<http://www1.uneca.org/Portals/sdra/sdra1/chap6.pdf> Accessed on 10/11/2018.

249 Benjamin J, Richardson and Stepan Wood (eds), *Environmental Law for Sustainability*, (Hart Publishing 2006).p.166.

250 UNECA, 'Improving public participation in the sustainable development of mineral resources in Africa'<http://www1.uneca.org/Portals/sdra/sdra1/chap6.pdf> Accessed on 10/11/2018.

251 Emilian Geczi, "Sustainability and Public Participation: Toward an Inclusive Model of Democracy", Taylor & Francis, Ltd: Administrative Theory & Praxis, Vol. 29, No. 3 (Sep., 2007), pp. 375-393.

252 Ibid

253 Clause 4(2), Schedule, General Public Participation Guidelines, Public Participation Bill 2016.

254 ibid

255 Mui Coal Basin Local Community & 15 others v Permanent Secretary Ministry of Energy & 17 others [2015] eKLR.

Third, irrespective of how the programme of public participation was fashioned, it has to include access to and dissemination of relevant information. Fourth, public participation would not require everyone to offer their views on environmental governance. However, a public participation programme would have to show inclusivity and diversity and any clear and intentional attempts to lock out *bona fide* stakeholders would render the public participation programme ineffective and illegal by definition. In order to assess inclusivity in designing a public participation programme, the government agency or public official would have to consider the subsidiarity principle. The subsidiarity principle means that those who would be most affected by a policy, legislation or action have a bigger say in that policy, legislation or action and their view would be sought more deliberately and taken into account.[256]

Public participation continues to be one of the major problems impacting on the titanium project in Kwale. The mining company has had various consultations and public participation at levels targeting government authorities and the affected communities. However, the modes of conducting the public participation have been questionable[257] For example, at the community level, the major mode of communication was through public meetings, the 'baraza'. The problem with this approach is that it is usually driven by a government officer like the chief, who calls a regular general meeting assumed to propagate policies and positions on issues. These statements are usually misconstrued as government development agenda, thus misleading the public. [258]

Therefore, the critical concern is the level to which the affected and interested parties were involved, bearing in mind that the scale of the impacts could stretch outside the mining area. As such, there is need to include the views of as many interested parties as possible, among them local universities as well as research and development institutions in making plans for public participation. The result of the public participation carried out in respect to the Kwale titanium project has been poor information disclosure by both the project proponent and the relevant government departments dealing with the issue.[259]

This has been recently highlighted by the Kwale County Woman Representative walking out of a forum as the Cabinet Secretary for Mining unveiled a declaration allowing Base Titanium to expand their exploration.[260] The Woman Representative, an elected Member of the National Assembly, was concerned that the said declaration was passed without public participation from the communities that would be directly affected by the expansion of the mining project. The representative further stated that the forum was meant to be a public information education workshop and that the venue was suddenly changed from Ukunda Showground to a private hotel.

256 ibid

257 JOZ Abuodha & PO Hayombe 'Protracted Environmental Issues on a Proposed Titanium Minerals Development in Kenya's South Coast', Marine (Georesources & Geotechnology 2006), 24:2, 63-75, DOI: 10.1080/10641190600704251.

258 ibid

259 Ibid

260 Chari Suche, 'MP Juma storms out of forum, protests mining' (The Star News, 2018)< https://www.the-star.co.ke/news/2018/05/16/mp-juma-storms-out-of-forum-protests-mining_c1758738> Accessed on 9/11/2018.

The Woman Representative reiterated that the residents who would be directly affected must be involved and their grievances addressed.[261]

Public participation commences when there is free, prior and informed consent where the community as a whole is given all the necessary information on the benefits and burdens of mining and are allowed to make an informed decision on whether mining should occur on their land or not. The host community is key in this process because they are the ones directly affected by mining activities.[262] This starts from the onset by displacement of the community once the minerals are discovered and the land is acquired compulsorily and converted to public land. The effects of the mining activities follow the host community because any adverse effects emerging from the mining site affect them directly. However, mining activities do bring social economic development to the host communities. Due to the mixed impacts that all these changes bring to the host community, it is important that the community is consulted comprehensively and informed with clarity about the kind of activities that the mining corporation intends to introduce and how they will affect their livelihoods.[263]

The Mining Act calls for the implementation of a community development agreement between the community and the mining company. However, this is pegged on prescriptions by regulations that are yet to be promulgated.[264]

The local community has criticised the Kwale mining project for not employing public participation properly.[265] It is contended that only a few elders were invited to participate in decision making, with over 80 per cent of the population stating that they were not invited to participate in the process. [266] The lack of participation in decision-making has created a negative perception of titanium mining among the host communities in Kwale, with most of the citizens being unsupportive of the operation.[267] The communities have however asserted their right to be involved in decision-making on the conception, design and implementation of development projects. The lack of participation is bound to generate resentment and conflict, creating operational and production risks for Base Titanium. This is already being experienced with Base Titanium finding it difficult to access new land for titanium exploration, with local communities refusing to allow further excavation on their land.[268]

261 Ibid

262 Economic and Social Rights Centre(Hakijamii), " Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti" (2017).p38.

263 ibid

264 Section 47(2,g),Mining Act No.12 of 2016).

265 Economic and Social Rights Centre (Hakijamii), 'Titanium Mining Benefit Sharing in Kwale County: A Comprehensive Analysis of the Law and Practice in the Context of Nguluku and Bwiti' (2017).p39.

266 Ibid

267 Ibid,)p39.

268 Ibid, p40.

VI. TOWARDS SUSTAINABLE MINING OF TITANIUM IN KWALE

There is need to balance the social effects of titanium mining on the local population in Kwale. There is also the imperative need to balance developmental needs with the requirements for a clean and healthy environment. Such a balance will inevitably lead to sustainable mining. The issue of compulsory acquisition is what has to be canvassed first if any mining development is to take place. This acquisition has been provided for in the Constitution of Kenya, 2010, as well as in the Land Act. Despite these legal provisions, compulsory land acquisitions continue to be a major bottleneck both for the mining companies and the local inhabitants who face dispossession of their land. Local resident suffer cultural encroachment and invasion by such acquisition. On the other hand, the mining company is faced with numerous court cases that could derail the project and eventually costing them huge sums of money. In order to address this issue, the National Land Commission should publish criteria and guidelines on compulsory acquisition as envisaged in the Land Act. This will provide clarity on the hazy issue of compulsory land acquisition and each stakeholder will know what to expect from whom.

The absence of benefit sharing and equitable utilization of resources is the other key aspect hampering sustainable mining in Kwale. The essence of benefit sharing as discussed earlier is to generate broad-based socio-economic development that uplifts the standard of living of the local community. The Land Act envisages benefit sharing in terms of job opportunities for local populations, social amenities, infrastructure and the royalties the mining company pays, of which 10 per cent is to be channeled to the local community. However, for proper benefit sharing to be realized, proper legal systems operationalising the provisions of the Land Act must be in place. There is therefore need to enact the Local Content Bill of 2018 and the Natural Resources (Benefit Sharing) Bill of 2016. Lack of equitable sharing of mining proceeds has left the Kwale community in the same abject poverty they were in before.

Public participation is the other aspect that has to be observed for sustainable mining in Kwale to take place. Public participation is a crucial component in the management, protection and conservation of the environment. The concept of sustainable development must be put into consideration. This is because broad public involvement helps to address both environmental protection and economic development, hence sustainable mining. However, public participation is an intricate exercise and details of how it should be administered and the extent it should go require legal guidance. As seen in the above discussion, poor public participation continues to bedevil the titanium mining project in Kwale even as the Base Titanium Company seeks to expand its exploration in Kwale in 2018 in the face of local resistance. There is therefore the urgent need to enact the Public Participation Bill to guide proper public participation and foster sustainable mining of titanium in Kwale.

VII. CONCLUSION

This chapter set out to examine sustainable mining practices in Kenya with a special focus on titanium mining in Kwale. It is clear from the discussion that sustainable mining has been hampered by the practice of compulsory land acquisition and the concerns that arise from compensation. In addition, the issue of benefit sharing and equitable utilization of the mining proceeds has also negatively affected mining activities in Kwale. The absence of adequate public participation has been discussed as major issue affecting the sustainable development of the mining sector.

Chapter 25

Natural Resource Conflicts in Kenya: Effective Management for Attainment of Environmental Justice

Kariuki Muigua

I. INTRODUCTION

This chapter is relevant as far as the work of Prof Okidi is concerned as it seeks to build on some of the aspects of his works on environmental and natural resource management in Kenya and Africa to achieve the sustainable development agenda.

Professor Okidi has contributed extensively on the subject of environmental law, with his works addressing such themes as the role of environmental law and its relationship to the other areas of law,[1] especially in relation to the sustainable development agenda, and historical development of environmental law in Kenya, among others. His work has been critical in not only pointing out the gaps and challenges in implementing environmental law in Kenya but has also helped to shape it in line with international best practices in environmental conservation and protection.[2] His research and works have also explored institutional and policy arrangements for environmental and natural resources management.[3]

Notably, Prof Okidi has also discussed environmental and natural resource conflicts and how shrinking resources fuel these conflicts, especially in Africa.[4] The pursuit of sustainable development seeks to strike a balance between countries' development goals and environmental necessities. The potential clash between the two competing goals, coupled with dwindling environmental resources, is bound to give rise to some form of conflict between and among the affected communities as well as between these communities and state actors. The arising issues are critical as they involve balancing the inherent needs and interests of the communities against the development policies of the country.

1 See generally, CO Okidi, 'Incorporation of General Principles of Environmental Law into National Law with Examples from Malawi' (1997) 27(4) Environmental Policy and Law 327.

2 CO Okidi, Review of the Policy Framework and Legal and Institutional Arrangements for the Management of Environment and Natural Resources in Kenya, (1994).

3 See generally, CO Okidi, P Kameri-Mbote & M Akech (eds), *Environmental governance in Kenya: implementing the framework law* (Nairobi: East African Educational Publishers Limited, 2008).

4 See generally CO Okidi, 'Environmental Stress and Conflicts in Africa: Case Studies of Drainage Basins," (Nairobi: Acts Press; Ecopolicy Series No. 6, 1994), In: ISBN 92-807-1763-4, The Cleveland Museum of Natural History; 1994 (As quoted in Obi, C.I., „Resources, Population and Conflicts: Two Africa Case Studies," Africa Development 24, no. 3 (1999): 47-70 at p.63).

Also closely related to the topic of conflict management is capacity building for the enforcement of environmental law. This is in recognition of the fact that one of the principles of sustainable development, which heavily impacts on the effectiveness of the enforcement and compliance with environmental laws, is public participation. Capacity building also includes empowering communities to participate in environmental governance. Environmental governance is expected to adhere to values such as transparency, accountability, public participation in decision-making and freedom of association.[5] This is also well captured under the current Constitution of Kenya, which outlines all the national values and principles of governance that bind all State organs, State officers, public officers and all persons whenever any of them: applies or interprets the Constitution; enacts, applies or interprets any law; or makes or implements public policy decisions.[6]

It is in light of the foregoing that this chapter seeks to add to the literature on conflict management by discussing the applicability of Alternative Dispute Resolution (ADR) and Traditional Dispute Resolution (TDR) mechanisms in addressing environmental and natural resource conflicts in Kenya. ADR and TDR mechanisms are also arguably viable channels of achieving some of the ideals of effective environmental and natural resource governance, as discussed in this chapter.

The chapter explores how ADR, and especially negotiation and mediation, can be employed as effective tools for conflict management and empowerment of people for participation in natural resource governance matters to improve the socio-economic outcomes of communities through enhanced environmental justice and equitable sharing of accruing benefits.

If the aspirations of the Kenyan people are to be met, then it has to be in a secure and peaceful environment and one that allows people to make decisions regarding their own affairs and can access justice. It would also be based on the values of human rights protection, equality, freedom, democracy, social justice and the rule of law as envisaged in the preamble to the Constitution of Kenya, 2010.[7] For people to participate effectively in decision-making, they need to be empowered. The participatory mechanisms used need to accommodate people's voices in the whole process.

Empowerment in this context means a multi-dimensional social process that helps people gain control over their own lives, through fostering power (the capacity to implement) in people, for use in their own lives, their communities, and in their society, by acting on issues that they define as important.[8] It is also a social-action process that promotes participation of people, organizations, and communities towards the goals of increased individual and community control, political efficacy, improved quality of community life, and social justice.[9] It includes the expansion of assets and capabilities of poor

5 LA Feris, 'The role of good environmental governance in the sustainable development of South Africa' (2010) 13(1) *Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad* 72, 75.

6 Constitution of Kenya 2010, art. 10.

7 Preamble, Constitution of Kenya, (Government Printer, Nairobi 2010).

8 PN Nanette & CE Czuba, 'Empowerment: What Is It?'(1999) [37(5)] *Journal of Extension* Commentary, 5COM1.

9 N Wallerstein, 'Powerlessness, empowerment and health: Implications for health promotion programs' (1993) 6(3) *American Journal of Health Promotion* 197 (As quoted in J Lord and P Hutchison, 'The Process of Empowerment: Implications for Theory and Practice' (1993) 12(1) *Canadian Journal of Community Mental Health* 5, 4.); See also generally, CO Okidi, 'Management of Natural Resources and the Environment for self-reliance' (1984) 14 *Journal of Eastern African Research & Development* 92.

people to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lives.[10]

Empowered people are capable of appreciating all the aspects of governance, and specifically natural resource governance, and where there is conflict they can effectively participate in the process of finding solutions for justice and peace. The Constitution contemplates a situation where people will not only participate in governance matters through representative leadership but also actively voice their own views.[11]

II. ACCESS TO JUSTICE AND RULE OF LAW

Access to justice is an essential component of the rule of law. Rule of law has been touted as the foundation for both justice and security.[12] A comprehensive system of rule of law should be inclusive in that all members of a society must have equal access to legal procedures based on a fair justice system applicable to all. It promotes equality before the law and it is believed that rule of law is measured against the international law in terms of standards of judicial protection.[13] Therefore, without the rule of law, access to justice becomes a mirage.

Realization of the right of access to justice can only be as effective as the available mechanisms to facilitate the same. It has correctly been noted that a right is not just the ability to do something that is among your important interests (whatever they are), but a guarantee or empowerment to actually do it, because it is the correct thing that you have this empowerment.[14] In some instances, non-governmental organisations (NGOs) have assisted communities in the quest for access to justice through the judicial system. Access to justice through formal courts is often difficult for Kenyans due to high court fees, illiteracy, and geographical location of the courts, amongst other hindrances.[15] Not surprisingly, the Constitution creates various avenues for enhancing access to justice in Kenya. It includes provisions specifically providing for access to justice, public participation, ADR and TDR mechanisms and the overhaul of the judicial system.[16]

It has been contended that in the absence of access to justice, people are unable to have their

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10 World Bank, Chapter 2. What Is Empowerment?11. <http://siteresources.worldbank.org/INTEMPOWERMENT/Resources/486312-1095094954594/draft2.pdf > Accessed 12 December 2015.

11 Constitution of Kenya, Art. 10.

12 United Nations Development Programme, 'Access to Justice and Rule of Law.' <http://www.undp.org/content/undp/en/home/ourwork/democraticgovernance/focus_areas/focus_justice_law/ > accessed on 12 December 2015.

13 Dag Hammarskjold Foundation, 'Rule of Law and Equal Access to Justice' Discussion Paper, January 2013, 1. <http://www.sida.se/PageFiles/89603/RoL_Policy-paper-layouted-final.pdf> accessed 13 December 2015.

14 The Hendrick Hudson Lincoln-Douglas, Philosophical Handbook, Version 4.0 (including a few Frenchmen) 4, <http://www.jimmenick.com/henhud/hhldph.pdf > accessed 13 December 2015.

15 The Danish Institute for Human Rights, 'Access to Justice and Legal Aid in East Africa: A comparison of the legal aid schemes used in the region and the level of cooperation and coordination between the various actors' *A report by the Danish Institute for Human Rights, based on a cooperation with the East Africa Law Society, 2011.* <http://www.humanrights.dk/files/media/billeder/udgivelser/legal_aid_east_africa_dec_2011_dihr_study_final.pdf > accessed 13 December 2015.

16 Constitution of Kenya 2010, Ch. 10.

voice heard, exercise their rights, challenge discrimination or hold decision-makers accountable.[17] Arguably, negotiation and mediation are capable of affording people the required voice for participation in natural resource-related conflicts management. Effective environmental rule of law should ultimately aim at achieving environmental justice for the people.

III. NATURAL RESOURCE MANAGEMENT AND CONFLICTS

Wherever there is extraction of natural resources, conflicts are bound to arise. Natural resources play a key role in triggering and sustaining conflicts.[18] For instance, it has been argued that, Africa's recent economic, political, environmental and epidemiological crises have rendered livelihoods more vulnerable, reinforcing the value of land, as people seek it for security.[19] Land and resource disputes, it is asserted, run the danger of generating more and deeper divisions, undermining the foundations of society, and reducing its ability to deal with larger-scale political and social conflicts in a peaceful manner.[20]

It is, therefore, necessary to have efficacious mechanisms for managing those conflicts. Conflicts are tensions that arise out of competing interests in respect of the natural resources in question. They must be managed effectively and in ways that leave the parties feeling that justice has been done for them. People evaluate both their own experience and views about the general operation of the legal system against a guide of fair procedures that involve neutrality, transparency, and respect for rights, issues that also form the basis for the rule of law.[21]

Procedural justice in general legal language is used to refer to the fairness of a process by which a decision is reached. In contrast, procedural justice in psychology entails the *subjective* assessments by individuals of the fairness of a decision making process.[22] Justice must demonstrate *inter alia* fairness, affordability, flexibility, rule of law, equality of opportunity, even-handedness, procedural efficacy, party satisfaction, non-discrimination and human dignity. Any process used in facilitating access to justice must rise above parties' power imbalances to ensure that the right of access to justice is enjoyed by all and is not dependent on parties' social status.

It is also noteworthy that conflicts may be culture-specific. For instance, it has been observed that although Africa's natural resource and land disputes are clearly economic and, increasingly, class-based conflicts, they are not reducible to these dimensions alone. These conflicts occur within a

17 United Nations Development Programme (n 12) above.

18 SB Maphosa., 'Natural Resources and Conflict: Unlocking the economic dimension of peace-building in Africa' *Africa Institute of South Africa Policy Brief* 2.

19 AP Castro, 'Developing Local Capacity for Management of Natural Resource Conflicts in Africa: A Review of Key Issues, Approaches, and Outcomes' Paper prepared for SANREM-CRSP, Final Draft, April 2005, 7.

20 ibid 8.

21 RH Blumoff. & TR Tyler, 'Procedural Justice and the Rule of Law: Fostering Legitimacy in Alternative Dispute Resolution' (2011) (1)2 *Journal of Dispute Resolution* 3.

22 ibid 3.

sociocultural context, shaping and being shaped by it.[23] It therefore, follows that any approaches that are employed in dealing with such conflicts must take into account the underlying socio-cultural factors that either gave rise to the conflict or contributed in fuelling such conflict.

IV. NATURAL RESOURCE MANAGEMENT AND ENVIRONMENTAL JUSTICE

Environmental justice is defined to refer to equity in the distribution of environmental benefits and in the prevention and reduction of environmental burdens across all communities.[24] It is also defined as the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.[25]

According to the *1st Africa Colloquium on Environmental Rule of Law, Nairobi Statement*,[26] the participants were of the opinion that the realization of sustainable development in Africa and the prosperity of its people hinges on the sustainable management of its unique and rich natural resources.[27] They opined that leveraging these resources towards achieving food security, industrialization, energy sufficiency and socially inclusive economic growth in an environmentally sustainable manner will create equal opportunities for all and eliminate poverty for the benefit of present and future generations.[28] This affirms the important role that effective management of natural resources plays in facilitating social and economic development.

In order to further advance the development and implementation of environmental rule of law in the region, the participants in the colloquium were of the opinion that it is necessary to, *inter alia*: emphasize that advancing environmental rule of law, including information disclosure, public participation, implementable and enforceable laws, implementation and accountability mechanisms, including coordination of roles, and environmental auditing and criminal, civil and administrative enforcement with timely, impartial and independent dispute resolution, is critical for Africa's future.[29] According to them, it provides a predictable, dependable and solid foundation for improved environmental governance across the continent. Without environmental rule of law and the enforcement of legal rights and obligations, environmental governance may be ineffective, arbitrary, subjective and unpredictable.[30]

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23 AP Castro (n 19) 8.

24 DM Purifoy, 'Food Policy Councils: Integrating Food Justice and Environmental Justice,' XXIV Duke Environmental Law & Policy Forum 375.

25 United States Environmental Protection Agency, 'What is Environmental Justice?' <http://www3.epa.gov/environmentaljustice/ > accessed 13 December 2015.

26 1st Africa Colloquium on Environmental Rule of Law, Nairobi, Kenya, 16 October 2015.

27 ibid 1.

28 ibid.

29 ibid.

30 ibid.

Though the Statement is not a negotiated document, but rather a reflection of the views of the participants, these suggestions offer an insight on achieving environmental rule of law for the African people and what governments should do in the quest for justice for the people.

Access to justice in Kenya especially for the poor and marginalised groups of persons is still a mirage. This is due to the fact that access to justice is not just about presence of formal courts in a country but also entails the opening up of those formal systems and legal structures to the disadvantaged groups in society, removal of legal, financial and social barriers such as language, lack of knowledge of legal rights and intimidation by the law and legal institutions.[31] Access to justice has two dimensions to it namely: procedural access (fair hearing before an impartial tribunal) and substantive justice (fair and just remedy for a violation of one's rights).[32]

Arguably, this has not yet been achieved in our country and the result is that poor people are often condemned to a life of misery without any viable recourse to alleviate the injustices. The end result is that these disadvantaged people harbour feelings of bitterness, marginalization, resentment and other negative feelings that also affect the stability and peace of the country. Such scenarios have been the causes of ethnic or clan animosity in Kenya.[33] This calls for legal empowerment of the people to access environmental justice. Legal empowerment of the poor seeks to establish the rule of law and ensure equal and equitable access to justice and tackle the root causes of exclusion, vulnerability and poverty.[34] Strengthening the rule of law is also seen as an important contributor to the legal empowerment of the poor.[35]

Further, legal empowerment is also hailed as capable of promoting a participatory approach to development as well as recognizing the importance of engaging civil society and community-based organizations to ensure that the poor and the marginalized have identity and voice.[36] Such an approach, it is believed, can strengthen democratic governance and accountability, which, in turn, can play a critical role in the achievement of the internationally agreed development goals, including the Millennium Development Goals (MDGs).[37] It is however, noteworthy that MDGs have been replaced by the sustainable development goals (SDGs) as developed during the United Nations Summit in New York on September 25-27, 2015.[38]

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31 Global Alliance against Traffic in Women (GAATW)<http://www.gaatw.org/atj/ > accessed 9 March 2015.

32 ibid.

33 Republic of Kenya, *Report of the Judicial Commission Appointed to Inquire into Tribal Clashes in Kenya'*, (the ‚Akiwumi Commission') (Government Printer: Nairobi, 1999).

34 UN General Assembly, Legal empowerment of the poor and eradication of poverty: resolution / adopted by the General Assembly, 5 March 2009, A/RES/63/142, para. 5.

35 ibid, para. 3.

36 ibid, Para. 4.

37 ibid, para. 4.

38 Transforming our world: the 2030 Agenda for Sustainable Development, adopted by the United Nations General Assembly at the UN Summit on September 25-27, 2015 in New York, A/RES/70/1.

V. ANCHORING ENVIRONMENTAL JUSTICE AND RULE OF LAW IN THE LEGAL AND INSTITUTIONAL FRAMEWORK

The *Universal Declaration of Human Rights of 1948* (UDHR)[39] provides that all are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of the Declaration and against any incitement to such discrimination.[40] Further, it provides that everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.[41] Also important is the provision that everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of their rights and obligations and of any criminal charge against them.[42] These provisions are meant to promote the right of all persons to access justice.

The rule of law is also one of the goals as enumerated in the Sustainable Development Goals (SDGs).[43] Goal 16 provides for the promotion of just, peaceful and inclusive societies. It states that peace, stability, human rights and effective governance based on the rule of law are important conduits for sustainable development. It further states that high levels of armed violence and insecurity have a destructive impact on a country's development, affecting economic growth and often resulting in long standing grievances among communities that can last for generations. Sexual violence, crime, exploitation and torture are also prevalent where there is conflict or no rule of law, and countries must take measures to protect those who are most at risk. The SDGs aim to significantly reduce all forms of violence, and work with governments and communities to find lasting solutions to conflict and insecurity. Strengthening the rule of law and promoting human rights is key to this process, as is reducing the flow of illicit arms and strengthening the participation of developing countries in the institutions of global governance.[44] The *African (Banjul) Charter on Human and Peoples' Rights*[45] provides in its preamble that it was adopted in consideration of the Charter of the Organization of African Unity stipulation that "freedom, equality, justice and dignity are essential objectives for the achievement of the legitimate aspirations of the African peoples".

According to UNEP, environmental rule of law integrates the critical environmental needs with the essential elements of the rule of law, and provides the basis for reforming environmental governance.[46] It prioritizes environmental sustainability by connecting it with fundamental rights and obligations. It implicitly reflects universal moral values and ethical norms of behaviour, and it pro-

39 UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III).

40 Universal Declaration of Human Rights, Art. 7.

41 ibid Art. 8.

42 ibid Art. 10.

43 Transforming our world: the 2030 Agenda for Sustainable Development.

44 ibid Goal 16.

45 Adopted June 27, 1981, OAU Doc. CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982), entered into force Oct. 21, 1986.

46 UNEP, 'Environmental Rule of Law: Critical to Sustainable Development,' Issue Brief, May 2015 <http://www.unep.org/delc/Portals/24151/Documents/issue-brief-environmental-justice-sdgs.pdf > accessed 12 December 2015.

vides a foundation for environmental rights and obligations. Without environmental rule of law and the enforcement of legal rights and obligations, environmental governance may be arbitrary, that is, discretionary, subjective, and unpredictable.[47] It is therefore important that the environmental rule of law be entrenched in the environmental governance framework in the country so as to create a conducive environment for the realisation of access to environmental justice for all.

Under the East African Community Treaty – 1999, the objectives of the Community are to develop policies and programmes aimed at widening and deepening cooperation among the Partner States in political, economic, social and cultural fields, research and technology, defence, security and legal and judicial affairs, for their mutual benefit.[48] For these purposes, and as subsequently provided in particular provisions of this Treaty, the Community is to ensure *inter alia*: the attainment of sustainable growth and development of the Partner States by the promotion of a more balanced and harmonious development of the Partner States; and the promotion of peace, security, and stability within, and good neighbourliness among the Partner States.[49]

The fundamental principles that are to govern the achievement of the objectives of the Community by the Partner States include *inter alia*: mutual trust, political will and sovereign equality*;* peaceful co-existence and good neighbourliness; and peaceful settlement of disputes.[50]

The Treaty confers the East Africa Court of Justice (EACJ)[51] with the jurisdiction to hear and determine any matter *inter alia*: arising from an arbitration clause contained in a contract or agreement which confers such jurisdiction to which the Community or any of its institutions is a party; or arising from a dispute between the Partner States regarding this Treaty if the dispute is submitted to it under a special agreement between the Partner States concerned. The EACJ acts as the main institutional instrument for settling disputes among members of the East African Community, namely Kenya, Tanzania, Uganda, Rwanda, and Burundi. EACJ thus demonstrates concerted efforts towards averting natural resource based conflicts in East African community.

The *Protocol on Environment and Natural Resources Management* provides for cooperation in Environment and natural resources management.[52] More specifically, under article 13 related to the management of water resources, the protocol has these provisions: The partner States are to

47 ibid.

48 East Africa Community Treaty, Article 5.

49 ibid, Article 5.3.

50 ibid, Article 6.

51 A legal case was filed in EACJ in December 2010 by the Africa Network for Animal Welfare (ANAW), a Kenya non-profit organization, challenging the Tanzanian government's decision to build a commercial highway across the Serengeti National Park. On June 20, 2014, the court ruled that the government of Tanzania could not build a paved (bitumen) road across the northern section of the Serengeti, as it had planned. It issued a permanent injunction restraining the Tanzanian government from operationalising its initial proposal or proposed action of constructing or maintaining a road of bitumen standard across the Serengeti National Park subject to its right to undertake such other programmes or initiate policies in the future which would not have a negative impact on the environment and ecosystem in the Serengeti National Park. See Serengeti Legal Defence Fund, available at a,http://www.savetheserengeti.org/serengeti-legal-defense-fund/> accessed 13 December 2015.

52 Protocol on Environment and Natural Resources Management, Chapter Three.

develop, harmonize and adopt common national policies, laws and programmes relating to the management and sustainable use of water resources and are to utilize water resources, including shared water resources, in an equitable and rational manner. From these provisions, it is clear that ADR mechanisms may play an important role in resolving any disagreements that arise from the exploitation of the resources. For instance, Prof. Okidi has rightly pointed out that international cooperation is unquestionably necessary when it comes to sharing shared resources such as water.[53] Arguably, ADR mechanisms are uniquely applicable in addressing any disputes or conflicts due to their special characteristics, which include enhanced parties' negotiation aimed at addressing their needs and interests unlike in judicial mechanisms.

VI. ENVIRONMENTAL JUSTICE AND THE ROLE OF THE JUDICIARY

The *Rio+20 Declaration on Justice, Governance and Law for Environmental Sustainability* declares that an independent judiciary and judicial process are vital for the implementation, development and enforcement of environmental law, and members of the judiciary, as well as those contributing to the judicial process at the national, regional and global levels, are crucial partners for promoting compliance with, and the implementation and enforcement of, international and national environmental law.[54] It affirms that judges, public prosecutors and auditors have the responsibility to emphasize the necessity of law to achieve sustainable development and can help make institutions effective.[55]

The Declaration further calls on States to cooperate to build and support the capacity of courts and tribunals as well as prosecutors, auditors and other related stakeholders at the national, sub-regional and regional levels to implement environmental law and to facilitate exchanges of best practices in order to achieve environmental sustainability by encouraging relevant institutions, such as judicial institutes, to provide continuing education.[56]This demonstrates that Courts and the judicial system as a whole do still have an important role to play in the realisation of environmental justice for all, through enforcement of environmental law. Environmental law is deemed essential for the protection of natural resources and ecosystems and reflects the humankind's best hope for the future of the planet.[57]

Under the constitution of Kenya, the State is obligated to ensure access to justice for all persons and, if any fee is required, it shall be reasonable and it should not impede access to justice.[58] Courts are the State machinery for access to justice and must therefore be bound by this constitutional requirement.

53 CO Okidi, 'The State and the Management of International Drainage Basins in Africa' (1988) 28(4) *Natural Resources Journal* 645, 654; see also CO Okidi, 'Review of treaties on consumptive utilization of waters of Lake Victoria and Nile drainage system' (1982) 22(1) *Natural Resources Journal* 161.

54 Rio+20 Declaration on Justice, Governance and Law for Environmental Sustainability, Declaration No. I.

55 ibid.

56 ibid.

57 ibid.

58 Constitution of Kenya 2010, art. 48.

Effective national environmental governance complements efforts to improve international mechanisms for environmental protection.[59]

The content and scope of this right has been said to be far reaching, infinite and encompasses *inter alia*, the recognition of rights, public awareness, understanding and knowledge of the law, protection of those rights, the equal access by all to judicial mechanisms for such protection; the respectful, fair, impartial and expeditious adjudication of claims within the judicial mechanism; easy availability of information pertinent to one's rights; equal right to the protection of one's rights by the legal enforcement agencies; easy entry into the judicial justice system; easy availability of physical legal infrastructure; affordability of the adjudication engagement; cultural appropriateness and conducive environment within the judicial system; timely processing of claims; and timely enforcement of judicial decisions.[60] Access to justice has further been enhanced by the recognition of public interest litigation in environmental matters, which overcomes the limitations on showing legal standing/ *locus standi*.

With regard to environmental and natural resource management, courts have restated their important role in the quest for sustainable development. For instance, in the cases of *Waweru v Republic* (2007)[61] and *Friends of Lake Turkana Trust v Attorney General & 2 others* [2014] eKLR[62] courts have taken an active role of promoting environmental protection and averting potential natural resource based conflicts.[63] In the case of *Waweru v Republic*, the Court reiterated the position of Section 3 of Environment (Management and Conservation) Act 1999 (EMCA), which requires that courts take into account certain universal principles when determining environment cases. It also went further to state that apart from the EMCA it was of the view that the principles set out in section 3 do constitute part of international customary law and the courts ought to take cognisance of them in all the relevant situations. It therefore had a role in promoting sustainable development. Further, Article 22(1) of the constitution provides that every person has the right to institute court proceedings claiming that a right or fundamental freedom in the Bill of Rights has been denied, violated or infringed, or is threatened.

In the Ugandan case of *Greenwatch v Attorney General and Another Misc. Cause N. 140/2002,* an action was taken against the Attorney General and NEMA under Article 50 of the Constitution for *inter alia* failing or neglecting their duties towards the promotion or preservation of the environment. It was held that the state owes that duty to all Ugandans and any concerned Ugandan has right of action against the Government and against NEMA for failing in its statutory duty.

All over the world, the Judiciary remains a crucial partner for promoting environmental law enforce-

59 S Fulton & A Benjamin, 'Effective National Environmental Governance – A Key to Sustainable Development,' 2. <http://inece.org/conference/9/papers/Fulton-Benjamin_US-Brazil_Final.pdf> accessed 13 December 2015.

60 <http://kenyanjurist.blogspot.com/2011/07/kituo-cha-sheria-and-access-to-justice.html > accessed 10 October 2018.

