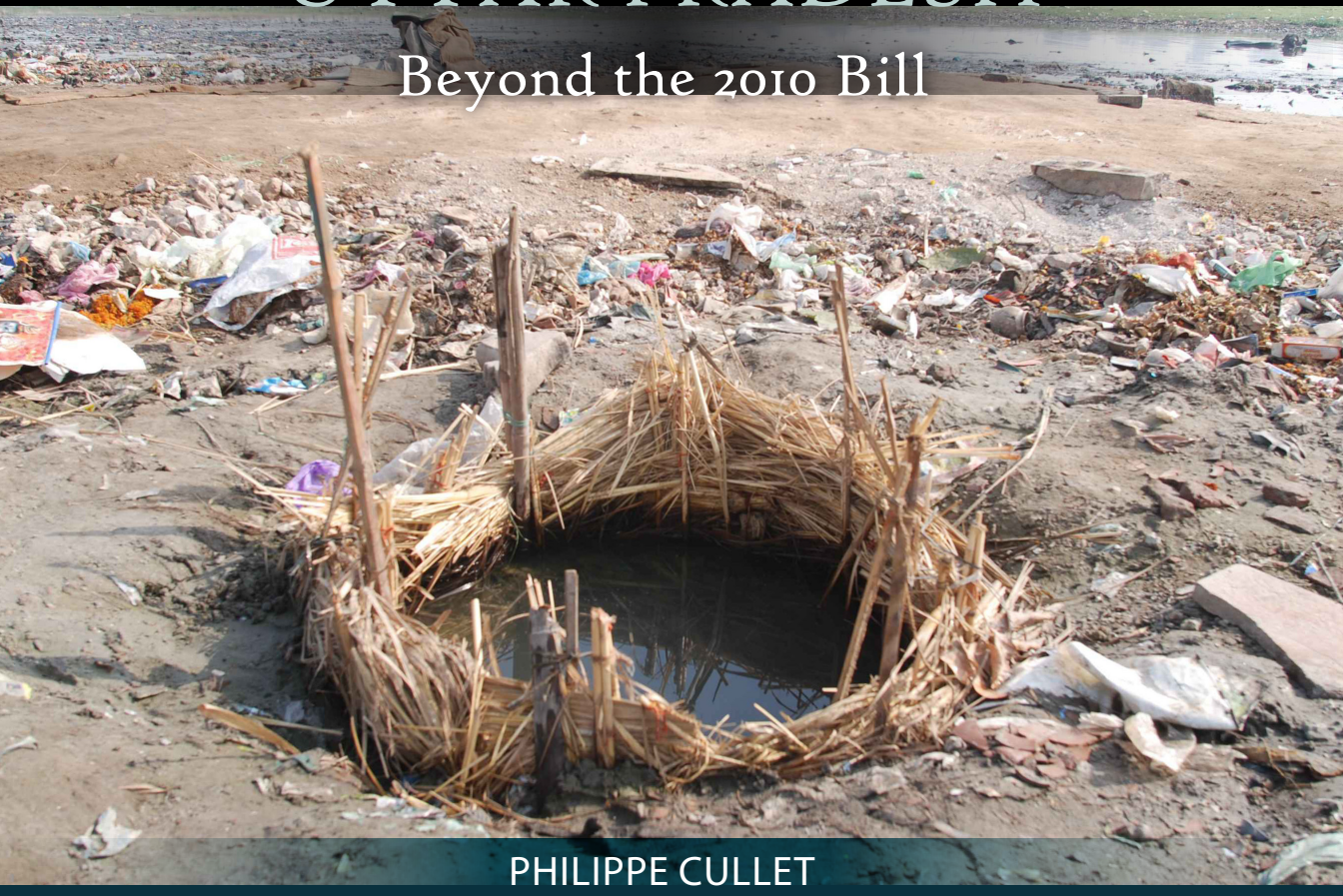
POLICY PAPERS

GROUNDWATER REGULATION IN UTTAR PRADESH

Beyond the 2010 Bill



PHILIPPE CULLET

ENVIRONMENTAL LAW RESEARCH SOCIETY

GROUNDWATER REGULATION IN UTTAR PRADESH

Beyond the 2010 Bill

PHILIPPE CULLET
SCHOOL OF ORIENTAL AND AFRICAN STUDIES, UNIVERSITY OF LONDON
&
CENTRE FOR POLICY RESEARCH, DELHI
pcullet@gmail.com

ENVIRONMENTAL LAW RESEARCH SOCIETY

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C-48, Third Floor, Old Double Storey,
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011-42828324
info@elrs.in
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INTRODUCTION

Groundwater has become the main source of water for all the main uses of water in Uttar Pradesh (UP). It is now the backbone of drinking water security and agriculture. It accounts for about 80 percent of drinking water needs and around 60 percent of irrigation water use.[i] Groundwater remains the only source of drinking water for most rural households and forms an important complement to municipal water supply in many towns and cities. This tremendous increase in the use of groundwater has had significant impacts on availability of and access to water. This is true both in regions where groundwater is available in vast quantities, like in the Indo-Gangetic plain and in much drier areas like Bundelkhand.

