PROTECTION AND USE OF GROUNDWATER – NEED FOR A NEW LEGAL FRAMEWORK

Philippe Cullet, pcullet@soas.ac.uk

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I. INTRODUCTION

Groundwater use has increased dramatically since the middle of the last century and it is now the main source of water for most water uses, including in particular for domestic water needs. This has been accompanied by falling water tables and growing concern about the sustainability of use.[1] In many places, groundwater has been unsustainable for a number of years and regulatory action is thus unavoidable.

The importance of groundwater in social and economic terms and the concerns about water scarcity notwithstanding, law-making activity has been quite subdued until now. On the one hand, the challenges thrown by the increasingly widespread use of mechanical pumping devices in the 1960s were noticed early on and the Union attempted to prod states into taking regulatory measures by developing a groundwater model legislation in 1970.[2] Further, the Union has its own institutional framework for protection of groundwater introduced as part of environmental legislation.[3] On the other hand, even though the crisis of groundwater has been increasingly serious in a number of states, no state government took any significant law-making initiative before the mid-1990s, even though some drafting took place from the 1970s onwards.[4] Since then, a dozen states have adopted some statutory framework based on the Union model legislation but in most cases, implementation has been at best limited.

A number of factors concur to explain the limited appetite for taking regulatory measures. The core issue is related to the fact that the existing legal framework essentially gives landowners unlimited control over groundwater found under their land.[5] As a result, any change in the legal

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1 eg Economic Times, 'Needed, a National Water Commission', *The Economic Times* (24 February 2020) <https://economictimes.indiatimes.com/blogs/et-editorials/needed-a-national-water-commission>.

2 Model Groundwater (Control and Regulation) Bill, 1970.

3 Ministry of Environment and Forests, Gazette Notifications SO38 and SO1024 of 14 January 1997 and 6 November 2000.

4 eg Tamil Nadu Groundwater (Control and Regulation) Bill, 1977 and Karnataka Groundwater (Regulation and Control) Bill, 1985, referred to in Bharath Jairaj, 'Delhi's Groundwater: Rights and Policy', *in* International Irrigation Management Institute, Water Rights, Conflict and Policy 81-92 (Proceedings of a Workshop held in Kathmandu, 22-24 January 1996).

5 eg Sujith Koonan, 'Legal Regime Governing Groundwater', *in* Philippe Cullet et al (eds), *Water Law for the Twenty-First Century: National and International Aspects of Water Law Reform in India* 182 (Abingdon: Routledge, 2010).

framework is largely to be resented by landowners who tend to be relatively politically influential. In addition, the more groundwater has become a lifeline for the majority of people, the more it becomes difficult for any government to take measures that would seem to restrict existing uses. At the same time, change is unavoidable. The problem is that each individual government tends to wait until the situation is so dire that regulating becomes a last resort option. Unsurprisingly, the measures taken are then often only partially implemented because their adoption is itself more a reaction to a crisis than a carefully conceived regulatory scheme.

At this juncture, the first priority should be to sever the link between groundwater control and land ownership to make groundwater use more equitable and to give space for aquifer-wide protection measures. Secondly, the understanding of the type of regulatory measures needed must shift from the overwhelmingly top-down scheme adopted by most states and the Union to a framework based on local democratic governance. Groundwater should also be given much more importance than it has until now in water law. For the time being, surface water remains the main focus in the overwhelming majority of existing water laws, including most of the ones adopted since the beginning of the century. This is completely at odds with the reality of actual water use in the country, which revolves around groundwater. It is urgent to address this deficit and do so in a manner that addresses the substantive concerns around existing groundwater law.

II. Rethinking the Groundwater Legal Framework to Ensure Equity and Protection

This chapter focuses on groundwater law as a separate part of water law. This is due to the fact that most water legal frameworks focus on surface water and that different appropriation principles have been developed for groundwater.[6] Groundwater law thus needs to be addressed for itself and is in urgent need of updating and upgrading. At the same time, the long-term agenda must be for water law to effectively recognise that water is unitary and that surface and groundwater cannot be differentiated. The present debate is thus an intermediary debate that will need to be merged progressively with broader water law reforms, wherein the central importance of groundwater will be enshrined.

