

Regulating Groundwater in India

Groundwater extraction in India has risen sharply over the last 30 years. The unregulated digging and installation of submersible and underground pumps for agricultural, commercial, industrial, and domestic purposes are depleting the water table often to dangerously low levels in many parts of the country. In addition, more villages across the country have installed electrical power, making it possible to pump groundwater from greater depths. Pollution and contamination also present threats to groundwater. Since groundwater is an important source of drinking water in both rural and urban areas, this depletion and pollution is a serious problem.

As shown in this article, the legal framework surrounding groundwater regulation is spotty. While a model bill on groundwater regulation and development was conceived as early as 1970, it failed to enunciate a clear policy on groundwater ownership and usage. Although the government has taken certain important policy and institutional measures to address groundwater management, and although various states have enacted their own laws, such efforts have not yielded desirable results. Outdated common-law principles on the usage and ownership of groundwater lack corresponding duties toward its development and replenishment, leading to the overexploitative consumption of groundwater by private individuals to the exclusion of the public. Unfortunately, no legislative measure has been able to check such practices. The lack of regulations supporting the sustainable management of groundwater presents a critical gap in the environmental law regime.

Ownership of Groundwater

Groundwater is treated differently from surface water. Traditionally, the right to groundwater has been closely associated with land rights. This was based on the common-law principle of “absolute dominion,” under which groundwater is part and parcel of the land, without any separate title of ownership. Landowners used to manage, control, and use their own groundwater.

The Easements Act, 1882, one of the oldest Indian statutes still in force, established the rights of the landowners to collect and dispose of all water under their land that does not pass in a defined channel. The Act, however, defines only “user” or “easementary” rights over groundwater and cannot be interpreted as establishing ownership rights. Such rights also found support in other laws, such as the Transfer of Property Act, 1882, which envisages the landowner’s proprietary rights to groundwater based on the principle of absolute dominion. Because of the very nature of the resource, it is impossible to transfer rights over groundwater without the land.

In practice, therefore, landowners acquire unqualified and exclusive rights to extract and collect groundwater, even though no ownership rights are recognized. Moreover, such user rights are so broad in nature that they allow the unrestricted use of the resource to the exclusion of all others. For example, the landowner can construct a well and no other person can claim any right to use that well’s water. Furthermore, no limits are stipulated on the amount of water that one can draw: a landowner can draw a substantial amount of groundwater from his land without adverse consequence, even if it affects the flow of water to adjoining lands.

Creating a direct link between land ownership and the right to groundwater adds to existing socioeconomic inequalities in India by excluding landless families from the right to use groundwater. Such private user rights fail to protect groundwater as a common public resource in violation of the fundamental right to water, an essential component of the right to life guaranteed by the Indian Constitution.¹ Further, such rights are completely outdated from the perspective of the modern environmental law cornerstones of public trust, “polluter-pays,” and the precautionary principle.

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The central government has, over time, strengthened its control over the extraction and use of groundwater. In 1972, the Ministry of Agriculture created the Central Ground Water Board (CGWB) to oversee the exploration, investigation, management, and development of groundwater. The government has clearly realized the need to protect this critical resource, and it was not constrained by landowner rights in this regard. In a way, the creation of the CGWB made way for the establishment of groundwater as a public resource and underscored the need for its scientific and environmental management. The CGWB was subsequently empowered under the Environment Protection Act, 1986, to oversee and implement national groundwater regulations.

The CGWA is also authorized to declare certain zones “notified areas” to regulate the extraction and development of groundwater therein. This sharply limits industrial and commercial usage. In a notified area, the construction of groundwater extraction structures, even including the replacement of existing defunct structures, is highly restricted and requires prior government permission. This permission is granted rarely, usually only for water-related government agencies, schools and certain other educational institutions, and hospitals. Private individuals are granted permission only if they can demonstrate that the municipal water supply does not meet their needs. In notified areas, powered extraction of groundwater is permitted only for drinking water purposes. Regulation extends to non-notified areas as well: landowners require prior permission for the installation of wells and structures for groundwater extraction. Such areas may also be classified as critical, noncritical, or overexploited.

The Supreme Court of India applied the public trust doctrine to groundwater in a 2004 judgment.² The court held that, as a trustee of the resource, the government has a clear obligation to protect groundwater for the enjoyment of the general public, rather than to permit its usage for private ownership or commercial purposes. The public trust doctrine applies to the resource itself and not to the mechanism for its extraction. And in 2006, the Supreme Court invoked the importance of sustainable development in denying the construction of any bore wells or tube wells around two lakes, used as irrigation tanks, in Andhra Pradesh.³ The Court noted that persistent development had severely depleted the lakes.

Nevertheless, no clear statute overriding the principle of absolute dominion and applying public trust to the ownership and management of groundwater exists. This legal and policy gap leaves groundwater management in a sorry state.

Legal and Regulatory Regime on Groundwater

The Model Bill to Regulate and Control the Development and Management of Ground Water was proposed in 1970 for adoption by individual states. This document has been revised in 1992, 1996, and 2005, but the basic scheme adopted in 1970 has largely remained unchanged.

