

Beyond Landowners' Unrestricted Claims to Groundwater in the Context of Climate Change: The Planning Commission's Model Bill, 2011

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- Increasing importance of groundwater
 - Source for about 60% of irrigation and 80% of drinking water needs
- Rapidly increasing use and increasing concerns
 - Quantitative: Rapid rise in number of extraction structures leading to use beyond replenishment
 - Qualitative: increasing reports on water quality (arsenic, fluoride etc)

Climate change and groundwater

- In a context where groundwater is an increasingly important source of basic water and irrigation, a balance must be found that protects fundamental rights-related uses (life, water, food, environment) while planning with broader environmental change
- Currently human needs clearly recognised (if not met). The same cannot be said of aquifer conservation and protection needs
- Likely impacts of climate change recognised: 'Climate change is likely to affect ground water due to changes in precipitation and evapo-transpiration' (National Water Mission).
- Basis for thinking about groundwater rights

Groundwater and surface water rights dichotomy

- Groundwater rights characteristics:
 - Rights to groundwater linked to land
 - Landowners have in essence full control over groundwater
 - Rules defined mostly by 19th century case law
 - Separate rules surface/ground-water
- Surface water: multiple frameworks. Since 1996 flowing surface water a public trust

Consequences of dichotomy

- Separate principles, separate rules, separate laws because of a 19th century starting point where links were not understood.
- Impact 1: landowner A cannot be stopped by neighbouring landowners from pumping up more water than their 'share' (see Plachimada case next presentation)
- Impact 2: Non-land owning individuals have no claims and no role in the management of groundwater
- Impact 3: Atomised regulation (plot by plot) does not provide basis for aquifer-based regulation of groundwater = no local or global environmental perspective

Need for reforms

- Current groundwater rights are:
 - Socially inequitable (because of land ownership link)
 - Environmentally unsustainable (no single landowner has an incentive to sustainably use any aquifer not fully contained under their land)
- Responses given:
 - Little policy initiatives by states though problems identified at least since 1960s
 - Since 1970s, Union taking the initiative by drafting a Groundwater Model Bill but no response for nearly 3 decades
 - Slow adoption of laws by states since late 1990s

Structure of Union Government Reform Model (1970-2005)

- Proposes registration of sources/permits for use (largely impractical - vast number of groundwater structures)
- Main element is a State-level institution (not tasked with overall regulation of groundwater and/or links with surface water), not providing for decentralised governance
- Model Bill does not restrict existing (over)use (grandfathering)
- Model Bill does not address principle giving landowners full control over groundwater
- No regulation of different groundwater uses (only concern for drinking water)
- No regulation of use or conservation at aquifer level

Proposed new framework – Planning Commission's Model Bill 2011

- A broader framework bringing together:
 - Conservation,
 - Protection, and
 - Regulation
- Aims include:
 - Addressing inequitable control over water
 - Put first priority on drinking water
 - Regulate over-extraction
 - Promote and protect community-based, participatory mechanisms of management
 - Prevent and mitigate contamination of groundwater resources

- Central place of environmental law principles:
 - Groundwater is a **public trust** (applying to the resource and not to mechanisms for abstracting it)
 - Protection principles include the **prevention** and **precautionary** principles
- Other basic features:
 - Recognition of the **fundamental right to water**
 - Principle of **subsidiarity**, as explicated in 73rd & 74th amendments to the Constitution
 - **Groundwater committees**

- Groundwater protection zones
 - Highest priority in terms of protection and regulation
 - In Zone 1, only basic water use
- Groundwater security plans
 - Prepared at lowest possible administrative level for every protection zone or as appropriate
 - To provide for conservation and augmentation measures, socially equitable use and regulation
 - Remedial measures, eg for setting up artificial recharge structures, adoption of water-conserving technologies

Next step: beyond aquifers towards a global water cycle perspective

- The Model Bill, 2011 makes a quantum jump in terms of the introduction of a comprehensive protection and conservation to the regulation of groundwater
- Yet, the Model Bill, 2011 is only comprehensive as far as aquifers and their links with surface water are concerned
- The missing dimension is the link between aquifer protection/conservation and the global water cycle, itself directly impacted by climate change

Towards integrating climate change in groundwater regulation

- Integrating climate change imposes an additional set of reforms. Where the Model Bill, 2011 focuses on 'subsidiarity' in recognition of the local nature of groundwater, climate change calls for considering groundwater not only as a national but also as an international issue.
- The Model Bill, 2011 provides the lineaments of a framework whereby the national and international overseeing would be subsidiary to local control. The challenge will be to operationalise this in a way that does not turn climate change as a device for concentrating power over groundwater at the apex level