The rules in place in the country today were set out in nineteenth century case law.[7] There are various reasons why this is not appropriate for the 2020s. Firstly, the idea that there should be different principles for surface and groundwater was borne out of the limited scientific understanding of the close connection between surface and groundwater. We know today that this is inappropriate. Secondly, the principles were set out mostly in the context of disputes involving commercial use of groundwater.[8] The concerns that arise today when groundwater is the main source of drinking water are completely different. Thirdly, the principles were developed by judges located in England where drought was a distant or non-existent concern and where physical scarcity of water was not the dominant concern. These rules were never suited for the climatic conditions of most of India and, in fact, most parts of the world where they were introduced. This included, for instance, parts of the United States where attempts to change the rules have been made for at least a century.[9] In this context, states like Texas that

6 eg Philippe Cullet & Sujith Koonan eds, *Water Law in India – An Introduction to Legal Instruments* 62 (New Delhi: Oxford University Press, 2nd ed, 2017).

7 eg *Acton v Blundell* (1843) 12 Meeson and Welsby 324 (Court of Exchequer Chamber, 1 January 1843).

8 eg *George Chasemore v Henry Richards* (1859) VII House of Lords Cases 349 (House of Lords, 27 July 1859).

9 Concerning California, *Leah J Katz v Margaret D Walkinshaw* 141 Cal 116, 134 (1903).

still keep the common law rules applicable in India now look like outliers among the drier and warmer states in the United States.[10] Fourthly, the principles were conceived as principles of appropriation. There is thus as such no concern for the protection of the water, as illustrated by the fact that the rules permit not only pumping water from under one's own land but also from neighbouring plots.[11] More damaging, there is no concern for aquifer-level protection since the legal regime is entirely centred around the rights of individual landowners. Fifthly, the most damaging aspect of the present rules is that they assume that a water user is a landowner. Anyone else does not fall within the framework of the rules in place. In today's reality where the overwhelming majority of individuals depend on groundwater for the realization of their fundamental right to water, this means that anyone who is not a landowner is not considered to have any right 'to' the water, even though the legal framework recognizes them a fundamental right to water.

A. From Private Appropriation to Recognition of the Common Heritage Nature of Groundwater

The present legal framework is based on private appropriation. It is a stronger variant of the riparian rule for surface water and offers unlimited access by individual landowners. In effect, the law assumes that groundwater found under one plot can be regulated separately from that located under neighbouring plots. Yet, in reality groundwater is a commons that needs to be regulated at aquifer level.

The understanding of water as a commons is reflected in the recognition by the Supreme Court that (surface) water falls under the public trust doctrine.[12] This reflects an understanding of water as something that cannot be owned by either individuals or the state and that needs to be protected and managed by a trustee rather than an 'owner'. Yet, the Supreme Court has failed to make a decisive statement that this also extends to groundwater.[13] In addition, since no single water law enshrines the recognition of water as falling under the public trust doctrine, there is no effective guidance beyond the case law as to what this recognition entails in practice.

Recognising that groundwater falls under the purview of the public trust doctrine would be a first crucial step to modernise the legal regime. It would signal that the basis for protecting and using groundwater is not access to land but rather that there is a trustee who is charged with ensuring the protection and equitable use of available groundwater. This is what the Groundwater Model Bill 2011, as revised in 2017 proposes.[14]

The recognition that groundwater falls under the public trust doctrine would be ground-breaking to the extent that it puts the 'trustee' in the position of having to ensure that the resource is appropriately protected and equitably shared by all potential users. The main question that arises from this is that of the accountability of the trustee. Where the trustee is the state government, it is unclear that a simple declaration that the state is not anymore an owner of water but a trustee is enough to trigger the kind of changes that are necessary to make a difference in practice. In fact, the simple declaration that water falls under the public trust doctrine does nothing in itself to strengthen the accountability of the state. Such a change would

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10 eg Joseph Dellapenna, 'The Rise and the Demise of the Absolute Dominion Doctrine for Groundwater', 35 *University of Arkansas at Little Rock Law Review* 291 (2013).

11 *Acton v Blundell* (n 7).

12 *MC Mehta v Kamal Nath* (1997) 1 SCC 388 (Supreme Court of India, 1996).

13 *State of West Bengal* v. *Kesoram Industries* (2004) 10 SCC 201 (Supreme Court of India, 2004).