The current groundwater regulatory regime in UP is in large part still based on principles inherited from the colonial period. These are both dated and inappropriate. They are dated because they were developed at a time when groundwater was overall a marginal source of water and when humans were not able to significantly affect the level of the groundwater table through their use. They are inappropriate because the basic nexus between access to groundwater and land ownership on which these rules are based leads to outcomes that are socially inequitable and environmentally unsustainable.

The Central Government has been proposing since the early 1970s to move towards a legal regime based on a specific piece of groundwater legislation. This is commendable because the common law rules introduced in colonial times do not provide an appropriate basis to address the current challenges faced in the groundwater sector. Yet, reforms based on the Central Government's proposal are insufficient in today's context. They fail to sever the link between land ownership and access to groundwater, a precondition for ensuring that groundwater law contributes, for instance, to the realisation of the fundamental right to water. Further, they add a layer of governmental control to a largely privately regulated framework but fail to recognise the constitutional mandate giving panchayats control over local sources of water. While groundwater is not static, it remains the body of water most closely associated with a specific locality.

In the context of increasing attention to groundwater, it is heartening that groundwater legislation has been drafted in UP. Yet, the proposed Uttar Pradesh Groundwater Conservation, Protection and Development (Management, Control and Regulation) Bill, 2010 does not provide a comprehensive answer to the challenges that the state faces concerning groundwater. This warrants a much broader rethinking of the groundwater regime. An alternative is now available in the form of a Planning Commission's groundwater model bill prepared in 2011. This can help the state government in developing a socially equitable and environmentally sustainable legislation.

I

EXISTING GROUNDWATER RIGHTS

The existing legal framework governing groundwater is based largely on principles developed during the second part of the nineteenth century and applied more or less consistently until today. Groundwater regulation is characterised by the fact that courts have played a leading role in shaping the rules that apply today.

Basic rules governing access to and use of groundwater in India were laid down in English decisions in the second half of the nineteenth century and confirmed in the Indian Easements Act, 1882.[ii] The first basic principle applying to groundwater is that it should be treated differently from surface water. This was confirmed in *Chasemore v Richards* where the court determined that groundwater that percolates through underground strata, which has no certain course, no defined limits, but which oozes through the soil in every direction in which the rain penetrates is not subject to the same rules as flowing water in streams or rivers.[iii] The case law subsequently gave landowners virtually limitless control over groundwater. In *Acton v Blundell*, the court found that landowners could use groundwater found under their land as they please. Further, any inconvenience caused to a neighbour does not give rise to any claim.[iv]

These principles did not apply to groundwater flowing in defined channels. In this case, the rules applicable to surface water would also apply and the right of the landowner was then limited to use and consumption for household and drinking purpose and for certain other uses, such as watering their cattle and for irrigating their land. This interesting restriction on the power of landowners to appropriate groundwater proved, however, difficult to apply because until the past few decades it was not easy to ascertain the existence of underground defined channels. Nevertheless, the concept of defined channel has been applied in some cases related to groundwater. Firstly, in the context of a river running a few inches below its natural bed in the dry season, judges determined already in 1930 that 'it was safe to say' that the water flowing down the river bed had a defined course.[v] Secondly, in a case where a landowner had built an underground trench taking off from a point fourteen feet away from the outlet of a spring, it was held that while this was not the actual water of the spring, 'there can be little doubt that

there must be a direct channel between the top of the drain and the outlet' and there was thus no need for the channel to be 'known' through excavation to apply the rules concerning defined channels.[vi] On the whole, the exception concerning defined channels could have provided the basis for restricting the power of landowners over groundwater but this has not happened beyond specific cases like the ones mentioned here.

Overall, the above rules are at the very least outdated. Yet, very limited evolution has taken place over the past one and a half century and the basic framework developed in another country, for different climatic conditions and in another era still largely applies.