Like most natural resource laws, the Model Bill is based on a “command-and-control” regime. It provides for the establishment of a state groundwater authority and vests it with the power to regulate and develop groundwater. Zones in which groundwater is already overexploited or has fallen to a critical level can fall under particularly strict regulation by the state authority.

However, the Model Bill has failed to respond to evolving circumstances. For one, it does not sever the linkage between the right to land and the right to extract groundwater: it authorizes the state authority to regulate groundwater extraction, indicating that landowner rights are limited, but it does not make these limits explicit. While the Model Bill represents an in-principle acceptance of the state’s responsibility to protect groundwater, lawmakers have been reluctant to apply the public trust doctrine with clarity and precision. It appears that the government wants to avoid the controversial issue of ownership.

The Model Bill has also been criticized for failing to implement the constitutional mandate of decentralization. Under the 73rd and 74th Amendments to the Indian Constitution, states are authorized to transfer powers and responsibilities on minor irrigation, watershed development, and water supply for domestic, industrial, and commercial purposes to rural “panchayati raj” institutions⁴ and urban municipal bodies. However, the Model Bill does not carve out any space for the participation of these local bodies in groundwater management or development.

The Model Bill also fails to fully protect the fundamental right to water. There is no clear prioritization of drinking water and domestic usage over irrigational, industrial, and commercial usage, despite the dependence of a large part of the population on groundwater. The “polluter-pays” principle and the precautionary principle are not incorporated, and there is no clear mechanism for checking groundwater contamination or overexploitation. Since India is an agrarian state, regulating groundwater for irrigation is a politically sensitive issue, so governments have been reluctant to approach the issue. Some state governments have, at best, awarded subsidies to farmers for using more efficient dug-well irrigation systems or sprinkler systems. However, these measures have not significantly reduced the exploitative extraction of groundwater since they do not regulate extraction itself.

The Real Estate Industry and Groundwater Extraction in Gurgaon

In 2012,^a construction in Gurgaon, Haryana, came to a standstill after the Punjab & Haryana High Court barred the issuance of construction licenses unless builders agreed not to draw groundwater. Licensed builders were subject to the same limits, and illegal and unauthorized bore wells were sealed by the state. This is because the CGWA had designated the entire district of Gurgaon a notified area after its groundwater levels dropped to dangerously low levels the previous year. This was old hat for the High Court: it had previously ordered state authorities to restrict the use of groundwater to domestic purposes.^b The court had also ordered the closure of illegal bore wells used by builders and industrial units.

^a Sunil Singh v. Ministry of Environment & Forests, CWP 20032/2008.

^b *Id.*

Under the Indian Constitution, state governments are empowered to create laws on “water,” a category that includes water supplies, irrigation and canals, drainage and embankments, water storage, and water power.⁵ The states have accordingly been free to create state-specific groundwater laws based on the Model Bill. Several states, such as Goa, Himachal Pradesh, Kerala, Tamil Nadu, and West Bengal have framed their own groundwater regulations in order to prevent the indiscriminate extraction of groundwater.⁶ In some states, regulations apply only to particularly classified zones, while in others, the regulations apply to all areas. Some states, including Karnataka, Madhya Pradesh, and Maharashtra, have adopted limited groundwater legislation, focusing on drinking water. But state laws do not cover groundwater ownership, since the Model Bill does not cover this issue. However, the Himachal Pradesh statute requires royalties to be paid to the government for the extraction and use of groundwater. In a way, this law negates private ownership or absolute user rights over groundwater and envisages the state government as the resource’s trustee and manager.

Recommendations

The existing legal framework on groundwater ownership and usage requires rehauling. Social and economic circumstances surrounding the ownership of land and resources are evolving in India, and laws must change accordingly. Most important, groundwater is falling to dangerously low levels in much of the country. A contradictory patchwork of ineffective regulations around the country will not help address this urgent issue.

The government must accord a clear priority to drinking water over irrigational, industrial, and commercial uses. It is critical to prioritize drinking water needs over those of the industry throughout the country rather than in certain notified or overexploited areas only: India cannot wait for the whole country to become a notified area. The government must also clearly adopt the public trust doctrine in letter and spirit and override the common-law principle of absolute dominion. The latest version of the Draft Model Bill for the Conservation, Protection, and Regulation of Groundwater, 2011, does address most of these recommendations. However, provisions from the bill have not yet been inserted by the states in their respective legislations.

Until the link between land rights and groundwater rights is severed, policy implementation will remain toothless. It is critical to have efficient and effective enforcement mechanisms that can check the illegal extraction of groundwater. The government should consider relying on local bodies for this issue. Stringent penalties for noncompliance are a must. Lastly, groundwater is a natural resource—an integral part of the ecosystem—and it must be conserved. Protecting groundwater from contamination and degradation is as important as its fair distribution.