61 AHRLR 149 (KeHC 2006), High Court of Kenya at Nairobi, Misc. Civ Application No. 118 of 2004, 2 March 2006.

62 ELC Suit No. 825 of 2012.

63 The Court directed that the Government of Kenya, the Kenya Power and Lighting Company Limited, and the Kenya Electricity Transmission Company Limited should forthwith take the necessary steps and measures to ensure that the natural resources of Lake Turkana are sustainably managed, utilized and conserved in any engagement with, and in any agreements entered into or made with the Government of Ethiopia (including its parastatals) relating to the purchase of electricity.

ment and compliance, as well as for shaping the content of legal principles and norms.[64] For instance, where the other proposed approaches to public participation do not fully satisfy the valid interests and genuine needs of a certain group or stakeholders, these people have the opportunity to challenge both the decision-making process and its outcomes through administrative appeals and litigation.[65] The Kenyan Environment and Land Court is empowered to hear and determine applications for redress of a denial, violation or infringement of, or threat to, rights or fundamental freedom relating to a clean and healthy environment under Articles 42, 69 and 70 of the Constitution.[66] Where applicable, the Court is empowered to adopt and implement, on its own motion, with the agreement of or at the request of the parties, any other appropriate means of alternative dispute resolution including conciliation, mediation and traditional dispute resolution mechanisms in accordance with Article 159(2) (c) of the Constitution. Indeed, where ADR is a condition precedent to any proceedings before the Court, the Court must stay proceedings until such condition is fulfilled.[67]

The foregoing demonstrates that courts play an important role and must therefore be actively involved in the promotion and protection of the right to environmental justice. The first way is through supporting and enforcing the outcome of ADR mechanisms and secondly, by way of safeguarding the rights of persons where they are called upon to do so, for instance under Article 70 of the Constitution.

VII. ALTERNATIVE DISPUTE RESOLUTION MECHANISMS: OVERVIEW

ADR refers to all those decision-making processes other than litigation including but not limited to negotiation, enquiry, mediation, conciliation, expert determination, arbitration and others. To some writers however the term, '*alternative dispute resolution*' is a misnomer as it may be understood to imply that these mechanisms are second-best to litigation which is not true.[68] Article 33 of the *Charter of the United Nations* outlines these conflict management mechanisms in clear terms and is the legal basis for the application of alternative dispute resolution mechanisms in disputes between parties be they States or individuals. It provides that parties to any dispute shall, first of all seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.[69]

Some of the mechanisms focus on resolution while others focus on settlement. Litigation and arbitration are coercive and thus lead to a settlement. They are formal and inflexible. Settlement is

64 3rd South Asia Judicial Roundtable On Environmental Justice For Sustainable Green Development 8th & 9th August 2014, Colombo, Sri Lanka, Background Paper, 4. <http://www.asianjudges.org/wp-content/uploads/2014/08/Background-Paper-3rd-RT-Sri-Lanka-FINAL.pdf > accessed 13 December 2015.

65 J Harder, 'Environmental Mediation: The Promise and the Challenge' (1995) (19(1) Environs, 30.

66 Environment and Land Court Act 2011, Sec 13(3).

67 ibid, Sec 20.

68 P Fenn, 'Introduction to Civil and Commercial Mediation' in Chartered Institute of Arbitrators, *Workbook on Mediation* (CIArb: London, 2002) 50-52.

69 United Nations, *Charter of the United Nations*, 24 October 1945, 1 UNTS XVI.

an agreement over the issues(s) of the conflict which often involves a compromise.[70] Parties have to come to accommodations which they are forced to live with due to the anarchical nature of society and the role of power in the relationship. Basically, power is the defining factor for both the process and the outcome.[71] Settlement may be an effective immediate solution to a violent situation but it does not address the factors that instigate a conflict. The unaddressed underlying issues can later flare up when new issues or renewed dissatisfaction over old issues or the third party's guarantee runs out.[72] Settlement mechanisms may not be very effective in facilitating satisfactory access to justice (which relies more on people's perceptions, personal satisfaction and emotions).

Mediation, negotiation and the traditional dispute resolution mechanisms, on the other hand, are resolution mechanisms, which are informal, voluntary, allow party autonomy, expeditious and their outcomes are mutually satisfying. Conflict resolution refers to a process where the outcome is based on mutual problem-sharing with the conflicting parties cooperating in order to redefine their conflict and their relationship.[73] ADR mechanisms such as mediation, negotiation and conciliation allow maximum party autonomy and are flexible, informal and leave room for parties to find their own lasting solutions to their problems.[74] These advantages make resolution potentially superior to settlement.

It is, therefore, arguable that resolution mechanisms have better chances of achieving parties' satisfaction compared to settlement mechanisms. However, it is important to point out that these mechanisms should not exclusively be used but instead there should be synergetic application of the two approaches. Each of them has success stories where they have been effectively applied to achieve the desired outcome. For realisation of justice, there is need to ensure that the two are engaged effectively where applicable.

Figure 1.1 shows that there are certain methods of conflict management that can only lead to a settlement. Those that lead to a settlement fall into the category of coercive methods where parties have little or no autonomy over the forum, choice of the judges and the outcome. The coercive methods are litigation or judicial settlement and arbitration. It also shows the non-coercive methods (negotiation, mediation and facilitation) lead to resolution. In the non-coercive conflict management methods the parties enjoy autonomy over the choice of the mediator or third party, the process and the outcome. Conciliation and enquiry can be classified as coercive (when the reports emanating from them are enforced) and non-coercive, for example, when the reports are used as the basis for negotiation between the parties.

70 D Bloomfield, 'Towards Complementarity in Conflict Management: Resolution and Settlement in Northern Ireland' (1995) 32(2) Journal of Peace Research 152.

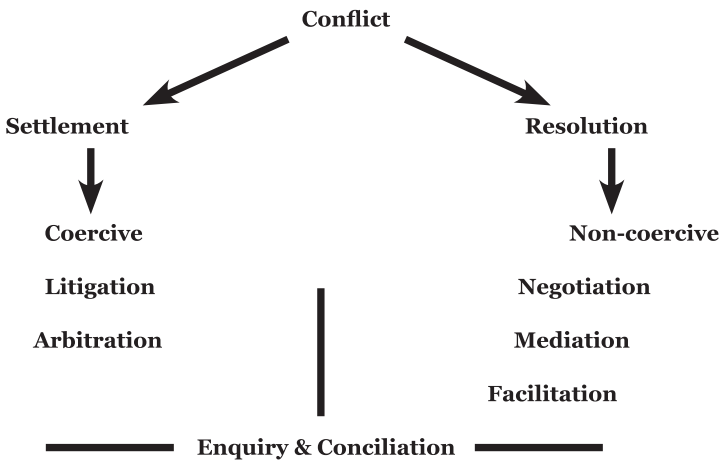
71 C Baylis & R Carroll, 'Power Issues in Mediation' (2005) 1(8) *ADR Bulletin* Art.1, 135.

72 D Bloomfield (n 70) 153.

73 ibid 153.

74 P Fenn (n 68) 10.

Figure 25.1: Methods of conflict management



*__Source:__ The author

VIII. NATURAL RESOURCE MANAGEMENT AND ALTERNATIVE DISPUTE RESOLUTION MECHANISMS

The *Rio+20 Declaration on Justice, Governance and Law for Environmental Sustainability* declares that environmental sustainability can only be achieved in the context of fair, effective and transparent national governance arrangements and the rule of law predicated on, *inter alia*: Fair, clear and implementable environmental laws; public participation in decision-making and access to justice and information in accordance with Principle 10 of the Rio Declaration including exploring the potential value of borrowing provisions from the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) in this regard; accountability and integrity of institutions and decision makers, including through the active engagement of environmental auditing and enforcement institutions; and accessible, fair, impartial, timely and responsive dispute resolution mechanisms, including developing specialized expertise in environmental adjudication and innovative environmental procedures and remedies.[75]

Also noteworthy, from the Declaration, is the affirmation that justice, including participatory decision-making and the protection of vulnerable groups from disproportionate negative environmental impacts must be seen as an intrinsic element of environmental sustainability.[76] It is therefore clear that access to justice through effective conflict management mechanisms must be part of effective natural resource management for sustainable development.[77]

75 Declaration No. II.

76 ibid.

77 United Nations Environment Programme, 'Rule of Environmental Law Essential for Sustainable Development, Inter-American Congress Concludes' (UNEP News Centre: Thu, Apr 2, 2015). at <http://www.unep.org/newscentre/Default.aspx?DocumentID=26802&ArticleID=34886&l=en >accessed 13 December 2015.

The criteria for determining procedural fairness has been identified as: First, people are more likely to judge a process as fair if they are given a meaningful opportunity to tell their story (an opportunity for voice). Second, people care about the consideration that they receive from the decision maker, that is, they receive assurance that the decision maker has listened to them and understood and cared about what they had to say. Third, people watch for signs that the decision maker is trying to treat them in an even-handed and fair manner. Finally, people value a process that accords them dignity and respect.[78]

In environmental conflicts, ADR mechanisms such as, mediation, encourage public participation and "environmental democracy" in the management of environmental resources. Conflict management mechanisms such as mediation encourage "win-win" situations, parties find their own solutions, they pursue interests rather than strict legal rights, are informal, flexible and attempt to bring all parties on board.[79] Mediation is democratic and ensures public participation in decision making, especially in matters relating to natural resource management. Public participation is a tenet of sound environmental governance and is envisaged in the Constitution. Mediation in the informal context leads to a resolution (court-annexed mediation as envisaged under the Civil Procedure Act, Cap. 21 is a settlement process) and in environmental management it involves parties' participation in development planning, decision making and project implementation. The parties must be well informed so as to make sound judgments on environmental issues.

ADR mechanisms therefore allow public participation in enhancing access to justice as they bring in an element of efficiency, effectiveness, flexibility, cost-effectiveness, autonomy, speed and voluntariness in conflict management. Some like mediation and negotiation are informal and not subject to procedural technicalities as are the court process. They are thus effective to the extent that they will be expeditious and cost-effective compared to litigation.[80]

TDR mechanisms are flexible, cost-effective, expeditious, foster relationships, are non-coercive and result to mutually satisfying outcomes. They are thus arguably appropriate in enhancing access to justice as they allow the public to participate in managing their conflicts. This ensures that less disputes get to the courts and can contribute to a reduction of case backlog. TDR mechanisms include informal mediation, negotiation, problem-solving workshop, council of elders, consensus approaches among others. In light of Article 159 (2) (c) and in relevant cases, ADR mechanisms should be used in resolving certain community disputes such as those involving use of and access to natural resources among the communities in Kenya, for enhanced access to environmental justice.

78 NA Welsh, 'Perceptions of Fairness in Negotiation' (2004) 84 *Marquette Law Review*753, 763-764.; See also generally, DB Rottman, 'How to Enhance Public Perceptions of the Courts and Increase Community Collaboration' *NACM'S 2010-2015 National Agenda Priorities* <http://www.proceduralfairness.org/Resources/~/media/Microsites/Files/proceduralfairness/Rottman%20from%20Fall%202011%20CourtExpess.ashx >accessed 13 December 2015.

79 P Fenn (n 68) 10.

80 Constitution of Kenya, Article 159 (2) (d) provides that justice shall be administered without undue regard to procedural technicalities.

IX: OPPORTUNITIES FOR ADR IN NATURAL RESOURCE RELATED CONFLICT MANAGEMENT

For the constitutional right of access to justice to be realized, there has to be a framework based on the principles of: *expedition; proportionality; equality of opportunity; fairness of process; party autonomy; cost-effectiveness; party satisfaction and effectiveness of remedies* (emphasis added).[81] The United Nations observes that measures to improve access to justice should focus on developing low-cost justice delivery models, taking into account the cost of legal services and legal remedies, capacity and willingness of the poor to pay for such services, congestion in the court system, the incentives of the judiciary and law enforcement agencies and the efficacy of informal and alternative dispute resolution mechanisms.[82] ADR mechanisms offer promise in resolving natural resource related conflicts and communities' empowerment for environmental justice in Kenya.

Recognition of ADR and TDR mechanisms is predicated on these cardinal principles since they have advantages that guarantee that everyone has access to justice (whether in courts or in other informal fora) and conflicts are resolved expeditiously and without undue regard to procedural hurdles that encumber the court system. Conflict management through litigation can take years before the parties get justice. Culture diversity is the foundation of the nation and cumulative civilization of the Kenyan people. Most TDR mechanisms are entwined within the cultures of Kenyan communities, which are also protected by the Constitution.[83] Kenya, like many African countries, has the problem of imposed Eurocentric law. The definition of the rule of law must be expanded beyond this law to include notions of justice held dear and respected by communities in Africa and Kenya. It must include the tenets of customary law and traditional justice systems. The mechanisms in these latter systems aim at maintaining a harmonious society and focus on resolution rather than settlement. The mechanisms that are acceptable to these communities must be utilised fully so as to achieve the rule of law. The use of ADR mechanisms are part of the rule of law envisaged in the Constitution of Kenya 2010, which also includes customary law as part of the law.[84]

Litigation may come in handy, for instance, where an expeditious remedy in the form of an injunction is necessary. Where violent conflicts abound, the use of sanctions may help bring parties to the table, for possible negotiation. Litigation is also associated with the following advantages: the process is open, transparent and public; it is based on the strict, uniform compliance with the law of the land; and determination is final and binding (subject possibly to appeal to a higher court).[85]

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81 See M Maiese, 'Principles of Justice and Fairness' in G Burgess & H Heidi Burgess, (Eds.), 'Conflict Information Consortium *Beyond Intractability* (University of Colorado: Boulder, July 2003).

82 UN General Assembly, Legal empowerment of the poor and eradication of poverty: Report of the Secretary-General, 13 July 2009, A/64/133, Report of the Secretary-General.

83 K Muigua, 'Empowering the Kenyan People through Alternative Dispute Resolution Mechanisms,' <http://www.kmco.co.ke/attachments/article/149/Empowering%20the%20Kenyan%20People%20through%20Alternative%20Dispute%20Resolution%20Mechanisms.pdfv >accessed 13 December 2015.

84 See Constitution of Kenya 2010, Art. 2(4); Art. 60; Art. 159(2)(c).

85 Chartered Institute of Arbitrators, Litigation: Dispute Resolution <http://www.ciarb.org/dispute-resolution/resolving-a-dispute/litigation > accessed 13 December 2015).

There are therefore instances where a settlement mechanism may be applied in tandem with the conflict resolution mechanisms for the best results.

A. Access to justice through negotiation

Negotiation is a process that involves parties meeting to identify and discuss the issues at hand so as to arrive at a mutually acceptable solution without the help of a third party. It is a process involving two or more people of either equal or unequal power meeting to discuss shared and/or opposed interests in relation to a particular area of mutual concern.[86] The parties themselves attempt to settle their differences using a range of techniques from concession and compromise to coercion and confrontation. Negotiation thus allows party autonomy in the process and over the outcome. It is non-coercive thus allowing parties the room to come up with creative solutions.

B. Mediation

Mediation is defined as the intervention in a standard negotiation or conflict of an acceptable third party who has limited or no authoritative decision-making power but who assists the involved parties in voluntarily reaching a mutually acceptable settlement of issues in dispute. Within this definition mediators may play a number of different roles, and may enter conflicts at different levels of development or intensity.[87] Mediation can be classified into two forms namely: Mediation in the political process and mediation in the legal process.

1. Mediation in the political process

Mediation in the political process is informed by resolution as against settlement. It allows parties to have autonomy over the choice of the mediator, the process and the outcome. The process is also associated with voluntariness, cost effectiveness, informality, focus on interests and not rights, creative solutions, personal empowerment, enhanced party control, addressing root causes of the conflict, non-coerciveness and enduring outcomes. With these perceived advantages, the process is more likely to meet each party's expectations as to achievement of justice through a procedurally and substantively fair process of justice.[88]

2. Mediation in the legal process

Mediation in the legal process is a process where the conflicting parties come into arrangements which they have been coerced to live or work with while exercising little or no autonomy over the choice of the mediator, the process and the outcome of the process. This makes it more of a settlement mechanism that is attached to the court as opposed to

86 Negotiations in Debt and Financial Management, 'Theoretical Introduction to Negotiation: What Is Negotiation?'(1994) Document No.4 <http://www2.unitar.org/dfm/Resource_Center/Document_Series/Document4/3Theoretical.htm > accessed 13 December 2015.

87 C Moore, *The Mediation Process: Practical Strategies for Resolving Conflict*, 3rd edition (San Francisco: Jossey-Bass Publishers, 2004).

88 See generally K Muigua, 'Resolving Environmental Conflicts through Mediation in Kenya' (University of Nairobi: PhD Thesis, 2011) Unpublished.

a resolution process and defeats the advantages that are associated with mediation in the political process.[89]

The central quality of mediation is its capacity to reorient the parties towards each other, not by imposing rules on them, but by helping them to achieve a new and shared perception of their relationship.[90] In conflict resolution processes like mediation, the goal, then, is not to get parties to accept formal rules to govern their relationship, but to help them to free themselves from the encumbrance of rules and to accept a relationship of mutual respect, trust, and understanding that will enable them to meet shared contingencies without the aid of formal prescriptions laid down in advance.[91]

The salient features of mediation (in the political process) are that it puts emphasis on interests rather than (legal) rights and it can be cost-effective, informal, private, flexible and easily accessible to parties to conflicts. These features are useful in upholding the acceptable principles of justice: *expedition*; *proportionality*; *equality of opportunity*; *fairness of process*; *party autonomy*; *cost-effectiveness*; *party satisfaction* and *effectiveness of remedies (*emphasis ours), thus making mediation a viable process for the actualization of the right of access to justice.

One criticism however is that in mediation, power imbalances in the process may cause one party to have an upper hand in the process thus causing the outcome to unfavourably address his or her concerns or interests at the expense of the other.[92] Nevertheless, in any type of conflict, it is a fact that power imbalances disproportionately benefit the powerful party. However, it may be claimed that inequality in the relationship does not necessarily lead to an exercise of that power to the other party's disadvantage.[93] Another weakness of mediation is that it is non-binding. It is thus possible for a party to go into mediation to buy time or to fish for more information.

C. Conciliation

This process is similar to mediation except for the fact that the third party can propose a solution. Its advantages are similar to those of negotiation. It has all the advantages and disadvantages of negotiation except that the conciliator can propose solutions making parties lose some control over the process. Conciliation works best in trade disputes. Conciliation is recognised by a number of international legal instruments as a means of managing natural resource based conflicts.

89 ibid, Chapter 4; See also sec. 59A, B, C& D of the Civil Procedure Act on Court annexed mediation in Kenya; See also Mediation (Pilot Project) Rules, 2015.

90 LL Fuller, 'Mediation—Its Forms and Functions' (1971) 44 S. Cal. L. Rev. 305 (1971) [Quoted in B Ray, 'Extending The Shadow Of The Law: Using Hybrid Mechanisms To Develop Constitutional Norms In Socioeconomic Rights Cases' (2009) 3 *Utah Law Review* 802].

91 ibid.

92 See generally, O Fiss, 'Against Settlement' (1984) 93 *Yale Law Journal* 1073.

93 SH Abadi, 'The role of dispute resolution mechanisms in redressing power imbalances - a comparison between negotiation, litigation and arbitration' (2011) 13 *Effectius Newsletter* 3.

In conciliation, the third party takes a more interventionist role in bringing the two parties together. In the event that the parties are unable to reach a mutually acceptable settlement, the conciliator issues a recommendation, which is binding on the parties unless it is rejected by one of them. While the conciliator may have an advisory role on the content of the dispute or the outcome of its resolution, it is not a determinative role. A conciliator does not have the power to impose a settlement.[94] This is a reflection of the Model Law on International Commercial Conciliation of the United Nations Commission on International Trade Law.[95]

A conciliator who is more knowledgeable than the parties can help parties achieve their interests by proposing solutions, based on his technical knowledge that the parties may be lacking in. This may actually make the process cheaper by saving the cost of calling any other experts to guide them.

D. Arbitration

Arbitration is where a third party neutral (known as an arbitrator) is appointed by the parties or an appointing authority to determine the dispute and give a final and binding award. Arbitration has also been described as a private consensual process where parties in dispute agree to present their grievances to a third party for resolution.[96] Its advantages are that parties can agree on an arbitrator to determine the matter; the arbitrator has expertise in the area of dispute; and any person can represent a party in the dispute. It is flexible; cost-effective; confidential; speedy and the result is binding. Proceedings in Court are open to the public, whereas proceedings in commercial arbitration are private, accordingly the parties who wish to preserve their commercial secrets may prefer commercial arbitration.

In disputes involving parties with equal bargaining power and with the need for faster settlement of disputes, especially business related, arbitration offers the best vehicle among the ADR mechanisms to facilitate access to justice. The problem that arises with the use of arbitration in natural resource related conflicts is that due to its private nature, coupled with the provisions of the Arbitration Act, 1995,[97] there is the likelihood of ousting the jurisdiction of the court by way of enforcing the requirement of non-interference in the arbitration process.[98] Arguably, arbitration is not suitable in environmental matters, since the court needs to maintain a supervisory role in the natural resource conflicts management, especially where a foreign investor is involved and the rights of the communities are likely to be violated.

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94 Law Reform Commission, Consultation Paper on Alternative Dispute Resolution, July 2008, 49.

95 Article 6 (4) of the Model law states that –The conciliator may, at any stage of the conciliation proceedings, make proposals for a settlement of the dispute, UNCITRAL Model Law on International Commercial Conciliation with Guide to Enactment and Use 2002 (United Nations 2002). <http://www.uncitral.org/uncitral/en/uncitral_texts/arbitration/2002Model_conciliation.html> Accessed 15 December 2015.

96 F Khan, 'Alternative Dispute Resolution' A paper presented Chartered Institute of Arbitrators-Kenya Branch Advanced Arbitration Course held on 8-9th March 2007, at Nairobi.

97 Arbitration Act 1995 sec. 10.

98 For instance, an arbitration clause that refers matters to the International Centre for the Settlement of Investment Disputes (ICSID) ousts the jurisdiction of the national courts. ICSID awards do not require national courts for enforcement. ; Sec. 10 of the Arbitration Act 1995 limits court's intervention.

E. Med-Arb

Med-Arb is a combination of mediation and arbitration where the parties agree to mediate but if that fails to achieve a settlement the dispute is referred to arbitration. It is best to have different persons mediate and arbitrate. This is because the person mediating becomes privy to confidential information during the mediation process and may be biased if he transforms himself into an arbitrator. Med-Arb can be successfully be employed where the parties are looking for a final and binding decision but would like the opportunity to first discuss the issues involved in the dispute with the other party with the understanding that some or all of the issues may be settled prior to going into the arbitration process, with the assistance of a trained and experienced mediator.[99] This is likely to make the process faster and cheaper for them thus facilitating access to justice. Elsewhere, the courts have held, the success of the hybrid mediation/arbitration process depends on the efficacy of the consent to the process entered into by the parties.[100]

F. Arb-Med

This is where parties start with arbitration and thereafter opt to resolve the dispute through mediation. It is also best here to have different persons mediate and arbitrate. This is because a person arbitrating may have made up his mind who is the successful party and thus be biased during the mediation process if he transforms himself into a mediator. Arb-med can be used to achieve justice where it emerges that the relationship between the parties needs to be preserved and that there are underlying issues that need to be addressed before any acceptable outcome can be achieved. Mediation, a resolution mechanism is better suited to achieve this as opposed to arbitration, a settlement process. Arb-Med can be applied in the management of natural resource conflicts for environmental justice.

G. Adjudication

Adjudication is defined under the Chartered Institute of Arbitrators (CIArb) (K) *Adjudication Rules* as the dispute settlement mechanism where an impartial, third-party neutral person known as adjudicator makes a fair, rapid and inexpensive decision on a given dispute arising under a construction contract. Adjudication is an informal process, operating under very tight time scales (the adjudicator is supposed to reach a decision within 28 days or the period stated in the contract), flexible and inexpensive process; which allows the power imbalance in relationships to be dealt with so that weaker sub-contractors have a clear route to deal with more powerful contractors. The decision of the adjudicator is binding unless the matter is referred to arbitration or litigation. Adjudication is thus effective in simple construction disputes that need to be settled within some very strict time schedules. Due to the limited time frames, adjudication can be an effective tool of actualizing access to justice for disputants who are in need of addressing the dispute in the shortest time possible and resuming business to mitigate any economic or business losses.

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99 Mediation-Arbitration (Med-Arb), <http://www.constructiondisputes-cdrs.com/about%20MEDIATION-ARBITRATION.htm> accessed 15 December 2015.

100 E Sussman, Developing an Effective Med-Arb/Arb-Med Process, 2(1) *NYSBA New York Dispute Resolution Lawyer, (*Spring 2009)73, <http://www.sussmanadr.com/docs/Med%20arb%PDF.pdf> accessed 15 December 2015.

The demerits of adjudication are that it is not suitable to non-construction disputes; the choice of the adjudicator is also crucial as his decision is binding and that it does not enhance relationships between the parties.[101] It may however, be possible to have a framework within which to settle environmental disputes through adjudication in future.

X: CAPACITY-BUILDING, EDUCATION, TRAINING AND PUBLIC AWARENESS

Sustainable development must be based on effective rule of law and governance at all levels. Under the SDGs, it has been affirmed that sustainable development cannot be realized without peace and security; and that peace and security will be at risk without sustainable development.[102] The 2030 Agenda recognizes the need to build peaceful, just and inclusive societies that provide equal access to justice and are based on respect for human rights (including the right to development), on effective rule of law and good governance at all levels and on transparent, effective and accountable institutions.[103]

The realisation of peaceful, just and inclusive societies that provide equal access to justice and that are based on respect for human rights requires promotion of meaningful citizen participation and/or to effectively resolve conflicts. There is need for capacity building through education, training and even creating awareness amongst the communities so as to give them the required capacity to contribute. Collaboration between educational, training and research institutions would greatly help in building such capacity in a way that puts into consideration the genuine needs and interests of the affected community or group of people. They ought to be empowered to enable them participate effectively in ADR. The ADR institutions should also be promoted and supported to improve their capacity in addressing the arising conflicts. Effective and meaningful participation in governance matters, as required under Article 10 of the constitution, calls for empowerment of the people. Such empowerment will be useful for enhancing accountability, fairness and responsibilities amongst leaders since people will be aware of their rights and thus demand them through the various available channels, including the court system.

Capacity building should also be in the form of financial resources. Putting up the relevant structures for the use of ADR may require funds and the Government, through the relevant arm, may be required to assist in sourcing such funds. Capacity-building may also necessitate an overhaul of the current institutions as established under the Environment (Conservation and Management) Act, 1999. They may require support to build and strengthen environmental and sectoral institutions that have the capacity to incorporate and make use of ADR mechanisms so that they can address the complexities of addressing and coordinating the planning and implementation of action with the participation of communities and other locally set up initiatives for effective management of natural resource conflicts.

101 KW Chau, 'Insight into resolving construction disputes by mediation/adjudication in Hong Kong' (2007) *Journal Of Professional Issues In Engineering Education And Practice,* (ASCE / APRIL 2007) 43, 143.<http://www.academia.edu/240893/Insight_into_resolving_construction_disputes_by_mediation>_ accessed 15 December 2015.

102 ibid, New Agenda No. 35.

103 ibid.

XI. CONCLUSION

ADR and TDR mechanisms have been effective in managing conflicts where they have been used. Their relevance in the conflict discourse has been recognized in the constitution.[104] They are mechanisms that enhance access to justice. Some like mediation and negotiation bring about inclusiveness and public participation of all members of the community in decision-making. Their effective implementation as suggested herein and in line with the constitution will be a paradigm shift in the policy on resolution of conflicts towards enhancing access to justice and the expeditious resolution of disputes without undue regard to procedural technicalities.

A comprehensive policy and legal framework to operationalise ADR mechanisms in the context of natural resource management, is needed. It should be realized that most of the disputes reaching the courts can be resolved without resort to court if members of the public are involved in decision-making and resolution of their own disputes using ADR and traditional conflict resolution mechanisms. This is especially so where natural resource-related conflicts are involved, unless the same are intractable and violent conflicts, where the coercive mechanisms, such as court system, may come in handy. These mechanisms should thus be applied and linked up well with courts and tribunals to promote access to justice and public participation. Effective management of natural resource conflicts in Kenya is a necessary ingredient in the quest for environmental justice.

104 Article 159(2) (c) of the Constitution of Kenya 2010 provides that in the exercise of judicial authority, the Courts and tribunals must be guided by the principle of *inter alia* promotion of alternative forms of dispute resolution (ADR) including reconciliation, mediation, arbitration and traditional dispute resolution mechanisms shall be promoted, subject to clause (3).

Chapter 26

Governing Science, Technology and Innovation in Africa: Okidi's Intellectual Endowment

Prof John Ouma Mugabe

I. INTRODUCTION[1]

This chapter is about institutions and related programmatic initiatives that will improve the governance of science, technology and innovation (STI) for human development in Africa. It argues that orthodox STI policy instruments and agencies adopted and/or being used by many African governments are simplistic, reductionist and incapable of promoting the production and use of knowledge to expand human capabilities. There is a surge of interest in and usage of the notion of governance of science, technology and innovation in both academic and policy circles. This is due to at least two reasons.

First, there is a growing realization that conventional approaches to designing, monitoring and implementing policies for STI have taken rigid economistic values and rationales. Many African countries have adopted STI policy instruments whose rationales are totally irrelevant to local contemporary times. Second, the liberalization of African political systems and the ascent of civil society into public policy arenas offer new opportunities to reframe STI policy in Africa. There are new opportunities to get STI policy instruments to be around (and about) critical issues pertaining to local realities. Public participation in STI public policy-making processes in Africa will increase as communities engage more in technological change. This makes it necessary to rethink the modes of organizing enterprises for research and technological innovation enterprises. For example, it is now widely accepted that lay citizens have rights to participate in the choice of science and technology and in decision-making on how technological innovations are regulated.

The first section of this chapter is about governance as a complex concept encompassing many principles and founded on at least four pillars: participation, accountability, transparency and the rule of law. Its application to the management and assessment of science, technology and innovation systems (and their activities) must, of necessity, focus on designing and using quantitative

1 This chapter draws on my earlier research work as a doctoral student inspired by Prof Charles Okidi. Prof Okidi helped my research in the early 1990s when he was appointed by the University of Amsterdam, The Netherlands, to be one of the three external examiners of my doctoral thesis.

and qualitative indicators beyond those that can be constructed using the Franscati[2] and Oslo[3] manuals currently being used in many countries -- particularly those of the Organization for Economic Cooperation and Development (OECD) and nowadays in the African context under the auspices of the African Science, Technology and Innovation Indicators Initiative (ASTII).

The rest of chapter is organized as follows. First, we provide a definition of governance because though widely used, the concept is not well understood. It is subject to misuse as it not uncommon to confuse governance with government. We also discuss why governance is an important concept in the management of public affairs. Secondly, we focus on what is 'governance of science, technology and innovation' and then discuss why it is important in the development and integration of African economies. We also outline key features of STI policy-making and discuss the management of policy processes as part of governance.

The rest of the chapter focuses on three key facets (or principles) of the governance of science, technology and innovation. These are: (a) participation by partner states, national and regional think tanks, individual citizens, private sector and other actors in science, technology and innovation policy processes; (b) accountability of the African countries and of individual member states of the African Union (AU) as well as national and regional institutions in ensuring effective implementation of STI provisions of the AU Constitutive Act and related protocols, including Agenda 2063 and related protocols, as well as accountability of the state actors in ensuring adequate allocation and efficient use of resources for the promotion of scientific research and technological innovation in the AU and in individual partner states; and (c) transparency of the AU in the management of STI activities, including aspects such as making available to the public information on specific STI policies and activities in order to enable public participation in the choice and regulation of specific technologies and related innovations, and transparency in making decisions pertaining to the choice and/or establishment of agencies for STI in the AU.

On the whole, our goal in this chapter is to identify and analyse key features and pillars of governance and then use them to construct a framework for studying (or assessing) the 'governance of science, technology and innovation' in the AU context.

II. GOVERNANCE AND WHY IT MATTERS

The concept of 'governance' is now in the lexicon of politicians, scholars, donor agencies, development practitioners, civil society and many different groups around the world. Hardly a day goes without a report or statement on governance being issued by some entities of the United Nations system, the World Bank, national governments and non-governmental groups. There is also a proliferation of academic papers on governance and its relationship with development. Indeed

2 OECD, Technology and the Economy: the Key Relationships (OECD 1992); OECD, Frascati Manual 2002: Proposed Standard Practice for Surveys on Research and Experimental Development, The Measurement of Scientific and Technological Activities, (OECD 2002) <*http://dx.doi.org/10.1787/9789264199040-en*>accessed December 14, 2018

3 OECD/Eurostat (2005), The Measurement of Scientific and Technological Activities—Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, (3rd edn. OECD 2005) <10.1787/9789264013100-en> accessed December 14, 2018

there are thousands of documents on governance. According to Goran Hyden, there is "a whole industry of governance assessors and advisors trying to measure as best they can the way individual countries are governed and how close they come to the liberal ideal."[4] Yet, the precise meaning of the concept of governance is open to various different definitions and interpretations. In a recent paper, Francis Fukuyama[5] asserts that there is confusion in current discussions on governance. He calls for better conceptualization of governance and the design of better ways of measuring it.[6]

Various agencies and academics have proposed some interpretations to address the gap or challenge of defining governance. Our understanding of the concept has evolved considerably in the past three decades. According to Goran Hyden, "there has been a considerable change in how the international policy community understands the concept and translates it into specific assessments and practices."[7] We do not intend to and, indeed, cannot pretend to review the relatively huge corpus of literature on governance. As stated earlier, we are more concerned with key features and pillars of governance, not with a mere articulation of what it is.

The International Fund for Agricultural Development (IFAD) and Gisselquist provide succinct reviews of various definitions of governance.[8] Most put emphasis on the existence and role of state institutions that are accountable to citizens and citizens' participation in public policy-making within the framework of the rule of law.[9] Transparency is paramount in achieving state accountability to citizens and ensuring public participation in policy-making. Most of the definitions consider the rule of law, accountability, participation and transparency as key facets or pillars of governance.

In general, there is broad consensus that the four pillars are important ingredients of governance — whether political or economic — at all levels, from local to international. The pillars are used and sometimes interpreted differently by different groups but are generally acknowledged as the foundation of good governance.