II

TOWARDS REFORMS – THE UTTAR PRADESH GROUNDWATER BILL, 2010

The need for reforms of groundwater law has been felt for decades and at the very least since the widespread introduction of mechanised pumping devices led to rapidly increasing groundwater use and lowering water tables. This led the Government of India to acknowledge the need for a statutory framework governing groundwater. As a result, starting in 1970, it put forward a Model Bill to Regulate and Control the Development and Management of Ground Water (hereafter Groundwater Model Bill, 1970/2005) for adoption by the states. This model bill has been revised several times (1992, 1996 and 2005) but the basic scheme adopted in 1970 has been retained to date.

States have been slow in heading the call for adopting groundwater legislation. The majority of states that have legislated have done so over the past decade. In all the states/UTs that have adopted groundwater legislation, the basic framework is directly derived from the Groundwater Model Bill, 1970/2005. UP has followed this trend with its Uttar Pradesh Groundwater Conservation, Protection and Development (Management, Control and Regulation) Bill, 2010 (UP Groundwater Bill, 2010).

The UP Groundwater Bill, 2010 focuses on the establishment of the Uttar Pradesh Ground Water Authority placed under the control and supervision of the state government.[vii] Its main power is to advise the government to declare certain areas as over-exploited, critical and semi-critical areas with a view to regulate the extraction and use of groundwater in these areas.[viii] The proposed Uttar Pradesh Ground Water Authority is heavily dominated by senior civil servants from a variety of departments concerned with groundwater and only includes one NGO member out of fifteen members alongside one technical member from the National Institute of Hydrology, Roorkee.[ix] In addition, the UP Groundwater Bill, 2010 provides that water user associations and resident welfare associations shall be formed in rural and urban areas respectively.[x] These local bodies whose membership is not defined in the bill are not given power to regulate groundwater at the local level. Rather, they are tasked with helping higher authorities by providing information about violations of the act, undertaking capacity-building measures at the local level and facilitating self-regulation where the Bill so requires.

The UP Groundwater Bill, 2010 suggests several measures to implement the proposed control over groundwater. It first proposes to register 'service providers' whose remit will be to inspect the limits of groundwater withdrawal by different types of groundwater users, as well as to inspect rainwater harvesting and recharge structures and their efficacy.[xi] Secondly, it proposes to register bulk users of groundwater, namely those that use groundwater in excess of the quantity notified by the authority for drinking, domestic and related use in a particular area.[xii] Thirdly, it provides for the registration of all drilling agencies.[xiii]

Like the Groundwater Model Bill, 1970/2005, the UP Groundwater Bill, 2010 provides that existing users of groundwater in over-exploited/ critical areas need to apply for a certification of registration.[xiv] While the certificate of registration can be assorted of conditions and restrictions, on the whole this confirms the rights of existing users subject to registration.

With regard to non-notified areas, the UP Groundwater Bill, 2010 provides that all commercial and industrial users of groundwater need to also register. Other uses in non-notified areas are divided in rural and urban areas and according to the type of uses. In urban areas, pumps up to 0.5 hp are not regulated and users of pumps above 0.5 hp are to self-regulate through the resident welfare association. Further bulk users are to be regulated by the Authority with mandatory rainwater harvesting or recharge measures to be implemented and the possibility to impose a fee for groundwater withdrawal.[xv] In rural areas, there will be no regulation of pumps up to 7.5 hp and users of pumps above 7.5 hp are to self-regulate through the water association.

In semi-critical notified areas, a more stringent regulation framework will be put in place. Users of pumps up to 0.5 hp in urban areas (respectively 7.5 hp in rural areas) must self-regulate through local bodies and the Authority will regulate more powerful pumps.[xvi] In over-exploited or critical areas, there shall be a complete ban on the construction of new wells, whether by private parties or the government.[xvii]

On the whole, the UP Groundwater Bill, 2010 provides a graded framework for control measures within the conceptual framework provided by the Groundwater Model Bill, 1970/2005, trying to distinguish areas according to their groundwater status and users according to the amount of water they use and the kind of uses to which groundwater is put. Yet, the UP Groundwater Bill, 2010 does not address the underlying legal status of groundwater or the broader links within the water sector, such as water quality standards or sanitation and the broader need to regulate groundwater at least at an aquifer level.

III

FINDING NEW SOLUTIONS – A NEW REGIME FOR GROUNDWATER REGULATION

The previous section has highlighted the salient features of the rights regime governing control over groundwater and the proposed legislative framework embodied in the UP Groundwater Bill, 2010. This section analyses some of the specific shortcomings of the existing legal framework and then moves on to suggest avenues for developing an alternative regime in line with the current legislative framework, people's fundamental right to water and the need for aquifer-wide protection measures.

