

Issue Brief

No.11

July 2025



Administration of Springs in India: Legal and Institutional Frameworks

Rinan Shah



About the Author: Dr Rinan Shah is a Post-Doctoral Fellow at the Centre for Himalayan Studies, Shiv Nadar University, Delhi-NCR. Her work engages with the question of thinking/rethinking water governance in the mountainous landscapes in a rapidly urbanizing world with uncertain and intense ecological calamities. Her PhD thesis attempted to disentangle the drivers of domestic water scarcity in the volumetrically “water-rich” Eastern Himalayan Region.

Cite this publication as:

Shah, Rinan. 2025. ‘Administration of Springs in India: Legal and Institutional Frameworks’. Centre of Excellence for Himalayan Studies, Shiv Nadar University, Delhi NCR. *Issue Brief*. No. 11. July.

Centre of Excellence for Himalayan Studies
School of Humanities and Social Sciences
Shiv Nadar Institution of Eminence
NH-91, Tehsil Dadri, Gautam Budh Nagar District
Uttar Pradesh - 201314
INDIA
Ph: +91 120 7170100
E-Mail: chs.shss@snu.edu.in
Website: <https://chs.snu.edu.in>

Administration of Springs in India: Legal and Institutional Frameworks

Rinan Shah

Springs are groundwater resources which are governed by the law of the land in India. Effective groundwater planning for springs thus, requires a recognition of the creation of rights and properties and water rights through the state-defined laws also referred to as formal laws.

To understand water struggles and contemporary water governance, it is important to understand also the distinction in terminologies, between water rights and the right to water, to avoid conflation. Water rights imply the “economistic/legalistic focus on contractual obligations, concessions, property rights and water markets” whereas right to water encompasses “human rights, access to safe drinking water, equity and justice” (Sultana and Loftus 2012). Viewing resources in the light of the dynamic ideas of property, rights and entitlements (Mosse 1997), this issue brief focuses on water rights, particularly the legal aspects of water rights, within the larger framework of the right to water.

The brief begins with an assessment of national water laws and policies for overall water governance in India, followed by a focus on groundwater. The presence of springs as an acknowledgment, inclusion and/or interventions highlights the priorities accorded to springs. All this is brought together to define broad pathways of thinking about springs, and their conservation and protection for sustained water security.

National Water Laws and Policies

Water is a state subject with the Union (central) government coming in whenever there are river water disputes. The legal instruments for water in India include policies, acts of Parliament, rules, schemes and programmes. Most laws are subsumed under the acts meant for local bodies like the Municipality, Panchayat, and Cantonment. There have been three water policies in the past (1987, 2002 and 2012) and the latest one is yet to be released.

Irrigation was the first water-related issue to find its place under a legal instrument under Government of India Act 1919 as a provincial subject. Power generation has been closely associated with irrigation placed as it was under the Department of Industries and Labour in 1923. This association of irrigation and power carried on in the following years under different departments and ministries. Irrigation was provided a ministry of its own in 1980, which also received projects from the Ministry of Agriculture on irrigation for agricultural purposes, minor and emergency irrigation, and groundwater exploration. Before long, irrigation was again combined with power in 1985 and finally became the Ministry of Water Resources (MoWR) in 1985. The Ministry of Water Resources was the beginning of an exclusive Ministry for Water. In 2014, river development became an integral intervention of the government, and it was referred to as the Ministry of Water Resources, River Development and Ganga Rejuvenation. Since 2019, this ministry took the shape of the Ministry of Jal Shakti (“water power” in Hindi ; MoJS).

The central government is not a monolithic entity engaging with water. Today, the Central ministries engaging with water are Irrigation and Power, Natural Resources and Scientific Research, Agriculture, Energy, Finance, Environment, Forests and Climate Change, Drinking Water and Sanitation, Urban Development, Rural Development, and Health and Family

Welfare and departments such as the Bureau of Indian Standards. They define the control, management and ownership of water by passing acts, bills, policies, rules, guidelines, notifications and orders. They also sanction different schemes for the administration of water - as a resource for power, irrigation, drinking, and sanitation among others.

