International Environmental
Law Research Centre

INTERNATIONAL PROPERTY PROTECTION AND SUSTAINABLE DEVELOPMENT - TOWARDS A COMMON AFRICAN INSTITUTIONAL FRAMEWORK AND STRATEGY

BACKGROUND STUDY FOR NEPAD'S STEERING COMMITTEE FOR SCIENCE AND TECHNOLOGY

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Terms of Reference

The first NEPAD Ministerial Conference on Science and Technology held in Johannesburg 3-7 November 2003 adopted a decision calling on the Secretariat of NEPAD to establish a regional inclusive and consultative process to examine the impact of intellectual property protection on technological innovation and sustainable development in Africa, and to develop a clear strategy to strengthen the continent's capacity to manage intellectual property. It called on the Secretariat to:

- Facilitate the establishment of an African working group on IP.
- Develop and submit to the Steering Committee terms of reference for the proposed group of experts. The group would facilitate the regional process of dialogue to agree on a clear strategy to build and strengthen Africa's capacities to participate fully in the international IP system.

The first meeting of the NEPAD Steering Committee for Science and Technology held 26-27 January 2004 in Pretoria, South Africa decided that the Secretariat should commission or prepare a background paper that would guide the establishment of working group. The paper should provide a succinct analysis of:

1. Historical evolution of and rationale for intellectual property protection
2. The kinds of regional institutional arrangements that have been designed by the European Union and the OECD countries to harmonize intellectual property protection laws, as well as to ensure that such laws promote economic growth and sustainable development
3. The available evidence on the impact of intellectual property protection on African countries
4. The role that intellectual property might have or play in facilitating the attainment of NEPAD's goals
5. Nature of regional institutional arrangements for protection of intellectual property in Africa and benefits that would accrue by creating a common African organization and harmonized laws

The paper should identify or outline specific issues of institutional building, harmonization of laws, strengthening of Africa's capacity, etc. that would form the core agenda of the proposed working group.

Introduction

Intellectual property protection carves out exclusive rights to an individual (either a natural person or a legal one) to exploit particular creations of human ingenuity. The rights deal with informational services which are intangible and not readily susceptible to either possession or delineation. For example, patents vest exclusive rights in an inventor to develop, control, use and market an innovative industrial process or product for a specified period of time. Trademarks extend protection to brand names that have a particular identity in the marketplace while trade secrets protect confidential information often of commercial value to an industrial firm or person. Copyright covers literary and artistic works such as computer software, writings and drawings.

Intellectual property rights (IPRs) have generally been premised on their potential to foster technological development in areas where the private sector would not participate without legal protection of their intellectual contributions. IPRs have been conceived as statutory rights which can only be justified from a societal point of view if they are balanced with specific clauses in the public interest. Thus, patents are usually granted for a limited duration and the patentee has to disclose his/her invention in return for the monopoly rights granted by the state.

For a long time, IPRs were conceived as a purely technical tool which contributed to technological development. This theoretical framework has been challenged over time from different directions. Firstly, it has long been known that the IPRs system benefits mostly bigger private economic actors and bigger and richer countries at the expense of smaller companies and less economically developed countries.

Secondly, the appropriate scope of protection has been the object of debates for a long time. The balance between the need to provide incentives for research into new technological innovations and the desire to reward inventors has always been difficult to find since someone's innovation may be someone's else's basic research material for a different type of innovation. In recent years, these concerns have become increasingly pronounced.

Thirdly, it has become apparent over the past couple of decades in particular that it is not tenable to separate IPRs from sustainable development. This has been made particularly clear by two different trends. In developed countries, the granting of life patents has progressively blurred the line between human inventiveness and nature's creation. In developing countries, the adoption and implementation of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement) has clearly brought out the fact that the introduction of IPRs has not only economic and technological consequences but also human rights, social, environmental and agricultural consequences. In fact, one of the biggest challenges that African countries face today is the need to reconcile the introduction of the minimum standards of intellectual property protection of the TRIPS Agreement with the need to comply with all their international and national sustainable development commitments.

Following the adoption of the TRIPS Agreement and its progressive implementation in developing countries, debates concerning the contribution of IPRs to economic and social development have become much more pronounced. This is due to a number of converging factors. Firstly, the TRIPS Agreement commits developing countries to significantly raise their standards of intellectual property rights protection even though it is generally accepted that this will at best have some positive results in the long term for most countries. Secondly, the TRIPS Agreement makes few concessions for the smaller, economically weaker countries, including in particular few concessions to least developed countries. Limited differentiation has led to major controversies such as the controversy concerning access to drugs in countries severely affected by HIV/AIDS. Thirdly, in the context of increasing appropriation of knowledge through intellectual property rights which has characterised developed countries over the past couple of decades, there are renewed debates over the 'appropriate' level of intellectual property protection for social and economic development. One of the issues in this context is the so-called tragedy of the anti-commons. This is related to the fact that over-appropriation can be harmful to inventiveness when the basic tools of research are themselves appropriated, thereby significantly raising the cost of doing research.

In a North-South context, concerns over the appropriate scope of intellectual property protection include the whole gamut of issues debated in developed countries and a host of other issues. Among a number of initiatives

that have been taken in recent years to address some of the IPR-related problems in developing countries, the 2002 report of the Commission on Intellectual Property Rights stands out.[1] It provided a largely balanced account of the pros and cons of intellectual property protection in developing countries and found that there were a number of significant problems in the existing system.

This Background Study examines existing substantive and procedural elements of intellectual property protection in developed and African countries. The analysis carried out in Sections I and II provides the background for the conceptual framework that we establish in Part III concerning the role and place of IPRs in NEPAD. This conceptual framework is used in Part IV to provide the lineaments of terms of reference for the NEPAD Working Group on IPRs.

I. Intellectual Property Protection in OECD Countries

A. Evolution of and Rationale for Intellectual Property Protection in OECD Countries

Historically, IPRs, particularly patents, have been considered a tool that fosters economic development by promoting innovation and inventiveness. In contemporary terms, national views on the merits and demerits of IPRs tend to break down along the lines of who is developing new technologies and who needs them. Existing Conventions for intellectual property protection (IPP) favour those with ready access to economic and legal resources and can work unfairly against those who do not have such access. Thus while in the nineteenth century, the United States and Switzerland were vociferous opponents of patent proposals that would have forced them to pay royalties for inventions made in other countries, they are today leading exponents of the same proposals. For example, one of the most outspoken opponents of any form of patent protection, Geigy Chemical Company of Switzerland that likened patent monopoly to robbery became as Ciba-Geigy (now Novartis), a major crusader for patents for the corporate sector.

At inception, patent regimes were intended to foster the technological and industrial progress of the state granting the patent. The major function of a patent grant was thus economic self-sufficiency. This gave it a 'nationalist' outlook. The rights of local inventors were only the corollary of the monopoly conditions deemed appropriate for such exploitation, while the rights of foreign inventors were completely disregarded. The law thus did not protect the property right of the original inventor, but permitted the importer of the invention to exercise rights similar to those of the original inventor. Under these conditions, the patent law's objective was not to promote the position of the inventor per se, but to promote the economic and industrial performance of the state.

European countries decided to cooperate in the field of IP protection in more systematic ways in the nineteenth century when it became apparent that national protection had the potential to restrict inventors' willingness to share their inventions in other countries for fear of appropriation. The Paris Convention for the Protection of Industrial Property, 1883 was, for instance, the first genuine attempt at coordinating IP protection in the field of patents. Since the Paris Convention is today largely incorporated into the TRIPS Agreement, it is still relevant. This indicates that the conceptual framework for IPP has not substantially evolved over the past 150 years and that the IPP is still based on notions that were developed with nineteenth century technological development in mind. In other words, the Paris Convention provides a limited framework for rewarding innovation by limiting protection to innovations which go beyond the state-of-the-art in western science and technology and by introducing a system that rewards the 'lone' inventor as an individual inventor. One of the consequences of the Paris Convention conceptual framework is that it is incapable of rewarding other types of innovations such as innovations in the field of traditional knowledge or any other body of knowledge which is deemed hierarchically inferior to western science and technology.