A recent report of the United Nations Task Team on the Post-2015 UN Development Agenda defines governance as "the exercise of political and administrative authority at all levels to manage a country's affairs. It comprises the mechanisms, processes and institutions, through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences."[10] According to the report there are two key issues at the core of governance: in-

4 Hyden, G.,'How Do Africa's New Engagements Affect Governance?' ("Finally Untamed? Africa's New Engagements with the North and South" , 4th European Conference on African Studies , Uppsala, June 2011)

5 Francis Fukuyama 'What Is Governance?' , (2013) Center for Global Development Working Paper 314 <www.cgdev.org>accessed December 14, 2018

6 Fukuyama (n 5) 6

7 Doornbos, M. 'Good governance': The rise and decline of a policy metaphor? (2001) *37*(6) Journal of Development studies 93

8 Gisselquist, R. 'Good Governance as a Concept, and Why This Matters for Development Policy' (2012) Working Paper No 2012/30 UNU-WIDER.

9 Gisselquist (n 8) 8

10 United Nations Task Team on the Post-2015 UN Development Agenda 'Governance and Development', Thematic Think

stitutions and the rule of law. Implicit in the definition are citizens' rights to participation in public affairs, including decision-making. For example, citizens articulate their interests by participating in public policy processes.

Box 26.1: Four pillars of governance

" (a) Accountability. At the macro level this includes financial accountability, in terms of an effective, transparent and publicly accountable system for expenditure control and cash management, and an external audit system. It encompasses sound fiscal choices, made in a transparent manner, that give priority to productive social programmes – such as basic health services and primary education vital to improving the living standards of the poor and promoting economic development – over non-productive expenditures, such as military spending. At the micro level it requires that managers of implementing and parastatal agencies be accountable for operational efficiency. Auditing systems should meet international standards and be open to public scrutiny.

(b) Transparency. Private-sector investment decisions depend on public knowledge of the government's policies and confidence in its intentions, as well as in the information provided by the government on economic and market conditions. Transparency of decision-making, particularly in budget, regulatory and procurement processes, is also critical to the effectiveness of resource use and the reduction of corruption and waste.

(c) The rule of law. A fair, predictable and stable legal framework is essential for businesses and individuals to assess economic opportunities and act on them without fear of arbitrary interference or expropriation. This requires that the rules be known in advance, that they be actually in force and applied consistently and fairly, that conflicts be resolvable by an independent judicial system, and that procedures for amending and repealing the rules exist and are publicly known.

(d) Participation. Good governance requires that civil society has the opportunity to participate in the formulation of development strategies, and that directly affected communities and groups should be able to participate in the design and implementation of programmes and projects. Even where projects have a secondary impact on particular localities or population groups, there should be a consultation process that takes their views into account. This aspect of governance is an essential element in securing commitment and support for projects and enhancing the quality of their implementation."

Source: http://www.ifad.org/gbdocs/eb/67/e/EB-99-67-INF-4.pdf

Participation, accountability and transparency (PAT) as well as the rule of law are entrenched in many national, regional and international instruments of governance. At the national level, con-

Piece Prepared (2012) UNDESA, UNDP and UNESCO, 3

stitutions and related legislation on issues such as protection of the environment, enhancement of food security, public health and budgeting contain provisions on PAT. For example, national constitutions of Kenya, Uganda, South Africa, Tanzania, Rwanda and other African countries have very explicit requirements for public participation in such processes as national budgeting and the exercise of other public activities. Table 26.2 provides an overview of PAT provisions in national constitutions and related legal regimes in the AU partner states.

Many regional treaties also contain provisions on PAT. For example, the treaty establishing the East African Community (EAC) has several explicit provisions on PAT. Articles 6 and 7 of the treaty clearly articulate PAT as important principles of good governance of the EAC. Article 6 (Fundamental Principles of the Community) outlines principles that guide the partner states to engage in mutual cooperation. It places emphasis on adherence to accountability, transparency and the rule of law. Article 6(d) states: "The fundamental principles that shall govern the achievement of the objectives of the Community States shall include … good governance including adherence to the principles of democracy, the rule of law, accountability, transparency, social justice, equal opportunity, gender equality, as well as the recognition, promotion and protection of human and peoples' rights in accordance with the provisions of the African Charter on Human and Peoples' Rights."

Article 7 of the EAC Treaty is about principles that should guide the operationalization of the objectives of the community. It emphasizes people-centred cooperation and people's participation in political and economic integration of the partner states. Article 7 (1) (d) states that partner states shall be guided by "the principle of subsidiarity, with emphasis on multi-level participation and the involvement of a wide range of stakeholders in the process of integration." Article 7(2) requires the states "to abide by the principles of good governance, including adherence to the principles of democracy, the rule of law, social justice and the maintenance of universally accepted standards of human rights."

The importance of civil society and private sector participation in the integration processes is emphasized in Article 127 (Creation of an Enabling Environment for the Private Sector and the Civil Society). In Article 127(3) partner states agreed "to promote [an] enabling environment for the participation of civil society in the development activities within the community."

At the international level, PAT principles appear in many economic, trade, environmental and other sustainable development related agreements. Indeed, there is a wide array of international agreements that contain specific provisions or policy measures for promoting PAT. They include the World Trade Organization (WTO) agreements, the conventions on climate change, biological diversity, land degradation and desertification, and the Aarhus Convention on Access to Information. PAT principles are also deposited in international declarations and plans that have been adopted at various United Nations or related conferences.

For example, the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters adopted in Aarhus, Denmark, in 1998 aims at promoting environmental justice by ensuring that PAT are integral to decision-making. Its preamble recognizes that citizens must have access to information and are entitled to participate in

decision-making. Article 6 of the Convention is all about public participation in decision-making and Articles 6, 7 and 8 are dedicated to public participation. Article 6(6) explicitly states that: "Each Party shall require the competent public authorities to give the public concerned access for examination, upon request where so required under national law, free of charge and as soon as it becomes available, to all information relevant to the decision-making referred to in this article that is available at the time of the public participation procedure …"

Other related environmental conventions on biological diversity and climate change also contain PAT provisions. The Convention on Biological Diversity[11] has PAT provisions explicitly articulated in its preamble and in articles 15 and 25. In the Preamble, the Convention affirms the full participation of women at all levels of policy-making on matters pertaining to the conservation and sustainable use of biological diversity. Article 15 is dedicated to issues of access to genetic resources and the sharing of benefits, including technology, arising from the access and use of the resources. It requires that developing countries, contracting parties, and their local communities must participate in decision-making on access to the resources and the sharing of benefits. The process of determining access to the resources and sharing of benefits must be transparent and developed countries' institutions involved in the access arrangement must transparently disclose the use to which the resources will be put, and specific technologies that may be generated.

The entrenchment and application of PAT are the bedrock of good governance and, in fact, governance in general. Major donors base their financial aid and loans on whether PAT are adhered to in the management of public affairs. There are numerous civic bodies that have been created to promote the articulation of the three pillars of governance in many countries around the world. Some institutions such as the World Bank have developed indicators for assessing or measuring 'good governance' of development in general.[12] There are also efforts to link governance indicators to specific aspects of development such as STI. For example, the European Union (EU) Commission has made efforts to apply the concept of governance to the assessment of national systems of innovation in general and the organization as well as management of science in particular.[13]

III. THE GOVERNANCE OF SCIENCE, TECHNOLOGY AND INNOVATION

There is increasing usage of the concept of governance in studies of science, technology and innovation (STI). There are studies that focus on the application of the principles of governance to the management of STI in general, and the management of innovation systems in particular; and others that are about the relationships between good governance and scientific and technological

11 United Nations Convention on Biological Diversity adopted 22 May 1992 entered into force 29 December 1993) UNTS Vol. 1760 (CBD)

12 Kaufmann, Daniel, and Aart Kraay, 'Governance indicators: Where are we, where should we be going?' 2007 The World Bank <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-4370> accessed December 14, 2018

13 See for instance, EC Global Governance of Science (2009) <http://ec.europa.eu/research/science-society/document_library/pdf_06/global-governance-020609_en.pdf > accessed December 14, 2018

development. Indeed, governance is a common concept in the literature on STI policy in general[14] and the politics of technology choice in particular.[15]

Governance of STI encompasses, firstly, processes and mechanisms for ensuring participation, accountability and transparency in the formulation and implementation of policies (courses of action) to promote STI in order to generate public goods and confront public 'bads' such as ecological destruction, diseases, hunger and other forms of impoverishment. Secondly, it is also about participation, accountability and transfer in the choice and use of scientific knowledge and related technological innovations to improve policy-making processes. The two facets of governance of STI are really interrelated. Studies such as van Zwanenberg and Millstone[16] focus on the latter facet of governance of STI while Mordini [17] is more concerned with the former.

The use of the concept of governance of STI (sometimes referred to as STI governance) is gaining currency in studies of national and supranational systems of innovation for a variety of reasons.

First, there is recognition that the traditional or orthodox approaches to measuring STI activities using the old OECD manuals — the Frascati and Oslo manuals — do not tell much about the content, activities and dynamic interactions within and between systems. They do not tell us about the existence and effectiveness of norms and rules as well as how the behaviour of various actors, such as science enterprises and private sector, impinge on the innovativeness of the country as a whole or a specific sector of the economy.[18]

Second, non-state actors (including non-governmental organizations and private sector) are playing major roles in STI policy management and even in the practical scientific research and technological innovation activities. In fields such as biotechnology and nanotechnology, NGOs are actively engaged in policy formulation, monitoring and implementation as well as in the regulation of specific technological products. Private sector is a dominant actor in ICT development and related policy-making activities. The roles and influence of these actors cannot be ignored. They shape national, regional and international STI policy in very profound ways. "The received linear model of science policy, in which investments are turned over to national scientific communities for autonomous utilization and/or market allocation, is no longer adequate."[19]

Third, for a long time STI were treated (particularly by/in economic policy and practice) as exogenous variables in development. This is much so in developing countries, African ones in particular.

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14 See for example Wagner, C., The New Invisible College: Science for Development, (2008) Brookings Institution Press 103; Van Zwanenberg, P., and Millstone, E., BSE*:* Risk, Science, and Governance (Oxford University Press 2005)

15 See for example Paarlberg R.L., 'Governing the Crop Revolution: Policy Choices for Developing Countries' (2000) International Food Policy Research Institute (IFPRI); and Mordini, E., 'Global Governance of the Technological Revolution' Centre for Science, Society and Citizenship

16 Zwanenberg et al. (n 14) 2

17 Mordini (n 15) 6

18 EC Global Governance of Science (2009) <http://ec.europa.eu/research/science-society/document_library/pdf_06/global-governance-020609_en.pdf > accessed December 14, 2018

19 http://ec.europa.eu/research/science-society/document_library/pdf_06/global-governance 020609_en.pdf

International development policy and practice largely ignored STI. STI policy-making and activities did not occupy a central place in the management of public affairs. This has changed considerably as STI are now considered critical aspects of development and are receiving growing attention by governments, donors and financial institutions such as the World Bank. In some countries (for example, Kenya) the management of STI is a constitutional issue, and thus important in political, social and economic governance in general.

Fourth, the conduct and management of STI are increasingly transcending nation-states. 'Science nationalism'[20] or 'techno-nationalism'[21] is no longer the prevailing and only way of managing scientific research and STI in general. STI policy issues and related policy-making processes are becoming more supranational and global in nature. Indeed, the arena of STI policy is international and includes such forums as the United Nations, the World Trade Organization (WTO) and regional bodies such as the African Union (AU) and the EU. At these supranational levels STI activities and their management involve a wide range of different state and non-state actors, making it necessary to have clear norms and rules of engagement as well as schemes for ensuring that all state parties and their citizens' interests are adequately accommodated. The linear model that focuses on inputs to and outputs from scientific research institutions cannot deal with multilateral STI enterprises and their activities.

Lastly, the STI-society-development nexus has increasingly become complex and requires robust policy instruments beyond the traditional science policy that largely focuses on allocation of funds to Research and Development (R&D) activities or technology policy that simply deals with the choice of one technology from a few competing choices. There are many issues of ethics, fundamental rights and associated obligations, equity, and sovereignty that have come to the public fore. The 'republic of science' is being rapidly displaced[22] and is no longer in vogue.

Given the above factors or considerations, 'governance of STI' or 'STI governance' is a better approach or metaphor for managing scientific research and innovation activities and systems of innovation in general. We define governance of STI as norms, rules and agencies that enable society to generate and put to wise use scientific knowledge and technological innovations. The norms and rules determine how STI policies are formulated, monitored and implemented, and how well agencies (or organizations) articulate with each in order to constitute a system of innovation or an innovation system at national and/or supranational levels. It is really about how state and non-state institutions interact in the management of STI, based on or guided by the three principles of PAT.

Perhaps one of the most comprehensive attempts at applying the concept of governance to STI issues is the study by P Boekholt and E Arnold for the Dutch Ministry of Economic Affairs.[23] They defined

20 Wagner, C. *The New Invisible College* (2008)vBrookings Institution Press

21 EC Global Governance of Science (2009) <http://ec.europa.eu/research/science-society/document_library/pdf_06/global-governance-020609_en.pdf > accessed December 14, 2018

22 See Rip, A. '*The republic of science in the 1990s*.' (Higher Education 1994) <http://doc.utwente.nl/34304/1/republic_of_science.pdf>accessed December 14, 2018

23 Boekholt, P., et. al., Governance of Research and Innovation: An International Comparative Study (2002) Technopolis-Group

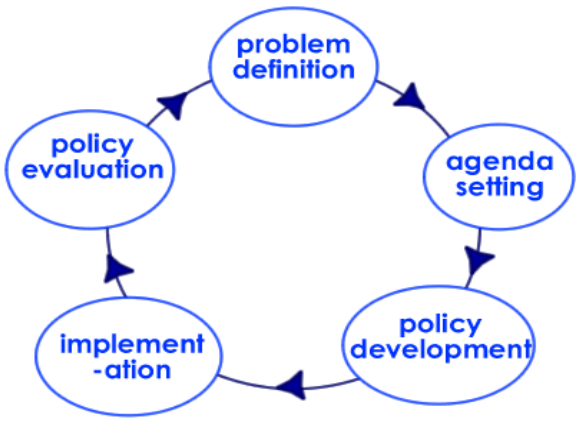
governance of STI as being about the roles that "various actors in the innovation system play, how rules of the game work, how decisions are taken and how changes in the overall innovation system come into being."[24] Their study dealt with issues such as: how research organizations and research funding agencies are held accountable for their activities; ways of increasing transparency in the design and implementation of STI policy; ways in which stakeholders are involved in STI policy processes; and improving coordination mechanisms for STI policy.

In this chapter, we are also concerned with STI policy processes. The focus is not on the management of STI activities at the organizational or enterprise level but with governance of STI at national and regional (AU) levels. We apply the principles of PAT to better understand how STI policy processes are handled at national level (in each of the five partner states) and the AU level or any other regional economic community (REC) in Africa.

But then what do we mean by policy and STI policy process? Policy is another term that is widely used and is most often confused with politics, plans and strategies. Policy, unlike politics, is based on specific problems, goals and objectives. It is about actions to solve real and/or anticipated societal problems. It is what governments and their citizens choose to do or not to do.

A policy is supposed to be an outcome of a policy process, though in some countries policies tend to be derived from administrative pronouncements or even decrees. The policy process is a non-linear cyclic series of interrelated activities that involves defining the real problem and structuring it into a policy problem, setting the agenda, conducting analysis and identifying policy options, choosing options and formulating a specific policy or policies, implementing the policy or policies, and conducting policy monitoring, evaluation and reform. Figure 26.1 depicts the policy process.

Figure 26.1: The policy process



STI policy, which is essentially a regime of courses of actions that a government adopts in order to promote and manage scientific research, technological development and innovation activities, is

24 Boekholt (n 23) 56

also supposed to be developed through a non-linear, cyclic process.[25] STI policy has two interrelated facets: policy for STI and STI for policy.[26] Policy for STI refers to decision-making about how to fund and structure the systematic pursuit, application, diffusion, and adoption of knowledge. STI for policy refers to the use, application and organisation of old and new knowledge to facilitate or improve decision-making.[27]

The process of designing and managing the implementation of STI policy is often complex as it involves various different actors that have different interpretations of national and local problems that STI are expected to solve, different interpretations of the nature and outcomes of STI, and even different opinions on which specific research activities to invest in and which technologies to procure or to develop. STI policy-making is also increasingly becoming more and more knowledge and information intensive, as well as a multidisciplinary endeavour. It is influenced by factors that are not necessarily 'scientific', and its outcome is not predictable.

V. PUBLIC PARTICIPATION IN SCIENCE, TECHNOLOGY AND INNOVATION POLICY PROCESSES

There is a wealth of literature on public participation in the management of STI in general and STI policy processes in particular.[28] The growth of academic inquiry into what constitutes effective public participation in STI policy processes is largely associated with the increasing recognition that STI impact on society or the public in profound ways and that the converse is also true: society impacts on STI. As H Maat, and L Waldman assert:

> Science and technology need society. Research and technology have little chance of influencing development if they do not anticipate societal effects and responses. Universities, research centres and technology institutes invest in a good relationship with the public. Engaging citizens creates a wider acceptance of (potentially) controversial scientific and technological developments. Policymakers therefore create platforms and processes for public engagement, as is the case, for example, with nanotechnology. Acceptance may refer to norms or ethical principles but may also be effective from a purely commercial concern. The consultation of potential customers at the early phase of product design often is a major step to success. An example is the Boeing 777 aircraft, developed in close consultation with eight major airlines. Client-oriented technology development and participatory research are global phenomena. The participatory agenda for science and

25 Mugabe, J.O. Science, Technology and Innovation Policy Development in Africa: National Institutions and Experiences (SADC STI Policy Conference, Cape Town, May 2013)

26 Pielke Jr, R. A. *The Honest Broker: Making Sense of Science in Policy and Politics*. (Cambridge University Press 2007)

27 Pielke (n 26) 67

28 See for example Maat, H., and Waldman, L., (2007), *Introduction: How Participation Relates to Science and Technology and How Science and Technology Shapes Participa*tion (2007) Volume 38 Number 5 IDS Bulletin; Hagendijk, R.P. and Kallerud, E. *Changing Conceptions and Practices of Governance in Science and Technology in Europe: A Framework for Analysis* (2003) STAGE Discussion Paper 2, University of Amsterdam

> technology is pushed by supra-national networks of companies, governmental bodies and non-governmental organisations. It is also global in the sense that programmes to support participatory research and technology development can be found in countries across all continents.[29]

There are now many studies that examine public participation in specific technology policy activities such as Sclove, who asserts:"[c]urrently, there are few institutions through which citizens can become critically engaged with choosing or designing technologies. Should we commit ourselves to evolving such institutions and to adopting only those technologies that are compatible with democracy? Until we do, I shall argue, there can be no democracy worthy of the name."[30]

VI. SCIENCE, TECHNOLOGY AND INNOVATION: SOME CONCEPTUAL CLARIFICATIONS

There is an explosion of academic and policy literature on the roles that STI play in development. A casual search on www.google.com brings out tens of thousands of academic papers and general reports published in the past two decades alone. Scholarship on STI and development spans more than six decades, covering a wide range of themes and topics as well as different emerging schools of thought.[31] The growth in scholarship has brought more conceptual clarity on what constitutes STI and how they impinge on economic growth and development.

Science, technology and innovation (STI) have been at the periphery of development policy and planning until very recently. Indeed, STI were only 'discovered' by economic historians and theorists in the 1950s.[32] One of the main reasons STI did not feature in economics is because the discipline did not have appropriate conceptual apparatus to measure and/or account for such 'intangibles'. As Rosenberg remarked, the economics profession was not developed enough to explain things that could not be touched and measured.[33]

In the late 1950s, economists began to appreciate that a significant portion of the economic growth experienced in the immediate post-war period in some parts of the world, particularly the United States and Europe, could not be accounted for by the traditional sources of productivity: labour, land and machinery.[34] After the Second World War, the focus of industrial R&D shifted to non-defence or non-military economic activities. Governments of the then emerging industrialized countries started formulating and implementing policies that directed scientific research and technological activities more towards stimulating increased productivity and economic competitiveness. Craft industries with little R&D investment started giving way to high-technology,

29 Maat and Waldman (n 28) 1

30 Sclove, R., *Democracy and Technology* (The Guilford Press, New York and London 1995)

31 Freeman, C. and L. Soete *The Economics of Industrial Innovation* (3rd edn MIT Press 1997)

32 Rosenberg, N. *Inside the Black Box: Technology and Economics* (Cambridge University Press 1982)

33 Rosenberg (n 32) 36

34 Freeman, C., and Soete (n 31) 67

high R&D-intensive industries in industrial societies of the West.[35]

Science (defined as the production of new knowledge) and technology (defined as the application of science/new knowledge as well as the embodiment of science in products and processes) became widely acknowledged as the main factor accounting for economic growth and competitiveness in the 20th century. Economic dynamism of countries became more and more associated with levels of investment in industrial R&D. It became almost a truism that economic growth and competitiveness was driven by high expenditure on R&D, and the training (and employment) of highly skilled scientists and engineers. The institutional locus of science was largely universities and that of technology was big industrial R&D institutes and firms. STI were largely measured by inputs such as percentage of gross domestic product (GDP) expended on R&D, and full-time researchers (scientists and engineers), and outputs such as number of patents and number of scientific articles published in peer reviewed journals. These were (and still are) the main indicators or targets for STI policy. In most countries STI policy has not really focused on developmental impacts of investments in R&D and innovation activities.

STI policies of most countries around the world have largely been guided by a linear conceptual approach (sometimes referred to as Mode 1 Knowledge Production) of science (research) generating inventions, which would be developed into technologies and techniques that would eventually be commercialized as innovations.[36] The linear approach to STI separates knowledge production or scientific research from the context of its application. Based on it, many countries created institutes for scientific research that are divorced from or not linked to the locus of development activities. These institutes (mainly in the form of universities, industrial laboratories and government research bodies) are expected to produce scientific knowledge that would be taken by or transferred to another group of agencies (institutes for technology development) to translate it into technologies that would then be commercialized by yet another group of agencies (technology commercialization agencies).

The linear conceptual approach to STI is still predominant in the policies and practices of many countries around the world, although there is now an adequate and growing body of evidence that shows its weaknesses. First, there are now many studies that argue or demonstrate that scientific research does not necessarily (and automatically) generate knowledge of economic value or even of developmental impact.[37] Scientific research (R&D) is characterized by uncertainty — its outputs and outcomes in general cannot be predetermined.

Second, a country and/or a company (enterprise) does not need to conduct or invest in R&D in order to develop a new technology. It does not need to have its own R&D activities in order to

35 Rosenberg, N., & LE Jr, B. *How the West Grew Rich: the Economic Transformation of the Industrial World* (Basic Books 2008)

36 See Gibbons, M., et. al. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies* (1994) SAGE

37 See Schwachula, A., et al. 'Science, technology and innovation in the context of development' (2014) Center for Development Research, University of Bonn. Working Paper 132 <www.hdl.handle.net/10419/99990> accessed December 14, 2018

benefit from technologies that are developed elsewhere.[38] This is particularly true for information and communication technologies (ICTs) in general and mobile phones in particular. Most countries around the world do not have domestic R&D facilities for and activities on ICTs, yet these technologies are rapidly diffusing in these countries with significant developmental impacts. Some countries are adopting and adapting ICTs by introducing incremental innovations to suit local conditions. This is the case with innovations associated with e-health, e-learning, e-payments and 'M-Pesa'.[39]

It is important to note that we do not undervalue science (and R&D) or even suggest that it is not of social and economic importance. What we are stating is that a conceptual approach that implies that R&D is a precondition for technological innovation at best misleads public policy, and at worst may direct investments away from development priorities. Science (R&D) is an important input into but not necessarily a prerequisite of technological innovation. There are good reasons for countries — both developed and developing — to invest in science. These range from building knowledge on current and future problems to science for its own sake or curiosity. Of course, science (its conduct through R&D) is critical in enabling humanity to understand a wide range of challenges in health, environment and agriculture. Science is crucial for informing public policies — science for policy.

VII. INNOVATION AND INNOVATION POLICY

The concept of innovation is gaining currency in academic and public policy discourse yet its precise meaning is not often explored. According to J Aubert, the growing interest in innovation "stems from a recognition that it is necessary to go back to basics after experiencing the limits of traditional economic policies encapsulated in the Washington Consensus approach".[40] This set of privatization, liberalization and deregulation policies has clearly demonstrated their limits for promoting sustainable growth in the developing world.[41]

Innovation tends to be defined differently by academics, policy-makers and practitioners. Often the concept of innovation is used interchangeably with technology and R&D. Language such as 'acquiring innovation', 'buying innovations', 'disruptive innovations', and 'producing innovation' is common in the vocabulary of decision-makers and even in some academic literature. It is also not uncommon to come across the word innovation used interchangeably with the related concept of invention.

Several recent studies bring conceptual clarity to the growing discourse on innovation and its re-

38 Dahlman, C., 'Innovation in the African Context' (Policymakers Forum on Innovation in the African Context, Dublin 2007)

39 M-PESA is a mobile phone-based transfer, financing and microfinancing service, launched in 2007 by Vodafone for Safaricom and Vodacom, the largest mobile network operators in Kenya and Tanzania. It has been since expanded to Afghanistan, South Africa, India and in 2014 to Romania and in 2015 to Albania

40 Aubert, J., , 'Promoting Innovation in Developing Countries: A Conceptual Framework'(2005) World Bank Policy Research Working Paper 3554, 6

41 Aubert (n 40) 6

lationship to development. These include works such as J Aubert,[42] and Soete.[43] In general, there is an emerging awareness that innovation is a process of introducing or implementing new (not necessarily new to the whole world) products, practices and services into a country or institution. A product or practice may be old to one context or country but new to another. Innovation does not necessarily emerge from or with the discovery of new technological principles, and is not entirely about the production of new scientific knowledge. As the World Economic Forum (WEF) notes in its 2012 report titled *The Future of Manufacturing*:

> As countries and companies have pursued innovation, it has become clear that R&D spend is an important element, but not the sole driver, of innovation. Other factors such as the quality of educational system, infrastructure and policy environment are critical factors to national innovation. At the country level, neither absolute R&D spend nor R&D as a percentage of GDP are effective preconditions of innovation effectiveness.[44]

However, it is generally agreed that innovation involves the conversion of knowledge (including old or existing local knowledge) in social and economic value. According to Gregersen and Johnson, learning is connected to innovation, and innovation defined "as the introduction into the economy of new knowledge or new combinations of old knowledge."[45]

The loci of innovation activities are enterprises (in private and public sectors), educational institutions and other societal organizations such as the local community-based associations. It is enterprises (firms, farms, businesses, etc.) and even informal organizations that usually innovate where new or a combination of old knowledge is introduced. Educational institutions produce new knowledge, test old knowledge, produce skilled engineers who design products, and develop entrepreneurs who create and manage firms and businesses. Firms procure new knowledge, equipment and skills and utilize these to change their production systems. Farms experiment with various farming techniques and often (or sometimes) modify them to suit their specific economic and ecological conditions in order to increase their productivity and/or solve specific production challenges. Often, we do not give adequate attention to the role of incremental innovation, such as adapting imported technologies to local conditions, in economic change and development in general. Incremental innovation is the focus of many recent studies on promoting development and productivity in countries, particularly poor ones.[46]

The outcome of an innovation process and investment cannot be predetermined. It is not possible to determine whether a particular innovation will contribute positive change or have negative consequences. There are indeed innovations that have had or led to unintended consequences —

42 Aubert (n 40) 6

43 Soete, L., 'Science, Technology and Development: Emerging Concepts and Visions' (2009) Department of International Development, University of Oxford SLPTMD Working Paper No.17

44 World Economic Forum, *The Future of Manufacturing* (World Economic Forum 2012) 58

45 Gregersen, B., and Johnson, B., 'Learning Economies, Innovation Systems and European Integration' (1996) Department of Business Studies, Aalborg University

46 Mytelka, L.K. 'Local Systems of Innovation in a Globalized World Economy' (2000) 7(1) Industry and Innovation 33

sometimes 'public bads' or negative externalities such as climate change -- are outcomes of technological innovation. This is why innovation policy — which is a regime of policies or courses of action to stimulate and govern processes of innovation in an economy — is critical for maximizing positive social and economic outcomes of technological change. Innovation policy is designed to guide innovation investments and activities.

Another concept that is gaining currency in both academic and policy circles, and is increasingly being promoted for use in public policy in Africa, is that of 'national innovation systems' or 'national systems of innovation' (NIS/NSI). This concept has its origins in the OECD, based on the recognition that innovation activities and their outcomes in an economy depend not only on the performance of R&D institutes and industrial firms, but also on how these interact among themselves, with each other, and with the public sector in the generation, use, modification and diffusion of products, processes and services.[47] The relevance of the NIS/NSI concept to STI policy-making in developing countries is still a subject of debate. However, defined largely as being a metaphor for studying and assessing the dynamism and strengths of national STI institutions, policies and programmes, the concept enables one to adopt a systemic approach that eschews the linear input-output measurement of STI. The application of this concept enables us to focus on the configuration of and linkages among firms, research and educational institutions, government agencies, funding bodies, communities and consumers, as well as the normative aspects such as policies, plans and legislative factors that impinge on the innovation process

VIII. SCIENCE, TECHNOLOGY AND INNOVATION IN AGENDA 2063

The STI objectives of Agenda 2063 are already contained or articulated in the AU/New Partnerships for African Development's Science, Technology and Innovation Strategy for Africa (STISA) 2024 that was adopted by African leaders in 2014. The strategy's mission is to accelerate Africa's transition to an innovation-led and knowledge-based economy. Its objectives are to enhance the continent's infrastructure, entrepreneurial and technological capabilities, and promote the implementation of STI policies and programmes that promote sustainable development.

IX: CONCLUSION

This chapter has laid out a tentative framework for STI governance in Africa. Inspired by Prof Okidi's rich intellectual insights, it has argued for public participation, state accountability and transparency in the governance of STI. The chapter forms a good basis for academic discourse on people-centred and inclusive STI policy-making in Africa. This new discourse will require multidisciplinary academic rigour, bring economists, political scientists, legal scholars and others to help shape the conceptual foundations for the development and application of STI for Africa's development.

47 Lundvall, B.A. *National Systems of Innovation* (Pinter 1992)

Box 26.2: STI considerations or policy measures in Agenda 2063 aspirations

Para 10: "We aspire that by 2063, Africa shall be a prosperous continent, with the means and resources to drive its own development, with sustainable and long-term stewardship of its resources and where: Well-educated and skilled citizens, underpinned by science, technology and innovation for a knowledge society is the norm and no child misses school due to poverty or any form of discrimination."

Para 11: "By 2063, African countries will be amongst the best performers in global quality of life measures. This will be attained through strategies of inclusive growth, job creation, increasing agricultural production; investments in science, technology, research and innovation; gender equality, youth empowerment and the provision of basic services including health, nutrition, education, shelter, water and sanitation."

Para 13: "Africa's agriculture will be modern and productive, using science, technology, innovation and indigenous knowledge. The hand hoe will be banished by 2025 and the sector will be modern, profitable and attractive to the continent's youth and women."

Para 14. "Africa's human capital will be fully developed as its most precious resource, through sustained investments based on universal early childhood development and basic education, and sustained investments in higher education, science, technology, research and innovation, and the elimination of gender disparities at all levels of education. Access to post-graduate education will be expanded and strengthened to ensure world-class infrastructure for learning and research and support scientific reforms that underpin the transformation of the continent.

Para 15. "Africa's Blue/ocean economy, which is three times the size of its landmass, shall be a major contributor to continental transformation and growth, through knowledge on marine and aquatic biotechnology, the growth of an Africa-wide shipping industry, the development of sea, river and lake transport and fishing; and exploitation and beneficiation of deep sea mineral and other resources."

Para 16. "Whilst Africa at present contributes less than 5 per cent of global carbon emissions, it bears the brunt of the impact of climate change. Africa shall address the global challenge of climate change by prioritizing adaptation in all our actions, drawing upon skills of diverse disciplines with adequate support (affordable technology development and transfer, capacity building, financial and technical resources) to ensure implementation of actions for the survival of the most vulnerable populations, including islands states, and for sustainable development and shared prosperity."

Source: AU (2013), *Agenda 2063 — The Africa We Want*

Chapter 27

Comprehensive and Sustainable Governance Framework for Mountains

Robert Alex Wabunoha

I. PRELUDE

How does one capture Professor Odidi Charles Okidi's contribution in a paragraph? Let me only focus on one of Prof's attributes: his ability to move issues and agendas, especially over a cup of tea. I have never forgotten that first encounter with Professor Odidi Charles Okidi in 1994 in Kampala during the introduction of Partisanship for Development of Environment Law and Institutions in Africa (PADELIA) when he asked me why I don't have a master's degree! While I was a little taken aback by his direct confrontation, his deep voice, height, stature, demeanour and above all intellectual capacity influenced me to enroll for the Master of Laws degree. With a master's degree in hand, I thought I would finally impress the premier historian of environmental law in modern history. Not at all! The call for me to undertake a doctorate studies became a standard greeting whenever we met.

Somehow, I did not completely Prof let down in his determination to make me a scholar, as I started writing articles and papers. I recall glimmers of pleasure in Prof's eyes whenever he would talk about water law and policy, of which he is the most distinguished scholar, and a broad grin as I would make presentations on the same topic in his presence. I therefore challenged myself to think of a subject that Prof had not written on: that is on mountains!

I am sure Prof will find this chapter inspiring, hopefully with another call for a doctorate from me!

II. INTRODUCTION

Mountains occupy about 22 per cent of the earth's surface and host about 10 per cent of the total population. Approximately 13 per cent of the global human population lives adjacent to mountainous areas. Almost one billion people live in mountain areas, and over half of the human population depends on mountains for water, food and clean energy. Mountains are a great source of tourism, water, energy, agriculture, forestry, are centres of high biological and cultural diversity, religion, recreation and investment, among others. Mountains act as barriers for wind flow and determine the amount of rainfall and temperatures in their windward and the leeward sides.