There is thus, a multiplicity of departments administering the same natural resource, but their focus depends on the usage of water. In addition to the different legal instruments for engaging with water, they have differing territorial jurisdictions too. While some of the initiatives directly speak to drinking water, many of them come under the larger rural and urban development programmes. The vertical multi-tiered governance systems comprise of the state, provincial and local. However, in some regions, the territorial is also a part of it like the autonomous councils, for example - Gorkha Territorial Administration. At every tier, there are multiple departments horizontally. For example, at the provincial level, there is forest department, public health and engineering departments which have rights over resources and implement initiatives accordingly. The vertical and horizontal segregations interact across and within levels leading to multiplicity of departments (Shah and Badiger 2018).

Groundwater at the Centre

Central Ground Water Board (CGWB) and Central Ground Water Authority (CGWA) are subordinate offices under the Ministry of Jal Shakti which focus on groundwater.

Central Ground Water Board (CGWB), established in 1970, is a multidisciplinary scientific body with researchers from earth sciences, physics, chemistry and engineers. CGWB focuses on

- i. Sustainable Management & Liaison (SML)
- ii. Survey, Assessment & Monitoring (SAM)
- iii. Exploratory Drilling & Materials Management (ED&MM)
- iv. Water Quality Training and Technology Transfer (WQ&TT)

It primarily has members with biophysical sciences and engineering background with no representation from legal and community sectors.

CGWA was constituted in January 1997 under Section 3(3) of the Environment (Protection) Act, 1986 at the central level by the Ministry of Environment and Forests. It is meant “to regulate and control, management and development of ground water in the country and to issue necessary regulatory directions for the purpose”. It is enabled to direct and take measures (under section 5) on co-ordination of actions of state officials and planning and execution of national programmes for the prevention, control and abatement of environmental pollution. CGWA is also responsible for developing quality standards for environment, emission and discharge of pollutants, restrictions of activities for safeguards, rules for handling hazardous substances, and preparing guides and manuals for implementation of the EPA. On maintenance aspects, it is required to carry out examination of manufacturing process for pollution, research on environmental pollution, inspection, and establish laboratories and institutes (Sub-Section (2) of Section 3). The CGWA is also entitled to penalize under sections 15 to 21 of the same Act.

Water is a state subject, hence model bills and acts are drafted by the central government ministries with experts, which state governments can adapt for their use. The Model Bill to Regulate and Control the Development and Management of Ground Water was introduced in 1970, and revised in 1992, 1996, 2005 and 2017 (Cullet, Philippe and Koonan 2017; Cullet

2018). . The frameworks in existence were felt to be unsuitable for the changing times. The skewed land ownership reflected in water access due to the linkage between groundwater and land rights. Land rights were incompatible with broad aquifer-based conservation and protection measures. Surface and groundwater were treated as separate entities with no interconnections (Cullet, Philippe and Koonan 2017).

These factors led to the 2011 groundwater regulation model bill by the Planning Commission which focused on the conservation, protection and regulation of groundwater, as reflected in its title. The 2011 model bill was revisited by the then Ministry of Water Resources, River Development and Ganga Rejuvenation to develop the Model Groundwater (Sustainable Management) Act, 2016 - “An Act to achieve sustainable management of groundwater by restoring and ensuring groundwater security through availability of sufficient quantity and appropriate quality of groundwater to all stakeholders in rural and urban areas.” Further, a Model Bill was drafted in 2017, which extended the doctrine of public trust to groundwater, included protection principles, and recognized the fundamental right to water (Cullet 2018). In 2015, the Ministry of Water Resources, River Development and Ganga Rejuvenation set guidelines to evaluate proposals for groundwater abstraction.

To achieve and scale sustainable groundwater management, the central government launched the Atal Bhujal Yojana (Atal Jal) Programme 2020 aided by the World Bank. This was implemented in the water-stressed areas of Gujarat, Haryana, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. Additionally, there is the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) Mission Statement and Guidelines, 2015, which includes rejuvenation and recharge of groundwater for drinking water supply under their Mission Components (Section 3.1.1.). Under AMRUT, the State Level High Powered Steering Committee (SHPSC) needs to constitute the State Level Technical Committee (SLTC) with representatives from the Water Resources/Groundwater Department.