B. Existing Institutional Arrangements among Developed Countries

Developed countries have on the whole retained the principle of territoriality for intellectual property protection and have remained reluctant to harmonise substantive standards of protection. Some initiatives towards harmonisation of substantive protection criteria have been taken such as the proposal for a substantive patent law treaty which has been discussed for the past several years in WIPO.[2]

While harmonisation of substantive standards has not proceeded very far, there have been a number of initiatives taken in various fora to harmonise certain procedural aspects, for instance, in the patent field. This section highlights three different initiatives which may be of relevance to NEPAD in fostering more integrated patent procedures at the Africa-wide level.

The following examples indicate that there cooperation among groups of countries can be effective from the point of view of the management of the patent system and from the point of view of users of the system. Procedural cooperation does not, however, contribute in itself to promote economic growth and sustainable development which require a much broader set of measures.

1. Trilateral Cooperation

Cooperation between the United States Patent Office (USPTO), the European Patent Office (EPO) and the Japanese Patent Office (JPO) was initiated in the early 1980s. This arose as a result of the increasing workload that each of these offices was facing in the hope of being able to find common solutions to some of the problems they each faced in the administration of patent rights. The first 'Trilateral Conference' led to an agreement that the three offices should regularly meet, share patent search results and exchange documents. One of the first and most significant projects undertaken by the Trilateral was the creation of a common database in digital format pooling documents from each of the three offices. Another achievement has been the development of a common 'first page' for all patents which has since been extended to the development of compatible electronic filing systems in the three offices. In recent times, the Trilateral has attempted to find solutions to specific problems such as the need for a common search procedure. A data network, the 'Trilateral Network' was launched to allow the transfer of priority data among the three offices.

The Trilateral has worked for the past twenty odd years on the basis of informal arrangements because the three offices have not been given the mandate to go further. The main advantages of existing procedural cooperation are for examiners who can refer to foreign and domestic patent documents when considering applications. For applicants and other users, they benefit from improved access to information and from the reduced costs linked to automation, the possibility to apply electronically and have patents published by electronic means.

2. European Patent Office

The European Patent Organisation was established by the Convention on the Grant of European Patents (EPC) of 1973. The EPC provides a centralised patent grant system administered by the European Patent Office on behalf of all contracting states.

The European Patent Office (EPO) grants European patents for the contracting states to the EPC. Its mission is to support innovation, competitiveness and economic growth for the benefit of the citizens of Europe. Its task is to grant European patents for inventions, on the basis of a centralised procedure. By filing a single application in one of the three official languages, it is possible to obtain patent protection in some or all of the EPC contracting states. Each European patent undergoes substantive examination and can be obtained for countries which otherwise operate only a registration system.

The EPO consists of five Directorates-General. DG 1 and DG 2 are responsible for European patent applications in the procedure up to grant, as well as opposition procedures. Their main duties comprise formalities examination, prior art searching, publishing applications and carrying out substantive examination. DG1's responsibilities further include the maintenance and development of search documentation. DG 3 is made up of

the boards of appeal, which give independent rulings on appeals filed against decisions taken during formalities and substantive examination of applications or during opposition proceedings. DG 4 is responsible for general administration, staff matters, finance and patent information. DG 5 handles legal matters and international affairs.

The EPO benefits the patent systems of member states in a variety of ways, not only by rationalising patent procedures, but also by promoting co-operation on patent documentation and improving the effectiveness of national patent laws through harmonisation with the EPC.

The EPO has developed 'epoline', a secure and integrated means of electronic communication between patent applicants, their representatives, the EPO and the patent offices of the EPO's member states. Most significantly, it provides for online filing, fee payment, file inspection and Register enquiries. The epoline service is also available to the public. It provides instant feedback in the form of status information and immediate confirmation of communications and transactions.

The EPO together with the European Commission has also launched a new Internet-based service known as esp@cenet. The main purpose of esp@cenet is to provide users with a readily accessible source of patent information, free of charge. A second aim is to improve awareness, in particular among small and medium-sized companies, of the kinds of patent-related information available to the public.

3. European Union

The European Union has moved somewhat further than other regions in unifying its patent regime. It has put forward a proposal for instituting a community-wide patent.[3] The proposal is to have a patent which applies with the same effect in the whole territory of the Community, and may only be declared invalid for the whole territory of the Community. Existing patents apply only to individual national territories and can only be invalidated for the state concerned, without directly affecting the equivalent patent in another state. The Community patent will be managed as a single patent, there will only be one single Community patent register and a Community patent will be annually renewed by paying one single renewal fee.

The Community patent system will exist alongside patents for individual member States available through the European Patent Office or national patent offices. Applicants will be able to choose what kind of patent they end up with for any particular invention, whether a unitary Community patent covering the whole of the Union, or individual patents for separate EU Member States. The main differences relate to the unitary nature of the Community patent, the different translation requirements and maintenance arrangements, with the possibility of corresponding cost savings, and the litigation of disputes before a single Community court instead of in potentially several individual Member States.

One of the peculiarities of the Community patent system is that it will make use of the existing system set up under the Convention on the Grant of European Patents (EPC). This implies, for instance, that the EPO will in principle carry out most of the tasks it carries for all other EPC member states in the case of the Community patent. In other words, the Community patent must be seen as building upon existing Europe-wide collaboration in the field of patents and not as a separate mechanism.

II. Intellectual Property Protection in African Countries

A. Evolution of and Rationale for Intellectual Property Protection in African Countries

Intellectual property protection in most African countries has its origins in the colonisation process. IPRs were introduced to provide protection for innovations emanating from the colonising power and not to protect domestic innovations. British IP law was, for instance, introduced into Kenya to advance general imperialist interests as, at the stage at which it was introduced, the levels of literacy and technological advancement among local people was relatively low and local innovation in the sense conceived of under intellectual property protection virtually non-existent. It is therefore not surprising that the legitimacy of intellectual property rights such as patents draws validity from examination and registration in a foreign country.

The contribution of IPRs to economic, technological and social development in African countries over time has been the object of much debate. In international perspective, one of the main incentives for the introduction of IPRs is increased technology transfers and foreign direct investment. While this has been the standard theoretical justification, history has shown that various countries at various points in time, from Switzerland in the late nineteenth century to Taiwan in the mid-twentieth century fared much better without introducing IP protection in the early stages of industrialisation. Developing countries have in fact repeatedly complained that the existing patent system is inimical to their economic interests.[4] Recently, no less an organisation than the UNDP has lamented the fact the TRIPS Agreement 'tightens patent and copyright protection, favouring those who develop and market technology rather than society's interest in liberal diffusion of new technology.'[5]

Another perspective on this is to examine the contribution to innovation and economic and technological development. From this point of view, the patents system does not seem to have been a very effective tool to foster technology transfers to developing countries. This seems to have been the case in the past and up to the present day. In the period going from 1920 to 1970, the share patents granted to developed countries only fell from about 90 per cent to about 80 per cent.[6] Even more significant, by 1970, only 6 per cent of existing patents went to developing countries, of which about 80 per cent were held by foreigners. A further sign of the limited role that patents played in fostering technology transfer is that at least 90 per cent of patents granted by developing countries to foreigners were not used at all in production processes in these countries.[7] In other words, patents were used in many cases more as an instrument to limit technology transfer rather than to promote it. In its 1974 study, UNCTAD reached the conclusion that the application of the patent system in its present form had 'come to act as a reverse system of preferences granted to foreign patent holders in the market of developing countries' and should be reformed to allow it to effectively contribute to national development policies of developing countries.[8] Today, the situation can still be described as being abysmal. By 1999, while there were 273 patents per million people granted in countries classified as high human development countries, the average was 7 for medium development countries.[9] For African countries, data is missing for most countries. For the few countries where data is available, the best score goes to Egypt with 1 patent per million people followed Tunisia (0.8) and by a number of zero scores in sub-Saharan African countries such as South Africa, Zimbabwe, Ghana and Tanzania.