According to the Africa Mountain Atlas, a mountain is defined as an elevated area of land that rises above its surrounding lowlands with further thresholds of elevation (altitude), slope, area, prominence and even importance. The UNEP World Conservation Monitoring Centre (WCMC) uses a criterion based on altitude and slope to define mountain regions. Several subsets of mountains have been arrived at as follows: elevation of at least 2,500 metres, elevation of at least 1,500 metres, with a slope greater than 2 degrees; elevation of at least 1,000 metres, with a slope greater than 5 degrees; elevation of at least 300 metres, with a 300 metre elevation range within 7 kilometres. Using these definitions, mountains cover 33 per cent of Eurasia, 19 per cent of South America, 24 per cent of North America, and 14 per cent of Africa.

Overexploitation of mountain resources has become detrimental to the mountain ecosystem, leading to challenges such as deforestation, soil erosion and landslides, reduction of snow cover, and melting of glaciers, among others. These challenges have led to a change in the climate patterns in the mountain areas, an indicator of global climate change. For example, reduction of snow cover on Mt Kenya and melting glaciers and permafrost on the Himalayas indicate an overall increase in temperatures. Extreme weather events, such as storms and heat waves, amplify hazards in mountain areas worldwide. Prolonged periods of high temperatures increase incidences of drought and fires, leaving some regions prone to desertification.

Historically, mountains have not been given much attention despite their ecological and socio-economic importance. This can be attributed to inadequate knowledge on their contribution to sustainable development and their remoteness to downstream communities and ecosystems. Inadequate attention has exposed mountains to the dangers of resource degradation, scarcity, inequity and environmental degradation.

This chapter examines the governance frameworks for sustainable mountain development in Africa. This paper presents conceptual frameworks and structures for sustainable mountain governance in Africa with reference to the importance, challenges and opportunities of these mountains to highlight their contribution to Africa's development agenda. This chapter reviews policies, institutions and laws on mountains, with a conclusion that, generally, there are gaps on policies and laws governing mountains in Africa.

III. SUSTAINABLE MOUNTAIN DEVELOPMENT IN AFRICA

Sustainable Mountain Development (SMD) refers to the exploitation of the social, cultural, economic and environmental benefits of mountains in a way that meets the needs of the present without compromising the ability of future generations to meet their own needs. SMD has been at the forefront of global and regional development at least since the adoption of Chapter 13 of Agenda 21 at the United Nations Conference on Environment and Development (UNCED) in 1992 where for the first time mountains were placed onto the global stage.

Mountains received further emphasis in 1998 by the United Nations General Assembly (UNGA) when it proclaimed 2002 as the International Year of Mountains (IYM), and dedicated 11 Decem-

ber of every year as mountain day in order to promote the conservation and sustainable development of mountain regions. Paragraph 210-212 of the Outcome Document, *The Future we Want* of the United Nations Conference on Sustainable Development, addresses the framework for action on mountains.

In Africa, more than 37 countries have mountains or highlands and more than 20 per cent of the mountains have an elevation of above 1,000 metres. The mountain ranges include the Atlas and Rif mountains in North Africa, the rich volcanic mountains in Central Africa, the Maloti and Drakensberg in South Africa, and the mountain ranges of Eastern Africa comprising of the Ethiopian highlands, Kilimanjaro, Kenya, Elgon and Ruwenzori mountains. Mountains contribute to Africa's sustainable development agenda by providing opportunities for economic growth, tourism, renewable energy production and provision of ecosystem goods and services. They rank high as biological hotspots for species such as the great apes of central African mountains, the larger animals in the East and Southern Africa mountains, and the variety of bird species on the Drakensberg. The mountains of Africa are important water towers for a continent that is dominated by arid and semi-arid areas. Most countries in Africa rely almost exclusively on water resources flowing from mountainous areas to supply water for domestic use, irrigation, and livestock production and other livelihood needs.

African mountainous areas are also rich in cultural diversity and indigenous knowledge. They have a high aesthetic value, and are focal points for recreational activities. Certain peaks are regarded with reverence by local cultures, and are considered 'sacred', such as Peak Masaba on the Uganda side of the Mount Elgon. These mountains are also centres for peace between communities and states, social stability and health.

IV. A COMPREHENSIVE CONCEPTUAL APPROACH TO SUSTAINABLE MOUNTAIN GOVERNANCE

A. Elements of mountain governance

Sustainable use of mountain resources requires a comprehensive structure of governance that considers the ecosystems, landscapes, socio-cultural, economic, institutional, policy, legal, political issues as well as transboundary aspects. A proper framework for mountain governance is composed of four key elements: stakeholders, administrative systems, dimensions and management options. Further, comprehensive mountain governance comprises a range of mechanisms, processes and institutions through which all stakeholders and nations develop and manage mountain resources, articulate their interests, exercise their rights, meet their obligations and settle their differences. This governance system can be at community, national, transboundary, regional and global levels.

An illustration of the above conceptual approach is illustrated Figure 27.1.

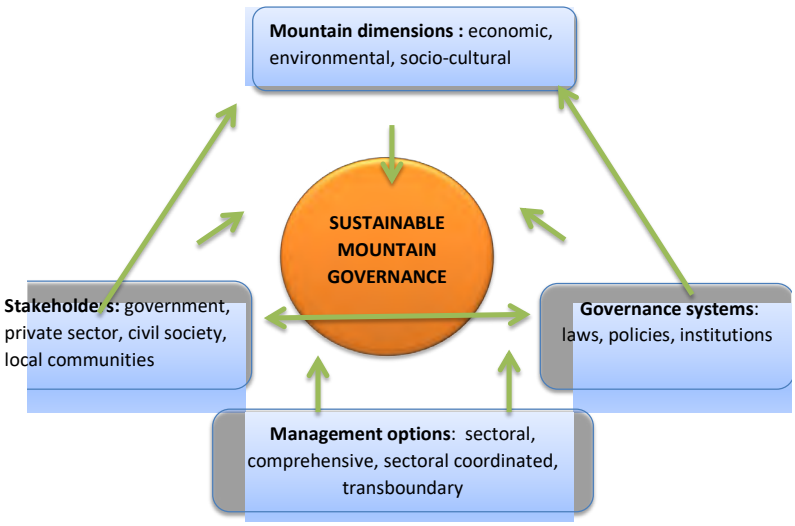


Figure 27.1: Mountain governance

B. Key mountain governance stakeholders

The interaction between and among stakeholders with regard to mountains forms a major part of an intricate system of mountain governance. The key stakeholders include government, private sector, civil society and local communities.

The key role of government in the governance of mountains is to make laws, policies, establish public institutions and create an enabling framework for investment, participation, management of mountain resources as well as representing the state at international and transboundary levels. Further, the role of the government is to develop infrastructure in relation to mountainous and lowland areas. At transboundary level, the role of government is to cooperate with other bordering countries and organizations to manage the mountain systems sustainably.

The second category of stakeholders is the private sector. Exploitation of mountain regions is a major source of economic gain for the private sector, given that mountains harbour a wealth of ecosystem goods and services, such as minerals, timber products, tourism, culture and recreation. Private sector engagement consequently focuses on maximizing profit from the exploitation of ecosystems, goods and services in the mountains. Due to the nature of mountainous regions, however, these gains are affected by high production and transportation costs. A key governance issue is how to regulate private sector activities to avoid degradation of mountains while ensuring that investors make profits. Additionally, frameworks are required to ensure that national governments and local communities benefit from the revenue generated by the private sector. Switzerland, where approximately 70 per cent of the land is mountainous, is one of the wealthiest countries in the world partly because the public sector invested in a well-developed infrastructure

to make mountain areas accessible, and also because of laws, policies and a complex system of fiscal schemes promoting overall development of the mountain regions and reducing disparities between them and the lowlands.[1] As a key stakeholder in mountain development, the private sector must be involved in strategic decision-making and other governance options in mountain development, such as public-private partnership frameworks.[2]

The role of civil society is to agitate and represent the interests of the majority, advocate good governance, and hold government and private sector accountable for their actions so that they perform their responsibilities sustainably. Several mountain associations have been formed at the local, regional and international level -- such as the World Mountain People Association (WMPA).[3]

Local communities are usually the owners and beneficiaries of mountain resources. The extent to which they participate, share their views, take part in activities, decision-making, profit sharing and other issues related to mountains is critical to the sustainability of mountains. Mountain-people need to be consulted and included in decision-making on mountain management since every decision directly affects their everyday life.

C. Dimensions of mountain governance

While a wide range of mountain resources exist to benefit both highland and lowland people, their use must be subjected to a sustainable structure of governance. A sustainable structure of governance requires integration of the environmental, social-cultural and economic dimensions of sustainable development.

There is need for an interface between the social and the cultural identity of individuals and groups living in mountain areas. Mountain people hold a unique culture, together with indigenous knowledge and information that stems from their long history in the mountains, an important dimension in informing mountain management.

Mountain people face perilous challenges in their living conditions due to isolation and difficult geographical and climatic conditions leading to higher levels of poverty and low standards of living as compared to lowland based people. Historically, mountain areas have not received great focus in developing policies, resulting in a general lack of basic facilities. There is a big difference in the standards of living between lowland based people and those living in mountain areas.[4] Yet there is interdependence between the lowland and mountainous living people, with the former contributing natural resource based products and the latter tourism and investments.[5] In addition, al-

1 Food Agricultural Organization, 'Mountains As the Water Towers of the World: A Call for Action on the Sustainable Development Goals (SDGS)' (Food Agricultural Organization 2014) http://www.fao.org/fileadmin/templates/mountain_partnership/doc/POLICY_BRIEFS/SDGs_and_mountains_water_EN.pdf accessed 15 October 2018,p.55

2 ibid, p.19

3 World Mountain People Association (WMPA), (mountainpeople.org, 2013)<http://www.mountainpeople.org/en/histoire/questions.php>accessed August 2, 2018

4 Owen J Lynch and Gregory F Maggio, *Mountain Laws And Peoples* (1st edn, The Mountain Institute 2000).

5 Mountain Agenda, 'Mountains of the World: Challenges for the 21st Century. A Contribution to Chapter 13 of Agenda 21'(1997)

though women are responsible for most of the agricultural and food-related activities in mountain areas, they face greater obstacles than men in access to land and other assets, education, social services, credit and technology.[6]

Despite the resource base in mountainous areas, communities living in there share high incidences of poverty.[7] For example, of the 592 counties listed as poor under China's national poverty elimination programme, 496 are in mountainous areas.[8] In Tanzania, the Usambara mountains face population pressure and inappropriate farming methods, leading to run offs and soil erosion.[9] In Italy, local public services in mountain communities must open information offices to remedy communication shortcomings and give their inhabitants free access to non-confidential information.[10] In Switzerland, a special fund to finance aid to investments in mountainous areas, including loans for infrastructural development, has been established.[11] In Georgia, policy provides for free primary and secondary education in mountain areas as well as the government being responsible for school management and funding in those regions.[12] In North Ossetia-Alania, the law provides that mountain people have priority rights to use natural resources in the mountain areas, and also provides for public funding of research and teaching material.[13] Mountain governance systems should therefore seek to address the socio-cultural aspects in those areas.

The economic dimension of sustainable mountains encompasses economic aspects of mountains along the respective value chain and focus on direct economic impacts on the mountainous population, ecosystems values, and how they relate to the lowland areas and the world at large. Mountains regions are good destinations for investments in harnessing ecosystem goods and services. Mountains are second to coasts and islands as popular tourism destinations, generating 15 to 20 per cent of annual global tourism, or US$70 billion to US$90 billion per year. [14] Other economic activities, such as mining, bring large economic benefits, but can also have devastating effects on mountain ecosystems.

Mountain people rely on agriculture not only to meet their food requirements but also to create jobs and contribute to economic development. Mountain agriculture faces many challenges, however, ranging from poor landscape, deforestation, soil erosion to poor climate due to the altitude and less agricultural land. These risks need to be managed in order to balance the interests of the

6 ibid

7 Owen J Lynch and Gregory F Maggio, *Mountain Laws And Peoples* (1st edn, The Mountain Institute 2000).

8 Shuncheng, Yang, 'Issues Relating to Forestry and the Mitigation of Poverty,' Forestry and Society Newsletter, Vol. 16, 1005-3654 (1998)

9 Supra, Dr Festus Report

10 Italy Act 97 of 1994, on Woods, Forests and Mountain Areas

11 Castelein, A., 'Mountains and the Law : emerging trends' (E, S, F) FAO legislative study (ISSN 1014-6679 ; 75 Rev.1) (2006)

12 Law of Georgia on the Socio-economic and Cultural Development of Mountain Regions 1999, https://matsne.gov.ge/en/document/download/31966/24/en/pdf

13 Mountains and the law: Emerging trends, FAO Legislative Study, vol 75 rev 1, page 27, 2006

14 Lama, W.B., & Sattar, N. 'Mountain tourism and the conservation of biological and cultural diversity' In M.F. Price, L. Jansky, & A.A. Iatsenia (Eds.), Key issues for mountain areas(2004 ,pp.111–148). Tokyo: United Nations University Press.

mountain people against the needs of the society at large. In some mountainous regions in Africa where mines are located, arsenic levels are a thousand times above the accepted standard.[15]

Although mountains face challenges, they also provide an opportunity for investment. In some countries, especially in the European mountain areas, mountain agriculture represents nearly half of the total crop and livestock production, agricultural land and labour. For example, almost half of the permanent crops in Slovenia, Portugal and Greece are located in mountain areas.[16] In France, mountain products are marked by the 'mountain label, which distinguishes them in the market.[17]

Policies need to be put in place to promote products from the mountain areas by, for example, incentivizing mountain investments and providing special labels for their products, which are usually of a high quality due to climate and culture, so that they are recognized in the market place. There is also need for the governing institutions to achieve a balance in deriving the economic benefits from mountains while promoting sustainable practices.

The environmental dimension of mountains seeks to ensure sustainability by enhancing or maintaining the ecosystems and their services, reducing environmental risks and avoiding degradation while increasing the resilience of communities and the environment.

Mountains are among the bio-geographical areas most vulnerable to environmental degradation. For example, the mountains of east and central Africa host important flora and fauna, which is an important source of foreign exchange.[18] Unsustainable resource exploitation, deforestation and cultivation on the mountains, however, cause the loss of this important bio-diversity. An example of good practice is the Swiss transport policy across the Alps, the Federal Law on Investments in Mountain regions, and also the regional policy in the New Railway Transalpine Transit (NEAT).[19]

There is need to ensure that the mountain environment is protected because of the crucial role it plays in ensuring sustainability, including in the water cycle. Moreover, there is need for a balance between development of the mountains and environmental protection. This is where the issue of governance is especially crucial.

Due to the fragility of mountain ecosystems, development activities should always be preceded by a careful assessment of local conditions and accompanied by environmental impact monitoring. For example, mountain forests should also be managed using an ecosystem approach, taking into

15 Rebecca Obstler and Jane Shaw, *Why Invest In Sustainable Mountain Development* (1st edn, Food and Agriculture Organization of the United Nations (FAO) 2011).

16 Fabien Santini, Fatmir Guri and Sergio Gomez y Paloma, 'Labeling of agricultural and food products of mountain farming', JRC Scientific and Policy Reforms (European Commission, 2013)

17 France Act No. 85-30 of 1985, on Mountain Development and Protection

18 UNEP, 'Sustainable Mountain Development In East Africa In A Changing Climate' (United National Environmental Programme 2016).

19 New Rail Link Through The Alps (NRLA)' (*European Federation of Engineering Consultancy Associations*, 2013) <http://www.efcanet.org/AboutEFCA/Members/Membersprojects/Detail.aspx?detailid=18445> accessed 6 February 2018.

account the biological characteristics and the different ecological functions of a forest.[20]

V. MANAGEMENT OPTIONS FOR SUSTAINABLE MOUNTAINS GOVERNANCE IN AFRICA

Sustainable mountains require the institution of management options that can ensure that these landscapes are centres of sustainable development. Innovation is needed in the development of management options that can be adapted to a particular mountain region.

The holistic management approach addresses all spheres of sustainable mountain development ranging from environmental, economic, social, cultural and political issues in order to improve the lives of mountain people and life support systems of the surrounding areas. This approach requires all relevant stakeholders to come together and identify the goals, policies and strategies needed to achieve such a sustainable governance system.[21] For example, the Mt Kenya Forest Reserve Management Plan illustrates a holistic management style with several programmes running concurrently. These programmes include a natural forest management plan; bamboo development and management programme; plantation development programme; watershed management programme; tourism development programme; farm forestry development programme; community participation programme; infrastructure and equipment programme.[22] The Mulanje Mountain Biodiversity Conservation Project (MMBCP) in Malawi is another example of a holistic management approach as it addresses the ecological, social and economic aspects of the mountain.[23] Its implementation is governed by a multi-stakeholder board representing government and civil society with the objectives of (i) maintaining the watershed, (ii) fostering cooperation between the Forest Department, local authorities and communities, and (iii) preserving the globally significant biodiversity and unique ecosystems of the Mulanje massif.

The second governance option is the sectoral management approach, where the different stakeholders separately manage the different subsectors of the mountain ecosystem. In this model, each player sets their own separate goals regarding a particular mountain objective, e.g. water conservation by the water authority, forest institution dealing with forests or wildlife on national parks and tourism circuits. There are examples in this option including the Ruwenzori Mountains National Park managed by the Uganda Wildlife Authority by conserving the Ruwenzori mountain ecosystem.[24]

The third governance option is the sectoral coordinated management approach, which involves

20 Food Agricultural Organization, 'Mountains As The Water Towers Of The World: A Call For Action On The Sustainable Development Goals (SDGS)' (Food Agricultural Organization 2014) http://www.fao.org/fileadmin/templates/mountain_partnership/doc/POLICY_BRIEFS/SDGs_and_mountains_water_EN.pdf accessed 15 October 2018p.29

21 ibid

22 Kenya Forest Service, 'Mt. Kenya Forest Reserve Management Plan (2010-2019)' (Kenya Forest Service 2009).

23 Poul Wisborg and Charles B.L. Jumbe, 'Mulanje Mountain Biodiversity Conservation Project' (Mid-Term Review for the Norwegian Government,2010)

24 FAO, 'Sustainable Mountain Development in Uganda' <http://www.fao.org/forestry/18493-041acb47f8039899992e92d7f049c69c0.pdf>accessed November 6, 2017

all the sectors working separately coordinated by an overall committee or institution to ensure the actions and decisions of the different players achieve the desired goal. An example would be representatives from the water authority, wildlife services, biodiversity protection, mountain associations and the private sector forming an institution to coordinate and make decisions that affect the whole mountain ecosystem.

The fourth governance option is the transboundary approach, which requires the three components of mountain governance, i.e., stakeholders, dimensions and administrative systems to work together but with an added responsibility of transboundary cooperation with partner states or communities. At transboundary level, incidents of conflict and competition for resources can occur, hence the need to harmonize policies and agree on how to manage such eventualities. This makes transboundary cooperation an indispensable part of mountain governance. Synergizing efforts with other countries to manage mountains increases efficiency in bringing out the best socio-economic and environmental benefits to the partner countries.

Examples of transboundary governance include the Maloti-Drakensberg Trans frontier Project between Lesotho and South Africa that seeks to protect the natural and cultural heritage of the Drakensberg Mountain and the 2015 Greater Virunga Transboundary Collaboration Treaty on Wildlife Conservation and Tourism Development that seeks to protect the Virunga landscape. The Alpine countries in Europe formulated the Convention for the Protection of the Alps in 1991, which provides for the uniform protection and sustainable development of the Alps as a uniform regional ecosystem. In 2007, the countries of Central Asia established the Regional Mountain Centre for Central Asia (RMCCA) to foster cooperation and improve the social and economic conditions of the populations living in and around the mountain areas. In addition, in 2011 the Kazakh and Russian governments agreed to the designation of a trans-boundary reserve centered on two existing protected areas: the Katunskiy Biosphere Reserve in Russia and the Katon-Karagaiskiy National Park in Kazakhstan. The Consortium for the Sustainable Development of the Andean Eco region (CONDESAN) provides a platform for cooperation in the Andes. The Interreg programme between Switzerland and Italy (INTERREG III) seeks to promote sustainable development in the economies of both countries and to promote their natural and cultural heritage as well as cooperation in managing the environment.[25]

Assessing the four management options, and depending on the landscape and socio-economic aspects of a particular mountain, it appears that the holistic approach offers more advantages as it can respond to local, national and global challenges and lead to sustainable mountains.

VI. MOUNTAIN GOVERNANCE SYSTEMS

This focuses on the policies, institutions and legal instruments in place to develop and manage mountain resources and to protect mountain ecosystems at the national, transboundary, regional and global levels. Good mountain governance systems require effective institutions and adminis-

25 Food Agricultural Organization, 'Mountains as the Water Towers of the World: A Call for Action on the Sustainable Development Goals (SDGS)' (Food Agricultural Organization 2014) http://www.fao.org/fileadmin/templates/mountain_partnership/doc/POLICY_BRIEFS/SDGs_and_mountains_water_EN.pdf accessed 15 October 2018p,22

trative arrangements to guide and regulate the different interests in mountains. Most institutions are established through laws and policies.

Policies, institutions and laws on mountains take into account regulatory issues such as planning, land use and zoning, investments, farming and industrial developments. Policy options and strategies that integrate local, national, regional and global mountain objectives and ensure that the place of each player is identified are necessary in mountain governance.

The institutional mechanisms vary, depending on the circumstances of the country, particularly in terms of administrative mechanisms, financial, social and other circumstances. In Tanzania, for example, the institutional system on mountains is shared between the Ministry of Environment and other sector ministries, and the National Environment Management Council, while the regional administration and local government authorities are also responsible.[26]

Decentralization of mountain management is one of the best ways of empowering mountain inhabitants, reducing costs and increasing efficiency. Local administrations, especially in Africa, often do not have the necessary resources and expertise to fulfill their functions. Sufficient resources should also be transferred from the central to the local level.[27] In this case, there is need for a clear and transparent framework on how benefits go to the local level governments given that mountain areas are also of national importance.

An examination of good practices shows that mountain specific policies have produced successes in mountain governance by inclusion of the mountain people in decision-making, incentivizing and subsidizing farming, and investment and promotion of infrastructural developments. Examples of these good practices include the Alpine countries in Europe, which have passed mountain-specific legislation following the Alpine Convention such as Switzerland,[28] Italy[29] and Ukraine[30]. In Switzerland, a comprehensive structure of laws containing both implicit and explicit legislation on mountain development has been developed since the 1900s.[31] In France, a 1985 law established government specialized advisory bodies for the development and protection of mountain regions: the National Mountain Board at the central level and range committees for each of the seven existing mountain ranges.[32]

It is therefore necessary to adopt specific all-encompassing policies that address the various as-

26 Arnold L. Mapinduzi (NEMC Tanzania) , 'Addressing Mt Ecosystem Services and Vulnerability in Tanzania' *Presentation given at the* 'Regional Conference on African Mountain Ecosystems as Impacted by Climate Change: Post Rio+20 Actions 9-10th Sept 2013 (Nairobi)

27 Supra note 31 FAO 2011 p.44

28 Switzerland Federal Act, 21 March 1997, on aid to investment in mountain regions

29 ibid

30 Ukraine 1995 Act on the Status of Human Mountain Settlements

31 Erwin W. Stucki, Olivier Roque, Martin Schuler and Manfred Perlik, 'Contents and impacts of mountain policies: Switzerland National report for the study on Analysis of Mountain Areas in the European Union and in the Applicant Countries'(Institute of Agricultural Economics 2004) p.5

32 Food Agricultural Organization, 'Mountains As The Water Towers Of The World: A Call For Action On The Sustainable Development Goals (SDGS)' (Food Agricultural Organization 2014) http://www.fao.org/fileadmin/templates/mountain_partnership/doc/POLICY_BRIEFS/SDGs_and_mountains_water_EN.pdf accessed 15 October 2018 p.7

pects of mountains, taking into account the characteristics, needs and challenges of mountain areas while also considering the broader political context and downstream interests.

VII. REVIEW OF POLICIES, INSTITUTIONS AND LAWS ON MOUNTAINS IN AFRICA

A. Africa regional policies and legal instruments

In Africa, the 1997 African Mountains and Highlands Declaration[33] highlights the major problems affecting the continent's mountain ecosystems and provides policy recommendations for addressing the identified problems. The policy recommendations include: 1) more sustainable mountain development by strengthening institutions at local, national and regional levels to generate a multidisciplinary land/water ecological knowledge base on mountain ecosystems; formulating national policies to incentivize local people for use of mountain resources, farming and conservation practices; 2) action-oriented mountain research to generate and strengthen existing knowledge about the ecology and sustainable development of mountain ecosystems. To undertake a survey of the different forms of soils, forest, water use, crop, plant and animal resources of mountain ecosystems; 3) inter-institutional communication and collaboration by coordination at regional levels and facilitate an exchange of information and experience. The declaration shows socio-economic and environmental issues affecting African mountain ecosystems.

At the regional level, African states have made efforts to promote SMD. The Arusha Declaration[34] of the 14th session of the African Ministerial Conference on Environment (AMCEN) held in Arusha, September 2012, requested "UNEP, in collaboration with member states and partners, to support, the implementation of the agreed decision under the Rio+20 conference regarding mountains in Africa."

In addition, the fifth special session of AMCEN held in Gaborone on 17 and 18 October 2013 declared:

> "to agree to strengthen capacity in research and evidence-based knowledge, create awareness, formulate adequate laws, policies and institutions on mountains, including adopting trans-boundary and regional frameworks on sustainable management of African mountains ecosystems"[35]

In October 2014, the 1st African Mountains Regional Forum (AMRF), under the theme 'Towards a Shared Mountain Agenda for Africa' was held in Arusha to support creation of understanding of common mountain conservation and development in the region and identify strategic actions to

33 1997 African Mountains and Highlands Declaration quoted in <http://www.fao.org/tempref/docrep/fao/005/y3872e/y3872e12.pdf.>Accessed 14.10.2018

34 Arusha Declaration on Africa's post Rio+20 strategy for sustainable development <http://www.unep.org/roa/amcen/Amcen_Events/13th_Session/Docs/14th%20Session/ArushaDeclaration/K1282895.pdf> November 12, 2017

35 Gaborone Declaration on climate change and Africa's development<http://www. unep.org/ roa/amcen/Amcen Events/5th_ss/Docs/K1353541%20%20Gaborone %20Declaration% 20by%20the%205 th%20Special %20session %20of%20AMCEN%20-%20Final%2022102013%20EN.pdf> November 12, 2013

address major emerging issues.[36] In March 20015, AMCEN, at its 15th session held in Cairo urged member states to develop appropriate institutions, policies, laws and programmes, as well as to strengthen existing transboundary and regional frameworks for the sustainable management of mountain ecosystems. The conference agreed to prepare a regional mountain agenda and to establish and strengthen the Africa Regional Mountains Forum to facilitate knowledge and information exchange, and for policy dialogue in close cooperation with Africa's Mountain Partnership. The East African Community has a Mountain Agenda that focuses on developing and strengthening policy and institutional frameworks for enhanced governance in mountain ecosystems.[37] In addition, Article 20 of the Protocol on Environment and Natural Resources Management[38] of the East African Community (not yet in force) specifically addresses the need to protect mountain ecosystems such as critical water catchments, conservation and heritage areas, as well as other areas of common strategic interest at local, national, regional and international levels. The protocol seeks to enjoin partner states to promote watershed management, establish or strengthen institutions, and diversify mountain economies. The protocol further seeks to integrate forestry, rangeland and wildlife activities so as to maintain specific mountain ecosystems. The protocol, therefore, is one of the few instruments in Africa that has specific provisions for sustainable mountain development.

The 2015 Greater Virunga Transboundary Collaboration Treaty on Wildlife Conservation and Tourism Development[39] establishes a transboundary collaboration framework with the Greater Virunga landscape of mountain national parks of the Democratic Republic of Congo, Uganda and Rwanda. The treaty, though in its objectives mentions wildlife conservation, tourism development and transboundary collaboration, makes no mention of the mountains as ecosystems. The Virunga landscape has Ruwenzori and Virunga mountains systems.[40]

B. National level polices, institutions and laws

At the national level, most countries in Africa do not have specific institutions, laws and policies to protect the mountain environment largely because mountains have not been recognized as unique ecosystems that require special attention and therefore specific legislation. In Africa, protection of mountain ecosystems is more commonly found in related sectoral policies, institutions and laws governing the environment, forests, tourism, wildlife (national parks), water, soils and land use planning, among others.[41]

There are few selected good practices on mountain governance systems from African countries. In the

36 First African Mountains Regional Forum Adopts Arusha Outcomes. http://sdg.iisd.org/news/first-african-mountains-regional-forum-adopts-arusha-outcomes/. Accessed 14.10.2018

37 UNEP, 'Sustainable Mountain Development In East Africa In A Changing Climate' (United National Environmental Programme 2016).Accessed 5 March 2018

38 Protocol on Environment and Natural Resources Management, <http://lct.rlrc.gov.rw/media/files/documents/EAC_PROTOCOL_ON_ENVIRONMENT_AND_NATURAL_RES_MGMT.pdf> Accessed 15.10.2018

39 2015 Greater Virunga Transboundary Collaboration Treaty on Wildlife Conservation and Tourism Development, <http://greatervirunga.org/IMG/pdf/gvtc_treaty_30_oct_2015.pdf> Accessed 15.10.2018

40 United Nations Environment Programme, 'Africa Mountains Atlas' (Progress Press Ltd 2014).

41 FAO Legislative Study, 2006 p.8

case of Uganda, the National Environment (Hilly and Mountainous Area Management) Regulations, 2000,[42] gives the main objectives of regulating, facilitating and promoting the sustainable utilization and conservation of resources in mountainous and hilly areas by and for the benefit of the people and communities living in the area. It also provides for restrictions on the use of mountainous and hilly areas, duties of landowners, occupiers and users, soil conservation, afforestation and reforestation.[43] Uganda defines a mountainous area as "an area with a steep elevation with a restricted summit area projecting 1,000 feet or more above the surrounding land" and a "hilly area" as an area with a natural elevation of land of local area and well-defined outline higher than a rise and lower than a mountain.

The South African Mountain Catchment Areas Act of 1970 (MCAA) [44] provides for the conservation, use, management and control of land situated in mountain catchment areas. The law does not define mountains, but simply describes it as an area defined by the Minister of Environmental Affairs by notice in the gazette to be a mountain catchment area. This law applies to the state-owned mountains and a percentage of privately owned important mountain catchment land. It empowers the minister to declare any area as a mountain catchment area, alter the boundaries of any mountain catchment area and take measures for fire protection. It, however, does not define specific criteria to be followed in delineating a mountain area. The law also gives authority to the minister to establish an advisory committee to advice on mountain related issues. South Africa's Forestry Handbook also describes mountain areas narrowly in terms of their water catchment functions, i.e. an area of "mountainous or elevated, usually broken terrain of insignificant agricultural potential, where natural precipitation is sufficient to produce surface or subsurface water yields that contribute significantly to national, regional or local water supplies."[45]

In Kenya, the main mountain law is found in the Environmental Management and Coordination Act (EMCA) 1999,[46] where the National Environment Management Authority is mandated to issue and implement regulations, procedures, guidelines and measures for the sustainable use of hillsides, hill tops, mountain areas and forests. The law further provides that the said regulations, guidelines, procedures and measures shall control harvesting of forests and natural resources, protect water catchment areas, prevention of soil erosion, and regulate human settlement and disaster preparedness in hilly and mountainous areas. EMCA empowers the county environment committees to identify the hilly and mountainous areas under their jurisdiction, which may be at risk of environmental degradation.

In Tanzania, the Environment Management Act recognizes mountainous areas, water catchment areas and aquifers as some of the environmentally sensitive areas for which an environmental impact assessment (EIA) must be carried out before development takes place. Morocco has a policy framework for conservation and integrated development of its mountain areas. Its main objective is the reduction

42 Uganda National Environment (Hilly and Mountainous Area Management) Regulations 2000

43 Ibid

44 South Africa Mountain Catchment Areas Act 1970

45 Rabie M.A, Blignaut and PE & Fatti, L.P, 'Mountains in Environmental Management in South Africa' (Juta & Co Ltd: Cape Town 1992) < http://www.fs.fed.us/rm/pubs/rmrs_p027/rmrs_p027_026_033.pdf> accessed November 6, 2013

46 Environmental Management and Coordination Act 1999, Kenya

of social economic imbalance between the mountains and the lowlands people, combating poverty and promoting self-governance.[47] In Lesotho, Maloti Mountains host the Lesotho Highlands Water Project, a hydroelectric power project that provides water to Lesotho and South Africa. To do this efficiently the country developed a water policy to manage the trade-offs between the mountains and the downstream areas.[48]

Cameroon has several environmental policies that have a bearing on conservation of mountains. These include the forest policy[49] and a natural resource policy,[50] among others, which are implemented by the Ministry of Environment and Forestry. The country has also declared several of its areas as protected areas. This includes the Mt Cameroon National Park to protect its rare and important ecosystems.[51] In Guinea, policies for proper agricultural and farming practices to conserve soil and water as well as prevent soil erosion in the Fouta Djallon Highlands promote practices such as terracing, controlled grazing, water drainage, water harvesting, contour ploughing and agroforestry.

VIII. CONCLUSION AND RECOMMENDATIONS

It is almost irrefutable that mountain ecosystems are crucial for global survival. Historically, however, their proper management has not been prioritized in the national and global development agenda as evidenced by the few countries that have put in place comprehensive mechanism to sustainably manage mountains. Mountain governance now needs to be put at the top of global, regional, national and local agenda in order to ensure their sustainable development and to reverse the damage that has already been caused.

A review of the legislative and policy framework of African countries reveals a gap in mountain governance. There is therefore need for African countries to develop policy and legislation at the local, national, trans-boundary and regional levels to strengthen mountain governance.