14 Model Bill for the Conservation, Protection and Regulation of Groundwater, 2011 and Groundwater (Sustainable Management) Bill, 2017 [hereafter Groundwater Model Bill 2017].

require further adjustments. This could include a statutory implementation of the public trust doctrine, which recognises that the trustee is accountable to everyone for its decisions concerning groundwater. This would be one step ahead of the present situation where the only effective recourse is through public interest litigation, an instrument that is not suited to address a multiplicity of discrete practical implementation issues.

B. PUTTING PROTECTION AT THE CENTRE OF THE REGULATORY REGIME

The rapid increase in mechanical pumping in the 1960s led to growing concerns about protection. Yet, the more groundwater became an important source of water, the less states became willing to regulate it. Groundwater progressively became a sort of insurance policy against water scarcity. This made it very difficult to build the necessary political momentum to take effective measures to tackle overuse. On the contrary, a number of states gave incentives for increased use of groundwater, for instance, through power subsidies.

The lack of action at the state level eventually led to the Supreme Court to take a lead by directing that the Central Ground Water Authority (CGWA) be set up.[15] This has proved only partly successful as the CGWA has not been able to effectively regulate groundwater in the broader sense. The problem is that its mandate is narrowly structured around regulating individual uses. This is not to say that the CGWA should be given a broader regulatory mandate since this remains and should remain the prerogative of individual states. Rather, it confirms that a top-heavy institutional framework to govern a resource that is very local was probably never the right proposition. This remains to be addressed more effectively, but a recent NGT order bemoaning the lack of effective regulation by the CGWA and asking for more stringent measures because, 'a statutory regulator for the country has to exercise overriding power in the form of statutory regulatory orders' is not an appropriate answer.[16] Control from the top is bound to fail in the case of groundwater where the infrastructure that needs to be regulated is crores of pumping devices. In addition, it fails to reflect the local nature of groundwater management that needs to be regulated primarily at the local level.

At the state level, where legislation modelled on the old Groundwater Model Bill 1970/2005 has been adopted, it also limits itself to attempting to regulate individual uses of groundwater through a top-heavy groundwater authority, usually with limited success. The same is true in some states without groundwater legislation that have attempted to take administrative measures that are again conceived in a top-down manner. This is, for instance, the case of Rajasthan 2011 order bringing in a new administratively regulated system for authorising new extraction devices.[17]

The overall story of groundwater protection until now is that of a failed opportunity. Efforts have been limited and hampered by the fact that they have been conceived within the existing legal regime for accessing groundwater. The government has given itself the right to determine who can use groundwater to which extent but these decisions are not participatory in nature. Further, there is no concern for protection at aquifer level as such, since the unit under consideration is only individual access devices.

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15 *MC Mehta v Union of India* (1997) 11 SCC 312 (Supreme Court of India, Order of 10 December 1996).

16 *Shailesh Singh v Hotel Holiday Regency, Moradabad* Original Application No. 176/2015 (National Green Tribunal, Order of 13 July 2020), para 29.

17 Order of 14 July 2011, Public Health Engineering Department, Government of Rajasthan, No 5(1)PHED/2010-part-1.

Groundwater protection must be mainstreamed in terms that move beyond restrictions against some users while existing uses are allowed to go on regardless of their impacts on the environment. Protection needs to be put at the centre of the regulatory regime because this is the only way in which sustainable use can be ensured. In the current context in which groundwater is often the only source of drinking water available to crores of people, the focus on protection must under no circumstances become an excuse for denying access for uses linked to the realization of the right to water, uses which include not just domestic uses but also livelihood-related uses.

The protection that is needed must go beyond the point-specific measures that have been the hallmark of the laws following the template of the Model Bill 1970/2005 and the measures implemented by the CGWA, such as grant of No Objection Certificates.[18] The starting point must thus be protection at aquifer level. This is what the Groundwater Model Bill 2017 proposes. It offers a template for moving towards taking measures that are based on hydro-geology rather than on land rights. At the same time, the Model Bill offers a pragmatic compromise in fitting the aquifer-based protection regime within the context of existing administrative delimitations, which do not necessarily correspond with the contours of the aquifer.