This begs the question whether the investment that African countries have made in establishing intellectual property protection systems is justified. While African countries have invested in establishing IPR regimes, there is little evidence that these have impacted on the development of individual countries. The argument that intellectual property contributes to development has not been proved in most African countries which have had IPR regimes dating back to the early 1900s. Indeed discussions on IPR in Africa have been around the issues of their being barriers to access to proprietary technology necessary for development and more recently to essential medicines necessary to contain prevalent diseases such as HIV-AIDS.

There are also issues of exclusion from the purview of intellectual property of some forms of knowledge such as indigenous or traditional knowledge and the impact of intellectual property rights on access to medicine and food. The political economic context within which these discussions occur reflect an imbalance in the techno-

logical capacities between technology rich countries and technology poor ones. Africa's wealth in biological resources and dependence on these resources for economic development and livelihoods makes the application of intellectual property rights particularly pertinent for these countries. The plethora of categories and fora discussing intellectual property rights is a source of concern for Africa in view of the dearth of resources. Of particular concern for Africa is traditional knowledge whose communities have used over millennia for biodiversity management but which is not protectable under conventional IPRs.

The internationalisation of intellectual property protection through the TRIPS Agreement ensures that technology owners have protection of their IP in all areas of technology. Discussions about the implications of this provision in the context of a human right to food and healthcare have been the basis of heated discussions at the international level. The protection of IP in the realm of food and healthcare is not always easy to reconcile with these rights where access is hindered by the existence of IPRs.

Further, African countries have also suffered from 'biopiracy'. Biopiracy is the concept which covers the dichotomy between the absence of protection for traditional knowledge in intellectual property rights frameworks and the protection afforded, for instance, through patents to innovations that are derived from traditional knowledge and cast in a western scientific mode. Two main elements should be mentioned here. First, African countries suffer from the different patent systems around the world which are the hallmark of the territorial system which prevails. Thus, if the United States does not impose that prior art searches should extend to foreign countries, this puts the onus of checking for biopiracy on African countries. Secondly, African countries suffer from the fact that the main OECD countries are pushing for ever higher standards of IP protection. Today, ten years after the coming into force of the TRIPS Agreement, the United States and other countries have embarked in a major way on the road towards ensuring that African and other developing countries do not avail of TRIPS flexibilities through the adoption of bilateral treaties which restrict national decision-making with regard to patent policy. This is harmful because it is limiting the scope that African countries have to devise their own systems of sui generis protection for traditional knowledge and because it implies that the only way to win the game is to try and catch up with the United States and other developed countries technologically, a policy which has been shown in the past to be unrealistic and counter-productive.

B. Impacts of Intellectual Property Protection on African Countries

The main argument made for investment in intellectual property rights systems in African countries is the need to encourage technology development and acquisition and therefore attain some measure of economic development. Flowing from the argument that IPRs spur inventive capacity in countries by acting as an incentive to innovate and that they promote the transfer of proprietary technology across countries, it is imperative that intellectual property laws and policies are aligned to national development goals if they are to contribute to the growth of endogenous capacity in such fields as biotechnology, information and communication technologies and trade in goods and services. It is worth pointing out here that the ability of intellectual property rights to contribute to national development is also influenced by international agreements and bilateral initiatives.

The realms where intellectual property protection can impact on Africa's development include agriculture, environmental management, health and poverty alleviation generally. Looking at global trends, Africa's position is informed by scientific and technological advances that have led to remarkable innovations, radically altering the way of life and vastly expanding the range of human activities around the world. For instance, breakthroughs in biotechnology which have led to rapid progress in understanding the genetic basis of living organisms, and the ability to develop products and processes useful to human and animal health, food and agriculture, and industry have been widely discussed within the context of increased food production leading to increased food security. Use of biotechnology in agriculture to develop crops of improved traits, resistance to pests and diseases and high nutritional quality and in the area of health to come up with new diagnostics and vaccines to prevent and control diseases are perceived as very useful within the African context. Intellectual property protection is seen within this purview as providing the context for the development of this technologies as well as for its transfer from others to local contexts.

The question that arises here is the extent of the contribution of intellectual property rights to economic and technological development at the national level in African countries since intellectual property protection is managed at that level. There is no consensus concerning the economic or social utility of granting intellectual property rights. In fact, there seems to be few studies demonstrating the beneficial impact of the grant of patents on economic or social development.[10] The research carried out is inconclusive and ambivalent and there are still many uncertainties surrounding the role of intellectual property rights in development. Indeed the Commission on Intellectual Property Rights pointed out that the impact of intellectual property rights is contingent upon particular circumstances and context and that available information was ambivalent as to whether the benefits of intellectual property protection exceeded the costs.[11] One of the specific problems highlighted is that intellectual property rights, by allocating all the rewards to the most recent additions to knowledge, tend to disregard the stock of knowledge upon which the most recent additions build up. In so doing, it fosters an unbalanced system where the reward for the immediate effort is likely to be disproportionate. The lack of empirical data explains in part ongoing debates over the justification for intellectual property rights from an economic point of view. In this regard, it is notable that despite the investment of African countries in intellectual property protection over time, there is no evidence of the impacts of that protection on technology development, acquisition or overall development. The heavy costs of institutionalising and administering intellectual property rights must be reflected in any analysis of the benefits but these are not easily identifiable especially in African countries.

The exclusion of local/traditional knowledge from the purview of intellectual property protection also minimises the role and impact of intellectual property rights on Africa's development. African communities are largely traditional societies whose activities are organised locally and resources, including information resources managed at that level. Intellectual property rights as individual, exclusive, monopoly rights leave out the mainly communal traditional knowledge that communities have developed and relied on over time. Allied to the exclusion of traditional/local knowledge is the dominance over time of commercial users of technology and obscuring of the public good in intellectual property. Information operates as a public good within a defined community and is perceived as non-rivalrous and non-excludable. Intellectual property rights as they currently exist are the anti-thesis of this position.

III. Framework for Working Group's terms of Reference

The Working Group is likely to have a very broad mandate. It will in particular have to deal not only with matters related to intellectual property protection strictly speaking but also with the links between intellectual property protection and sustainable development generally. As a result, this section highlights some of the main principles and elements that underpin the terms of reference that we then outline in Section IV.

A. Intellectual Property Protection for Sustainable Development

Intellectual property protection cannot be dissociated from the broader within which it falls. This is true in all countries of the world in the twenty-first century but is even much more clearly so in African countries.

Intellectual property protection in African countries has traditionally been premised on its capacity to stimulate economic growth and thus contribution to poverty reduction. In general, one of the most significant benefits from intellectual property protection is meant to be the enhancement of national research and development efforts.

Further, from an international perspective, it has been argued that intellectual property protection leads to increased technology transfers and to increased levels of foreign direct investment as well as increased trade

opportunities. The intellectual property protection system has been seen to work relatively well for wealthy countries according to the parameters that have been set for it. In principle, as indicated by the Commission on Intellectual Property Rights it should also work for developing countries.[12]

In reality, the situation is much more complex for African countries. Firstly, the intellectual property protection system is only able to fulfil its function at the domestic level where human and technical capacity is sufficiently available. Secondly, intellectual property protection markedly limits the capacity of countries to foster technological innovation through learning, something which has been shown over the previous century to be a strong factor in technological development for countries seeking to catch up. Thirdly, intellectual property protection has the potential to raise the cost of products where local innovative and manufacturing capacity is insufficient to meet the needs of local markets. This is, for instance, clearly visible in the case of HIV/AIDS drugs. Fourthly, intellectual property protection can provide the basis for foreign firms to drive out domestic competition by obtaining patent protection and to service the market through imports, rather than domestic manufacture.