Efforts by some African countries to achieve SMD through the institution of the various governance systems have, to some extent, been successful. Most African countries have, however, lagged behind in the development of governance systems for proper management of mountains despite this being a major global goal. This has resulted in poor development of mountain areas and their degradation, which results in a myriad other mishaps such as climate change, landslides, soil erosion, poverty and loss of biodiversity, among others.

47 Mountain Agenda, 'Mountains of the World: Challenges for the 21st Century. A Contribution to Chapter 13 of Agenda 21'(1997)p.42

48 Ibid p.44

49 'Laying down the Procedure for Implementing the Forests System,' Cameroon Decree No 95/531/PM of 1995, http://www.theredddesk.org/countries/cameroon/plans_and_policies/search?filters=type%3Apolicy&retain-filters=1 accessed August 19,2013

50 Cameroon National Plan of Environmental Management 1996

51 'Unique Cameroon Mountain Area Gets Crucial Protection' (*Wwf.panda.org*, 2010) <http://wwf.panda.org/?187521/Unique-Cameroon-mountain-area-gets-crucial-protection> accessed 13 August 2013.

Mountain governance requires a long-term vision and holistic approach. It has to be informed by the four components of stakeholders, dimensions, systems and transboundary frameworks, taking into account the socio-cultural, economic, legal and political aspects of mountains. These mountain dimensions bring out the wealth and significance of the ecosystems while demonstrating the challenges and opportunities for development. Achieving good mountain governance requires multi-stakeholder cooperation and establishment of its key structures.

Effective institutions and administrative arrangements are also a necessary factor in governance to play a regulatory and implementation role. Different approaches have been adopted in forming mountain institutions, which includes mountain specific institutions, strengthening existing institutions, and forming trans-boundary mountain institutions.

The ecological services of African mountains are felt far beyond national and regional boundaries. It is therefore essential to promote SMD and sustain the flow of ecosystem goods and services from highlands to lowlands to contribute to the wellbeing of people at the national, regional and global level, while at the same time protecting the environment.

At the regional level, there is need for African states to cooperate in SMD. Establishing regional and sub-regional mountain strategies to produce a common vision and actions can strengthen cooperation. Since some states already have such structures in place, they can strengthen the existing ones and or establish new trans-boundary mountain institutions and encourage inter-state collaboration.

An efficient system of transport and communication must be in place to enable movement of people, goods and services to and from the mountain, as well as communication with other people in the country and to promote economic development.

At the national level, countries need to formulate and implement specific laws, policies, strategies and programmes to specifically deal with mountain issues. Existing and or new national mountain institutions that encourage inter-sectoral collaboration to provide a supportive and enabling environment for private sector investment and promotion of goods and services from the mountain are critical. Legal empowerment of the mountain people in terms of property rights, improving quality and standard of life, protecting their cultural heritage will ensure sustainable development of mountains.

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Annexes

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Bachelor of Arts (Magna Cum Laude)
Major: Social Psychology and Political Science

1. September 1971 to November 1975 - The Fletcher School of Law and Diplomacy
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- **Master of Arts in Law and Diplomacy (MALD)**
Completed in June 1973
Field: Law and Diplomacy

- **Doctor of Philosophy (Ph.D)** degree received in November 1975
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C. ADDITIONAL PREPARATIONS

i. January and February 1976: Post-Doctoral Fellow, Mascachusetts Institute of Technology, Centre for International Studies to prepare a special study on International Legal Measures to Control Pollution of the Seas by Oil.

ii. June 1973 to May 1974: Research Fellow, Woods Hole Oceanographic Institution, Centre for Marine Policy and Ocean Management. To study the scientific basis of environmental problems and the legal and institutional arrangements for their control especially in Marine Environment.

iii. June 1974 to December 1975: Research Fellow, Massachusetts Institute of Technology (MIT), Centre for International Studies, Cambridge, Massachusetts 02138 as a James P. Warburg Fellow of the Universities Consortium for World Order Studies, comprising Harvard, MIT, Yale, Princeton, Columbia and University of California Berkeley. [focusing on International Environmental Law and Technology].

D. POSITIONS

From 1st December 2002, to April 5, 2013
Director, Founder Professor of Environmental Law - Centre for Advanced Studies in Environmental Law and Policy (CASELAP) as a new Faculty – Level Academic Unit of the University
Research Professor at Institute for Development Studies (IDS)
University of Nairobi, P.O. Box 30197, 00100 Nairobi Kenya.

Responsibilities in the University

(1) Developing an executing teaching and research in Environmental Law and Policy

(2) Establishing and directing a Centre for Advanced Research and Studies in Environmental Law and Policy as a faculty-level unit of the University, exclusively for postgraduate programme from 2004 in Environmental Law, Environmental Policy and Environmental Diplomacy.

(3) Member of the University Board of Postgraduate Studies

(4) Member, College Academic Board, CHSS

Member, Deans Committee – 2002 to 2013

Member, University senate – 2002 to 2013

(5) Initiating and implementing Inter-University Collaboration with other like-minded Universities.

(6) Initiating and executing capacity building in Environmental Law, Policy and Diplomacy

Other Public and Professional Responsibilities:

1. Member, Board of Management, Kenya Marine and Fisheries Research Institute since 2nd November 2001 to 2003
2. Chairman, Governing Council of Kenya Water Institute, from November 2003 to 2007
3. Member, National Environment Council Kenya's supreme policy organ under the Environmental Management and Coordination Act, 1999.
4. Member, Task Force for Drafting of Legislation Implementing Land Use, Environment and Natural Resources of the Constitution of Kenya.
5. Chairman, University College Council, Karatina University College – A Presidential appointment to be responsible for establishment and direction of the University College. February 2011 – February 2013 when Karatina received charter to be University
6. Chairman of Council, Karatina University from March 1, 2013to March 31st 2017. Saw to establishment of full scale University deployment of staff and physical development. In addition, oversee establishment of staff.

E. POSITION IN THE U.N.

From February 1995 to November 2002: At the United Nations Environment Programme: Senior Legal Officer (P5-X1) and Task Manager. Project on environmental Law and Institutions in Africa, Chief of Unit on Legal Pilot Projects.

Responsibility:

Establishing, directing and coordinating the project with multi US$ million implemented under a Steering Committee comprising UNEP, UNDP, The Dutch Government, The World Bank, and FAO. Thirteen (13) project countries: Mozambique, Malawi, Kenya, Tanzania, Uganda, Burkina Faso, Sao Tome and Principe, Botswana, Senegal, Mali, Niger, Swaziland and Lesotho. Other on-and- off work in South Africa, Angola, Cape Verde, Morocco, Mauritania, Guinea and Ethiopia. The scope of the work included the development of national environmental laws; development and harmonization of environmental law at regional levels; enhancement of expertise in development and enforcement of environmental law through training; training in implementation of treaties related to environment; preparation and production of publications on environmental law and its enforcement, including through the judiciary and legal practitioners; promotion of compliance with and enforcement of environmental law by industries; established trend-setting training activities such as for judges and legal practitioners later replicated in Asia, Latin America and worldwide.

The task also entailed guiding and supervising national and international consultants at country, regional and sub-regional levels.

Two independent evaluation exercises adjudged the project successful and recommended that it proceeds to Phase II with additional donors and to cover more African countries. The period 2001 and 2002 spent setting up of Phase II, including fundraising.

In addition, I have undertaken the preparation of draft revision and coordinating the process of revision of the 1968 African Convention for the Conservation of Nature and Natural Resources. The Revised version adopted by AU Summit in July, 2003.

The popularization of environmental law and consensus building has been done through several national and regional workshops and conferences. Considerable travel in Africa for supervision of the Project.

F. PREVIOUS EXPERIENCE

November 1988 to February 1995. Professor of Environmental Law and founder Dean, School of Environmental Studies Moi University.

1995 to 2002: Professor but on leave of absence, working for the United Nations.

Responsibilities:

As Dean of School of Environmental Studies, Moi University:
Responsible for the establishment of a new postgraduate interdisciplinary programme including Diploma, Masters and Doctoral degrees; Established a staff development programme: field study and research programme and a specialized research library; solicited for funds and other resources to support activities of the programme; recruitment of the necessary staff at all levels; and the regular administration of the School in relation to other programmes of the University which were collaborating under a multi-million dollar external funding. An Accounting Officer for all donor funds to the School's programmes. Chairman of the Board of the School. General supervisor of M.Phil.and Ph.D thesis.

As Professor:
Responsible for developing the curricula teaching and research in comparative and international environmental law as well as development of the staff and equipment in environmental policy, law and administration.

Others

1. Member, Moi University Senate for November 1988 to 1994.
2. Senate Representative, Moi University Council, 1990 to 1994.
3. Member, Committee of Deans, 1989 to 1994.

4. Chaired several Senate Committees, eg,
   - Senate Committee on Criteria for Appointment and Promotions
   - Senate Committee on University Act and Statutes

5. Alternate Member (to Vice-Chancellor) Kenya National Commission for Higher Education - the Universities' Grants Committee; and the Committee on Science Education and Research and the Committee on Curricula

6. Member of several Senate Policy and Operation Committees.

7. Prepared the Presidential Order establishing Maseno University College.

I left the University work at the invitation and appointment as Senior Legal Officer and Task Manager of United Nations Environment Programme (UNEP) to take up the challenge of setting up the Project on Environmental Law and Institution in Africa.

G. UNIVERSITY OF NAIROBI

March 1976 to October 1988 – First round.

1. Employed at the Institute for Development Studies (IDS)

   March 1976 - March 1981: Research Fellow

   April 1981 - May 1988: Senior Research Fellow

   June 1988 - October 1991: Research Associate Professor

2. Operated in corresponding teaching positions in the Faculty of Law, University of Nairobi and the Diplomacy Training Programme.

Activities at IDS

1. Developing themes, conducting and coordinating research in four broad subject areas:

   Legal and policy aspects of the management of the environment and natural resources.

2. International environmental policy, law and institutions

3. Law of the Sea, Marine Policy and Ocean Management.

4. Chairman, IDS Library and Publications Committee.

5. Representative of IDS Board to the University Senate.

6. Member, IDS Executive Committee and Several times Acting Director of the Institute

7. Chaired ad hoc committees which authored reports on "The Future Trends of the

Institute" 1978 and co-authored report on "Role of IDS in the Training for Higher Degrees" (March 1986).

Faculty of Law Activities

1. Teaching and Supervision of Postgraduate Students in Environmental Law
   Taught Comparative and International Environmental Law from 1978 - 1988.
   Introduced the course and the syllabus.
2. Taught International Organization in the Diplomacy Training Programme: 1976-1978.

1. **Faculty Committees**
   (i) Chairman, Faculty Committee on Research, Library and Legal Publications, responsible to the Faculty Board for all policy matters in the activity areas, from 1978 to 1987.
   (ii) Member, Faculty Postgraduate Studies Committee from 1978 to 1987
   (iii) Chairman, Faculty Three Man special ad hoc committee on Welfare and Scholarship, 1982, prepared special report on the topic, for submission to the Vice-Chancellors and to University Visitation Committee (Kariithi Committee).
   (iv) Chairman, Faculty *ad hoc* Committee to draw up "Principles on Linkage Programmes with Other Universities" approved by the Faculty Board on December 2, 1987.
   (v) Representatives of the Faculty on University Senate Library and Bookshop Committee, since 1978.

Other Faculty Activities

(i) Established a Documentation Centre and a Postgraduate Training Programme jointly with Gent University (Belgium) on Law of the Sea, Marine Policy and Ocean Management.
(ii) Initiated Regular Seminar Series in the Faculty.
(iii) Assisting young lecturers with developing research proposals including for doctoral degrees thesis, and securing research funds. Current topics are in Environmental Law; Energy Law and the environment; transfer of technology; legal protection of wetlands.

H. PROJECT COORDINATION AND MANAGEMENT EXPERIENCE

1. Founding Chair of Council Karatina University College October 2011-March 2013 and the newly-established Karatina University Council March 2013 to February 28, 2017.
2. Senior Legal Officer, Chief of Legal Pilot Projects Branch and Task Manager, Project on Environmental Law and Institutions in Africa in UNEP Division of

Environmental Policy Implementation.

3. Designed managed a Donor Government funded grant of multi-million guilders project entitled "Strengthening of the School of Environmental Studies, Moi University" 1988-1995. This involves broadly-based institutional capacity building. After two highly positive independent evaluations, the Dutch Government as the donor agreed to continue funding up to the year 2002 to support the programme as above.
4. Managed the preparatory phase of the School of Environmental Studies, Moi University, with UNDP funds, executed by UNEP during 1988/89, to establish the School in 1989. Approximately fifteen (15) professionals were involved.
5. Designed and directed studies on Management of International Drainage Basins in Africa. Thirteen (13) professionals prepared fourteen (14) papers which, after a Workshop discussion, were published as University of Nairobi IDS Occasional paper No. 51, 1988.
6. Jointly with Dr. Dominique Atheritiere of FAO Environmental Law Office, designed and supervised the studies on Legal Background Study for UNEP Regional Seas Programme, Eastern African Action Plan, covering nine (9) countries. Jointly directed and supervised the preparation of the nine papers eventually published as UNEP Regional Seas Reports and Studies No. 49 (1984). Personally responsible for Mozambique, Tanzania, Seychelles, Kenya and Somalia. Jointly synthesized the paper published as UNEP Regional Seas Reports and Studies No. 38, 1983.
7. Designed and directed studies on Natural resources and the Development of Lake Victoria Basin of Kenya, with funding from The Ford Foundation. Twenty-one (21) professionals prepared twenty (20) papers which, after a Workshop, were published as University of Nairobi, IDS Occasional Paper No. 34, 1979.
8. Designed and directed the project on Management of Coastal and Offshore Resources in Eastern Africa, with Funding from the Ford Foundation. Edited the papers which were published as University of Nairobi, IDS Occasional Paper No. 28, 1977.
9. The IDS, University of Nairobi, had a series of projects with several funding, managed by Acting Director.

I. AREAS OF ACTIVE PROFESSIONAL INTEREST

1. International and Comparative environmental policy, law and Institutions.
2. International water policy and law.
3. Law of the Sea.
4. Public International Law.
5. Law and Development

J. ACTUAL AFRICA-WIDE FIELD RESEARCH EXPERIENCE

1. July/August 1977 - Visits to Ethiopia, Liberia, Sierra Leone and Zambia on research in Technology Information Services in African Countries, under the aegis of the U.N. Economic Commission for Africa.
2. November 1982 to 1983 - Traveled to Rwanda, Tanzania, Mozambique, Zambia, Zimbabwe and Botswana for research on the management of international water resources (Rusumo Treaty for Kagera Basin and actual management in the Zambezi and Limpopo Basins). Funding was from The Ford Foundation.
3. May/June 1983 - Traveled to Tanzania, Mozambique, Seychelles, Kenya and Somalia to study the national environmental laws and practices as background for the Eastern African Regional Seas Action Plan (The Nairobi Convention of June 1985), undertaken as a consultant for FAO and UNEP.
4. May/June 1985 - Traveled to Niger, Nigeria and Senegal to study the implementation of the treaties on Niger Basin (NBA) and the Senegal Basin (OMVS). Funding was from The Ford Foundation and The IUCN Commission on Environmental Law and International Council in Environmental Law (ICEL).

K. WORKSHOPS/CONFERENCES ORGANIZED (Representative List)

1. July 1976 - A one week multi-disciplinary seminar on "Law and Development" under the auspices of the University of Nairobi, involving Senior government officials and academics. The proceedings were published. Venue: IDS, University of Nairobi.
2. April 1977 - A one week multi-disciplinary Workshop on "Management of Coastal and Offshore Resources in eastern Africa", under the auspices of the IDS. Participants from Kenya, Tanzania and UNESCO. Edited and published the Proceedings. Venue: IDS, University of Nairobi.
3. December 1978 - Co-Secretary and Co-Rapporteur for the Conference on "Environmental Education and Training African Universities" under the auspices of UNEP, University of Nairobi and Association of African Universities. Participants were from African Universities, UNEP and UNESCO. Venue: Kenyatta International Conference Centre, Nairobi.
4. March 29 - August 4, 1979: Five months Seminar Series and five day multi-disciplinary Workshop on "Natural Resources and the Development of Lake Victoria Basin" which entailed the identification of natural resources of the basin and the strategies for their rational management for integrated development under the auspices of IDS). Edited and published the Proceedings. IDS Discussion Paper No. 34. IDS University of Nairobi and New Kisumu Hotel, Kisumu.
5. July 28 - August 5 1982 - Workshop on "Water Quality in the Lake Victoria Basin" under the auspices of the Lake Basin Development Authority. Participants from Tanzania, Uganda, Kagera Basin. Organization, Kenya and U.S.A.
6. August 3-9-1987 - Workshop on "Development and the Environment in the Management of International Drainage Basins in Africa", under the auspices of the IDS, at the Sunset

Hotel, Kisumu. Financial support from Ford Foundation. Edited the Proceedings for Publication.

7. December 1993 - Co-organizer of a Workshop on Nyanza: 30 years after independence. How it was, what has happened and where it should go as a planning and evaluation exercise to appraise the development of the Province. Organized on behalf of the Provincial Commissioner, Nyanza Province.
8. 1995-2002 - Several national and international workshops organized for judge, legal practitioners, industrialists, senior cadres of public and private officers in development of environmental law as well as strategies for promotion of compliance with or enforcement of environmental law. The workshops covered legal aspects of management of environment and natural resources and Comparative Environmental Jurisprudence.
9. February 3-7 2004 - Organized a Symposium on Environmental Law for Legal Practitioners in Kenya, with 40 participants at Merica Hotel, Nakuru, with funding from UNEP.
10. September 29 to 2 October 2004. Organized Symposium of Environmental Law Professors from African Universities. Attended by 28 such professors, which led to formation of an African Association with diverse activities. (This led to creation of Association of Environmental Law Lectures in Africa (ASSELAU) which is still active to date
11. October 4 to 6 2004 - Organized the Second Colloquium and Collegium of IUCN Academy of Environmental Law which was attended by about 150 environmental law professors from Universities worldwide. The topic was Sustainable Land Use and Environmental Law. The IUCN Academy is independent global learned society with headquarters at University of Ottawa, Canada. Two books, published by Cambridge University Press, resulted from the Colloquium.

L. SELECTIVE LIST OF CONTRIBUTION TO CONFERENCES/ SEMINARS

1. Workshop on "Law and Rural Development" organized under the auspices of IDS and Faculty of Law, University of Nairobi, at the Sunset Hotel, Kisumu. July 1977
2. November 1977 "Law of the Sea Conference" organized under the auspices of the Law of the Sea Institute, University of Hawaii Law School in Honolulu.
3. January 18-22 1979 - Conference, "*Pacem in Maribus*" organized by the International Ocean Institute and the Ministry of Foreign Affairs, Government of Cameroon, at Yaounde, to discuss how the evolving Law of the Sea related to the interests of the African States.
4. August 1979 - Gave a lecture entitled "Tourism and the Management of Marine Resources in Kenya" at the Seminar on Tourism Management at Utalii College, Nairobi. Organized under auspices of the Kenya Ministry of Tourism and wildlife and the Carl Buisberg-Gessellschaft.
5. Presented paper Legal Regime of the Nile Basin, entitled "Lake Victoria and Nile Basins: An Evaluation of the Means of Cooperative Development" to the Conference on "Afri-

can-Arab-OECD Development Cooperation" at Bellagio (Lake Como) Italy. May 14-19 1980.

6. October 25-30 1981 - Presented paper on "Coastal State Jurisdiction over Territorial Sea and the Exclusive Economic Zone Under the UNCLOS III Draft Convention" at a Workshop on "Management of Coastal Resources in Eastern Africa" under the auspices of the United Nations University held at Mombasa, Kenya.
7. September 9-22 1985 - Presented paper entitled "Development, Regional Resources and the Impact of the Development Activities on the Environment" at the First Workshop on the Issue-Based Indian Ocean Network, at the Mahatma Gandhi Institute, Mauritius.
8. September 19 1985 - Participant in seminar on Non-Governmental Organizations' (NGOs') Contribution to Development under auspices of IDS, held at the University of Nairobi.
9. April 16 1986 - Participated with a paper in seminar on "Irrigation Policies in Kenya and Zimbabwe" (First round) held at the IDS University of Nairobi.
10. June 24-27 1986 - Presented paper entitled "Role of the State in the Management of International River and Lake Basins in Africa" at the Workshop on the "Management and Development of International rivers and Lakes in West African Region" under auspices of the IDEP/ECA and the OMVS, held in Dakar, Senegal.
11. August 22-24 1986 - Participated in Symposium on "The Parallel Economy in Sub-Saharan Africa" organized by Stellascope Development Services, at Taita Hills Lodge, Kenya.
12. May 26-30 1987 - Contributed paper on "Irrigation activities and Institutions in the Lake Victoria Basin in Kenya" to the Workshop on "Irrigation Policies in Kenya and Zimbabwe" (Second round) held at the University of Zimbabwe, Harare.
13. June 15 -19 1987 - Participant in Workshop on "International Ground water Law" organized by University of New Mexico Law School, International transboundary Resources Centre (CiRT) to review draft treaty framework developed by CiRT, called "Ixatapa Draft". See Hayton, Robert D. and Albert E. Utton (Eds. "Transboundary Ground waters: Bellagio Draft Treaty" *Natural Resources Journal* Vol. 29 Summer 1989 pp. 663-722.
14. November 23 - 27 1987 - Presented paper entitled "Reflections on Teaching and Research on Environmental Law" to the Workshop on "Environmental Education and Resource Management in African tertiary Level Institutions" under auspices of UNEP and GTZ at UNEP Headquarters, Nairobi.
15. June 12-15 1989 - Contributed a paper entitled "Protection of the Marine Environment through Regional Arrangements" to the 23rd Annual Conference of the Law of the Sea Institute at Noordwijkaan Zee, The Netherlands.
16. May 3 1990 - Contributed a paper, "History of the Nile and Lake Victoria Basins Through Treaties" to the Conference on The Nile: Resource Evaluation, Resource Management, Hydro politics and Legal Issues organized by the Royal Geographical Society and the SOAS University of London. Book published by Cambridge University Press
17. January 26-29 1993 - Presented a paper entitled "An Overview of International Environmental Law Questions and National Interest" at the International Conference on the Biological Diversity Convention organized by African Centre for Technology Studies, (ACTS) Nairobi.

18. December 13-16 1993 - Participated in the First Freshwater Consultative Forum organized by the U.N. Department of Development Support and Services; Economic Policy and Social Division, at the International Academy for the Environment, Geneva.
19. March 30-31 1994 - Contributed a paper entitled "Issues on Sustainable Development and Governance in the Management of Africa's International Drainage Basins" to the International Law Association Seminar on Sustainable Development Human Rights and Governance held at the Institute of International Law and International Relations, University of Graz, Austria.
20. June 7-10 1994 - Participated in a Seminar on Research Strategy to Integrate Environmental, Social and Economic Policies under the aegis of the Canadian International Development Research centre at Abidjan, Corte d'Ivoire.
21. 1995 to present: Several lectures and presentations on development of legal and institutional arrangements for the management of environment and natural resources as well as on capacity building for the enforcement of environmental law.
22. Participated in Fourth International Congress on Environmental Law convened by the Department of the Attorney General in Rio de Janeiro, Brazil to honour of Prof. Charles Odidi Okidi, 22nd to 24th May 2007. Presented paper entitled 'Application of Environmental Law Paradigm to Tame Conflict and Poverty in Natural Resources-Rich African Countries" published in Daibert, Arlindo (Ed.) *Direito Ambiental Comparado* (Rio de Janeiro: Belo Horizonte Editora Forum 2008) pp. 367-412.
23. Participated with a paper entitles "Capacity Building in Environmental Law in African Universities" at the Fifth Colloquium of the IUCN Academy of Environment Law in Rio de Janeiro in May 2007, Published in Benidickson, Jamie, Ben Boer, Antorio Benjamin and Karen Morrow (Eds) *Environmental Law and Sustainability After Rio* (Edward Elgar Publishing Co. 2011) ISBN 978-0-85793-22172 pp. 31-47.
24. Participated in a conference entitled Sovereignty and Development of International Water Law at the University of Bergen, Norway, October 25-27 2012 with paper entitled 'Sovereignty and equitable Utilization of International Waters Under the Agreement on Nile River Basin Co-operative Framework". Publication Forthcoming.

=M. SPECIAL UNIVERSITY ASSIGNMENTS

1. Member, Committee on Environmental Studies at the University of Nairobi (elected by the Deans' Committee) and the Special Working Group on Environmental Studies, to work out a syllabus for an interdisciplinary environmental studies programme (1978-1980)
2. Secretary to the Advisory Committee and Member of the Steering Committee for the Workshop on Environmental Education and research in all African Universities, funded by UNEP, held in December 1978. Co-secretary to the Workshop and Member of the Editorial board for the publication of the proceedings.
3. Member, Technical Organizing Committee (under the aegis of the Department of Wildlife Conservation and Management, Government of Kenya) organizing the All African Wildlife Conference, held in Nairobi, July 13-19 1980.

4. Member, Kenya Government Task Force on the Fisheries Sector, Packaging policies and strategies for the fifth National Development Plan, 1984-1988.
5. University of Nairobi representatives, Steering Committee for the Joint Government of Kenya - United States Government Training for Development Programmes. 1988-1993.
6. Initiated and organized the collaboration programme between Gent University and University of Nairobi on advanced research and training on Law of the Sea, Marine Policy and Ocean Management. Programme also includes establishment of a comprehensive Documentation Centre for the fields and Ph.D training for Kenyans for University of Nairobi at Gent University. Among the people who received PhDs under the Project are Prof. P.L.O. Lumumba, Dr. (now Judge) Smokin Wanjala and Professor Paul Musili Wambua.
7. Conceptualizing, organizing and establishing Centre for Advanced Studies in Environmental Law and Policy (CASELAP), approved by Senate on 24th December 2004 and eventually by University of Nairobi Council on 20th September 2007. To-date four teaching programmes have been approved by Senate and classes are on-going (M.A. and Ph.D in Law and Policy respectively).
8. Director of CASELAP up to 1st April, 2014

N. SPECIAL PROFESSIONAL AFFILIATIONS

(i) Member, American Society of International Law from 1971 to 2004

(ii) Member, International Council of Environmental Law (ICEL), a global professional organization comprising specialists in environmental policy and law as assessed by publication. 1978 - 1992, Regional Governor of ICEL for Africa, From 1992 to 2010.

(iii) Member, International Association of Water Law, 1979 to present.

(iv) January to August 1981: Visiting Scholar, Centre for Foreign Dalhousie University, Halifax, Canada.

(v) 1981-1982: Member, International Law Association (ILA) Committee on Legal Aspects of the Conservation of the environment to prepare principles and guidelines for submission to the 60th ILA Conference in Montreal, Canada. Member were elected by the ILA Conference in 1980.

(vi) 1981 to 1989: Member, International Consultative Committee for Dalhousie University Ocean Studies Program (DOSP). This is a select committee of nineteen (19) professional from the world to guide policies and activities of the program whose studies in Law of the Sea, Marine Policy and Ocean Management Members are selected by DOSP Board of Management.

(vii) 1982 - present: Member, IUCN Commission on Environmental Policy, Law and Administration (CEPLA) later Commission on Environmental Law (CEL) of the International Union for the Conservation of Nature and Natural Resources (IUCN). From 1991 to 2000, Regional Vice-Chairman for Africa. Member, IUCN/CEL Special working Group to draft the "International Covenant on Environment and Development" from 1991 to 1995. From 1998 to 2002 - Chair, Working Group on the Role of the Judiciary in Development and Enforcement of Environmental Law.

(viii) February 1986 to present: Fellow, Kenya National Academy of Sciences and Member of its specialists committee on Humanities and social Sciences.

(ix) June 1986 to present: Fellow, African Academy of Sciences.

(x) March 1987 to 1989: Member, Marine Affairs Training Technical Advisory Group, of the international Centre for Ocean Development (ICOD), a State Corporation of Canadian Government. Members guide the policies and training for developing countries in matters of law of the Sea, Marine Policy and Ocean Management. Also gave direct assistance to established regional/national projects.

(xi) November 1987 to 1997: An Associate of the International Transboundary Resources Center, University of New Mexico School of Law. Associates are selected by the Centre as a distinguished group of specialists in the resources field who engage in exchange of information and give advice to the Center's research work. They function as a select board of advisors for the Center in Policy and research on legal and policy aspects of natural resources management.

(xii) 1989 to present: Member of Editorial Board *Environmental Policy and Law* (IUCN/CEL Environmental Law Centre, Bonn, Germany).

(xiii) 1991 to 1995: Member, International Law Association and Its special Committee on the Law of International Watercourses.

(xiv) 1998 to 2005: Member, Faculty Advisory Board, University of Amsterdam, Faculty of Law, The Netherlands.

(xv) 2000 to Present, Member, Environmental Law Information Network (E-LAW amigos).

(xvi) 2001 - 2008, Member, University of Barcelona, Department of International Law and Economics, Advisory Committee on Sustainability Labeling and Certification Schemes; a research project done for European Union.

(xvii) 2004 to 2015, Member of Editorial Board, *Macquarie Journal of International and Comparative Environmental Law* (Sydney, Australia).

O. ACTIVITIES AS CONSULTANT OR EXPERT

1. March 1977 - Expert, United Nations Water Conference Secretariat at Mar del Plata, Argentina and presented paper entitled "Managerial Challenges to Uses of Water Resources: Problems of Inter-governmental Cooperation".

2. July/August 1977 - Consultant, United Nations Economic Commission for Africa, Natural Resources Division, Science and Technology Information Services in African Countries. Visited Ethiopia, Liberia, Sierra Leone and Zambia to compile a report.

3. November/December 1979 - Consultant, U.N. Food and Agricultural Organization (FAO), Legal Division, Legislation Branch. At the Rome offices, assisted in drafting principles and guidelines for possible international cooperation on Limpopo and Nile Basins.

4. September 1980-1981 - Expert Director, Training Programme for Marine Resources Management for the International Ocean Institute at the University of Malta in Valleta, Malta and Dalhousie University Halifax, Canada. Developed syllabus and directed

course to translate the evolving Law of the Sea into Management imperatives. In the two courses directed 42 senior mid-career professionals from developing countries.

5. March 1981 - An expert participant in special IUCN Commission on Environmental Policy, Law and Administration, held in Washington D.C. to prepare guidelines on environmental legislation for submission to Conference of Senior Government experts on Environmental Law, held in Montevideo, Uruguay in November 1981
6. January 1983 - Chairman and Member, United Nations Experts Group Meeting on Institutional Arrangements for Marine Resources Development, convened by the Ocean Economics and Technology Branch, Economic and Social Affairs Department, United National Secretariat, New York. Presented paper entitled "Management Profiles and Training Needs for Marine Resources Management in Developing Countries". The Meeting drafted recommendations subsequently published by the United Nations.
7. August 1983 - expert participant in meeting of IUCN Commission on Environmental Policy, Law and Administration to prepare the draft revision of the 1968 African Convention for the Conservation of Nature and Natural resources, held at the IUCN Environmental Law Centre, Bonn, Germany.
8. May to August 1983 - Legal Consultant, U.N. Food and Agricultural organization, Legal Division to Conduct a study of Preparatory Legal Work for the Action Plan for the Protection and Development of the Marine Environment of the Eastern African Region. Project entailed travel to Tanzania, Mozambique, Seychelles, Kenya and Somalia and writing the report in Rome.
9. December 1983 - UN-FAO Consultant at the First Meeting of Exports convened by UNEP to negotiate Draft Convention and Protocols for the Protection, Management and Development of the Marine Environment of the Eastern African Region, held in Nairobi, Kenya.
10. October/November 1984 - UN-FAO Consultant at the Second Meeting of Experts, convened by UNEP to negotiate Draft Convention and Protocols for the Protection, Management and Development of the Marine Environment of the Eastern African Region, held in Nairobi, Kenya.
11. November 19-24 1984 - Participated as an IUCN/CEPLA Expert at the OAU Expert Meeting to negotiate the revision of the 1968 African Convention for the Conservation of Nature and Natural resource, at the OAU Headquarters, Addis Ababa, Ethiopia.
12. April 1985 - Two man consultants mission (Jointly with Dr. D.H.H. Bol of CDP-Utrecht, Netherlands) to appraise the policies and performance of the Lake Victoria Basin Development Authority.
13. June 12-21 1985 -UN-FAO Consultant at the UNEP - Convened Conference of Plenipotentiaries on the Protection, Management and Development of the Marine Environment of the Eastern African Region. The Conference adopted the Final Act, Convention and Protocols.