Recognition of Springs at the Centre

Springs were not recognized either as a water source or a kind of groundwater until the Model Bill of 2005. It clearly defined springs as “groundwater” unlike the earlier three Model Bills. The 2011 Model Bill expanded the definition and went on further to define Ground Water Protection Zone 1 as the critical natural area which requires artificial recharge. This includes areas at and around the natural discharge from the aquifer in the form of springs. This zone would allow for the upkeep of natural recharge capabilities of the aquifers as well as their quality. The 2011 Model Bill requires the Gram Panchayat Groundwater Committee to prepare Panchayat Groundwater Security Plan and get it approved from the Gram Sabha. The committee also needs to register springs used for secondary usage and those in groundwater protection zones. Secondary water usage includes commercial activities (power generation, large scale commercial farming and industrial works), private facilities and others. The secondary usage recording indicates usage and appropriation with a negative impact on groundwater resources which require environment and social impact assessment (section 43).

CGWA guidelines/criteria for evaluation of proposals/requests for groundwater abstraction of 2015 recognize springs as groundwater. The Model Groundwater Act 2016 mentions springs as groundwater source and an outlet of an aquifer as well as a common pool resource in its natural state. This Act reiterates the 2011 Model Bill where the Gram Panchayat Sub-Committee needs to register all the springs within its boundaries. This committee would acquire a log from drilling agencies for information on entities involved in the construction of

spring tanks and other infrastructural interventions. For municipal areas, Municipal Water Management Committee would record springs used for commercial activities and those in groundwater protection areas.

The 2011 Lok Sabha Standing Committee on Water Resources Report on Groundwater, has no mention of springs. The Report specifies the Himalayan region has limited scope for groundwater storage and a source of recharge of the Indo-Gangetic and Brahmaputra plains.

Springs came to the forefront of the dialogues at the national and regional levels with the Dhara Vikas Yojana and 2018 Report by Working Group I on the Inventory and Revival of Springs in the Himalayas for Water Security brought springs (Tambe et al. 2012; Mahamuni and Kulkarni 2012; Gupta and Kulkarni 2018; Wester et al. 2019). Dhara Vikas Yojana has been a trailblazer programme which has showcased the impacts of springshed conservation for sustainable springs. This began in the state of Sikkim in the northeast of India and has been replicated in other Himalayan states. The 2018 Report was one of the nation's first assessments of springs (Gupta and Kulkarni 2018). The 2018 Report acknowledged the lack of spring studies due to little understanding of springs and their functioning. The Report addressed ten hill states and two partial hill states of India. It had as one of its recommendation a National Programme on Regeneration of Springs in the Himalayan Region and released a framework document for spring rejuvenation (Government of India 2019).

Effective Groundwater Planning for Springs

Springs have different layers of recognition with responsibilities defined to include its protection, planning, improvement and conservation. The formal recognition of springs is present with responsibilities addressed to the formal or private owners. The protection plans are detailed for some states which not only looks at current scenario but expands into the future as well as the physical area that needs protection.

Springs have been recognized under water schemes and policies only quite recently. This suggests that the sustenance and management of springs until now lay outside the ambit of the state. The plethora of such methods devised by communities and individuals should not now be undermined when the state gets involved.

Being groundwater resources, governed by the rent law on the one hand and being invisible on the other, has led to rampant privatization of springs. This exacerbates the situation given the already decreasing numbers of springs which will have dire impacts since springs are used by everybody - households, state water supply systems, private water suppliers and industry. They can easily be encroached upon and privatized for profit. The rights over springs also puts into contention ownership of recharge areas and discharge areas. Hence, springs should be always talked about in conjunction with the land and property rights along with their contested access.

Sikkim is the frontrunner in spring management via Dhara Vikas Yojana inspiring other states such as Himachal Pradesh, Uttarakhand, Meghalaya, Nagaland and West Bengal (Gupta and Kulkarni 2018). Such initiatives can be developed for the different geographies recognizing their socio-cultural institutions. Dhara Vikas Yojana can be expanded to settlements which are on the extremes of urban-rural spectrum - those which are far off and those where the urban density is climbing rapidly. Water supply systems and industries which depend on springs should not only be extractors but active participants in the protection of springs. Groundwater Protection Zones considers usage of spring water for segregation and

conservation of springs. Developing such protection zones in the mountains need efficient and less arduous methods as well as more enabling legal frameworks.