All the above factors tend to be largely applicable in African countries. Technological and manufacturing capacity needs to be significantly strengthened in most countries before they can compete on equal terms with developed countries which is what intellectual property protection as conceived under the TRIPS Agreement implies. At present, it is clear that African countries on the whole are not ready to compete with developed countries as illustrated by the fact that there are comparatively very few patents held by Africans, that there is a significant gap in technological ownership with developed countries and that African countries are on the whole net technology importers.

While intellectual property protection in principle has the potential to contribute to economic and technological development, in African countries, it needs to be tailored to the present-day needs of African countries. This has a number of consequences:

- African countries should use TRIPS flexibility wherever possible and should ensure that they do not bind themselves through bilateral/regional trade and investment agreements to intellectual property protection requirements that go beyond the minimum requirements of the TRIPS Agreement.

- Intellectual property protection should contribute to the realisation of sustainable development. The UN Millennium Development Goals (MDGs) provide the context within which the introduction and strengthening of intellectual property protection in African countries can be examined. MDGs include, for instance, a core focus on the reduction of poverty and hunger, improved health and education as well as ensuring environmental sustainability.[13] This is also reflected in NEPAD's emphasis of the same goals and issues.

- Intellectual property protection should be tailored to ensure that protection is available not only for innovations in what can generally be described as western technology. Intellectual property protection should thus be tailored to provide protection to 'western' and 'Africa specific' technology, requiring a new perspective to intellectual property protection.

- Intellectual property protection should be broadened to cover new fields, such as traditional knowledge which are of great importance in African countries, through the development of sui generis intellectual property protection.

- Intellectual property protection should be linked to the impacts of new technologies on the environment, on health, food security and human rights. In other words, in a context where some of the most relevant technologies are related to basic food and health needs, there is a need to formally link intellectual property protection and sustainable development. This is, for instance, visible in the fact that there is a direct link between agricultural biotechnology, intellectual property protection and food security. On the whole, the main issue is to ensure that intellectual property protection plays a direct role in poverty reduction and combating hunger and disease.

- Intellectual property protection should not be conceived exclusively in terms of the commercial use of knowledge. There are a number of reasons for protecting knowledge in today's world but not all are related to its commercialisation. This is, for instance, of utmost importance in the case of traditional knowledge with regard to the various cases of biopiracy that have taken place.

1. Legal framework for the sustainability of intellectual property protection

Intellectual property protection can contribute to the realisation of sustainable development as soon as it is conceived in ways which take into account the specific needs and situations of African countries. In the specific situation of African countries, this implies at least taking into account the following elements:

Firstly, inequalities in technology ownership, inequalities in industrial, technological and innovation capacity in the formal sector imply that African countries cannot compete on equal terms with developed countries. Further, African countries must all, to varying extent, be concerned with the fulfilment of basic needs of their population, an issue which developed countries do not confront any more. For all these reasons and more, it is imperative that the international legal framework should make space for 'differential treatment' in intellectual property protection frameworks. Differential treatment implies that different groups of countries are treated differently on the basis of specific criteria. In existing sustainable development law, differential treatment is most often based on economic development inequalities. While this may not be the only way to approach the issue, it constitutes a starting point to approach the issue in the context of intellectual property protection. Accordingly, African countries should be granted some exemptions from commitments taken up by developed countries. To be clear, the TRIPS Agreement provides, for instance, for different implementation time frames but this is not differential treatment as such. Differential treatment only exists where countries are allowed to take different commitments on a permanent basis because of long-term inequalities in economic and technological development. The suggestion that differential treatment should be (re)introduced in intellectual property protection system goes against the trend set by the TRIPS Agreement and subsequent TRIPS plus agreement. It is nevertheless of fundamental importance if the international legal system is to recognise that all countries are just not able to compete as equals at this point and for the next several decades. Similarly, within the African continent, NEPAD should ensure that, at a minimum, least developed countries among African countries are also granted differential treatment in recognition of their much weaker position in economic and technological terms.

Secondly, even though intellectual property protection remains territorial to a large extent, recent developments in the past decade have largely internationalised the system. As a consequence, some of the basic principles of international law such as sovereignty must be built into the system with a view to achieve sustainability. The principle of sovereignty is the basic building block of the international legal order as it is conceived today. It is therefore important that even the weaker and smaller countries in the international community assert all the rights they can assert. In the context of intellectual property protection, it is, for instance, important to ensure that effective regimes for accessing genetic resources and traditional knowledge are put in place. This should be preferably be done on a continental level (or even better as a coordinated effort of the G77) so that the regulation of access in one country does not put undue pressure on other countries where the access regime may be less strict.

Thirdly, there remains debate whether sustainable development can be deemed to be a principle of international law. As forcefully argued by Judge Weeramantry of the International Court of Justice, it can be seen as a legal principle.[14] Whether NEPAD countries decide at the national and regional level to treat sustainable development as a legal principle or a broader interpretative element, it is of fundamental importance in the context of the reorientation of intellectual property protection policies. Thus, by looking at intellectual property protection from the perspective of sustainable development, it becomes apparent that governments must find ways to ensure that 'orphan crops' and 'orphan diseases' – which do not get the attention they should get from private sector companies because they may not be commercially attractive despite their socio-economic importance – are treated as issues of primary importance.

2. Relevant treaties and institutions

The mainstreaming of sustainable development into intellectual property protection requires a lot of effort because it implies that intellectual property protection must be looked at from a much broader angle than what has been the case until now.

Firstly, all intellectual property rights treaties are relevant since they are directly concerned with intellectual property protection.

Secondly, in the field of agriculture, the International Treaty on Plant Genetic Resources for Food and Agriculture is of immediate relevance because it provides an access and benefit sharing regime for plant genetic resources, provides a number of links between the system of open access and intellectual property protection and provides at least the lineaments of a system of farmers' rights.

Thirdly, in the environmental field, among the several relevant treaties, the Convention on Biodiversity and its Biosafety Protocol stand out. The Biodiversity Convention is noteworthy because of its Article 16 which attempts to solve at least in broad terms the relationship between intellectual property protection and environmental management, something that no intellectual property treaty does. The Biosafety Protocol is extremely important because it provides the link between genetically modified organisms, most of which are protected by patents or other intellectual property rights, and environmental protection.

Fourthly, in the field of human rights, among many relevant treaties and instruments, the two UN Covenants stand out. The relationship between intellectual property protection and human rights can be looked at from two different angles. On the one hand, the issue is the impact that intellectual property protection has on the realisation of human rights such as the right to health for instance. On the other hand, the International Covenant on Economic, Social and Cultural Rights includes provisions at Article 15(1) which specifically consider the balance between everyone's right to benefit from the progress of science and everyone's right to benefit from their individual or collective contributions to knowledge.

Intellectual property protection treaties as well as agriculture, environment, human rights and other legal frameworks all need to be taken into account together if intellectual property protection is to effectively contribute to the realisation of sustainable development.

3. New challenges in intellectual property protection for African countries

Intellectual property protection can contribute to the realisation of sustainable development as long as all relevant dimensions of sustainable development are taken into account. This is, however, not sufficient in the context of African countries because intellectual property rights as currently conceived are not broad enough to cover all relevant challenges that African countries are facing. A few of the major 'new' issues can be highlighted at this juncture.