14. August 26-39 1985 - Participant as IUCN/CEPLA Expert in the Task Force Meeting convened by IUCN to formulate strategies/recommendation for the rehabilitation of the Sahel's drought ravaged zones of Africa, held at Elsamere, Lake Naivasha, Kenya.
15. November and December 1985 - Participated in a ten-man team of consultants to appraise the evolution of UNEP's objectives from 1972-1985. Personally dealt with four Programmes; and Environmental Law and Machinery.
16. June 1986 - March 1987 - Consultant, ESCAS Department, OAU to appraise critical environmental problems in Africa and the regional and sub-regional legal and institutional machineries for the control of such problems.
17. 1979-1987 - Official observer of International Council of Environmental Law (ICEL) at the regular UNEP Governing Council sessions at the UNEP Headquarters Nairobi, as well as the 1982 UNEP Session of Special Character.
18. 1991-92 - Consultant to the U.N. Economic Commission for Africa on the legal and institutional framework for the cooperation among Undugu member countries. Presented the lead paper on Lake Victoria and the Nile Basins and various modes of the management.
19. 1992-93 - Consultant to the World Bank on Policy and Legal Principle for Development-driven In voluntary displacement of Population.
20. 1993 consultant to IUCN/FAO/UNEP on legal aspects for the control of environmental degradation in coastal and marine areas in Kenya.
21. 1993/94 - Consultant to review the Policy Framework and Legal and Institutional Arrangements for the Management of Environment and Natural Resources in Kenya as a project towards reform of Kenya's environmental law, done under the aegis of the Kenya Government and UNEP. This report provide a framework for Environment Management and Coordination Act (1999)

P. SPECIAL HONOURS/AWARDS

1. 2015 Senior Education Award The IUCN Academy of Environmental Law Awards The Third Annual Senior Distinguished Environment Law Education Award in recognition of his outstanding teaching and contributions to the field of environmental law presented on September 9, 2015 in Jakarta, Indonesia, on occasion of the Academy's Thirteenth Annual Colloquium
2. Designated as The Distinguished Speaker at the Eighth Annual Colloquium of the IUCN Academy of Environmental Law at the University of Ghent, Belgium, 14th to 17th September, 2010.
3. Honoured by Department of the Attorney General, Rio de Janeiro, Brazil organized Fourth International Congress on Environmental Law from 22nd to 24th May, 2007 in his honour. Presentation published in the Congress book Direito Ambiental Comparade, edited by Arlindo Daibert (Editorial, Forum, 2008).
4. Inaugural J. William Futrell Visiting Scholar at Environmental Law Institute, Washington, DC, USA October, 2003

5. Chief Shafi Lawal Education Inaugural Lecturer, Nigerian Conservation Foundation, Lagos, Nigeria January 8, 2003.
6. Laureate, Elizabeth Haub prize (Environmental Law) for 1984 awarded by the Free University of Brussels, in collaboration with the International Council of Environmental Law. The Award is recognition of research, published works and direct participation in international activities developing environmental policy, law and administration. The sole recipient for the year received a Gold Medal 150,000 Belgian Francs for research or publication on environmental law. At the Award Ceremony in Brussels on September 3 1985 presented an inaugural lecture "Development and in Conservation Imperatives Under the 1985 Convention on the Protection of the Marine Environmental of the Eastern African Region".
7. Laureate, James P. Warburg Fellowship Award by the University Consortium for the World Order Studies. The Participating Institutions are Harvard. Massachusetts Institute of Technology, Yale, Columbia, Princeton and the University of California - Berkeley which, together select scholars to be fellows of all of them, concurrently. Fellowship was for 1974/75 during which I was based at MIT and Harvard. Research topic was on International Law of Marine Environment.
8. International Development Fellowship Award, Fletcher School of Law and Diplomacy, Tufts University, for 1971/82. Selection was by a special faculty panel.
9. Selected in 1968/69, by the National Selection Committee (USA) for an Academic Year Fellowship Award under Training Opportunities for Youth Leadership of the Institute for International Education, New York, USA. The Award was to pay tuition at the Alaska Methodist University, Anchorage, Alaska, USA.

Q. SELECTED SPECIAL NATIONAL PROFESSIONAL ACTIVITIES

1. 1979-1980: Member, Natural Resources Advisory Research Committee for Kenya Marine and Fisheries Research Institute under the national Council for Science and Technology Act, Nos. 3 of 1977 and 7 of 1979. Duties to stipulate research policy for Marine and Fisheries Research in Kenya..
2. 1982-1985: Member and Chairman, Parents' Teachers' Association, State House Girls' High School.
3. 1986-1987: Member, Consultative Committee and Steering Committee on Integrated Environmental Planning and Management of Lake Victoria Basin, under the auspices of the Ministry of Energy and Regional Development and the Lake Basin Development Authority. Duties were to appraise and guided studies for an integrated Regional Master Plan for the region.

4. November 1986: Gave lectures on Strategies for Negotiation and Conclusion of Treaties to the Senior Staff College, Kenya Institute of Administration, Kabete, Kenya.
5. January 1986 to 1998: Gave lectures on Law of the Sea to the Defence Staff College, Karen, Kenya on "International Law of the Sea" and "The Law of Armed Conflict".
6. September 1987 to 1994: Member, Planning Committee, Ogenya Community Development Complex, comprising a Youth Polytechnic and general social and educational services in North-West Karachuonyo Location, Rachuonyo District. Patron Ogenya Girls' Boarding Secondary School, 2001 to 2003.
7. July 1986 to 1994: Member, Joint Select Committee of the Ministry of Foreign Affairs and University of Nairobi on the development of Kenya's foreign Policy and selected topics.
8. November 1987-1990: Informal consultative meetings, Ministry of Environment and Natural Resources on Kenya's adherence to international instruments on environmental matters.
9. July 26 1993 to 1997: Member, Attorney-General's Task Force on the Reform of Penal Laws and Procedures, including Economic and Environmental offenses. Official Gazette Notice 3603 of July 30 1993. Chairman of the Committee on Environmental Offences.
10. January to March 1993: Member, Task Force on the National Environment Action Plan (NEAP) Sub-Task Force on Environmental Policy, Law and Institutions.
11. 1994 to 1998: Resource Person for Curriculum Committee of the Kenya Commission for Higher Education, evaluating Environmental Studies curricula.
12. 1994 to 2001: Chairman, Parents Teachers Association (PTA), Pala Zone (comprising 14 primary and one secondary schools) organizing the development of the schools and improvement of performance of the schools in national examinations. Patron, Kanjira Development Society (KADESO).
13. 2001 to 2004, Member, Board of Management, Kenya Marine and Fisheries Research Institute.
14. 2003 to 2007, Member and Chairman, Governing Council of Kenya Water Institute. Relinquished the chair after implementing satisfactory reforms.
15. July 2004 to 2010, Member, National Environmental Council, Kenya's highest policy organ, under Environmental Management and Coordination Act, 1999.
16. From February 2011 to March 1 2013, Chairman of Council, Karatina University College. Responsible for ushering the Constituent College of Moi University to its accreditation as an autonomous and fully fledge University. Karatina received Charter for University status on 1stMarch 2013.
17. From 1st March 2013 to 2017, Chairman of Council, Karatina University, to guide the new University in its full scale operation
18. Founder of the Value-Based Integrity School, Ndhiwa 2015 to Present

R OTHER BACKGROUND INFORMATION

1. Born and raised at Kamwania, Kanjira Location, West Karachuonyo, North Rachuonyo District, Kenya. Attended (Ogenya) Kanjira Primary School and Ongalo Intermediate School. I passed the Kenya African Primary Education (KAPE) in 1958 and joined Maseno High School in 1959. Passed the Cambridge School Certificate ("O" Level) Second Division in 1962.

2. **Language Proficiency**

English	-	Full Professional proficiency
Swahili	-	Full professional proficiency
Dho-Luo	-	Vernacular - fully proficient

LIST OF PUBLISHED WORKS

Books and Monographs

1. Okidi, C.O. *Regional Control of Ocean Pollution: Legal and Institutional Problems and Prospects* (Alphen aan den Rijn, The Netherlands. Sijnhoff and Noordhoff 1978. Sijthoff Publications on Ocean Development, Volume 5).
2. Okidi, C.O. *Management of Coastal and Offshore Resources in Eastern Africa*. Edited papers presented at a Workshop on Management of Coastal and Offshore Resources in Eastern Africa (IDS Occasional Paper No. 28, University of Nairobi 1977).
3. Okidi, C.O. *Reflection on Law and Development*. (Co-edited with H.W.O. Okoth-Ogendo). Papers presented at the Workshop on Law and Development at University of Nairobi. Occasional Paper No. 29. Institute for Development Studies, University of Nairobi. 1978.
4. Okidi, C.O. *International Legal Measures to Control Pollution of the Ocean by Oil*. (Cambridge, Mass. U.S.A.: M.I.T. Center for International Studies Programme on International Environmental Issues. Occasional paper No. C/77-9, April 1977).
5. Okidi, C.O. *Natural resources and the Development of Lake Victoria Basin of Kenya*. Edited collection of papers from the seminar series on Lake Victoria Basin Development. Organized at IDS 1979 (University of Nairobi, IDS Occasional Paper No. 34, 1980).
6. Okidi, C.O. *Kenya's Marine Fisheries: An Outline of Policy and Activities*. (University of Nairobi, IDS Occasional Paper No. 30, January 1979).
7. Okidi, C.O. *Development and Environment in the Senegal Basin Under the OMVS Treaty*. (An analysis of initiatives to implement a drainage basin treaty)(University of Nairobi, IDS Discussion paper No. 284, June 1987).
8. Okidi, C.O. *Development and the Environment in the Kagera Basin Under the Rusumo Treaty*. (An analysis of initiatives to implement a drainage basin treaty) (University of Nairobi, IDS Discussion paper No. 284, June 1987).
9. Okidi, C.O. *Reflections on the Management of Drainage Basins in Africa: Proceedings of an International Workshop on Development and the Environment in the Management of*

Drainage Basins in Africa, held at Kisumu, Kenya August 3-9 1987 (IDS Occasional Paper No. 51 April 1988 350p.

10. Okidi, C.O. *Development and the Environment in Africa: Policy Initiatives* (Nairobi: ACTS Press, Ecopolicy Series No. 5, 1993.
11. Okidi, C.O. *Environmental Stress and Conflicts in Africa: Case Studies of Drainage Basins* (Nairobi: Acts Press; Ecopolicy Series No. 6, 1994).
12. Okidi, C.O. *Environmental Management Imperatives in Africa's Sustainable Development* (Nigerian Conservation Foundation, 2003 ISBN 978-36240-40)
13. Okidi, C.O.Patricia Kameri-Mbote and MigaiAkech (Eds) *Environmental Governance in Kenya: Implementing the Framework Law*. (East African Educational Publishers 2008) ISBN 978-9966-25-582-2.

Articles

1. Okidi, C.O."Towards Regional Arrangements for Regulation of Marine Pollution: An Appraisal of Options." *Ocean development and International Law*, (USA) Vol. 4 No. 1 (1977) pp. 1-25.
2. Okidi, C.O. "Review of Recent Developments Regarding the Rule of Extra-territorial Jurisdiction with a Focus on Marine Pollution Control". *East African Law Journal* (Nairobi) Vol. 12, No. 2 (1976) pp. 189-215.
3. Okidi, C.O. "Legislative Development on Kenya's Coastal and Offshore Affairs: Territorial Sea and the Continental Shelf" (University of Nairobi, Institute for Development Studies, IDS/WP 268, IDS/WP 1976).
4. Okidi, C.O. "Law and the Management of Water Pollution" Common Ground: *A Quarterly Journal of the American University Field Staff* (USA) Vol. III No. 4 October 1977 pp. 75-81.
5. Okidi, C.O. "The Kenya Draft Articles on Exclusive Economic Zone Concept: Analysis and Comments" (University of Nairobi, Institute for Development Studies (IDS/WP 289 November 1976).
6. Okidi, C.O. "The Task of Research and Teaching in Environmental Law in African Universities", *Environmental Policy and Law* Vol.6 No. 1 February 1980.
7. Okidi, C.O. "Legal and Policy Regime of Lake Victoria and Nile Basins" *Indian Journal of International Law* (INDIA). Vol. 20, No. 3 September 1980 pp. 395-447.
8. Okidi, C.O. "The Role of the OAU Member States in the Evolution of the Concept of Exclusive Economic Zone in the law of the Sea: The First Phase" in *Dalhousie Law Journal* (Canada) Vol. 7 No. 1 (March 1982) pp. 39-71.
9. Okidi, C.O. "Review of Treaties on Consumptive Unitization of Waters of Lake Victoria and Nile Drainage System" in *Natural Resources Journal* (USA) Vol. 22, No. 1. (January 1982) pp. 161-199.

10. Okidi, C.O. "Review Article, "Africa and the International Law of the Sea" A Study of the Contribution of African States to the Third United Nations Conference on the Law of the Sea, by N.S. Rembe *in Journal of Maritime Law and Commerce*, (UK) Vol. 15, No.1, January 1984, pp. 146-151.
11. Okidi, C.O. "Management of Natural resources and the Environment for Self Reliance in Africa" *Journal of East African Research and Development* (Nairobi) Vol. 14 (1984) pp. 92-111.
12. Okidi, C.O. "The Prospects of Cooperation Among Developing Countries in Legal Aspects of Control of Transboundary Air Pollution" in *Transboundary Air Pollution: International Legal Aspects of Cooperation of States* C. Flintern, B. Kwaitkoska and J.G. Lammers, Eds. (Nijthoff, 1986) pp. 235-266. (The Netherlands).
13. Okidi, C.O. "Development Conservation Imperatives Under the 1985 Convention for the Protection of the Marine environment of the eastern African Region" An Inaugural lecture at the Award ceremony for the Elizabeth HAUB Prize (Environmental Law) 1984, given at the Universite Libre de Bruxelles, Belgium 3 September 1985. Published in *Environmental Policy and Law* (Germany) Vol. 15 No. 2 (1985) pp. 39-51.
14. Okidi, C.O. "Development and the Environment in the Western Indian Ocean" presented at the First Workshop of the Issue-Based Indian Ocean Network, Mahatma Gandhi Institute, Mauritius, 9-12 September 1985, published as IDS/WP No. 436 April 1986 (University of Nairobi, Institute for Development Studies).
15. Okidi, C.O. "The Role of the State in the Management of River and Lake Basins in Africa" paper presented at the Workshop on River and Lake Basins Development in West Africa, organized by the U.N. Economic Commission for Africa, African Institute for Economic Development and Planning, Dakar, Senegal, June 25-26 1986. Published as IDS Discussion Paper No. 285 June 1987, and in *Natural Resources Journal* (USA) Vol. 28 No. 4 Fall (1988).
16. Okidi, C.O ."Waste on Land-Pollution at Sea: Priorities for Action in the East African Region" in *The Siren: Journal of the UNEP Regional Seas Programme*No. 30 February 1986 pp. 22-26.
17 Okidi, C.O. "Controlling Marine Pollution" in *Wajibu, A Journal of Social and Religious Concerns*. (Nairobi) Vol. 1.No. 5 (November-December 1986, pp. 10-13).
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19. Okidi, C.O. "Reflections on Teaching and Research on Environmental Law in African Universities." Paper presented at the Workshop on Environmental Education and Resource Management in African Tertiary Level Institutions at UNEP headquarters 23-27 November 1987. Published in *Journal of Eastern African Research and Development* (Nairobi) Vol. 18 (1988).

20. Okidi, C.O."Protection of Marine Environment Through regional Arrangements" in Soons, Alfred H. (Ed). *Implementation of the Law of the Sea Convention Through International Institutions* (Honolulu: University of Hawaii, William S. Richardson School of Law, Law of the Sea Institute) 1990 pp. 474-492.
21. Okidi, C.O. "History of the Nile and Lake Victoria Basins Through treaties" in Howell, P.P. and J.A. Allan (eds) *The Nile: Sharing a Scarce Resource. Cambridge University Press 1994.*1994 pp. 321-350.
22. Okidi, C.O. "Preservation and Protection Under the 1991 ILC Draft Articles on the Law of International Watercourses" in *Colorado Journal of International Environmental Law and Policy* (USA) Vol. 3 No. 1 Winter 1992 pp. 143-174.
23. Okidi, C.O. "International Environmental Law and National Interest" in Sachez, Vicente and C. Juma (Eds) *Biodiplomacy: Genetic Resources and International Relations*. (Nairobi, Kenya; ACTS Press 1994) pp. 19-43.
24. Okidi, C.O. "International Perspectives on the Environment and Constitutions" *The South African Journal of Environmental law and Policy* Nol. 3 No. 1 March 1996 pp. 39-69.
25. "The Practice and Principles in Environmental Law in Kenya" in Wandiga S.O. and N.L. Abuodha (Eds) (Nairobi: Kenya National academy of Sciences, 1996) pp. 195-246.
26. Okidi, C.O. "International Law and Water Scarcity in Africa" in Brans, Edward HP, de Haan, Esther J; Nollkaemper, A; and Rinzema, Jan (Eds). *The Scarcity of Water: Emerging Legal and Policy Responses* (London, The Hague, Boston: Kluwer Law International, 1997) pp. 166-180.
27. Okidi, C.O. "Legal and Policy Considerations for regional Cooperation on Lake Victoria and Nile River" in *Journal of Environmental Policy and Law*. (Issue No. 1 of 1999) pp. 1-59.
28. Kaniaru, Donald & C.O. Okidi, "Sustainable Development and Investment in Africa" *Business Law International* (International Bar Association) Issue No. 3 Sept. 2001 pp. 316-329.
29. Okidi, C.O. "Concept, Function and Structure of Environmental Law" in *Environmental Governance in Kenya:* Implementing the Framework Law. Edited by Okidi, Kameri-Mbote and MigaiAkech (East African educational Publishers), 2008 pp. 3-60.
30. Okidi, C.O."Background to Kenya's Framework environmental Law" in *Environmental Governance in Kenya*.Edited by Okidi, Kameri-Mbote and MigaiAkech(East African educational Publishers), 2008, pp. 126-141.
31. Okidi, C.O."Legal Aspects of Management of Coastal and Marine Environment in Kenya" in *Environmental Governance in Kenya*.Edited by Okidi, Kameri-Mbote and MigaiAkech (East African educational Publishers), 2008 pp. 440-484
32. Okidi, C.O. "Legal and Institutional Aspects of Management of the Environment in Lake Victoria Basin" in Odada, Eric, Daniel Olago and Washington O. Ochola (Eds.) *Environment for Development: An Ecosystems Assessment of Lake Victoria Basin Environmental and socio-Economic Status, Trends and Human Vulnerability. (START and UNEP 2006 pp. 176-204*

33. Okidi, C.O., "An Overview of the Law of Non-navigational Uses of International Waters with Lessons from Africa" in Odada, E.O. Daniel Olago, Washington Ochola, Michemi Ntiba, Shem Wandiga,Nathan Gichuki and HelidaOyieke (Eds.) *I1th World Lakes Conference* (Nairobi, Ministry of Water and Irrigation and International Lakes Committee) November 2005 pp 66-75.
34. Okidi, C.O. "How Constitutional Entrenchment could Mitigate Conflict and Poverty in Resource-Rich African Countries" in Environmental Policy and Law Vol. 37 No. 2-3 (2007) pp. 158-169
35. Okidi, C.O. "Application of Environmental Law Paradigm to Tame Conflict and Poverty in Natural Resources-Rich African Countries, in Daibert, Arlindo (Ed.) *Dereito Ambietal Comparado*(Belo Horizonte: Editora Forum) 2008 ISBN 978-85-7700-136-1 pp 367-412.
36. Okidi, C.O. "Capacity Building in Environmental Law in African Universities", in Benidickson, Jamie, Ben Boer, Antonio Herman Benjamin and Karen Morrow (Eds.) *Environmental Law and Sustainability after Rio* (Edward Elgar Publishing Co. 2011 ISBN 978-0-85793-2242. pp. 31-47.
37. Okidi, C.O. 'Nile Waters: The Threat of War Is Not Justifiable in Modern Times" *Environmental Policy and Law: The Journal for Decision-Maker* Vol. 44 Nos 1 / 2 April 2014 pp. 176-180.
38. Okidi, Charles, "The Doctrines of Sovereignty and Equitable Utilization of International Waters Under the Agreement on the Nile River Basin Cooperative Framework" in Tvedt, Terje, Owen McIntyre and TedesseKassa Woldetsadik (Eds) A History of Water Series III Volume 2 Sovereignty and International Water Law(London and New York: I.B. Tauris 2015.
39. Jointly with Collins Odote "Developments in Environmental Governance in Kenya: Experiences Using The Owino-Uhuru Case "in Kameri-Mbote and Collins Odote (Eds) Gallant Academic: Essays in Honour of H.W.O. Okoth-Ogendo (School of Law University of Nairobi 2017) pp. 275-292.

PUBLICATIONS DURING TENURE AT UNITED NATIONS

1. *Compendium of Environmental Laws of African Countries*

Volume I:	494 pages (comprising only Framework Laws and EIA Regulations) 1996.
Volume II:	362 pages (Comprising only Sectoral Environmental Laws and Regulations) 1996.
Volume III:	365 pages (comprising only Sectoral Environmental Laws and Regulation) 1996.
Volume IV:	394 pages (comprising only Sectoral Environmental Laws and Regulations) 1996
Volume V:	424 pages (comprising only Sectoral Environmental Laws and Regulations) 1998.

Volume VI: 529 pages (comprising only Sectoral Environmental Laws and Regulations) 1998.
Volume VII: 456 pages (comprising only Sectoral Environmental Laws and Regulations) 1998.
Volume VIII: 463 pages (comprising only Sectoral Environmental Laws and Regulations) 1998.
1997 Supplement to Volume I: 206 pages (comprising only Framework Laws and EIA Regulations)
1998 Supplement to Volume I 125 pages (comprising only Framework Laws and EIA Regulations)

1. *Industries and Enforcement of Environmental Law in Africa: Industry Experts Review Environmental Practice* - A4 paper size 198 pages - 1998
2. *Bulletin of Environmental Law*:
Special Issues 1997 - 27 pages
Special Issue 1998 - 82 pages
Special Issue 1999 - 86 pages

1. *Compendium of Judicial Decisions in Matters Related to the Environment:*
Volume I - National Decisions - 511 pages - (1998) ISBN 92-807-1762-6
Volume II - National Decisions - 347 pages - (2001) ISBN 92-807-2025-2
Volume III - National Decisions - 374 pages - (2001) ISBN 92-807-2096-1
Volume I - International Decisions - 350 pages - (1998) ISBN 92-807-1763-4

1. *Handbook on Implementation of Conventions Related to Biological Diversity in Africa* (UNEP publication 1999) English - 83 pages ISBN 92-807-1880-0 and French 88 pages ISBN 92-808-1966-1

2. Development and Harmonization of Environmental Law:
Volume 1 *Legal and Institutional Issues in the Lake Victoria Basin* (UNEP publication, June, 1999 200 pages
Volume 2 *Development and Harmonization of Environmental Standards in East Africa* (UNEP Publication June 1999 212 pages) ISBN 92-1804-1
Volume 3 *Development and Harmonization of Environment Impact Assessment Regulations in East Africa* (UNEP publication, June, 1999, 175 pages) ISBN 97-807-1805-3.
Volume 4 *Development and Harmonization of Laws on Hazardous and Non-Hazardous Wastes* (UNEP Publication - 2000, 397 pages ISBN 92-807-1881-9.
Volume 5 *Development and Harmonization of Laws on Toxic and Hazardous Chemicals* (UNEP Publication - 2000, 397 pages ISBN 92-807-1881-9.

Volume 6 *Development and Harmonization of Laws Relating to Wildlife Management in East Africa* (UNEP Publication December, 1999. 268 Pages) ISBN 97-807-1883-5.

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Volume 8 *Development and Harmonization of Environmental Laws - Report on Synergy of Activities on Environmental Law and Institutional Issues* (UNEP Publication December 1999 - 84 pages) ISBN 92-807-1898-3.

1. *The Making of a Framework Environmental Law in Kenya* (Jointly edited with Dr. P. Kameri-Mbote) and Published by UNEP jointly with ACTS) - 2001. 213 pages ISBN 9966-113-5.
2. *Background to Environmental Law and Institutions in Burkina Faso and Sao Tome & Principe*. June 2001 ISBN 92-807-2203-7
3. *Studies in Environmental Policy and Law in Malawi*. June 2001 (295 pages) ISBN 92-807-2257-7.
4. *Implementation of Environmental Law in Uganda*. April, 2002 (93 pages) ISBN 92-807-2207-7.

SELECTED REPORTS OF CONSULTANCY AND EXPERT STUDIES

1. Managerial Challenges of Uses of Water Resources: Problems of Intergovernmental Cooperation. Presented to the United Nations Water Conference. Mar del Plata, Argentina, March 1977. 20 pages.
2. Technology Information Services in Selected African States: Ethiopia, Liberia, Sierra Leone and Zambia. Submitted to the United National Economic Commission for Africa, Addis Ababa Ethiopia, August 1977. 80 pages.
3. An Inventory for the Legal and Institutional Aspects of the Nile Drainage Basin. Submitted to the U.N. Food and Agriculture Organization, Rome, 1980. 110 pages.
4. Legal Aspects of Protecting and Managing the Marine and Coastal Environment of the Eastern African Region. Submitted to the UNFAO and UNEP and published as UNEP Regional Seas Reports and Studies No. 38 (UNEP), (1983). 85 pages.
5. "Management Profile and Training Needs for Marine Resources Management in Developing Countries", in *Institutional Arrangements for Marine Resources Development*. Report of the Expert Group Meeting on Institutional Arrangements for Marine Resources Management, United Nations Headquarters 10-14 January 1984. (New York: United National 1984 ST/ESA/13) pp. 97-119.
6. A review of the Lake Basin Development Authority to Recommend on the Netherlands Longer Terms Assistance (Jointly with Dr. H.H. Bol). October 1985. 30 pages.
7. An analysis of the Evolution of UNEP. Objectives Under the Environment, 1972-1985.

Submitted to the UNEP Executive Director, December 1985. 20 pages.

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9. An Analysis of the Evolution of the UNEP Objectives on Marine Living Resources, 1972-1985. Submitted to the UNEP Executive Director, December 1985. 19 pages.
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11. Development and the Environment in Africa: Case Studies of Legal and Institutional Arrangements. Submitted to the EASCAS Department Organization of African Unity, Addis Ababa Ethiopia in March 1987. 172 pages.
12. Legal Framework for the cooperation among Undugu Member States. A Paper prepared for the U.N. Economic Commission for Africa, Addis Ababa, Ethiopia, April 1992.
13. Principles and Legal Framework on Development-Driven Involuntary Resettlement in African Countries. Prepared for Environment Department, The World Bank, Washington DC, May 1993.
14. Legal Aspects of the Management of Marine and Coastal Areas in Kenya. Submitted to the IUCN Environmental Law Centre (for IUCN/FAO/UNEP study) June 1993. 82 pages.
15. Review of the Policy Framework and Legal and Institutional Arrangements for the Management of the Environment and Natural Resources in Kenya. A project for the reform of Kenya's Environmental Law done under the aegis of UNEP and the Government of Kenya, October, 1993. 188 pages.

A SELECTION OF UNPUBLISHED PAPERS

1. "The Role of Environmental Law in Rural Development" presented at the Seminar on Law and Rural Development organized under the auspices of IDS and Faculty of Law at Sunset Hotel, Kisumu, July 13-23 1977.
2. "Access to technological Knowledge" presented at the Pacem in Maribus IX organized by eh International Ocean Institute and Government of Cameroon. Held at Yaounde, Cameroon. January 18-22 1979.
3. "Lake Victoria and the Nile Basins: An Evaluation of the Means of Cooperative Development" presented at the Conference on African-Arab-OECD Cooperation, held at Bellagio, Italy. May 14-19 1980.
4. "Coastal State Jurisdiction Over the Territorial Sea and the Exclusive Economic Zone Under the UNCLOS III Draft Convention" presented at the Workshop on the Eastern African Resources Policy: Management of the Coastal Zones, organized by the United Nations University and held at Mombasa, October 25-30 1981.
5. "Issues on Governance and Sustainable Development in the Management of Africa's International Drainage Basins" presented at the Seminar on Governance, Human Rights and Sustainable Development under the aegis of International Law Association at the

Institute of International Law and International Relations, University of Graz, Austria, March 29-April 1994.

6. Leading Issues in Environment and Development in Africa. A seminar presentation at the School of Environment and Development, University of Natal, Pietermaritzburg. 5 January 1996.
7. "Legal and Policy Considerations for the regional Cooperation on Lake Victoria and Nile River". Presented to the "Nile 2002" Conference, Kampala, Uganda, February 1996.
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9. "Key Challenges in Utilization of International Waters' a presentation to the National Conference on Integrated Water Resources Management, Ministry of Environment and Natural Resources, Nairobi 19th to 22nd March 2002.
10. "Legal Considerations in Management of Disasters" a presentation to a Workshop on Geo environmental Hazards, UNESCO Conference Centre Nairobi, 1st to 3rd July 2002.
11. "International Legal Responses to Threats to Marine Biodiversity from Pollution". Presentation as Distinguished Lecturer to the 8th Annual Colloquium of the IUCN Academy of Environmental Law at Ghent University, Belgium, 14th to 17th September 2010.

ANNEX 2: UNITED NATIONS SECRETARY-GENERAL'S REPORT, "GAPS IN INTERNATIONAL ENVIRONMENTAL LAW AND ENVIRONMENT-RELATED INSTRUMENTS: TOWARDS A GLOBAL PACT FOR THE ENVIRONMENT" (A/73/419, 3 DECEMBER 2018)

World Commission on Environmental Law of the
International Union for the Conservation of Nature
International Council of Environmental Law
International Group of Experts for the Pact

NOTE

On The

United Nations Secretary-General's Report, "Gaps in international environmental law and environment-related instruments: towards a global pact for the environment"
(A/73/419, 3 December 2018)

10 December 2018

Executive Summary

The Secretary-General's historic first Report of 3 December 2018 on international environmental law is a welcome analysis of legal endeavors worldwide to protect the Earth's environment. Without this field of law, the impacts of climate change, biodiversity loss, and pollution would have been worse. States have adopted many agreements to frame their cooperation to safeguard the environment. Each agreement contains general principles of environmental law. ICEL has compiled rosters of these principles from all the global and regional agreements and recorded them in the ICEL Charts, which are presented here for the first time. These principles have the potential to accelerate implementation of the UN Sustainable Development Goals (SDGs). This Note explains how and why the consultations in 2019 in Nairobi could reach consensus on the codification and progressive development of core principles of international environmental law. The Note offers commentary also on other aspects of the Secretary-General's Report.

This Note sets forth an independent assessment by a working group of expert members of the World Commission on International Environmental Law (WCEL) of the International Union for

the Conservation of Nature (IUCN),[1*] and of the International Council of Environmental Law (ICEL),[2**] in concert with the International Group of Experts for a Global Pact for the Environment (IGEP).[3***] The opinions expressed in this Note are the individual scholarly or professional judgments of these experts, and are not statements on behalf of either WCEL-IUCN, ICEL, or IGEP. This Note offers information and expert perspectives as a contribution for the forthcoming consultations about international environmental law that will convene in Nairobi, Kenya, in 2019.

We dedicate the Note to the memory of Elisabeth Haub and Wolfgang E. Burhenne, founders of IUCN's environmental law programme, and in honor of Prof. Charles Okidi,[4] and of the other laureates of the Elisabeth Haub awards in environmental law and diplomacy,[5] all of whom made enormous contributions to establishing the field of environmental law across all regions of the Earth.

Note on the UN Secretary General's Report

on

International Environmental Law

Welcoming the Secretary-General's Report

This Note welcomes the first report ever issued by the Secretary-General of the United Nations concerning the field of international environmental law, A/73/419 (30 November 2018). The UN General Assembly mandated preparation of the Report in resolution 72/277 (10 May 2018), entitled "Towards a Global Pact for the Environment." The Report is a major contribution to the further development of international environmental law. It would be of value for the UN General Assembly to request further such reports, on a periodic basis, on the progressive development of international environmental law, a realm of cooperation among States that did not exist when the United Nations was established.

The genesis of the General Assembly's request for the preparation of this Report was the submission by France of a proposed draft of a "Global Pact for the Environment,"[6] which had been prepared in 2017 by an international group of experts on international environmental law. Their

1 * The International Union for the Conservation of Nature (IUCN), founded in 1948, established its World Commission on Environmental Law in 1963. Its Law Commission's Members were instrumental in the development of several agreements, such as CITES and the Convention on Biological Diversity, as well as soft law instruments, such as the World Charter for Nature. IUCN participates in the work of the UN General Assembly through its Permanent Observer Mission to the UN in New York, and its headquarters in Gland, Switzerland. Contact via the WCEL Administrative Officer at wcel@iucn.org.

2 ** ICEL was founded in New Delhi in 1969, and is constituted under Article 60 of the Swiss Civil Code (Canton of Geneva). It has been accredited to the UN Economic and Social Council (ECOSOC) since 1973, and maintains representatives in Bonn, Geneva, and New York. It sponsors the Journal *Environmental Policy & Law*. It is a Member of IUCN. Contact via ICEL Executive Governor at nrobinson@law.pace.edu.

3 *** The Commission on the Environment of the *Club des Juristes* launched preparation of the draft Global Pact for the Environment in 2016-17. It convened a group of more than 100 environmental law experts, many also are members of the IUCN CEL and ICEL, who deliberated during the first half of 2017 and met in Paris in June of 2017 to refine and approve the text of the Global Pact for the Environment. The International Group of Experts for the Pact (IGEP) is an association of these experts. Contact via Secretariat at globalpact@globalpactenvironment.org.

4 Patricia Kameri-Mbote and Collins Odote, eds., Blazing the Trail - Professor Charles Okidi's Enduring Legacy In The Development of Enviromental Law (2019, University of Nairobi).

5 http://www.juridicum.su.se/ehp/laureates.html for law and https://law.pace.edu/elisabeth-haub-award for diplomacy. The two awards were merged in 2018, and will continue as one award recognizing the shared contributions leaders in both fields make for strengthening international envirionmental law.

6 Global Pact for the Environment; White Paper: Toward a Global Pact for the Environment (September 2017), both available at: http://pactenvironment.org.

draft reflected analysis of the development of normative principles of international environmental law since the 1972 Stockholm Declaration on the Human Environment.[7] The General Assembly put the draft Pact to one side and requested that the Secretary-General undertake an independent review of the instruments that comprise contemporary international environmental law, and identify gaps and relationships with other related fields of law. In addition to the 1972 Stockholm Declaration, the General Assembly resolution references the 1982 World Charter for Nature,[8] the 1992 Rio Declaration on Environment and Development,[9] Agenda 21 and the Programme for the Further Implementation of Agenda 21,[10] the Johannesburg Declaration on Sustainable Development,[11] the outcome document ("The Future We Want") of the 2012 UN Conference on Sustainable Development,[12] the 2015 Sustainable Development Goals,[13] as well as the outcomes of other UN conferences and summits in economic, social and environmental fields.

At the outset, we find that the Secretary-General's analysis is sound and we share the Report's over-all analysis and conclusions. As the Report falls into the mainstream of scholarly and professional analysis about environmental law, as confirmed by the many expert references that we cite in this Note, we are able to promptly respond to this Report and proffer these additional further perspectives.