Under the Groundwater Model Bill 2017, the protection regime is centred around water security plans. These are meant to provide the basis for taking informed protection and use decisions from the local to the state level. The starting point is thus providing a baseline from which local communities can work. In situations where the baseline situation is not good, the Groundwater Model Bill 2017 offers additional safeguards that can be triggered by declaring 'protection zones' where a more restrictive regime will be in place.[19]

C. Subsidiarity as a New Basis for Comprehensive Regulation of Groundwater

The new regime based on the recognition of groundwater as a commons and on the primacy of protection will only make a difference if these new bases are implemented in terms of a completely different understanding of the regulatory framework. On the one hand, it is imperative to move beyond the atomised regulation that has been the hallmark of the present legal regime that gives individual landowners the right to do essentially as they please. On the other hand, it is just as important to move away from the top-down regulatory regime, which has been the hallmark of most measures taken at the state or Union level over the past few decades.

The call for implementing the decentralisation agenda in the groundwater sector proceeds directly from the existing constitutional mandate given by the 73rd and 74th constitutional amendments. These have already given local bodies of governance control over local sources of water, which include groundwater. The basis is there, and what is missing is effective implementation in operational statutory measures.

Regulation of groundwater starting at the local level should be even easier to conceptualise than with surface water since the local connection is even more evident. It is on this basis that the Groundwater Model Bill 2017 proposes that the subsidiarity principle should be the

18 Central Ground Water Authority, Guidelines to Regulate and Control Ground Water Extraction in India (Gazette of India Extraordinary, Part II.3(ii), 24 September 2020).

19 Groundwater Model Bill 2017 (n 14) s 13.

organising principle for groundwater regulation.[20] This means in essence that regulation should take place at the lowest possible level and that blocks, districts and the state should be relevant in terms of coordinating action, for instance, where an aquifer extends over more than one panchayat. The proposal is novel to the extent that decentralisation has largely been conceived as a devolution from the top to the bottom. Here, the understanding is that regulation needs to be built from the ground up through democratically elected institutions.

Interestingly, the latest administrative direction of the Union government concerning drinking water supply in rural areas, the Jal Jeevan Mission, already implements several of the proposals made in the Groundwater Model Bill 2017. These include the idea that the proposed action plans will be first prepared at the village level and then aggregated into district and state plans.[21] It also includes the idea that while the process is led by democratically elected committees, the state keeps a central role in supporting them.[22]

This confirms that there is a growing recognition, including at the Union level, that local matters, such as drinking water supply and groundwater can only be effectively addressed at the local level. At the same time, the new thinking will only make a difference on the ground if it is accompanied by measures to ensure that decentralisation is not subverted by vested interests. In the current policy context, decentralisation has often constituted one of the instruments of the withdrawal of the state from the provision of social goods. It is thus crucial to ensure that what amounts to a withdrawal of the state is matched by increased accountability at the local level. This is no theoretical concern in a context where vested interests have often managed to subvert some of the specific equity measures introduced as part of the decentralisation framework. This is, for instance, the case of the practice in some states of female sarpanch being only figureheads with the real power residing in their husbands, or problems of elite capture along caste lines.[23] The broader issue that needs to be addressed is that decentralisation based on the principle of subsidiarity needs to happen in a context where certain guarantees, such as the protection of fundamental rights needs to be guaranteed.

D. Ensuring Groundwater Regulation Effectively Contributes to the Realisation of the Fundamental Right to Water

The focus of the groundwater legal regime has been until now nearly exclusively structured around property rights. The proposed regime in the Model Bill 2017 seeks to ensure that a new understanding of groundwater as a common heritage of all becomes the principle around which regulation is organized.[24] This is a vital change. At the same time, this cannot be dissociated from the social dimensions of groundwater use.

If protection must be central to the new legal regime, this is because the existing regime allowing landowners to ignore protection has proved catastrophic on an aggregate level. At the same time, this protection needs to be structured around the realization of the fundamental right to water. The Groundwater Model Bill 2017 appropriately links the new legal regime to the fundamental right to water. This needs to be emphasized because the new regime needs to go

20 ibid s 6.

21 Ministry of Jal Shakti, Operational Guidelines for the Implementation of Jal Jeevan Mission, 2019, s 3.5.xxiii [hereafter Jal Jeevan Guidelines].

22 ibid s 3.6.1.