Firstly, existing intellectual property protection systems do not provide appropriate frameworks for the protection of farmers' rights and more generally for the protection of traditional knowledge. African countries therefore bear the duty of developing sui generis intellectual property protection that is appropriate and relevant for them. There are already a number of starting points which can be used such as the 2000 African Model Legislation for the Protection of Rights of Local Communities, Farmers, and Breeders and for the Regulation of Access to Biological Resources. However, a lot more work needs to be done to make sui generis protection a reality in each and every African country. In particular, this implies the need to develop legal frameworks which go beyond the commercial use of knowledge and make link between the sustainable use of the underlying resources and the knowledge protected through sui generis intellectual property rights.

Secondly, the expansion of intellectual property protection has thrown up new challenges that African countries need to address. These include the regulation of access to resources and traditional knowledge. This must take into account not only international law aspects whereby states can assert control over resources found in their territory as highlighted above. This also includes the need to developed legal frameworks which clearly delineate the prerogatives of the state and holders of plant genetic resources and traditional knowledge. This has

already been attempted in different ways in some countries as illustrated by the progressive Biodiversity Act, 2004 of South Africa. However, an Africa-wide effort needs to be made at this level.

Thirdly, African countries need to focus developing effective regimes for benefit sharing. This concerns not only the implementation of international treaties such as the Biodiversity Convention and the International Treaty on Plant Genetic Resources for Food and Agriculture and the contribution to the development of international benefit sharing regimes, for instance, in the context of the Biodiversity Convention as initiated at the 2004 Conference of the Parties. It also implies taking measures at the national and international levels to ensure that benefit sharing does not become a quid pro quo for the transfer of knowledge and resources outside of African countries with very little control exercised by countries of origin and current holders of plant genetic resources and traditional knowledge. In other words, while it is important to engage in the development of benefit sharing in all the international fora that are addressing this issue, this should be done in such a way that benefit sharing is not conceived only as financial benefits which have been the main instrument to-date.

B. Intellectual Property's Role in Facilitating the Attainment of NEPAD's Goals

The role of intellectual property protection in facilitating the attainment of NEPAD goals must be seen within the broader purview of intellectual property protection in economic development. The greatest argument made for intellectual property protection in Africa is spurring innovation and promoting technology transfer. Article 7 of the TRIPS Agreement explicitly posits that intellectual property rights should contribute to the promotion of technological innovation and to the transfer of technology in a manner conducive to social and economic welfare.[15] The protection of intellectual property is deemed to play a positive role in facilitating the building up of national technological capability as well contributing to the social and economic development of a given country. This in turn is believed to foster economic development, defined largely in terms gross domestic product per capita.

NEPAD's principal aim is to facilitate the economic development of Africa through different programmes of action that relate to agriculture, health, environment, science and technology and infrastructure. Not surprisingly, paragraph 1 of the NEPAD Policy Document designates it as 'a pledge by African leaders, based on a common vision and a firm and shared conviction, that they have a pressing duty to eradicate poverty.'[16] The main goals of NEPAD include the achievement of an average gross domestic product (GDP) growth rate of above 7 per cent per annum for the next 15 years; ensuring that the continent achieves the agreed International Development Goals (IDGs), namely, reduction in the proportion of people living in extreme poverty by half between 1990 and 2015, enrolling all children of school age in primary schools by 2015, making progress towards gender equality and empowering women by eliminating gender disparities in the enrolment in primary and secondary education by 2005, reducing infant and child mortality ratios by two-thirds between 1990 and 2015, reducing maternal mortality ratios by three-quarters between 1990 and 2015, providing access for all who need reproductive health services by 2015, and implementing national strategies for sustainable development by 2005, so as to reverse the loss of environmental resources by 2015.[17]

NEPAD focuses on the provision of essential regional public goods (such as transport, energy, water, ICT, disease eradication, environmental preservation, and provision of regional research capacity), as well as the promotion of intra-African trade and investments.[18] To the extent that intellectual property protection in the form of patents, copyright, trade secrets and trademarks are perceived as important ways and means used by countries and industrial firms to stimulate invention and protect investments in innovation, the attainment of NEPAD goals needs to be linked to intellectual property protection. Intellectual property protection contribution to development however is predicated on a number of conditions being put in place. For instance, the conditions for granting intellectual property rights must be anchored on local conditions to ensure that local inventions and innovators are not locked out of protection.[19] It is also critical that countries granting intellectual property rights ensure that these are not used as scarecrows to ward off potential local innovators or to secure market access where the holder of the intellectual property rights has no intention to work the invention locally.

The role of intellectual property protection in the transfer of technology also needs to be explored in an analysis of the interface between the attainment of NEPAD goals and intellectual property protection. Developing countries have, for instance, maintained that intellectual property protection is a barrier to technology transfer and creates disincentives for local conservation and sustainable use of genetic resources. This debate has been at the centre of international discussions on intellectual property protection in the Convention on Biological Diversity, the International Treaty on Plant genetic Resources for Food and Agriculture and the TRIPS Agreement. The main issues raised at these forums include firstly, the extent to which intellectual property protection promotes conservation and sustainable use of genetic resources and provides flexibility to the different stakeholders to share benefits arising from that conservation and sustainable use. Secondly, the implications of an internationally harmonized and strong intellectual property protection regime for transferring new technologies from the industrialized countries to the developing ones and thirdly, the alternative forms of intellectual property protection that would be suitable for protecting traditional and indigenous knowledge, inventions and innovations. The question of access to technology and products thereof is an underlying theme in all these issues. With regard to indigenous knowledge, NEPAD leaders have pledged to take urgent steps to ensure that indigenous knowledge in Africa is protected through appropriate legislation and promote its protection at the international level.[20] Since these issues are not regulated under TRIPS, NEPAD presents an opportunity for the development of a system of protection that would benefit Africa.

For a continent that chronically suffers from food insecurity and whose populations are ravaged by diseases such as malaria and HIV-AIDS for which a cure is yet to be found, access to technology is critical to any development agenda. Indeed NEPAD identifies the eradication of poverty in Africa and the placement of African countries, both individually and collectively, on a path of sustainable growth and development to halt the marginalisation of Africa in the globalisation process as a long-term objective.[21]

Harnessing intellectual property protection for economic development requires cooperation between different countries for mutual benefits. It enables states to achieve objectives which none of them would be able to accomplish individually. NEPAD provides the context within which cooperation can occur to promote the objectives in the agriculture, health, environment and other sectors. Cooperative arrangements also assist countries to take joint action and resist pressures put on them by more powerful actors. With regard to intellectual property protection, cooperation can help to develop a common position with regard to TRIPS-plus conditionalities and explore ways of benefiting from flexibilities provided for under TRIPS. Cooperation is also beneficial to capacity mobilisation and development across different countries. In the area of intellectual property protection, cooperation can be used to pool available IP capacity across the continent and also to identify capacity needs and ways of dealing with these.

1. *Nature of regional institutional arrangements for protection of intellectual property in Africa and benefits that would accrue by creating a common African organization and harmonized laws*

Existing regional institutional arrangements

Two regional intellectual property organisations exist in Africa, namely the African Intellectual Property Organisation (Organisation africaine de la propriété intellectuelle – OAPI) for French-speaking countries in Africa and the African Regional Industrial Property Organization (ARIPO).

ARIPO

The history of ARIPO goes back to the early seventies when a Regional seminar on patents and copyright for English-speaking African countries was held in Nairobi. The seminar recommended that a regional IP organization be set up. The agreement on the creation of an intellectual property organisation for English-speaking African countries known as the English-Speaking African Regional Industrial Property Organisation (ESARIPO) was concluded in Lusaka, Zambia on December 9, 1976. This agreement was amended in 1985 to open up the membership of the organization to all African states members of the United Nations Economic Commission for Africa (UNECA) and the Organization of African Unity (present day African Union AU). It was renamed ARIPO to reflect its new pan-African outlook.