The state of international environmental law has been extensively set forth and succinctly summarized in the 26 chapters of UNEP's "Training Manual on International Environmental Law" (2006), which was prepared by experts from each region around the world.[14] This Manual provides a standard description of international environmental law, in an easily understood and non-technical presentation. The Secretary-General's Report necessarily assumes that its readers have some familiarity with the field of environmental law. For those who may not have this background, this UN Environment Programme (UNEP, UN Environment) Manual provides context and can serve as a reference in relation to the recommendations in the Secretary-General's Report.

An Urgent and Common Concern for the Earth

Why does the Secretary-General's Report matter, to States, to us in our chosen discipline of environmental law, and ultimately to world security and order?

Former UNEP Executive Director Klaus Töpfer introduced UNEP's Manual in 2006 stating that: "Today's world is facing an unprecedented environmental crisis. Deterioration of the Earth's envi-

7 Stockholm Declaration on the Human Environment, at http://www.un-documents.net/unchedec.htm.

8 World Charter for Nature , Res 37/7 (1982), at http://www.un.org/documents/ga/res/37/a37r007.htm37/7 (1982)

9 Rio Declaration, A/CONF.151/26 (Vol. I), at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm.

10 Agenda 21 (1992), at https://sustainabledevelopment.un.org/outcomedocuments/agenda21

11 Johannesburg Declaration on Sustainable Development, 2002, available at http://ec.europa.eu/environment/archives/wssd/documents/wssd_pol_declaration.pdf.

12 "The World We Want," Outcome Document of the Rio 2012 Summit on Sustainable Development, at https://sustainabledevelopment.un.org/futurewewant.html

13 UN General Assembly, Transforming our world: The 2030 Agenda for Sustainable Development, A/RES/70/1 (21 October 2015) available at: https://www.refworld.org/docid/57b6e3e44.html [accessed 7 December 2018]

14 Training Manual on International Environmental Law (2006, UNEP), ISBN 92-807-2554-8; on line at https://digitalcommons.pace.edu/lawfaculty/791/ . Currently being updated by UN Environment and the IUCN Academy of Environmental Law.

ronment increasingly threatens the natural resource base and processes upon which all life on Earth depends. Without strong and multifaceted action by all of us, the biosphere may become unable to sustain human life and future generations will suffer deprivation and hardship unless current patterns of production, consumption and water management dramatically change. The urgency of balancing development with the Earth's life support systems is being finally recognized and understood. Now it is time to act upon this understanding." The UNEP "Global Environmental Outlook 5" (GEO-5) report in 2012 confirmed that Earth's environment is degrading faster and further than was the case in 2006.[15]

The recent Special Report of the Intergovernmental Panel on Climate Change (IPCC), "Global Warming of 1.5°*C*" (October 2018),[16] soberly reported that the time to act to avert harm has passed. IPCC (Intergovernmental Panel on Climate Change) studies revealed that unless remedial action is taken in the next decade, all States face irrevocable damage. Adverse impacts of climate change, extreme weather events, fires, droughts, and floods, today are eroding development gains that took years to acquire. The IPCC attributed the recent record-breaking floods, droughts, and coastal impacts from rises in sea levels, to the .87°C rise in global atmospheric temperature since the pre-industrial era (1850-1900). The IPCC advised that the aim of the 2015 Paris Agreement, to hold the rise in temperature to "well below a 2°C increase above pre-industrial levels" and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, is insufficient to avert severe disruption globally. The IPCC's recent report advised limiting temperature increases to below 1.5°C, but acknowledged that to do so would require "unprecedented changes" in all aspects of socio-economic life.[17]

Natural disasters are not new, but they are becoming more severe and more people are in harm's way. 1998 is recalled as the year that "the world burned."[18] Two decades on, regional climates have become drier and hotter, and wildfires were even worse this past year. Significant new levels of flooding, and powerful hurricanes and typhoons, also recur. In light of prospects for an increased scale of disasters, States have cooperated to develop the "*Sendai Framework on Disaster Risk Reduction*."[19] The Sendai Framework would benefit from having a stronger environmental law foundation and treaty mechanisms to help States prepare for and build resilience to recover from disasters. Recognizing an international Principle of Resilience could animate States to adopt more

15 UNEP, Global Environment Outlook 5: Environment for the Future We Want (2012), available at: http://wedocs.unep.org/handle/20.500.11822/8021.

16 IPCC Special Report, "Global Warming of 1.5°C," at https://www.ipcc.ch/sr15/ (last accessed December 4, 2018).

17 Intergovernmental Panel on Climate Change Special Report 15, "Global Warming of 1.5° C" 6 October 2018, at www.ippc.org. To attain acceptable temperature levels, by 2030 global carbon dioxide emissions need to fall to 45% of 2010 levels, and by 2050 it will be necessary to scrub the greenhouse gases from the atmosphere by vastly wider use of photosynthesis by plants (from marine phytoplankton to forests). As Joyeeta Gupta and Karin Arts indicate, "The reality is that transformational changes in development patterns are required for achieving a 2°C world and yet more radical changes if one is to reach the ore stringent target of 1.5°C" Gupta, J & Arts, K. Int.Env.Agreements (2018) 18:11. http://doi.org/10.1007/s10784-017-9376-7.

18 See Nicholas A. Robinson, Forest Fires As A Common International Concern: Precedents for the Progressive Development of International Environmental Law, 18 *Pace Envtl. L. Rev.* 459 (2001), at http://digitalcommons.pace.edu/lawfaculty/375/.

19 Sendai Framework for Disaster Risk Reduction, at https://www.unisdr.org/we/inform/publications/43291

effective national policies to avert, to prepare for, and to recover from natural disasters.[20] As the global population of humans is projected to grow from 7.5 billion today to 9 billion in 2050, all States will benefit from enhanced cooperation to sustain a healthy environment, provide for food production, and cope with the ecological impacts of rapid declines in biological diversity. There are many ways to do so.[21] As President Xi Jinping of China has observed, "It is high time that we intensified eco-environmental protection. And we are capable of accomplishing this task now."[22] China is moving toward a principled stewardship program of "ecological civilization,"[23] which aligns government practices and budgets with ecological stewardship. Other guides, such as the Earth Charter,[24] also establish normative foundations for global environmental stewardship. In responding to the Secretary-General's Report, States have an opportunity to enhance the effectiveness of international environmental law. The ad hoc open-ended working group scheduled to meet in Nairobi under UN General Assembly resolution 72/277 will provide an opportunity for States to develop an effective global approach.

Peace, security, and sustainable development depend on maintaining a healthy and stable environment. The destabilizing effect of events like recurrent wildfires can be seen both domestically as human lives and nature are impacted and also when transboundary pollution spreads the harm more widely, people are displaced, and regional ecological integrity is threatened.[25] In 2018, wild fires were more severe again, afflicting alike, without distinction, both developed and developing States. This "new normal" requires new responses from governments. The IPCC attributes this escalating scale and severity of natural disasters to climate change. The pattern of increasing threats to the environment makes it plain that more consensus is needed to accelerate efforts to implement the SDGs through the United Nations 2030 Agenda. Principles of environmental law have a key role to play in this effort.

Furthering the Progressive Development of Environmental Law

Following the 1972 Stockholm Conference, States have increasingly promoted the field of international environmental law to prevent environmental degradation and guide socio-economic development toward sustainability. The 1987 UN World Commission on Environment and Development ("Brundtland Commission"), in its report "Our Common Future," called for the elaboration of en-

20 See also the International Law Commission's draft articles on the protection of persons in the event of disasters; Official Records of the General Assembly, Seventy-first Session, Supplement No. 10 (A/71/10); UN GA res. A/res/71/141 (13 December 2016) (recommending to the General Assembly the elaboration of a convention on the basis of the draft articles on the protection of persons in the event of disasters).

21 See, e.g., the studies of the Stockholm Resilience Center, at www.stockholmresilience.org.

22 Xi Jinping, The Governance of China II, p. 425 (2017, Foreign Languages Press).

23 Zhu Guangyao, "Ecological Civilization – A National Strategy for Innovative, Concerted, Green, Open and Inclusive Development, *Our Planet* (UN Environment, March 2016); see also Paul Baressi, "The Role of Law and the Rule of Law in China's Quest to Build an Ecological Civilization," 1:1 Chinese J. of Envtl Law 9-36 (2017).

24 See www.earthcharter.org.

25 See S. Jayakumar, Tommy Koh, Robert Beckman, and Hao Duy Phan, Transboundary Pollution, Evolving Issues of International Environmental Law (Edward Elgar, 2015).

vironmental law.[26] Agenda 21 delineated steps that States should undertake to strengthen national and international environmental law in chapters 8 ("Integrating environment and development in decision-making"), 37 ("National mechanisms and international cooperation for capacity building in developing countries"), 38 ("International institutional arrangements"), and 39 ("International institutional arrangements"). States agreed to these recommended measures by consensus. The motivation for consensus at the 1992 Rio Conference on Environment and Development is characterized by Russian Federation President Boris Yeltsin: "Our common aspiration should be not just the survival but the life – a life worthy of mankind – of our great homeland, the uniquely beautiful planet Earth."[27]

The thoughtful recommendations of Agenda 21 for international environmental law and governance deserve to be revisited. They have not been fully implemented. These pending recommendations represent a kind of "gap" which is not examined in the Secretary-General's report. Many recommendations in Agenda 21 have been implemented, resulting in improved cooperation between States on international institutional arrangements for environmental goals, evidence of its potential.

Between 1972 and 2018, States have cooperated progressively to develop the field of environmental law. The multilateral environmental agreements (MEAs), along with the many regional agreements, are founded upon a set of agreed principles and obligations.[28] The fact that States share a set of universally agreed principles is not widely recognized, because international environmental law is often thematic and largely directed to managing, protecting, or conserving specific parts of the biosphere, such as the stratospheric ozone layer or the Antarctic Ocean; or on human impacts, such as the release of toxic chemicals that are persistent organic pollutants, or the trade in endangered species. Despite this appropriate regional and sectoral focus, all aspects of international environmental law are guided by a shared vision, which is to organize human activity to safeguard the biosphere. This unity of purpose is obscured because international environmental law is often seen through its parts, not its whole.

States understandably focus on the separate parts of international environmental law because of the importance they give to the national implementation of each agreement. However, in practice, States generally assign implementation of their international environmental obligations to different ministries or authorities, and rarely have a single cabinet-level office to oversee all of them. The Secretary-General's Report is valuable in providing States an overview of international environmental law, which is otherwise difficult to obtain. Moreover, environmental ministries within States and

26 Our Common Future (1987), at http://www.un-documents.net/our-common-future.pdf . The Report had a detailed appendix on the need for further environmental law development. Those recommendations remain to be fully implemented.

27 Agenda Item 9, Letter dated 9 June 1992, from the Deputy Head of the Delegation of the Russian Federation to the Secretary-General of the United Nations Conference on Environment and Development, transmitting the Address of the President of the Russian Federation, A/CONF.151/18 10 June 1992, reproduced at pp. 885-888, vol. 4, Agenda 21 and the UNCED Proceedings (Nicholas A. Robinson, editor, Oceana Publications, 1993, in 6 volumes, the *traveaux préparatoires* of UNCED).

28 For more information on the institutions created within the MEA's, see Bharat Desai, *Multilateral Environmental Agreements. Legal Status of the Secretariats*, Cambridge University Press, 2010.

at the local level are typically under-resourced and hard-pressed to implement their duties. There is little opportunity to share best practices with authorities in other regions, or internationally. For these reasons, it is difficult for governments to learn how others cope with the same problems. Too few are aware that other States have adopted and embraced the same general principles of environmental law across all sectors. International secretariats and UN Environment lack the resources to play such an informational role and address this situation.

As the UN Secretary-General's Report accurately indicates, international environmental law consists of specialized agreements. This is a strength. Although increased coordination between related sectoral conventions is desirable, it is not appropriate to characterize the wide range of specialized agreements as representing some kind of dysfunctional fragmentation. Shared principles and comparable administrative programs produce effective remedial measures in similar ecological conditions, in all regions. For example, implementation of the Vienna Convention to Protect the Stratospheric Ozone Layer, and its Montreal Protocol and other derivative agreements[29] is a justly celebrated example of integrated global action to collectively protect a common resource. Regional cooperation is also productive, but few regions have occasion to learn what other regions do. For example, even in the case of legal regimes for one medium, the marine environment, it is perhaps not surprising that the Regional Seas Programme for the Baltic (Helsinki Agreement)[30] is not much in contact with the Regional Seas Programme for the Mediterranean (Barcelona Agreement)[31] or with the Agreements for the Wider Caribbean Sea[32] or the Gulf (Kuwait Agreement) or the Red Sea or with the cooperative programmes in the South Pacific (SPREP) or North Atlantic (OSPAR).[33] As the Report of the UN Secretary-General observes, there would be benefits from a "comprehensive and unifying international instrument clarifying all the principles of environmental law."[34]

Providing References to Principles for the 2019 Consultations in Nairobi

The General Assembly requested that its *ad hoc* open-ended working group report on its forthcoming consultations by June 2019. As Ambassador Macharia Kumau has observed, "Most of what we have come to accept as the body of international norms and legislation that govern our global system of cooperation, humanitarian support, and peace and security is negotiated, endorsed, legislated, and enforced through this system of agencies, council and offices. Mastering the functions and operations of this global multilateral system takes years, if not decades, of engagement and practice."[35] Because States have already share a wide consensus about principles of international

29 See the Handbook for the Montreal Protocol on Substances the Deplete the Ozone Layer (2006), at https://unep.ch/ozone/Publications/handbook/MP__Handbook_2006.pdf

30 Helsinki Convention for the Protection of the Baltic Sea Area (HELCOM), at http://www.helcom.fi/about-us/convention

31 The Barcelona Convention for the Protection of the Mediterranean Sea, (which also helped promote the wider Mediterranean Union) at https://web.unep.org/unepmap/1-barcelona-convention-and-amendments

32 The 1983 Cartagena Convention for the Wider Caribbean, at http://www.cep.unep.org/cartagena-convention

33 See these regional seas agreements at https://unep.ch/conventions/rscaplist.htm

34 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), paragraph 10, p 7.

35 Macharia Kumau, Preface to M. Kumau, P. Chasek and D. 0'Connor, Transforming Multilateral Diplomacy – The Inside Story of the Sustainable Development Goals (Routledge, 2018).

environmental law, previous investments of diplomatic time and capacity mean that the General Assembly's time-table is realistsic.

States' delegates have a brief period of time in which to study the Secretary-General's report and prepare for the forthcoming 2019 consultations on International Environmental Law. They have only 45 days, followed by the six months of consultations. Their mission deserves cooperation and support, for the reasons cited in Res. 72/277. Accordingly, a working group of experts convened by ICEL, in cooperation with the IUCN World Commission on Environmental Law and the International Group of Experts for the Global Pact for the Environment, has prepared this Note and supporting studies.

ICEL has undertaken studies to provide States with the tools that enable them to secure this overview of existing commitments, in cooperation with the Vance Center of the New York City Bar and the international law firm of White & Case. ICEL has assembled this information in a set of Charts (the "**ICEL Charts**," 5 September 2018).[36] The Charts identify general principles adopted within multilateral environmental agreements and regional agreements for: the African Union (AU), the Association of South East Asian States (ASEAN), the Caribbean Community (CARICOM), the Commonwealth of Independent States (CIS), the League of Arab States (Arab League), the Organization of American States (OAS), the South Asian Cooperative Agreement (SACEP) and the Pacific Islands Forum and similar studies are underway for all other regional groups. The States of the European Union are party to the same set of agreements,[37] and Brazil, China, Japan, Russia and the United States have accepted most of the same principles. ICEL has assembled a Chart indicating the legal foundation provided by these agreed principles of international environmental law for each of the UN Sustainable Development Goals.

The ICEL Charts reveal the consensus on principles and objectives in international environmental law. They complement the discussion in the Secretary-General's Report. This Note touches upon several of the recommendations in the UN Secretary-General's report:

(a) the progressive development of international law with respect to general principles of international environmental law and their codification;

(b) gaps in existing international environmental agreements;

(c) the relationships of environmental agreements with instruments in other fields of international law;

(d) gaps in the governance frameworks;

e) the implementation and effectiveness of international environmental law, and

36 See the Appendix to this Note for the links providing access to the ICEL Charts. The ICEL Charts may be accessed on the websites of the Law Library at the Elisabeth Haub School of Law, New York (https://libraryguides.law.pace.edu/icel,) and IUCN's World Commission on Environmental Law (https://www.iucn.org/news/world-commission-environmental-law/201812/global-pact-gap-report-released-un-environment) ICEL also is disseminating its ICEL Charts to States as references for their participation in the Nairobi consultations.

37 See Environmental Law, Magazine *ENVIRONMENT* for Europeans, (19 January 2018), at https://ec.europa.eu/emvironmnet/efe/themes/evironmental_law_en ; and Jan H. Jans and Hans H.B. Vedder, European Environmental Law (2009. 3rd edition).

(f) the role of international environmental law in ensuring attainment of the UN Sustainable Development Goals and the 2030 Development Agenda.

A. General Principles of International Environmental Law

Part II of the Secretary-General's Report addresses general principles of international environmental law. The Report's useful observations can be endorsed and also expanded upon.

International recognition of the principles of environmental law has roots in the 1972 UN Stockholm Conference on the Human Environment, which adopted the Stockholm Declaration. The Declaration's preamble states that "Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights the right to life itself."[38]

In light of these and other considerations, the Stockholm Conference proclaimed an environmental right and duty in its first principle. This was based on the assumption that the Earth's environment was stable and capable of being sustained: "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations." Principle 2 provided that: "The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate."[39] These principles set the stage for subsequent deliberations about how to more clearly recognize and observe the right to the environment.

Since 1972, principles of international environmental law have been elaborated and refined. Their virtue, as ICEL Member Winfried Lang noted, is that they serve to build agreement and cooperation. Surveying the views of other ICEL members for an article in the Max Planck UN Year Book,[40] he stated: "[Alexandre] Kiss-[Dinah]Shelton linked the adoption of principles to the progressive development of international law, but as professional lawyers they agree that such principles cannot stand alone but need transformation into binding obligations in order to play their role in international life. [Paul] Szasz, with his life-long experience in law-making in the UN context, stressed the important role of legislative declarations as they may be precursors to and guide a

38 Preamble paragraph 1, Stockholm Declaration on the Human Environment, at www.un-documents.net/unchedec.htm; see Ben Boer, "Environmental principles and the right to environment," in Ludwig Krämer and Emanuela Orlando (eds.), Principles of Environmental Law, Elgar Encyclopedia of Environmental Law, Vol. VI, 52, 57 (2018).

39 Stockholm Declaration, Principle 1.

40 Winfried Lang, "UN-Principles and International Environmental law, Max Planck Year Book of United Nations Law, UNYB 3 (1999), at http://www.mpil.de/en/pub/publications/periodic-publications/max-planck-yearbook/volume-3.cfm

later treaty-making process and are designed to influence the conduct of states directly."[41] Lang further observed that "French scholars distinguished by the mid-eighties between '*principes directeurs*' and '*principes inspirateurs*.' Among the former they included environmental impact assessments, information and consultation, early warning in case of accidents, non-discrimination and equal treatment. In the second group were mentioned sovereignty in exploiting one's natural resources, solidarity and cooperation, equitable utilization of common resources, safeguarding of the common heritage of mankind."[42] Lang goes on to identify principles as they appear in different environmental agreements, not unlike the ICEL Charts.

Since Lang wrote, the consensus about existing principles of international environmental law has become wider and more refined.[43] Many principles are now "accepted" (e.g. public participation in environmental decision-making) while others remain as "emerging" (e.g. inter-generational equity, and duties to future generations). Moreover, as Emanuela Orlando and Ludwig Krämer observed "alongside widely recognized environmental principles at the international law level, and across different jurisdictions world-wide other environmental principles have emerged in particular legal systems, reflecting the needs, aspirations and objectives of that particular culture and legal traditions. This is the case for example in the 'protection first' principle in China, or the public trust doctrine, which inherited from the US, is being increasingly used in environmental cases by courts in India and in Sri Lanka."[44]

The present consultations on principles of international environmental law, therefore, may need to evaluate those which are widely accepted and those which are emerging. Of the former, it is appropriate to codify them in a single agreed text. In cases where more than one expression of the principle is found a single agreed text would "provide for better harmonization, predictability and certainty" in international environmental law.[45] Some emerging principles may be important enough to acknowledge in such text as the progressive development of the law is necessary as real-world conditions change.

As Shailendra Kumar Gupta includes the following principles as being widely accepted:[46]

"(1) Principle 21 of the Stockholm Declaration and Principle 2 of the Rio Declaration, namely that states have sovereignty over their natural resources and the responsibility not to cause environmental damage;

(2) The principle of preventive action;

41 Id., p. 158.

42 Id., at p. 161. See also Maurice Kampto, "Les Nouveaux principes du droit de l'environnement," *Revue juridique de l'environnement* 18:1 (1993) at 11-21.

43 Philippe Sands, Principles of International Environmental Law (Cambridge 2d edition,2003).

44 Ludwig Krämer and Emanuela Orlando, "Introduction," *in* Ludwig Krämer and Emanuela Orlando (eds.), Principles of Environmental Law, Elgar Encyclopedia of Environmental Law, Vol. VI, 2 (2018).

45 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), paragraph 102, p. 43.

46 Shailendra Kumar Gupta, "Principles of International Environmental law and Judicial Response in India," at p. 3 (Benares Hindu University, Varanasi, India).

(3) The principle of good neighborliness and international co-operation;

(4) The principle of sustainable development;

(5) The precautionary principle;

(6) The polluter-pays principle; and

(7) The principle of common but differentiated responsibility."

There is a large body of additional principles that some scholars would add to these.[47] The UNEP Manual described these principles in Chapter 3. The additional principles are (1) Sustainable Development; (2) Inter-Generational and Intra-Generational Equity; (3) Responsibility and Transboundary Harm; (4) Transparency, public participation and access to information and remedies; (5) Cooperation and Common But Differentiated Responsibilities; (6) Precaution; (70 Prevention; (8) Polluter pays; (9) Common Heritage and Common Concern of Mankind; (11) Good Governance. There are significant commentaries about how to observe and use principles to promote sustainable development, as for example in China through environmental management practices.[48]

The Secretary-General's Report describes nine principles (paragraphs 11-22). In addition to the principles set forth above, the Report adds the right to a healthy environment, and the Principles of Non-Regression and Progression, but does not address Inter-Generational or Intra-Generational Equity. The 1972 Stockholm Declaration embraces the right to the environment as a fundamental principle, as well as the principles associated with the duties of States to care for the environment and to enact effective laws to safeguard the environment. Principle 17 of the Rio Declaration obliges States to undertake environmental impact assessment in national decision-making impacting on the environment, and this norm has become accepted as customary international law;[49] the draft Global Pact and the Secretary-General's Report list this duty as one aspect of the Principle of Prevention. The Expert Group that prepared the draft Global Pact for the Environment includes the principle of caring for the Earth in Article 2 and set forth the Principle of Resilience in Article 16, and although both are implicit in other principles (e.g. prevention and precaution), there is value in expressing them in their own right.

47 UNEP Manual, chapter 3. See Marie-Claire Cordonier Segger "Commitment to sustainable development through international law and policy", in Marie-Claire Cordonier Segger and H.E, Judge C.G. Weeramantry, eds., Sustainable Development Principles in the Decision of International Courts and Tribunals 1992-2012 (Routledge, 2017), pp. 29-98. See also, Nico Schrijver, "Advancement in the principles of international law on sustainable development", in Marie-Claire Cordonier Segger and H.E, Judge C.G. Weeramantry, eds., Sustainable Development Principles in the Decision of International Courts and Tribunals 1992-2012, pp. 99.-108.

48 See Xiangbai He, Setting the Legal Enabling Environment for Adaptation Mainstreaming into Environmental Management in China: Applying Key Environmental Law Principles, 17 Asia Pac. J. Envtl. L. 23 (2014). See also Yuhong Zhao, "Environmental Principles in China", in Elgar Encyclopedia of Environmental Law, Volume VI (Elgar, 2018), pp. 424-436; Olga Dubovik and Alla Röhrict, "Principles of Russian Environmental Law", in Elgar Encyclopedia of Environmental Law, Volume VI, pp. 437-448; Samudu Atapattu, "Environmental Law principles in Asia", in Elgar Encyclopedia of Environmental Law, Volume VI, pp. 433-475; Hennie Strydom, "Environmental principles in Africa", in Elgar Encyclopedia of Environmental Law, Volume VI, pp. 494-506.

49 *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010,* www.icj-cij.org/en/case/135*; Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, Case No. 17, International Tribunal for the Law of the Sea Reports 2011.*

This brief description of the international principles of environmental law lends support to the observation in the Secretary-General's Report regarding the importance of States coming to agreement on a common set of core principles to guide international environmental law. Agreeing to principles in a new Global Pact would provide certainty to the relations among States. The Nairobi consultations could agree on and restate the core principles of international environmental law. This is part codification, and part progressive development of law, which is within the General Assembly's mandate under article 13(1) of the UN Charter.

Expert commentaries about these general principles tend to agree on a core set of principles and diverge as to new or emerging principles. States themselves have determined the roster of accepted principles by including them in international agreements. This is considered the best evidence of core principles that are candidates for codification. The ICEL Charts found in the Appendix to this Note list these agreed principles.[50]

The most cited provision of the 1972 Stockholm Declaration is Principle 21, governing State obligations and rights. Principle 21 provides that: "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." This poses a problem: how can States know when their conduct may harm a neighbor of the commons? It would seem that the principles of prevention and precaution preclude such transboundary harm, and observing Rio Principle 17 on environmental impat assessment would enable States to observe their duty not ot harm neighbors of the commons. In order to guide State practice and to build capacity for States to observe Principle 21, States will need to understand their reciprocal and shared duties. For this reason alone, States should formally acknowledge that they share a common set of principles that would further this objective.

B. Gaps in existing international environmental agreements

The analysis in Part II of the Secretary-General's Report is sound. A multifaceted response is called for and we encourage the several conferences of the parties under international agreements, as well as the UN General Assembly, to address the gaps identified where they have authority to do so. A response to this part of the Report requires substantially more time than provided for the Nairobi consultations in 2019. It is worth noting that, despite some gaps and limitations, there is positive international cooperation under all of the international environmental agreements. This reflects the findings that Nobel Laureate Dr. Elinor Ostrom established,[51] that when parties understand their shared dependence on common pool resources, they evolve ways to cooperate ef-

50 See also Cymie R. Payne, "A Global Pact for the Environment," 22:12 Am. Soc. Intl L. Insights (2018), available at https://www.asil.org/insights/volume/22/issue/12/global-pact-environment.

51 Elinor Ostrom, Understanding Institutional Diversity (2005), at p. 286.

fectively together. The Secretary-General's Report is prudent in citing Ostrom's research,[52] which rebuts the theory that there is always a "tragedy of the commons." Ostrom's studies indicate that agreeing on clear rules leads to cooperation to sustain shared resources. The General Assembly has experienced this phenomenon in both the consensus on the SDGs and also in the on-going negotiation regarding conservation and sustainable use of biodiversity in areas beyond national jurisdiction (BBNJ). State practice under the Montreal Protocol for protection of the Stratospheric Ozone layer also reflects Ostrom's findings. The consultations in Nairobi may wish to recommend that priority be given to enhancing the effectiveness of international law in the areas identified in section II of the Secretary-General's Report.

C. Environment-related instruments: Relationships of environmental agreements with instruments in other fields of international law

The UN Secretary-General's report assesses the lack of coherence and synergy among environment-related instruments—specifically on trade, investment, intellectual property and human rights—to conclude that "the articulation between multilateral environmental agreements and environment-related instruments remains problematic owing to the lack of clarity, content-wise and status-wise, of many environmental principles."[53]

With respect to trade and environment, the UN Secretary-General's report notes "a widening gap between these two normative regimes."[54] On the trade side, the Doha Round of negotiations had agreed to confer about how to reconcile international law regimes for environmental protection and for trade, but this never happened. Article XX of the General Agreement on Tariffs and Trade remains a critical norm. However, national implementation of the GATT Article XX's phytosanitary controls is often inconsistent and would benefit from harmonization. Current implementation is proving too weak to prevent infection across borders. On the environmental law side, the Convention on International Trade in Endangered Species (CITES)[55] is a robust regime that provides norms and procedures to ensure that trade does not cause the extinction of species. The Montreal Protocol has a successful fund that assists developing nations to phase out the manufacture and trade in ozone depleting substances and to finance national focal points to implement trade restrictions on banned substances.[56] While the principle of sustainable development has become an integral

52 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), paragraph 22, Note 77, citing E. Ostrom, Governing the Commons: The Evolution of Institutions for Collective Action (1990).

53 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), Summary. See Gilles J. Martin, "Principles and rules", in *Elgar Encyclopedia of Environmental Law,* Volume VI 13-22. See also Teresa Fajardo, "Environmental law principles and general principles of international law", in *Elgar Encyclopedia of Environmental Law,* Volume VI 38-51.

54 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), paragraph 71.

55 https://www.cites.org

56 Donald Kaniaru, "The Montreal Protocol: Celebrating 20 Years of Environmental Progress: Ozone Layer and Climate Protection," UNEP/Earthprint 2007.

part of the world trading system,[57] and provides "color, texture and shading" to the interpretation trade agreements, there is no binding agreement articulating the prerequisites for sustainable trade practices. A coherent set of environmental law principles could contribute to stabilizing world trade law and averting future environment-related trade disputes. In sum, "environmental principles can play a role in reconciling international law with trade law, and balancing trade with environmental interests."[58]

This is also the case for investment and intellectual property legal instruments. The UN Secretary-General's report notes normative gaps "because the specific environmental concerns explicitly addressed in these agreements are limited."[59] In particular, gaps between the regimes of the Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) under the World Trade Organization and the Convention on Biological Diversity are evident.[60] The consultations to harmonize rules and practices under these two regimes came to a halt after the Doha Round of Trade negotiations stalled. A comprehensive and unifying set of environmental law principles would guide the search for ways to reconcile competing economic, social and environmental objectives.[61]

With respect to human rights, while the connections between a healthy environment and the effective enjoyment of human rights are well recognized by human rights bodies and tribunals,[62] as noted in the UN Secretary-General's report, gaps exist between sources of human rights law and environmental law.[63] In this regard, clarification and reinforcement of principles of international environmental law, as well as the recognition of a stand-alone right to a healthy environment, could provide a more balanced reconciliation of economic, social, and environmental rights.[64] Moreover, this reconciliation approach of different rights at the intersection of environment

57 See Markus Gehring and Alexandre Genest, "Disputes on sustainable development in the WTO regimes", in Marie-Claire Cordonier Segger and H.E, Judge C.G. Weeramantry, eds., Sustainable Development Principles in the Decision of International Courts and Tribunals 1992-2012, pp. 382-383. See also Kati Kulovesi and Sabaa Khan, "Environmental principles in trade relations", in Elgar Encyclopedia of Environmental Law, Volume VI, pp. 644-657.

58 See Kati Kulovesi and Sabaa Khan, "Environmental principles in trade relations", in Elgar Encyclopedia of Environmental Law, Volume VI, p. 656.

59 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), paragraph 73. See also David M. Ong, "Environmental principles in international investment law", in Elgar Encyclopedia of Environmental Law, Volume VI, pp. 658-672.

60 Makane Moïse Mbengue and Urs O. Thomas, "The Precautionary Principle: Torn Between Biodiversity, environment-related food safety and the WTO," *International Journal of Global Environmental Issues*, 5.1-2 (2005), pp 36-53.

61 See Henning Grosse Ruse-Khan, "The principle of integration in WTO/TRIPS Jurisprudence", in Marie-Claire Cordonier Segger and H.E, Judge C.G. Weeramantry, eds., Sustainable Development Principles in the Decision of International Courts and Tribunals 1992-2012, p. 398.

62 Manual on Human Rights and the Environment (2d Edition, 2012, Council of Europe), at www.echr.coe.int/Library/Docs/DH_DEV_Manual.

63 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), paragraph 76.

64 Stephanie Safdi and Sébastien Jodoin, "The principle of sustainable development in the practice of UN human rights bodies", in Marie-Claire Cordonier Segger and H.E, Judge C.G. Weeramantry, eds., Sustainable Development Principles in the Decision of International Courts and Tribunals 1992-2012, p. 467.

and development—"the very essence of sustainability"[65]—would be a useful contribution to the implementation of the sustainable development goals and the UN 2030 Agenda.

Recognition of the right to a healthy environment as a human right has been acknowledged since the 1972 Stockholm Conference. The right to development dates back to the 1980s, and since 1992, as ICEL member Ben Boer has argued, "the principle of sustainable development suggests that the right to development is to be balanced with and constrained by the right to a clean, safe, healthy and sustainable environment."[66] To ensure that this is understood juridically, States should "agree on a legal instrument that reflects the current regional agreements which include recognition of the right to a quality environment, with focus both on the substantive elements as well as on robust means of implementation. The barriers to proclaiming a clearly articulated and unambiguous right to a quality environment at a global level are falling away. The question is now not if, but when, a global instrument containing such a right will be opened for signature and eventually enter into force."[67]

D. Gaps relating to the governance structure of international environmental law

International Environmental Law has evolved rather quickly over the last four decades. Developing nations have played a leading role in the design and implementation of new environmental law as they have seen factual evidence of environmental harm.[68] These agreements are generally issue-specific or targeted to conditions in particular geographic areas. As noted above, this gives the field the appearance of being fragmented. An internationally agreed set of overarching principles would help give unity to instruments of varied scope and legal nature.

Clarity and consistency in defining these core principles, in a legal instrument, would simplify the complex task of operationalizing environmental agreements. The multiplicity of agreements has made it difficult for States to provide sufficient national civil servants and diplomats to participate in all the international regimes. It has also led to concerns about legal inconsistencies and institutional fragmentation[69] and a lack of legal certainty. Scholars around the world have noted this situation widely.[70] There is an "urgent need to strengthen the UN's environmental institutions

65 Ibid., p. 468.

66 See Ben Boer, "Environmental principles and the right to a quality environment", in Elgar Encyclopedia of Environmental Law, Volume VI, p. 73.