Legal frameworks need to bridge interdepartmental boundaries by springshed-level initiatives which consider biophysical, administrative and community boundaries. Springs have been outside the ambit of the state by their invisible nature and/or because they are invisibilized by the state. There is no space for non-state institutions, socio-cultural aspects and customary norms which have helped until now in the protection and sustenance of springs. With the decrease in numbers and quality of springs, there is an urgent need for state support and planning due to the scale of the Himalayan region and other mountain and hilly regions of India. The right to water must be the cornerstone to bring groundwater into discourse and planning.

ANNEXURE

The International Environmental Law Research Centre (IELRC) legal instruments database of the water in India at the national and state level was the key source for all the legal instruments referred to in this issue brief.

1. Atal Bhujal Yojana (Atal Jal) Program Guidelines, 2020 (Union) - Ministry of Jal Shakti
2. Model Groundwater (Sustainable Management) Act, 2016 (Union)
3. Central Ground Water Authority, Guidelines/Criteria for Evaluation of Proposals/Requests for Ground Water Abstraction, 2015 (Union) - Ministry of Water Resources, River Development and Ganga Rejuvenation
4. Atal Mission for Rejuvenation and Urban Transformation (AMRUT) - Mission Statement and Guidelines, 2015 (Union) - Ministry of Urban Development
5. Planning Commission Model Bill for the Conservation, Protection and Regulation of Groundwater, 2011 (Union) - Planning Commission
6. Lok Sabha Standing Committee on Water Resources Report on Groundwater, 2011 (Union) - Ministry of Water Resources
7. Model Bill to Regulate and Control the Development and Management of Ground Water, 2005 (Union) - Ministry of Water Resources

8. Notification Constituting Central Ground Water Authority, 1997 (Union) - Ministry of Environment and Forests
9. Model Bill to Regulate and Control the Development and Management of Ground Water, 1996 (Union) - Ministry of Water Resources
10. Model Bill to Regulate and Control the Development and Management of Ground Water, 1992 (Union) - Ministry of Water Resources

REFERENCES

- Cullet, Philippe. 2018. "Model Groundwater (Sustainable Management) Bill, 2017: A New Paradigm for Groundwater Regulation." *Indian Law Review*. 2 (3): 263-76.
<https://doi.org/10.1080/24730580.2019.1565567>.
- Cullet, Philippe, and Sujith Koonan. 2017. *Water Law in India: An Introduction to Legal Instruments*. second edition. New Delhi: Oxford University Press.
- Government of India. 2019. "Spring Rejuvenation: A Framework Document." New Delhi: Ministry of Jal Shakti, Department of WR, RD & GR, National Hydrology Project.
<http://mowr.gov.in/>
- Gupta, Akhilesh, and Himanshu Kulkarni. 2018. "Report of Working Group I Inventory and Revival of Springs in the Himalayas for Water Security." New Delhi: NITI Aayog.
- Mahamuni, Kaustubh, and Himanshu Kulkarni. 2012. "Groundwater Resources and Spring Hydrogeology in South Sikkim, with Special

Reference to Climate Change.” In *Climate Change in Sikkim - Patterns, Impacts and Initiatives*, edited by M. L. Arrawatia and Sandeep Tambe, 261-74. Gangtok: Information and Public Resources Department, Government of Sikkim.

Mosse, David. 1997. “The Symbolic Making of a Common Property Resource: History, Ecology and Locality in a Tank-Irrigated Landscape in South India.” *Development and Change*. 28 (3): 467-504.
<https://doi.org/10.1111/1467-7660.00051>

Sultana, Farhana, and Alex Loftus, eds. 2012. *The Right to Water: Politics, Governance and Social Struggles*. New York: Routledge

Tambe, Sandeep, Ghanashyam Kharel, M. L. Arrawatia, Himanshu Kulkarni, Kaustubh Mahamuni, and Anil K. Ganeriwala. 2012. “Reviving Dying Springs: Climate Change Adaptation Experiments from the Sikkim Himalaya.” *Mountain Research and Development*. 32 (1): 62-72.
<https://doi.org/10.1659/MRD-JOURNAL-D-11-00079.1>.

Wester, Philippus, Arabinda Mishra, Aditi Mukherji, and Arun Bhakta Shrestha. 2019. *The Hindu Kush Himalaya Assessment: Mountains, Climate Change, Sustainability and People*. The Hindu Kush Himalaya Assessment. Basel: Springer Nature.
<https://doi.org/10.1007/978-3-319-92288-1>.