The impetus for the creation of ARIPO was to pool resources of its member countries in industrial property matters together in order to avoid duplication of financial and human resources. Thus the preamble to the Lusaka Agreement clearly states that member states are "aware of the advantage to be derived by them from the effective and continuous exchange of information and harmonization and co-ordination of their laws and activities in industrial property matters". Among ARIPO's objectives[22] are:

1. to promote the harmonization and development of the industrial property laws and matters related thereto, appropriate to the needs of its members and of the region as a whole.

2. to foster the establishment of a close relationship between its members in matters relating to industrial property.

3. to establish such common services or organs as may be necessary or desirable for the co-ordination, harmonization and development of the industrial property activities affecting its members.

4. to establish schemes for the training of staff in the administration of industrial property law;

5. to promote the exchange of ideas and experience, research and studies relating to industrial property matters;

6. to promote and evolve a common view and approach of its members on industrial property matters;

7. to assist members, as appropriate, in the acquisition and development of technology relating to industrial property matters.

Currently the membership of ARIPO stands at 16 members countries namely: Botswana, The Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. ARIPO has three established organs, namely the Council of Ministers, Administrative Council and the Secretariat. The Harare Protocol to the Lusaka Agreement mandates the ARIPO office to grant patents and register them on behalf of its member states. This treaty is usually known as the Harare protocol that binds only these member states that have ratified it, currently fourteen member states have acceded to it. Under the protocol, an applicant for the grant of a patent or the registration of an industrial design can, by filing only one application, designate any of the contracting states in which he wishes his invention or industrial design to be accorded protection. The protocol requires the filing of the application to be made with either one of the contracting states or directly with the ARIPO office. This system devised to optimise the scarce resources available and concentrate them in one office, which serves a number of member states at the regional level while safeguarding the sovereignty of member states as far as the final decision to grant a patent or register an industrial design, in respect of their territories is concerned. The sovereignty of the member states is therefore preserved but applicants are given more choice on how to file their application and where to obtain protection. Further, pooling resources together and optimising on the benefits of the economies of scale enables member states to deploy their human and financial resources to other more pressing needs of their citizenry. The coverage of a large geographical area also opens new markets for member states while at the same time improving their investment climate and encouraging access to technical information, particularly that contained in patent documents.

OAPI

Before 1962, French laws governed patent rights in majority of Francophone member states of OAPI. Upon attaining independence, Francophone African states found it necessary to cooperate in respect of IPP. This creation found its legal justification in Article 19 of the Paris Convention for the protection of patent rights, which states that countries, which are signatories to this convention, have the right to undertake separately among themselves, specific agreements on patent rights protection so long as the said arrangements are not in contradiction with the Convention.

The organisation was to act as the national patent authority for each of the member countries and was named the African and Malagasy Patent Rights Authority (OAMPI), born on 13th September, 1962 by the Libreville Agreement. The conditions of this agreement were based on three fundamental principles:

- The adoption of a uniform legislation by putting in place and application of common administrative procedures resulting from a uniform system of patent rights protection;
- The creation of a common authority to serve as a national patent rights protection department for each of the member states; and
- The centralization of procedures such that a single title issued comprised as many independent national rights as member countries.

Following the withdrawal of Malagasy, the founding states revised the Libreville agreement and created the now OAPI by adoption of a new convention signed in Bangui on 2 March 1977. The Bangui agreement revising the Libreville agreement, henceforth legislates patent rights in each of the 16 member states, which now make up the OAPI territory. The sixteen members are: Benin, Burkina Faso, Cameroon, Central Africa, Congo, Côte d'Ivoire, Equatorial Guinea, Guinea Bissau, Mali, Mauritania, Niger, Senegal, Chad and Togo.

The overall objective of OAPI is to be involved closely in the technological development of member states. To reach this goal, OAPI contributes in:

- Ensuring the protection and publication of patent rights titles;
- Making the legal framework attractive to private investment by creation of conditions favourable to the effective application of the principles of intellectual property;
- Encouraging creativity and transfer of technology.
- Setting up efficient training programmes to better the capacities of the OAPI system to offer quantity services;
- Creating conditions favourable to the valorisation of the results of research and to the exploitation of technological innovations by national enterprises.

The mission of OAPI is to:

- Issue protection titles
- Document information
- Be involved in members' technological development.

Limitations within Existing Regional Intellectual Property Bodies

The most notable shortcoming of existing regional intellectual property bodies is their alignment to former colonial powers. Within the NEPAD spirit, it is important to have one African intellectual property body informed by Africa's needs and seeking to facilitate the achievement of the goals set out in the NEPAD policy document. In that context, alignment to former colonial powers serves more to divide Africa rather than to unite it since there are identified issues that are of importance to both Francophone and Anglophone countries. Further there are countries that do not fall in either category which need to be brought into the fold.

Another limitation of both ARIPO and OAPI is their focus on technical administration of intellectual property rights. Indeed the main concern under them is to encourage regional patent practices and international co-operation with existing international organization. Centralised filing, search and examination and reduction of costs of filing seem to be the focus, not substantive provisions on subject matter of coverage that would open opportunities to consider intellectual property issues germane to the continent and specific sectors that need to be targeted in providing incentives through intellectual property protection.

There is need to go beyond technical administration to substantive areas of policy making to ensure that an African agenda on IP is developed. There should, for instance be patent examination on an Africa-wide scale above both ARIPO and OAPI. With regard to regulation, development of competition policies to ensure non-abuse of monopoly power will be a good complement for the patent regime.

The mandate of ARIPO is limited to industrial property (patents, trade marks and industrial designs) which does not include copyright and neighbouring rights, plant variety protection and farmers' rights. This makes its remit inapplicable to issues that are of great importance to African countries such as plant variety protection. Even though OAPI deals with plant variety protection through a revision of the Bangui Convention in 1999, member states committed themselves to adhere to the 1991 version of the UPOV Convention.[23] This denied them the opportunity to come up with a sui generis plant variety protection regime informed by their own needs.

Neither ARIPO nor OAPI deal with traditional/indigenous knowledge and folklore. These are critical to African cultures and their exclusion leaves a critical component of innovation within African countries. Moreover, even though technology development and transfer is intimated as a concern for both organisations, there is no reference to sustainable development. Representing African regional approaches to IPP, the omission of sustainability as a parameter is glaring in light of concerns about dumping of obsolete technologies in developing countries.

IV. Proposed Terms of Reference

In this section we outline proposed terms of reference for NEPAD's proposed Working Group on Intellectual Property as a guide to further action towards establishing the Working Group. We also outline some of the expected outputs of the Working Group according to the framework outlined above and the proposed terms of reference. The mandate of the group will be to identify strategic approaches to intellectual property protection through innovative ideas and policy options to ensure that internationalization of intellectual property protection works for Africa's development. It will also need to guide the implementation of these approaches.

At a broad level, the Working Group will:

- define the role of IPRs in Africa's development generally and NEPAD goals specifically;
- review various national and international views and policies on intellectual property protection and their implications for the achievement of NEPAD's goals;
- examine current national and regional legislation as well as institutional arrangements for safeguarding Africa's intellectual property, and determine the extent to which they are configured to stimulate technological innovation, industrialization and economic growth (including alleviation of poverty) in Africa;
- identify and propose specific issues and areas that should be integrated into NEPAD's programmes and make proposals on how best to strengthen the continent's capacity to engage in research, policy development and international negotiations on intellectual property protection.

Overall, it is expected that the Working Group will have to devote part of its time to the understanding and development of substantive intellectual property protection issues from the perspective of African countries. The rest of the time will be devoted to finding ways to structure existing intellectual property protection systems in a way which brings in more synergies and effectiveness at an Africa-wide level compared to the still relatively decentralised system which prevails today. The success of the European region in coordinating its patent policies to a certain degree bear witness to the fact that cooperation can be successful, including across language barriers.