67 Ibid.

68 See, e.g., Parvez Hassan, "Role of the South in the Development of International Environmental Law," Chinese Journal of Environmental Law 1 (2017) 133–157; and Adil Najam, "Developing Countries and Global Environmental Governance: From Contestation to Participation to Engagement," in International Environmental Agreements: Politics, Law and Economics(September 2005), Volume 5, Issue 3, pp 303–321.

69 Pauwelyn, Joost. "Bridging fragmentation and unity: International Law as a universe of inter-connected islands." *Mich. J. Int'l L.* 25 (2003): 903.

70 Including the Global South: Najam, Adil, Ioli Christopoulou, and William R. Moomaw. "The emergent 'system' of global environmental governance." *Global Environmental Politics* 4.4 (2004): 23-35.

and governance framework".[71] There are more than 500 international environmental agreements[72] that directly or indirectly relate to the environment. This variety of normative instruments cover a diverse spectrum of issues, such as loss of biological diversity, atmospheric pollution, the deterioration of the oceans or the soil, or the problem of deforestation, among many others.[73] To this profusion of norms, a plethora of policymaking organs has to be added to complete the dominant heterogeneity. Indeed, the MEAs have created their own specific set of institutions (such as the Conference of the Parties, Secretariats, etc.) to ensure the proper functioning of the agreements.[74] The severity of the state of the environment[75] caused by anthropogenic stress on the Earth, evidences the critical need for reform within this institutional framework.[76]

Among the numerous global and regional institutions, UNEP was intended to be the "leading environmental authority in the United Nations system".[77] Since its creation in 1972,[78] UNEP has tried to consolidate robust environmental standards and practices while guaranteeing compliance with them. However, it has faced many problems,[79] mostly due to its own organizational structure and to the lack of proper funding,[80] which has led to various restructuring attempts.[81]

A variety of proposals have been made to provide States with more coherent oversight of international governance for the Earth's environmental systems. Among the proposals to improve the effectiveness of the international environmental governance is the establishment of a World Environment Organization[82] as a UN specialized agency rather than a UN programme.[83] A WEO is envisioned as a more centralized institution that would improve decision-making processes,

71 Bharat H Desai, "The Quest for a UN "Specialized Agency" for the Environment" (2012) 1010 (60) The Round Table 171, and "On the Revival of the United Nations Trusteeship Council with a New Mandate for the Environment and the Global Commons" *Yearbook of International Environmental Law,* Vol. 27, Nº 1 (2016) 16.

72 Kanie, Norichika. "Governance with Multilateral Environmental Agreements: A Healthy or Ill-equipped Fragmentation?" *Green Planet Blues: Critical Perspectives on Global Environmental Politics* (2014): 137.

73 Geoffrey Palmer, "New Ways to Make International Environmental Law", 86 AM. J. INT'L L. 259, 263 (1992).

74 Indeed, international environmental institutions acquire their own character once they are established and start functioning. See Desai, Bharat. Institutionalizing International Environmental Law (Transnational Publishers, 2004).

75 IPCC *Global Warming of 1.5 ºC. Summary for Policymakers* (2018).

76 See Ivanova, Maria. "Global governance in the 21st century: rethinking the environmental pillar." Stakeholder Forum (2011).

77 UNEP, United Nations Environmental Program, https://www.un.org/youthenvoy/2013/08/unep-united-nations-environment-programme/

78 Institutional and financial arrangements for international environmental cooperation, UN doc. A/res/27/2997 (1972), available at: http://www.un-documents.net/a27r2997.htm .

79 The current UNEP is not strong and ambitious enough to tackle the environmental problems. See Bharat H Desai, International Environmental Governance: Towards UNEPO *(*Brill/Nijhoff, 2015).

80 Bharat H Desai, "UNEP: A Global Environmental Authority*?" Env. Policy and Law*, 36/3-4 (2006) 140.

81 Ivanova, Maria. "Institutional design and UNEP reform: historical insights on form, function and financing." *International Affairs* 88.3 (2012): 565-584.

82 A wide range of issues must be considered before any new inter-governmental body is to be constituted. See C.F. Amerasinghe, Principles of Institutional Law of International Organization (Cambridge 1996, 2nd edition). See also Nicholas A. Robinson, "Befogged Vision: International Environmental Governance A Decade After Rio," 27 Wm. & Mary Envtl. L. & Pol'y Rev. 299 (2002), http://digitalcommons.pace.edu/lawfaculty/372/.

83 Kotzé, Louis. "A Global Environmental Constitution for the Anthropocene?" *Transnational Environmental Law* (2019): 1-23.

implementation and co-ordination in international environmental governance.[84] Other proposals would merge UNDP and UNEP, constituting a UN Sustainability Programme. It would report to the UN Economic and Social Council, which would function as an Ecological, Social and Economic Council. Alternatively, ICEL member Bharat H. Desai has urged that oversight be vested in a UN "Environmental" Trusteeship Council.[85] Currently, the UN Environment Assembly and the UNGA Second Committee are responsible for oversight of global environmental governance and policy. The UN General Assembly launched the High-Level Political Forum in July of each year, to measure implementation of the UN Sustainable Development Goals. One efficient way to achieve global coherence could be provided by the adoption of a common set of agreed principles.

Whatever governance approaches may be considered, there is increasing recognition of the role of non-state actors in international environmental law, acknowledging that international relations have evolved beyond States and the "Westphalian model"[86] of state sovereignty. Non-state actors are increasingly participating in international environmental negotiations,[87] albeit often in an informal fashion, without clear rules regarding the scope of their involvement. In a world of social media, it is possible also to engage local communities in debates about their environmental futures. Systems of international environmental law need to explore further how to observe Rio Declaration Principle 10, on "public participation in environment decision-making."[88]

There is a wide consensus in support of more effective coordination among international environmental instruments and institutions. The IPCC Special Report "Global Warming of 1.5°C" projects that States have only ten years to improve coordination, before harms become insufferable. The accelerating warming of Earth's atmosphere does not allow any further procrastination. Strengthening international environmental legal systems is essential to achieving the 2030 Agenda on sustainable development. States would benefit from having more robust institutions that could more effectively respond to their environmental problems. Codification of a set of principles would stimulate international cooperation toward the new governance structures that gradually will fill the existing gaps within the international environmental law system, "….as the legal foundation for environmental justice, global ecological integrity, and a sustainable future for all."[89]

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84 S. Oberthür & T. Gehring, 'Reforming International Environmental Governance: An Institutionalist Critique of the Proposal for a World Environment Organisation' (2004) 4 *International Environmental Agreements: Politics, Law and Economics*, pp. 359–81.

85 Bharat H. Desai, "On the Revival of the United Nations Trusteeship Council with a New Mandate for the Environment and the Global Commons." 27 *Yearbook of International Environmental Law* 3 (2016).

86 . The Peace of Westphalia (1648) established the state sovereignty system, which becme the contemporary international system of states. See Derek Croxton, *The Peace of Westphalia of 1648 and the Origins of Sovereignty*, 21 Int'l Hist. Rev. 569 (1999).

87 Raustiala, Kal. "The participatory revolution in international environmental law." *Harv. Envtl. L. Rev.* 21 (1997): 537.

88 See, for example, "World Wide Views on Climate and Energy," 10,000 citizens, 97 Debates in 76 countries (2015, Danish Board for Technology Foundation), organized through Missions Publiques, www.missionspubliques.com

89 IUCN World Declaration on the Environmental Rule of Law, 2016.

E. Implementation and effectiveness of international environmental law

1) National Implementation

Effective implementation of international environmental law is a key element to guarantee the effective protection of the environment. States play an essential role[90] as they have full sovereignty over their territory, only limited by the supremacy and exclusivity of other State's sovereignty (principle of non-intervention, article 2.4 UN Charter).[91] Also, despite the fact that some international agreements are self-executing, most States must enact implementing regulations.[92] But even this does not ensure achieving results. Empirical studies indicate that most States fail in compliance due to factors that vary according to the specific circumstances of the State. Agenda 21 (chapter 8, Integrating environment and development in decision-making) addressed the lack of implementation and poor compliance with regulations and MEAs[93] by strengthening domestic laws and institutions and building up national capacity.[94] Solutions require promoting coordination, cooperation, legal support, education and training in environmental law matters, respecting the national priorities and specific conditions of each nation.

2) Means of implementation: financial resources, technology transfer and capacity-building

Effective MEA implementation requires efforts in education, technical assistance, voluntary compliance programmes, and importantly, financial assistance.[95] Indeed, effective implementation of MEAs requires strategic investment. Existing funding of MEAs needs to be re-evaluated and additional funding provided. The multiplication and lack of coordination among financing resources has eroded the effectiveness of efforts at sustainable development. The Addis Ababa Action Agenda[96] of the 3rd International Conference on Financing for Development was endorsed by the General Assembly on 27 July 2015. The Addis Ababa Action Plan can be advanced by reference to the principles of international environmental law. A codified Global Pact for the Environment would accelerate international cooperation to attain both the Addis Ababa Action Agenda and the Sustainable Development Goals. As long as each separate international environmental

90 As Ana Barreira, *et.al.* indicate, "the States are the principal subjects in Environmental Law. They create, adopt and apply the principles and rules, establish the international organizations and allow the participation of other actors during the international legal process". Barreira, Ana, Paula Ocampo, and María Eugenia Recio. *Medio ambiente y derecho internacional: una guía práctica*. Obra Social, Caja Madrid, 2007, p. 13.

91 Maziar Jamnejad and Michael Wood. "The principle of non-intervention." *Leiden Journal of International Law* 22.2 (2009): 345-381.

92 Okley, Brigitte L. "Legislation and Implementation of International Environmental Law by African Countries: A Case Study of Ghana." *LLM theses* (2004): 8.

93 Agenda 21 (chapter 8). See also The Montevideo Program, https://www.unenvironment.org/explore-topics/environmental-governance/what-we-do/strengthening-institutions-0 (last visited Dec 4, 2018).

94 UNEP, *Possible Elements for a Programme in the area of Environmental Law for a Specific Period Beginning in 2020*, UNEP/ENV.LAW/MTV.4/FP.3, Geneva, 12-14 September 2018.

95 UNEP, *Training Manual of International Environmental Law. 4. Compliance and Enforcement of Multilateral Environmental Agreements*, https://autlawiel.files.wordpress.com/2014/10/unep-tm-ch-4-compliance-and-enforcement-of-multilateral-environmental-agreements.pdf (last accessed, Dec. 4, 2018).

96 https://www.oecd.org/dac/gender-development/Action%20Plan%20on%20Financing%20Gender%20Equality.pdf

agreement has its own scarce funding stream, there will be "duplications and contradictions" within the system.[97] Agreement on a set of general principles of international environmental law can guide States toward a more coherent financing system, which could save costs and encourage more (in quantity and effectiveness) environmental action.[98] An example of a very effective funding mechanism, as noted previously, is the Multilateral Fund for the Implementation of the Montreal Protocol, with a total budget of US $540 million for the 2018-2020 triennium, plus additional voluntary contributions.[99]

Nearly all international environmental law regimes are but minimally funded today. Yet military institutions, including NATO, have long recognized the link between the environment and security.[100] Environmental security will increasingly need to be resourced at a scale comparable to what States provide to their defense agencies. States recognized the need for such funding in Agenda 21 (Chapter 33), particularly for the developing countries. Climate change impacts will bring disruptions to all States. However, given the need to invest to build resilience and prepare, there is an unequal situation in the case of developing nations, especially small island States, which the common but differentiated responsibilities principle has acknowledged over the course of the history of international environmental law.[101] Therefore, the financial question is fundamental for the developing countries, and will be a topic of consultation in Nairobi.[102]

3) Dispute resolution and enforcement mechanisms

The UN Secretary-General's report acknowledges gaps relating to the implementation and effectiveness of international environmental law in several aspects of inter-State dispute settlement, MEA implementation, and in the enforcement of rights and obligations regarding the global commons and shared natural resources, such as the high seas, Antarctica, and outer space. Furthermore, practices under international trade and investment regimes also reveal gaps in the implementation and effectiveness of environmental norms, and such gaps in regime interaction also arise insofar as many environmental treaties do not address their relationships with economic treaties, which may give rise to distinct sources of applicable law or jurisdiction in a given dispute.

While enforcement of international environmental obligations is largely dependent on the effectiveness of national rule of law and administrative resources and systems in order to oversee

97 Adil Najam, Mihaela Papa, Nadaa Taiyab, "Global Environmental Governance. A Reform Agenda", IISD, Ministry of Foreign Affairs of Denmark, 2006, p. 53.

98 *Id.*

99 Multilateral Fund for the Implementation of the Montreal Protocol, http://www.multilateralfund.org/default.aspx (last visited, 4 Dec. 4,2018).

100 JameS. Mcquaid and Arpad Vincze, Countering Threats to Environmental Security: The Role Of Nato. in: S. Stec and B. Baraj (eds) Energy and Environmental Challenges to Security (NATO Science for Peace and Security Series, (2009 Springer, Dordrecht).

101 Lavanya Rajamani, "The changing fortunes of differential treatment in the evolution of international environmental law". *International Affairs, 88*.3 (2012), 605-623, p. 623.

102 Adil Najam, Mihaela Papa, Nadaa Taiyab, "Global Environmental Governance. A Reform Agenda", IISD, Ministry of Foreign Affairs of Denmark, 2006, p. 53-54.

their proper application, "it would be incorrect to dismiss or ignore the actual and potential influence that international legal principles and mechanisms may bring to bear on states to respect their basic duty to adhere to international environmental obligations."[103] Further, it should be noted that such principles also strengthen non-compliance mechanisms.[104] At the national level, there are now more than 1,500 specialized courts and tribunals that function to ensure the observance of national environmental laws. The IUCN World Commission on Environmental Law, the Organization of American States, and UN Environment have facilitated the establishment of an International Judicial Institute on the Environment, through which the courts can exchange best practices and share how they interpret the principles of environmental law across legal systems.[105] Innovative remedies, such as the use, as in the courts of South Asia, of judicially appointed commissions, are applications of international environmental law principlesin specific contexts.[106]

4) Liability and redress for transboundary environmental damage

Compliance provisions in International Environmental Law have limits that help explain the failure of States to observe their Rio Declaration Principle 21 duty to prevent transboundary harm from activities under their jurisdiction and control. The Secretary-General's Report notes the halting progress of international courts and tribunals in addressing environmental harm, explaining their limitations with respect to legal principles for dealing with the particular features of such cases, and their imperfect ability to handle the scientific evidence. In contrast, it is useful to consider the arbitral tribunal in *Burlington Resources Inc. v. Republic of Ecuador*,[107] with its extensive legal analysis, and the valuation of both market and non-market environmental damage by the United Nations Compensation Commission.[108] Remedies for environmental liability and redress are only partially implemented through general international law and a handful of treaties dealing in very limited way with damage to areas beyond national jurisdiction: space, the high seas, and Antarctica; very few specify liability for risk-intensive but lawful activities.

In a world of transnational activities, this leaves the environment vulnerable, especially when a State has limited domestic enforcement capacity. Dire Tladi has addressed "the moral argument that the risks for damage should be borne by those who profit … and that a binding international regime could make this possible in a way that domestic regulation could never achieve", in the

103 See Martin Hedemann-Robinson, "Environment and sanctions", in Elgar Encyclopedia of Environmental Law, Volume VI, pp. 673-697.

104 Ibid. See also Suzanne Kingston, "Environment principles and environmental disputes and their settlement", in Elgar Encyclopedia of Environmental Law, Volume VI, pp. 698-709; Marie-Claire Cordonier Segger and H.E, Judge C.G. Weeramantry, eds., Sustainable Development Principles in the Decision of International Courts and Tribunals 1992-2012.

105 Global Judicial Insttue on the Environment, at https://www.iucn.org/commissions/world-commission-environmental-law/wcel-resources/global-judicial-institute-environment

106 See, for example, the experience of the High Court of Lahore, Pakistan. Parvez Hassan, Resolving Environmental Disputes in Pakistan: The Rile of Judicial Commissions (Pakistan Law House, 2018).

107 ICSID Case No. ARB/08/5, Decision on Counterclaims (7 Feb. 2017).

108 United Nations Compensation Commission, Report and Recommendations made by the Panel of Commissioners concerning the Fifth Instalment of "F4" Claims, U.N. Doc. S/AC.26/2005/10 (30 June 2005).

context of developing State positions during the Nagoya - Kuala Lumpur Supplementary Protocol negotiations.[109]

The Secretary General Report's explanation of the role of state responsibility in redressing transboundary environmental damage might be rounded out by noting further that the due diligence standard of care does not apply to every international wrongful act. For example, where one State entered the territory of another and damaged vegetation and other environmental features, the ICJ did not apply a due diligence standard to the intentional act of the responsible government (*Certain Activities*);[110] nor did the award in the *Trail Smelter* case, where atmospheric pollution from one State caused transboundary harm to another.[111] It is only recently that the duty to prevent transboundary harm has in some circumstances been limited to the due diligence obligation to ensure that national law provides an adequate apparatus to prevent harm.

F. International Environmental Law, the Sustainable Development Goals and the 2030 Development Agenda

Adoption of the UN Sustainable Development Goals (SDGs) is among the greatest outcomes of inter-governmental cooperation in recent years. However, the General Assembly could stimulate faster implementation of the SDGs by recognizing a set of shared environmental law principles.[112] The UN Secretary-General's Report underscores that sustainable development principles have been incorporated into the larger global agenda by the 2030 Agenda for Sustainable Development.[113] The incomplete character of international environmental law is likely to retard the attainment of all of the SDGs. If States collectively can acknowledge the environmental law principles that most of them already explicitly embrace, they are apt to cooperate more effectively in the 2030 Agenda. Moreover, adhering to these general principles of law can guide conduct in subject areas where treaties or national legislation are still lacking. The principles also would afford guidance for tribunals and specialized agencies in their decision-making.

As Macharia Kumau has explained, the global consensus on the SDGs and the 2030 Agenda is a landmark achievement.[114] Implementation is the next step. Environmental law provides the essential means for doing so. The SDGs make clear the gravity of today's environmental and social problems. In the coming decade, as the UN Environment's GEO-5 report records, States will be confronted with the reality that Earth's natural systems are at a categorical turning point. Agreement on the

109 Dire Tladi, Civil liability in the context of the Cartagena Protocol: to be or not to be (binding)? Int'l Environ Agreements (2010) 10:15–27, 20.

110 *Joined cases concerning Certain Activities carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)*, Judgment, 2015.

111 Trail Smelter Case (United States, Canada).

112 See International Council of Environmental Law, Vance Center and White and Case, Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in the Sustainable Development Goals (SDGs), set forth in the Appendix to this Note.

113 UN Secretary-General's Report on "Gaps in International Environmental Law and Environment-Related instruments: Towards a Global Pact for the Environment" (A/73/419, 30 November 2018), paragraph 20.

114 M. Kumau, P. Chasek, D. O'Connor, Transforming Multilateral Diplomacy – The Inside Story of the Sustainable Development Goals (Routledge, 2018).

principles, such as the right to a healthy environment, and clarification of the other principles, can equip States to build resilience and capacity amidst present and future environmental adversity.

For example, the UN Secretary-General's report stresses the importance of effective implementation of the legal framework established by the UN Convention on the Law of the Sea (UNCLOS) and its implementing agreements in order to achieve Sustainable Development Goal 14, oceans, seas and marine resources.[115] However, general principles and MEAs are not yet linked to all SDGs. For example, the principles found in the Convention on Biodiversity or the Ramsar Convention on Wetlands, are not tied to the terrestrial goals expressed in SDG 15; and there is not an SDG for freshwater, which is central to both treaties. Whereas, governance, access to justice and information principles are central to all the SDGs, as set forth in SDG 16.[116] Clarification and reinforcement of principles will promote the links between international and national environmental law and sustainable development, facilitate SDG integration and gap-filling, and contribute to a transformative realization of sustainability goals.

Agreement on shared environment law principles would also help to clarify why capacity-building is urgently needed in many States. Thus, such agreement can contribute to a significant enhancement in development assistance and in international and national environmental governance[117] towards a coherent and effective protection system, aimed at the real achievement of a sustainable future.[118]

Since the adoption of the 2030 Agenda and the Sustainable Development Goals, the overarching aim of environmental law and policy implementation – of both national law and MEAs – is attaining the SDGs via the 2030 Agenda. To deliver on this overarching aim, the UNGA endorsed the Addis Ababa Action Agenda,[119] which is an integral part of the 2030 Agenda for Sustainable Development. Full implementation of the Addis Ababa Action Agenda is critical for the realization of the SDGs and targets, and for addressing the gaps noted in the Secretary-General's report.

Also integral to the 2030 Agenda are the Istanbul Declaration and Programme of Action,[120] the SIDS Accelerated Modalities of Action (SAMOA) Pathway[121] and the Vienna Programme of Action

115 SG Report, ¶ ¶ 60 and 71.

116 See Marcos Orellana, Governance and the Sustainable Development Goals: The Increasing Relevance of Access Rights in Principle 10 of the Rio Declaration, Review of European, Comparative and International Law, vol. 25, No.1 (2016).

117 Professor Pilar Moraga, Universidad de Chile (Chile), indicates that: "In turn, the enshrinement of the principles of environmental law included in the Pact would make it possible to shed light on domestic rights, and consequently illuminate the work of national case law." See http://blogs.law.columbia.edu/climatechange/2018/09/20/global-perspectives-on-a-global-pact-for-the-environment/#Alex%20L.%20Wang (accessed November 2018).

118 Professor Marisol Anglés, UNAM (Mexico) stresses the sustainability element of the Pact by indicating that "the content and scopes proposed in the Pact may be perfected to build a long-term vision of development for all nations, encompassing present and future generations." See http://blogs.law.columbia.edu/climatechange/2018/09/20/global-perspectives-on-a-global-pact-for-the-environment/#Alex%20L.%20Wang (accessed November 2018).

119 The Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda), adopted by the General Assembly on 27 July 2015 (resolution 69/313, annex).

120 Report of the Fourth United Nations Conference on the Least Developed Countries, Istanbul, Turkey, 9–13 May 2011 (A/CONF.219/7), chaps. I and II.

121 Resolution 69/15, annex.

for Landlocked Developing Countries for the Decade 2014–2024,[122] and the African Union's Agenda 2063 and the programme of the New Partnership for Africa's Development.[123] As agreed by the UNGA, the scale and ambition of the new Agenda requires a revitalized Global Partnership to ensure its implementation: "This Partnership will work in a spirit of global solidarity, in particular solidarity with the poorest and with people in vulnerable situations. It will facilitate an intensive global engagement in support of implementation of all the Goals and targets, bringing together Governments, the private sector, civil society, the United Nations system and other actors and mobilizing all available resources."[124]

Arguably, the greatest hindrance to implementing environmental laws, both national and MEAS, as well as the 2030 Agenda, is the lack of shared commitment by States to making the fulfillment of environmental law and the 2030 Agenda an over-arching priority. This has impeded sustainable development in the past and will also work to undermine the successful achievement of the SDGs. Providing a set of common governing principles has the capacity to broaden this focus into a widely shared perspective. The endorsement of a Global Pact will set the stage for making agreement on giving priority to the 2030 Agenda. Each of the Pact's principles can be aligned behind different SDGs and their agreed indicators.

Some urge a "no action" alternative, to let the existing systems go on "as is," but this is inconsistent with the 2030 Agenda and the SDGs. "No action" undermines the SDGs. Clarifying already applicable principles of law does not generate new commitments. It is a "least difficult" step in support of UNGA Res. 70/1. Further, observing the restated principles of environmental law is essentially the task of national governments. States themselves will individually decide how to observe them, as is the case with other general principles of law. Having an agreed set of principles will "level the playing field" and encourage cooperation among States, which are assured that all others have a similar outlook. It will enable sharing "best practices" and foster capacity building.

As UN Environment, the Organization of American States, and the IUCN World Commission on Environmental Law have explained, the "environmental rule of law" is a proven pathway for attaining the Sustainable Development Goals. In 2016, the World Commission on Environmental Law of the International Union for the Conservation of Nature (IUCN) and UN Environment[125] called the basic norms of procedural environmental rights part of the "Environmental Rule of Law."[126] UN Environment describes it, as follows: "Environmental rule of law is central to sustainable development. It integrates environmental needs with the essential elements of the rule of law, and provides the basis for improving environmental governance. It highlights environmental sustainability by connecting it with fundamental rights and obligations. It

122 Resolution 69/137, annex II.

123 A/57/304, annex.

124 Res. 70/1, Para. 29.

125 https://www.un.org/ruleoflaw/thematic-areas/land-property-environment/environmental-law/

126 https://www.iucn.org/sites/dev/files/content/documents/english_world_declaration_on_the_environmental_rule_of_law_final.pdf

reflects universal moral values and ethical norms of behavior, and it provides a foundation for environmental rights and obligations. Without environmental rule of law and the enforcement of legal rights and obligations, environmental governance may be arbitrary, that is, discretionary, subjective, and unpredictable."[127]

Conclusions

As the UN Secretary-General stated in November 2018 at the Paris Peace Forum, anticipating the issuance of his Report: "codifying the fundamental principles of environmental law would provide predictability and clarity." We agree.

The Secretary-General's Report is a milestone in the progressive development of international environmental law. As practitioners, teachers, and scholars of this still young legal field, we urge everyone to study the Secretary-General's Report. We further commend to all, the authorities whom we have cited in this Note.

Implementing the SDGs is the best way forward to averting future environmental disasters. Codifying and progressively elaborating the international principles of environmental law will substantially improve the odds that the SDGs can be attained. Keeping this as the priority for the Nairobi consultations can build consensus. Once confidence is built, then the process can advance to capacity building. Recommending a set of common principles is the essential initial step.

It is possible to address the gaps in international environmental law, gaps in relationship to environment-related instruments, and gaps in financing. This will take more time. The five months provided for the consultations in Nairobi do provide adequate time to draft and agree upon a new Global Pact for the Environment. States already agree on many principles, as the **ICEL Charts** in the Appendix to this Note demonstrate. Recognition of our shared principles can then guide capacity building.

Resolution 72/277 has launched a remarkable quest to strengthen international environmental law. The promise of Agenda 21's recommendation on law and governance are at last recognized. The consultations in Nairobi can productively examine the "scope, parameters and feasibility of an international instrument" that both codifies and clarifies the various international principles and basic duties for safeguarding Earth's natural environment. We have modest confidence that the forthcoming consultations in Nairobi will afford States an opportunity to review how much agreement already exists within international environmental law. This recognition will facilitate cooperation toward a deeper consensus to agree on the principles that strengthen international environmental law and contribute to attaining the UN Sustainable Development Goals.

The names of the environmental law experts originating this Note are lised in alphabetical order (institutions and countries provided for identification purposes only)

Experts' signatures received as of 9 January 2019 will be included in the release of this Note at the consultations of the General Assembly's ad hoc open working group in Nairobi. The Note will

127 https://www.unenvironment.org/explore-topics/environmental-governance/what-we-do/strengthening-institutions/promoting-1

be available for signature at th web page of the World Commission on Environmetnal Law of the International Union for the Conservation of Nature (IUCN), www.iucn.org/commonons/wcel.

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1. Antonio Herman Benjamin, Chair, IUCN World Commission on Environmental Law (Brazil)
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3. Trevor Daya-Winterbottom, University of Waikato (New Zealand)
4. Rose-Lisa Eisma-Osorio, Professor, Cebu University (Philippines)
5. Antonio Fortes, Associate Professor, Carlos III de Madrid Univrsity (Spain)
6. Fabrisio Fracchia, Professor, Department of Law, Bocconi University (Italy)
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8. Patricia Kameri-Mbote, Professor, University of Nairobi (Kenya)
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11. Reinhard Josef Krapp, ICEL Representative in Bonn (Germany)
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18. Robert V. Percival, Professor, University of Maryland Francis King Carey School of Law (USA)
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21. Nicholas A. Robinson, Professor *emeritus*, Elisabeth Haub School of Law at Pace University (New York, USA)
22. Victor Tafur, ICEL Representative to the United Nations (USA)

Appendix

THE ICEL CHARTS

Below please find links to charts that set forth the correspondence between the Draft Global Pact for the Environment and the Sustainable Development Goals, general principles of international soft law, multilateral environmental agreements, and various regional environmental agreements. They have been prepared by the International Council of Environmental Law (ICEL)—an expert international organization established in 1969 and in consultative status with UN ECOSOC since 1973—together with the Vance Center for International Justice (sponsored by the New York City Bar Association) and White & Case, an International Law Firm.

ICEL has prepared the attached charts as a resource and reference for the UN Ad hoc Open-ended Working Group that will deliberate in 2019 about the state of international environmental law today, and how gaps or limitations retard measures to attain the SDGs.

The charts simply gather, conveniently in one place, most if not all of the principles that States have already accepted in their international agreements. They are publicly available, without charge, through the Law Library of the Elisabeth Haub School of Law at Pace University (New York), at https://libraryguides.law.pace.edu/icel.

States may refer to these agreements as they evaluate the Report of the UN Secretary-General's technical and evidence-based report on how gaps in international environmental law with a view to strengthening implementation of this field, available at

https://www.iucn.org/sites/dev/files/content/documents/global_pact_report.advance.30_november_2018.pdf

Links to the ICEL Charts

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in the Sustainable Development Goals (SDGs)
https://libraryguides.law.pace.edu/ld.php?content_id=45886809
https://www.iucn.org/sites/dev/files/global_pact_review__sustainable_development_goals.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in soft law instruments
https://libraryguides.law.pace.edu/ld.php?content_id=45886737
https://www.iucn.org/sites/dev/files/global_pact_review_-_soft_law_instruments.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in multilateral environmental agreements (MEAs)

https://libraryguides.law.pace.edu/ld.php?content_id=45886731
https://www.iucn.org/sites/dev/files/global_pact_review_-_multilateral_environmental_agreements.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: African Union States

https://libraryguides.law.pace.edu/ld.php?content_id=45886314
https://www.iucn.org/sites/dev/files/global_pact_regional_review_-_african_union_states.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: Association of Southeast Asian Nations (ASEAN)

https://libraryguides.law.pace.edu/ld.php?content_id=45886672
https://www.iucn.org/sites/dev/files/global_pact_regional_review_-_asean.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: Caribbean Community (CARICOM) Environmental and Natural Resources Policy Framework (July 2017-June 2022)
https://www.iucn.org/sites/dev/files/global_pact_regional_review_-_caricom.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments:

China
https://libraryguides.law.pace.edu/ld.php?content_id=45886682
https://www.iucn.org/sites/dev/files/global_pact_regional_review_-_china.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: Commonwealth of Independent States (CIS)

https://libraryguides.law.pace.edu/ld.php?content_id=45886689
https://www.iucn.org/sites/dev/files/global_pact_regional_review_-_commonwealth_of_independent_states.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: League of Arab States (Arab League)
https://libraryguides.law.pace.edu/ld.php?content_id=45886695
https://www.iucn.org/sites/dev/files/global_pact_regional_review_-_league_of_arab_states.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: Pacific Islands Forum
https://libraryguides.law.pace.edu/ld.php?content_id=45886718
https://www.iucn.org/sites/dev/files/global_pact_regional_review_-_pacific_islands_forum.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: South Asian Association for Regional Cooperation (SAARC)

https://libraryguides.law.pace.edu/ld.php?content_id=45886852
https://www.iucn.org/sites/dev/files/content/documents/2018/globalpactsaarcfeb2018.pdf

Analysis of the Adoption and Implementation of the Environmental Principles in the Proposed Global Pact for the Environment (Global Pact) in Regional Instruments: South Asian Association Cooperative Environment Program (SACEP)
https://libraryguides.law.pace.edu/ld.php?content_id=45887131

Charles belongs to the rare breed of pioneers in the development of environmental law in the 1980s. His unwavering commitment to building capacity in this area has earned him the "father and mentor" of environmental law title in Africa and beyond. The Festschrift aptly pays tribute to his monumental contributions. Charles' "own story" presents a fascinating account of his environmental journey describing how he steeped himself in the study of environment to be what he has become today. True grit and determination.

E.M. Mrema recounted his role in building endogenous capacities in the Partnership for the Development of Environmental Law and Institutions in Africa (PADELIA), which supported capacity building implementation under Agenda 21. He became the PADELIA icon and its model was extended beyond Africa. Other contributors to the tome include his pioneering work in establishing the legal groundwork for environmental rights in sustainable development, water law, mining and other resources, climate change, and mountain governance.

The Festchrift is a must read for all stakeholders of the environment and those who aspire to be leaders and mentors in this age of environmental disruptions.

Koh Kheng-Lian, Emeritus Professor,
Faculty of Law, National University of Singapore

Following the blazing trail of Prof Okidi's rich and unique professional legacy is an amazing journey of the development of environmental law during the past 50 years. Besides the fascinating story by Prof Okidi himself, about 30 authors from around the globe, visit a range of aspects, levels and sectors of environmental law. Issues about governance, legal rights and education are linked to climate change, wildlife trade, water, mountains and oceans, reflecting not only Prof Okidi's wide experience but also the many perspectives and complexities of environmental law.

This book gives valuable and excellent reflections of the development of policies and legal instruments to promote sustainable development. More importantly, it gives inspiration and insights on how to proceed on a sustainable trail in a landscape of mountains of environmental challenges, gaps of trust and knowledge but also oceans of solutions. Including perspectives on Africa and particularly Kenya makes this book even more relevant and important.

Prof. Lena Gipperth, Director,
Centre for Sea and Society, University of Gothenburg, Sweden

Blazing the trail is a fitting title of a ground breaking work of a scholar of Okidi's accomplishments.. Scholars in the fields of enviromental law, sustainable development and related fields have come from across the globe including UK, USA, Pacific,Pakistan, South Africa, Tanzania, Uganda, Kenya among other countries to honor a Trailblazer in the field of Environmental law. He has, as Prof Kameri-Mbote says, engaged in the business of building an army of environmental Law Scholars. The book is a great tribute to the father of environmental law. The essays are thought provoking, insightful and powerful. It is a must read.

Prof. Wanjiku Mukabi Kabira, Director,
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ISBN 978-9966-1952-2-7