A SHORTCOMING OF THE EXISTING FRAMEWORK

The basic groundwater legal framework outlined above is not an appropriate framework for the regulation of groundwater in UP in the twenty-first century. This is due to several reasons:

- Existing rules are based on a dated scientific understanding of groundwater. This fails, for instance, to take into account patterns of aquifer recharge and the interconnectivity between surface and groundwater.

- The existing legal framework is not adapted to conditions prevailing in large parts of India. This was already noted in 1930 in a groundwater case where Justice Wallace determined that 'my considered view is that conditions in England are so different to those in the district of Bellary that I deprecate calling in aid English law on this subject and confess that I do not myself find it of any assistance here'.[xviii]

- The present legal framework is socially inequitable. On the one hand, it gives landowners overbearing power over groundwater. On the other hand, it excludes all landless groundwater users from the purview of the rules, even where groundwater is their main source of drinking and livelihood water.

- The existing legal regime limits itself at administering the respective claims of different landowners, with no regard for the need to regulate groundwater at an aquifer level.

These key shortcomings are not addressed by the UP Groundwater Bill, 2010 that largely builds on old rules developed in the nineteenth century. Several points highlight the inability of the UP Groundwater Bill, 2010 to foster a real reform of groundwater law:

- The question of the legal status of groundwater is avoided altogether and landowners keep their case law-sanctioned entitlements. This thus fails to address the problems inherent in a system where landless people do not have a stake in the regulation of groundwater.

- It fails to take into account the need to prioritise groundwater uses in consonance with the recognition of the fundamental right to water and fails to specifically address in full the key issue of domestic use of groundwater.

- By maintaining distinct principles for groundwater and surface water, it condones the continuing sectoral treatment of surface and groundwater rather than promoting regulation based on the unitary nature of water.

- The proposed model fails to tackle existing overuse of groundwater with its approach that largely grandfathers existing uses. As a result, it fails to move beyond the existing atomised regulatory model that only addresses groundwater in terms of the claims of landowners over water found under their land and their claims against other neighbouring landowners. This pre-empts any attempt to regulate groundwater at the aquifer level and the introduction of an environmental dimension to groundwater regulation.

- The proposed institutional framework for groundwater fails either to provide a single institution with a general mandate to look after groundwater in all its dimensions or to ensure coordination between the different institutions that have a mandate or the capacity to address groundwater use and conservation, such as pollution control boards and groundwater authorities. The framework is also intrinsically top-down in its approach.

B

POINTERS FOR A REFORMED FRAMEWORK

The need for reform has been increasingly often acknowledged. The Planning Commission provided the space for the development of a new proposed framework for groundwater regulation in 2011. This has resulted in the Model Bill for the Conservation, Protection and Regulation of Groundwater, 2011 (Groundwater Model Bill, 2011).[xix] It seeks to respond to the shortcomings of the existing legal framework in the context of the fast increasing reliance on groundwater in most parts of the country.

The Groundwater Model Bill, 2011 is premised on several key elements:

- It is the farmers and all persons living in rural areas that are most directly affected by the existing legal regime that gives disproportionate control over groundwater to big landowners.
- Basic drinking water and livelihoods needs must be given priority.
- Groundwater regulation must be based on the recognition of the unitary nature of water and the need for applying similar principles to surface and groundwater.
- Groundwater is the source of water used for the realisation of the fundamental right to water for an overwhelming majority of the population. As a result, there should no private entitlements over groundwater. This extends to landowners' ownership-like claims to groundwater and to non-land based claims, such as tradable entitlements.
- Groundwater regulation must ensure equity and equality among everyone in the country. The legal regime must ensure that no one is disadvantaged because of the conditions arising in their place of residence. This may, for instance, involve regions that have abundant resources subsidising the cost of accessing groundwater in other areas, such as in the case of economically disadvantaged rural areas suffering from arsenic contamination in their groundwater.
- Unreasonable uses of sources of groundwater that threaten the aquifer must be regulated to ensure that the resource itself is protected and can provide a sustainable basis for meeting the basic needs of every person for decades to come.

1. Basic principles – Borrowing from existing principles

The Groundwater Model Bill, 2011 finds its roots in existing constitutional and other legal principles, as well as existing laws in the water and related sectors. It thus does not propose anything beyond what has already been accepted in the legal fabric of the country. However, it builds on developments that have taken place in the legal framework since the Government of India proposed the first Model Bill in 1970.