A. Substantive Elements

The Working Group will first of all have to focus on a number of crucial basic principles which will influence the success or failure of intellectual property protection policies at an Africa-wide level in coming decades. This section highlights some of the important elements that the Working Group may wish to consider.

1. Equity for Africa in intellectual property

Equity in international law has been a basic principle which has first been used by international courts and tribunals and is now found in a number of rules and norms. The field of intellectual property protection has been largely immune to these developments. However, nothing indicates that African countries are at less of a disadvantage in this field than in other fields. It is therefore imperative to ensure that African countries:

- use all existing TRIPS flexibility. This implies using flexibility that is specifically provided for in particular sections and articles. It also implies finding ways to use more effectively than developing countries have done until today the general provisions of Articles 7 and 8 which give room for differential treatment.
- use all existing avenues opened up by subsequent deals such as the decisions adopted at the Doha ministerial conference in 2001.

- use and emphasise the special situation of least developed countries in a much more coordinated and effective way. The TRIPS Agreement makes some concessions to least developed countries, such as Article 66 and the Doha agenda. Much more needs to be done in particular at the Africa-wide level given that an important number of least developed countries are found among African countries.

2. Equity in intellectual property within the African continent

Differential treatment for African countries in the international legal system is of paramount importance given their disadvantaged situation compared to developed countries. The relevance of differential treatment is, however, not limited to the international scenario. At the Africa-wide level, there are similar disparities in economic development, technological endowment and capacity to benefit from the existing intellectual property protection system. This calls for a strong form of differentiation, partly modelled after differential treatment highlighted above, to ensure that less advantaged countries within the continent do not lose out further compared to the wealthier and better endowed countries. In other words, it is imperative to ensure that the Africa-wide strategy which may be adopted in negotiations with developed countries does not end up benefiting only countries that are already comparatively better-off within the African region. This implies, for instance, that least developed African countries should get differential treatment in the relations with countries that are not least developed in the region.

3. Consolidating the protection of traditional knowledge

The Working Group will have to directly address the question of traditional knowledge in its entirety. This is of utmost importance because this has not been done before and because the international legal system will never be able to provide a framework which is appropriate for African countries. As a result, the Working Group should, on the basis of existing and on-going initiatives within the African region, devote time to identifying options for sui generis traditional knowledge protection. This should take into account existing efforts in individual countries, at the regional level as well as in other developing countries. It should also go beyond existing frameworks to ensure that the system adopted at the Africa-wide level effectively provides a comprehensive protection system for traditional knowledge which is of benefit to traditional knowledge holders, to the public in African countries, which contributes to the use and conservation of traditional knowledge in commercial and non-commercial contexts and foster innovations in traditional knowledge and related to traditional knowledge. This represents a major task because it has not really been attempted before and because there is significant resistance at the international level against the development of such frameworks.

4. Operationalising farmers' rights

Farmers' rights can be understood as the rights of farmers related to 'traditional agricultural knowledge'. This means that there is a close connection between farmers' rights and traditional knowledge protection since farmers' rights are largely a subset of traditional knowledge. Nevertheless, the issue needs to be addressed in part separately because this has been so at the international level for the past decade in the context of Article 27(3)b of the TRIPS Agreement. The fact that the TRIPS Agreement makes a specific exclusion in favour of African countries allowing them to choose a plant variety protection system of their choice is of major significance within the TRIPS context because it is an open invitation to use the flexibility provided. A number of African countries have been rather slow in taking advantage of this provision even though it is clearly in their favour. As a result, the Working Group should specifically address the question of farmers' rights as a subset of traditional knowledge in the specific context of TRIPS compliance for all WTO member states.

5. *Actualising links between environment, agriculture, health and intellectual property protection*

The Working Group will have to address links between intellectual property protection and sustainable development. This is an area where a lot of work has to be carried out in view of the fact that relatively little has been done to-date in practice. This is not Africa-specific but it is probably more urgent for African countries than for most developed countries to ensure that the links are made. These include in particular:

- Links with environmental conservation. The use of environmental resources (such as plant genetic resources) in processes and products protected through intellectual property rights has implications on their conservation and use. For instance, new genetically modified seeds can lead to the displacement and loss of existing local varieties. The loss of a local variety implies by definition that related traditional knowledge is also lost. In other words, there is a direct relationship between environmental protection and the intellectual property protection system in place.

- Links with agriculture: genetically modified seeds are justifiable if they contribute to reducing food insecurity for the poorest in priority. In other words, the incentive system that needs to be put in place must be tailored to the needs of the countries where it is introduced. This may, for instance, imply that new agriculture-related technologies should be screened for their food security contribution as part of the procedure for granting intellectual property rights.

- Links with health: the links between medical patents and the right to health have the object of much controversy over the past decade. This remains an area of central concern for African countries in view of the fact that HIV/AIDS and other epidemics such as malaria are or will be treated mostly in the foreseeable future with the help of medicines that are patent protected. It is therefore necessary to examine the extent to which African countries should evolve patent policies that are directly linked to the realisation of the right to health, one of whose components is access to existing drugs.

6. *Defining transitory measures for benefit sharing*

The Working Group should address the issue of benefit sharing at an Africa-wide level in view of the fact that it constitutes for the time being the only mechanism that allows traditional knowledge holders and African countries to derive some benefit from the use of plant genetic resources and traditional knowledge found in African countries.

Benefit sharing must be addressed as a transitory measure at the continental level. This is due to the fact that the existing international legal regime is limited and does not provide an appropriate answer for countries of origin. It is in the process of being further developed in the Biodiversity Convention, in WIPO and in the FAO but until such time as an international binding benefit sharing regime is adopted, African countries should proceed to adopt their own regional legal framework. The need for addressing benefit sharing at the Africa-wide level rather than by individual countries stems from the fact that individual countries' ability to negotiate individually benefit sharing arrangements that are favourable to them is much more limited than if this is done collectively and if each country can rely on a regional legal framework applicable to all African countries when dealing with requests for access.

B. Procedural

- Define role of IPRs in Africa's development generally and NEPAD goals specifically;
- Review various national and international views and policies on intellectual property protection and their implications for the achievement of NEPAD's goals;
- Examine current national and regional legislation as well as institutional arrangements for safeguarding Africa's intellectual property, and determine extent to which they are configured to stimulate technological innovation, industrialization and economic growth (including alleviation of poverty) in Africa;
- Identify and propose specific issues and areas that should be integrated into NEPAD's programmes
- Make proposals to how best to strengthen the continent's capacity to engage in research, policy development and international negotiations on intellectual property protection.

1. Platform for exchange of ideas as part of the Working Group

•There has been a proliferation of international treaties and bilateral initiatives dealing with intellectual property rights. African countries' approach to these initiatives and participation in the debates and negotiations on intellectual property protection has been eclectic and not coherent. It is not unusual for different countries to make conflicting pronouncements in different international forums, a country's position to vary at different forums or for a country's Geneva mission position to differ from the national capital's position. The absence of coherence undermines regional development initiatives such as NEPAD.

- The Working Group will provide a platform for the exchange of ideas between African countries on intellectual property rights and inform the positions that these countries take at diverse international forums dealing with intellectual property rights.

2. Africa-wide harmonisation of grant criteria

- To avoid different standards and regulations which result in untenable transaction costs in regional trade in terms of quality, speed and timeliness of decision-making processes. Harmonization leads to the creation of a regional as opposed to a national market and has the potential to attract and strengthen domestic and foreign investment. Moreover, it facilitates a region's position in international debates and strengthens capacity by pulling along weaker countries.
- Harmonisation ensures optimal utilization of available resources for example human resources, infrastructure and finance.

Levels of Harmonisation

- Technical: where technical officers agree on standards, regulations and procedures for grant of IPRs;
- Political: which involves seeking consensus among government officials, civil society and other interest groups so as to win public confidence;
- Legislative: provides the necessary inputs and recommendations to enact/amend the required laws and regulations.