ENDNOTES

- 1 Article 21 of the Constitution of India, 1950.
- 2 State of West Bengal v. Kesoram Industries, 10 SCC 201 (Supreme Court, 2004).
- 3 Intellectuals Forum, Tirupathi v. State of A.P. and Ors., AIR2006SC1350.
- 4 Decentralized bodies of governance at the local level.
- 5 Entry 17, List II of the Seventh Schedule, Constitution of India.
- 6 Kerala Ground Water (Control and Regulation) Act, 2002 and Goa Groundwater Regulation Act, 2002.

Draft Model Bill for the Conservation, Protection, and Regulation of Groundwater, 2011

The Indian government's Planning Commission drafted a model bill on groundwater regulation and conservation.¹ The Draft Model Bill not only calls for the creation of information and monitoring cells and supporting institutions for better enforcement of the provisions, it also addresses certain key issues like prioritization of water needs and recognizes the need to govern groundwater resources under the concept of "public trust." Some noteworthy provisions contained in the Model Bill are mentioned below.

- Regulating and controlling groundwater usage and distribution in a manner that prioritizes drinking and domestic needs and the irrigation needs of small and landless farmers;
- Recognizing the fundamental right to water by declaring that every person shall have access to water without any discrimination and promoting its equitable distribution;
- Recognizing groundwater as a common property resource that needs to be managed under public trust, extinguishing all private rights therein;
- Regulating overextraction of groundwater to ensure the sustainability of groundwater resources, the equity of their use and distribution, and the protection of ecosystems;
- Promoting and protecting community-based, participatory mechanisms of groundwater management by involving authorities and institutions at the local level;
- Protecting areas of land crucial for the sustainable management of groundwater resources and ensuring that high-groundwater-consuming industries are not located in areas unable to support them;
- Protecting and regulating groundwater so that it is integrated with the protection, conservation, and regulation of surface water resources;
- Holding groundwater users responsible for ensuring the protection of the resource from contamination, pollution, and waste;
- Creating effective pricing of groundwater for industrial and bulk usage; and
- Creating penalties for noncompliance.

The Model Bill is only intended for use by the states. Some states like Karnataka, Kerela, and Goa have already framed respective legislation on the control and regulation of groundwater, incorporating provisions from previous Model Bills of 1992, 1996, and 2005. The states may make amendments based on the present Model Bill to their respective legislation after passage by the legislative assemblies of the respective states. However, given the political situation in India, it would be difficult to predict any sort of time line.

¹ See http://www.planningcommission.nic.in/aboutus/committee/wrkgrp12/wr/wg_model_bill.pdf.

Draft Municipal Solid Waste (Management and Handling) Rules, 2013

In July 2013, the Ministry of Environment & Forests published the Draft Municipal Solid Waste (Management and Handling) Rules, 2013.¹ On October 11, 2013, the High Court of Karnataka directed that the Draft Rules be kept on hold,² and the Ministry withdrew the Draft Rules from its website shortly thereafter. But the High Court of Karnataka vacated its stay on October 24, 2013. Accordingly, the Ministry again posted the Draft Rules on its website, requesting that comments be submitted no later than November 21, 2013. After the Ministry completes its review of the comments, the Draft Rules will be tabled before each House of Parliament for approval. However, because parliamentary elections are due in a couple of months, it is difficult to say whether due priority will be given to this matter.

In their current form, the Draft Rules would govern the collection, segregation, storage, transportation, processing, and disposal of “municipal solid wastes.” Such waste includes the commercial and residential waste generated in municipal or notified areas in either solid or semisolid form. This term excludes industrial hazardous waste, e-waste, and biomedical waste. The Draft Rules create specific duties for certain governmental authorities, outlined below. They also contain detailed conditions for the management and processing of waste. Provisions regarding the recycling and reuse of municipal waste have been included for the first time.

Authority	Government Level	Duties
Ministry of Environment & Forests	Central	<ul style="list-style-type: none"> To undertake periodic review of these rules.
Ministry of Urban Development	Central	<ul style="list-style-type: none"> To coordinate and review the implementation of these rules.
Secretary-in-Charge, Urban Development Department	State	<ul style="list-style-type: none"> To ensure the implementation of these rules by urban and municipal authorities; and To prepare a state-level solid waste policy or strategy.
Central Pollution Control Board	Central	<ul style="list-style-type: none"> To maintain coordination with State Pollution Control Boards and Pollution Control Committees for review and enforcement of standards and guidelines; and To prepare a consolidated annual review report on the implementation of these rules.
State Pollution Control Board or Pollution Control Committee	State	<ul style="list-style-type: none"> To monitor municipal solid waste processing facilities and disposal facilities, including landfills; and To prepare and submit an annual report to the Central Pollution Control Board.
Municipal Authorities	Local	<ul style="list-style-type: none"> To collect, segregate, and transport municipal solid waste, and support the infrastructural development thereof; To seek authorization for setting up waste processing and disposal facilities, including landfills; To seek environmental clearance for setting up municipal solid waste processing and disposal facilities; and To prepare and submit an annual report to the appropriate higher authority.

1 Notification No. 1978 (E), dated July 2, 2013.

2 W. P. (C) 46601 of 2012, dated Oct. 11, 2013.