23 eg Anand Teltumbde, 'India's (Jati) Panchayati Raj', 46/36 *EPW* 10-1 (2011).

24 Groundwater Model Bill 2017 (n 14) s 9.

beyond linking the judicial recognition of the right with the statutory framework towards ensuring that it effectively contributes to its realization at the implementation level.

Firstly, this will require identifying more precisely the content of the right. At present, the content of the fundamental right to water is often limited to a narrow understanding that is satisfied with a minimum realization measured in terms of access to 55 lpcd in rural areas.[25] This is insufficient because a fundamental right is about much more than survival and is about ensuring a decent and dignified life. In the case of water where many livelihoods include consumptive or non-consumptive uses of water, the right is only effectively realized when these uses are taken into account.

Secondly, effective realisation of the fundamental right to water will require addressing the increasing problem of the commodification of water, which goes against the essence of the right. This is no theoretical concern in a context where the combined impacts of decreasing water availability and increasing awareness of quality concerns has, for instance, led to a boom of small-scale operators selling water in unsealed containers. These are popularly known as water ATMs, which can take diverse forms, including that of 20-litre bottles delivered to homes from an RO plant. A number of these water ATMs are set up through CSR activities and take the form of social enterprises.[26] As a result, they seem to contribute to the realization of the right to water. Yet, in the majority of cases, they contribute to the commodification of water, which is sold to users. Further, there are now a number of actors who are in the business simply because it constitutes an economic opportunity for them. In addition, in most cases, these are private initiatives, which are linked to the promoter's own agenda. As a result, the additional capacity provided helps some people in getting access (at a price) to water that is (hopefully) clean but this is not done in terms of policy priorities, such as targeting first the habitations that are most deprived or that suffer most from shortages or water quality issues.

A new groundwater legal regime must thus be conceived not just in terms of broad parameters linked to the fundamental right to water. Its actual implementation needs to ensure that it is indeed the realization of the fundamental right to water, which comes as the first priority. This must be undertaken in such a way that it is first the people who are most deprived in terms of water access who should benefit from the benefits of a modern groundwater legal regime. This will not happen unless specific policies to achieve the same are put in place.

III. The Groundwater Model Bill 2017 as a Template for State Legislation

Today, nobody seems to defend the present groundwater legal regime. This is probably because defending it would amount to taking an indefensible position in social and environmental terms. Yet, there is no groundswell of support for change. This can be explained by the fact the majority of policy-makers have decided that not taking action is a safer short-term position than anything that would disturb the status quo.

Yet, what can be seen as a status quo in legal and policy terms is anything but a static situation. Policy inaction more or less inevitably leads to groundwater mining, in particular where the state does not even feel able to indirectly impact use by increasing energy prices. The less action governments take, the more groundwater is the lifeline. It is first of all the lifeline for

25 eg Jal Jeevan Guidelines (n 21) s 3.5.

26 Eg Aarti Kelkar Khambete, Providing safe drinking water, in difficult times! (India Water Portal, 4 April 2020) <https://www.indiawaterportal.org/articles/providing-safe-drinking-water-difficult-times>.

people who depend on it for their survival. It is also the lifeline for farmers whose livelihoods have been severely affected by decades of neglect of the agricultural sector. It may even be the lifeline for some industries that have no other available water source. As a result, groundwater also becomes the political lifeline of governments who are consequently paralysed in terms of policy initiatives.

The result is that when action becomes inevitable, it is knee-jerk reaction, most often taking the form of heavy-handed top-down measures. These are bound to fail and have regularly failed. It is unfortunate that in a number of states, the situation is now so bad that the option to let landowners always dig further is quickly becoming a non-option, either because there is no water to pump or because the quality of what can be pumped is such that it cannot be used for domestic purposes.

Today is not the most opportune moment for introducing a new legal regime that will need to shake up the vested interests of some people. Yet, this must be done because there is no other option from an environmental point view and because this is the right thing to do from a social point of view. The Groundwater Model Bill 2017 is a good template to start rethinking groundwater law. At the same time, it is of the utmost importance that each state should adapt the framework to its own hydro-geology, geography and social structure. The basic principles must be incorporated because they are already the law of the land. The implementation structure should be in line with local conditions, something that was not done by states who earlier adopted legislation based on the old model bill.