3. Centralisation of intellectual property administration

- This is akin to what ARIPO and OAPI have been doing so far but we are proposing centralisation above both bodies.

4. Providing conceptual and technical backstopping on international negotiations

- Revision of Article 27(3)b TRIPS;
- Negotiations on intellectual property in the Doha round of trade negotiations;
- Negotiations on differential treatment in the Doha round of trade negotiations;
- Maintaining intellectual property debates/negotiations within multilateral fora.

5. Strengthening Africa's capacity in the international intellectual property system

- Capacity-building for intellectual property related negotiations;
- Providing necessary analytical and technical skills in international negotiations;
- Linking with Geneva-based African diplomats and exchanging information.

C. Activities

1. Establishing the IP Working Group

There is need to establish an IP working group covering the entire continent. This is in light of the fact that countries in Africa with limited technological and scientific capacity have little to gain in the medium-term from implementing TRIPS obligations and need to limit the human and resource cost of establishing IP regimes. The Working Group provides the mechanism for pooling resources among countries. Among the activities that should be carried out as a prelude to the establishment of the group are:

Mobilization of expertise and networking

An extensive search and mobilization of African IP expertise within Africa and in the diasporas should be carried out with a view to taking stock of available resources and identifying gaps that need to be filled.

Development of a roster of IP experts in Africa to comprise Working Group

This should be multidisciplinary and cross-sectoral.

2. Africa-wide Intellectual Property Organisation

An Africa-wide Intellectual Property Organisation steered by the Working Group should be set up to implement the group's work plan. Central to the mandate of the Organisation will be to anchor IPP to the continent's sustainable development.

3. Research/knowledge generation agenda

Africa needs to ensure that its IP regime operates in the public interest and is well regulated. An IP research agenda should include modalities for complementing and enhancing Africa's broader policies for encouraging technological development and innovation. Current challenges facing Africa in the IP arena are: following appropriate policies and legislations; administering IPRs in line with international obligations, and ensuring and

regulating IPRs in a pro-competitive manner appropriate to Africa's national development levels. Research to address these challenges should be carried out.

More specifically, there is need to take stock of on-going IP research on the continent, identify research areas that need to be explored and carry out research on intellectual property and sustainable development to support the Working Group's programmatic focus. A research agenda might include:

- Mapping the role of IPP in Africa's development;
- Taking stock of Africa's IP laws and identifying convergences and divergences in them;
- Preparation of issues (and position) papers on emerging areas of IP and sustainable development in Africa;
- Research on TK/IK protection needs;
- TRIPS Flexibilities that Africa can exploit for sustainable development.

4. Development of a database

The development of a database on intellectual property issues pertinent to Africa's sustainable development should be developed. A good starting point for identifying these issues is the NEPAD programme.

5. Documentation of TK while maintaining control for TK owners

The biggest problem in the quest for protection of traditional knowledge is the lack of documentation. Documentation entails disclosure of the information and presents an opportunity for its appropriation by non-owners. A system for documenting traditional knowledge while ensuring that it is not appropriated by non-owners needs to be devised.

6. Capacity building

Building the capacity of the members of the network as well as identified categories of relevant stakeholders on existing and emerging IP issues and sustainable development is integral to the success of the working group. This is in line with NEPAD's aim to give priority to the capacity building in order to enhance the effectiveness of existing regional structures and the rationalisation of existing regional organisations.

7. Information dissemination

Disseminating relevant information and research results to relevant stakeholders is critical to the success of the working group.

D. Structural/Institutional Arrangements

- Regional representation in working group:
  - o East, West, Central, South and North.
- Multi-disciplinary and cross-sectoral representation in working group:
  - o Different identified relevant disciplines and sectors.
- Regional hub with sub-regional and national nodes:
  - o Could be anchored to NEPAD Science and Technology Commission as the regional hub;
  - o Sub-regional nodes in East, West, Central, South and North Africa articulating with the regional hub;
  - o National focal points articulating with sub-regional and regional hubs.

The idea is to have varied representation and dialogue happening at different levels not to establish bureaucratic institutions.

E. Modus Operandi

- Email list, training courses, workshops, newsletters;
- Commission background papers, organize electronic discussions, sub-regional conferences, regional conferences;
- Development of a concrete project or process on intellectual property protection and development tailored to NEPAD.

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Endnotes

[1] Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy* (London: CIPR, 2002)

[2] *See* Draft Substantive Patent Law Treaty, Standing Committee on the Law of Patents, Tenth Session, Geneva, May 2004, WIPO Doc. SCP/10/4.

[3] Proposal for a Council Regulation on the Community Patent, Council of the European Union, 8 March 2004, Doc. 7119/04 PI 28.

[4] *See, e.g.*, Brazil: Draft Resolution: The Role of Patents in the Transfer of Technology to Under-developed Countries, General Assembly, 2nd Committee, 16th Session, UN Doc. A/C.2/L.565 (1961).

[5] United Nations Development Programme, *Human Development Report 2000* at 83 (Oxford: Oxford University Press, 2000).

[6] UNCTAD, The Role of the Patents System in the Transfer of Technology to Developing Countries, UN Doc. TD/B/AC 11/19 (1974).

[7] UNCTAD, *supra* note 6 at §400.

[8] UNCTAD, *supra* note 6 at 64.

[9] United Nations Development Programme, *Human Development Report 2003* at 276 (New York: Oxford University Press, 2003).

[10] *See, e.g.*, Frederick M. Abbott, 'Protecting First World Assets in the Third World: Intellectual Property Negotiations in the GATT Multilateral Framework', 22 *Vanderbilt J. Transnat'l L.* 689 (1989).

[11] Commission on Intellectual Property Rights, *supra* note 1 at page 5.

[12] Commission on Intellectual Property Rights, *supra* note 1 at page 1.

[13] UN General Assembly Resolution 55/2, United Nations Millennium Declaration, 18 September 2000, UN Doc. A/RES/55/2.

[14] International Court of Justice, Separate Opinion of Vice-President Weeramantry, *Case Concerning the Gabcíkovo-Nagymaros Project (Hungary/Slovakia)* International Court of Justice, Judgment, 25 September 1997, *ICJ Reports 1997*, at p. 88.

[15] Agreement on Trade-Related Aspects of Intellectual Property Rights, Marrakesh, 15 April 1994, 33 *ILM* 1125 (1994).

[16] Para. 1, The New Partnership for Africa's Development (NEPAD), October 2001.

[17] Para. 68, The New Partnership for Africa's Development (NEPAD), October 2001.

[18] Para. 95, The New Partnership for Africa's Development (NEPAD), October 2001.

[19] *See* Mohammed H. Khalil, WalterV. Reid and Calestous Juma, 'Property Rights, Biotechnology and Genetic Resources' *in* Biopolicy International, Act Press, 1992 at p. 9 stating that the requirements for patent protection, namely novelty, industrial applicability and inventive step currently operative are inapplicable in the domains of animate inventions involving plant and animal germplasm. These are areas that African countries require protection in.

[20] Para. 144, The New Partnership for Africa's Development (NEPAD), October 2001.

[21] Para. 67, The New Partnership for Africa's Development (NEPAD), October 2001.

[22] Article III, Agreement on the Creation of the African Regional Industrial Property Organization (ARIPO) as adopted by the Diplomatic Conference for the adoption of an Agreement on the Creation of an Industrial Property Organization for English-Speaking Africa at Lusaka (Zambia) on December 9, 1976, and amended by the administrative council of ARIPO on December 10, 1982, December 12, 1986 and November 27, 1996.

[23] Accord portant révision de l'Accord de Bangui du 2 mars 1977 instituant une Organisation africaine de la propriété intellectuelle, Bangui, 24 February 1999.