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Groundwater legal regime in India: Towards a paradigm shift

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More than 80% of drinking water in India now comes from groundwater.

Groundwater is an increasingly important source of freshwater in India, with around 60% of irrigated agriculture and more than 80% of drinking water needs dependent upon groundwater. The exponential increase in groundwater extraction over the past few decades has led to deterioration in water quality and quantity.

These developments expose the need for a legal framework to regulate the use of groundwater and to protect aquifers. This is particularly relevant because groundwater use in India is currently regulated in a piecemeal or rudimentary manner. The lack of adequate regulation has been one of the important factors that has facilitated indiscriminate exploitation of

groundwater.

The existing legal regime relating to groundwater in India has been subject to severe criticism. One major criticism is the continuation of the rule introduced during the British colonial period that gives near absolute right to land-owners to exploit groundwater. This has severe consequences for equity because it excludes landless people from accessing groundwater. Other criticisms include little or no emphasis on protection and conservation, lack of recognition of the link between groundwater and the water cycle, and lack of an aquifer-based regulatory approach (as opposed to a system focused on individual extraction units).

To address these issues, since 1970 the federal government has been pushing the states to adopt a new groundwater law by publishing 'model' groundwater laws, with the latest version published in 2016. However, the federal government can only encourage the state governments because the Constitution of India vests state governments with the power to adopt laws regarding the management of water.

The existing regulatory framework in India ensures neither equity nor the sustainability of groundwater use. Therefore, reforms in groundwater laws require an entirely new set of principles, approaches, and institutional mechanisms. This article discusses some key changes that could address concerns related to equity, human rights, and sustainability.

Abolition of the groundwater-land nexus

From a legal perspective, groundwater is regarded as a part of land. Therefore, landowners have been given an unrestricted right to extract groundwater. This rule, originating in Britain in the 19th century, has been recognised by the Indian legal system through statutes and judicial decisions. It is dated and inadequate for addressing contemporary concerns, and it is likely to be discarded in light of new legal developments. The system of land-based groundwater rights was developed at a time when groundwater was not a major source of freshwater and the technology was not developed enough to facilitate the unsustainable extraction of groundwater. As such, groundwater was not a serious concern.

Two specific developments, among others, make it likely that this rule based on common law will be untenable. First, given the fact that an overwhelming majority of drinking water today comes from groundwater, the deterioration of groundwater will have implications for the realisation of the fundamental right to water, which is part of the fundamental right to life enshrined in the Constitution. Second, the Public Trust doctrine (PTD) is one of the major principles governing water resources in India. The existing system of land-based groundwater right is directly in conflict with PTD because PTD requires access to crucial natural resources like water to be available to everyone equitably regardless of any socio-economic criteria.

Towards aquifer-based regulation and conservation

One of the major shortcomings of the current groundwater legal regime in India is the absence of a regulatory framework that identifies aquifers as the management unit. An aquifer-based regulatory system would have the advantage of introducing a governance framework based on hydrological units (e.g., equivalent to a basin-wide regulatory system for a river basin). It would prioritise the protection of aquifers by acknowledging the link between aquifers and their recharge areas as well as discharge areas. It would also provide an opportunity to consider groundwater as a part of the water cycle.

Unfortunately, the existing legal regime continues to be determined by administrative boundaries and focuses on regulation of groundwater use through a permit/license system for installing groundwater extraction units, such as wells and tube-wells. Thus, the existing legal regime appears to be treating groundwater as a bucket with inflow and outflow of water independent of recharge area, ecology, and other users.

Decentralisation and participation

The existing groundwater regulatory framework in India follows a centralised command-and-control approach. For instance, the groundwater laws adopted by states in the last couple of decades use a state-level authority to regulate and protect groundwater; yet, this is not advisable for several legal or practical reasons.



In India, there is no overarching framework regulating groundwater use despite it being the main source of water for drinking and agriculture. Source: Daniel Bachhuber, Flickr Creative Commons

First, groundwater use is so diffuse that a centralised system and agency using the command and control approach would struggle to regulate millions of extraction units in a state. Second, regulation of groundwater use (and water use in general) is a highly sensitive area especially in a context where groundwater is the major source for drinking and irrigation. Any attempt to regulate its use without proper and adequate consultation with the users would be an unwelcome step and could even result in outright objection and/or non-compliance.

The Constitution of India envisages a decentralised and participatory framework for natural resource management. Therefore, decentralisation and participation are supposed to be the key basic principles governing groundwater in India. In fact, water law reforms in the context of surface water have been implementing the principles of decentralisation and participation for several decades (e.g., participatory irrigation management laws). Thus, there is no excuse for not applying these principles in the groundwater regulation context although they must be implemented with adequate caution to ensure that the existing dominant groups, such as upper caste and upper class users, do not control and use the regulatory system primarily to their advantage.

Conclusions

Decentralisation and participation principles and approaches have already attracted law and policy makers in India. The federal government started an initiative in 2010 to draft a new model groundwater bill to update the 2005 version.⁷ The first updated version was published in 2011⁸ and the latest one in 2016⁹. These two versions have included the above-mentioned principles and approaches. However, state governments have not yet shown any interest in changing their laws to adopt the new model bill. It is yet to be seen how the federal government is going to encourage state governments to update and modernise their groundwater legal regime so that it respects and implements principles of equity, human rights, and environmental sustainability.

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