It starts by recognising groundwater as a public trust. This brings the statutory regime in line with repeated Supreme Court directives concerning surface water,[xx] and the one case mentioning groundwater.[xxi] This must be read together with the principle of subsidiarity, which implies that unless an aquifer needs to be regulated at a higher level, it must be regulated at the most local level of state governance, the panchayat or the ward.[xxii] This is an essential aspect and the public trust recognition must under no circumstance be dissociated from subsidiarity. Not doing so would in effect hand over untrammelled power to the state government as the only trustee. This would amount to doing little more than rebranding the state's power of eminent domain as that of a trustee without creating effective new accountability mechanisms. Indeed, this would leave courts as the only institution able to effectively check the power of an all-powerful trustee. This would not provide optimal results since court interventions tend to take a lot of time. The Groundwater Model Bill, 2011 also integrates several key legal developments that have occurred since 1970. These include:

- The recognition of the fundamental right to water by the Supreme Court, which is essential for groundwater regulation given the prominence of groundwater use for drinking water.[xxiii]

- The adoption of the 73rd and 74th amendments to the Constitution (Articles 243G and 243W). These amendments have already been used in generic terms in various states, for instance, to give panchayats powers over water resources at the local level. The Groundwater Model Bill, 2011 goes further and applies the decentralisation principles to groundwater regulation.

- The integration of protection principles, such as the prevention and precautionary principles.[xxiv] The inclusion of the precautionary principle is particularly important since it is one of the recent principles of environmental law, most recently statutorily recognised in the National Green Tribunal Act, 2010.[xxv]

2. An institutional framework based on subsidiarity

The institutional framework of the Groundwater Model Bill, 2011 is based around the principle of subsidiarity and framed around existing units of territorial governance. At the same time, in recognition of the fact that aquifer boundaries do not necessarily follow administrative boundaries, it provides mechanisms that ensure that administrative boundaries do not come in the way of effective protection of groundwater aquifers from the local to the state level.

The institutional framework is divided into rural and urban areas. In each case, the Groundwater Model Bill, 2011 provides for the setting up of groundwater committees starting at the lowest level of democratic governance. These are gram panchayat groundwater committees in rural areas and ward groundwater committees in urban areas.[xxvi] The Groundwater Model Bill, 2011 also provides for block and municipal groundwater committees to address issues that cannot be tackled at a lower level. In the case of rural areas, this includes '[c]oordination of the planning process between panchayats sharing aquifers where the aquifer boundary does not correspond with boundaries of a single panchayat'.[xxvii] Further, it provides for the setting up of district groundwater councils tasked, for instance, with the coordination of measures taken at the block and municipal level and a State Groundwater Advisory Council set up to provide advice and support to all groundwater bodies constituted under this Act.[xxviii]

The Groundwater Model Bill, 2011 also recognises that duplication of institutions and mechanisms should be avoided to the greatest possible extent. Thus, it uses to the extent possible existing institutions. For instance, at the panchayat level, it provides for the setting up of a Gram Panchayat Groundwater Committee but specifically provides that where a Village Water and Sanitation Committee already exists, the latter will automatically serve as groundwater committee.[xxix]

3. Groundwater Protection Zones and Groundwater Security Plans

The Groundwater Model Bill, 2011 recognises that there is a need to provide specific protection measures for groundwater. At the same time, it takes into account the need for a differential regime that takes into account the fact that some areas of the country do not suffer or suffer less from groundwater problems. It therefore introduces two innovative instruments to take into account the various issues arising, groundwater protection zones and groundwater security plans.

The Groundwater Model Bill, 2011 first provides for the possibility to demarcate groundwater protection zones. The objectives for the demarcation of groundwater protection zones link environmental and socio-economic aspects. Thus, groundwater protection zones are, for instance, demarcated to '[p]rotect the natural recharge and discharge areas of the aquifer from threats such as physical deterioration…' and at the same time to '[p]rovide for sufficient quantity and safe quality water required to meet the basic water supply for human and animal needs'.[xxx]

Groundwater protection zones are linked to another innovation of the Groundwater Model Bill, 2011, the introduction of groundwater security plans. Section 14 provides that a groundwater protection zone plan shall be prepared at the lowest possible administrative level that encompasses the whole aquifer. Groundwater protection plans are compulsory where a groundwater protection zone has been defined and their preparation is left to the discretion of the appropriate authority in other cases.[xxxi] They must 'provide for groundwater conservation and augmentation measures, socially equitable use and regulation of groundwater, and priorities for conjunctive use of surface and groundwater'.[xxxii]

4. Regulation of groundwater uses

The Groundwater Model Bill, 2011 is based on an understanding that different groundwater uses need to be regulated differently. It starts by giving a general framework for the prioritisation of groundwater uses to guide authorities in the regulatory decisions they take.[xxxiii] The first priority is meeting the right to basic water for rural and

urban residents. Beyond this, two categories of uses are defined. Primary uses include direct use of groundwater for livelihoods, including agriculture and non-agriculture based livelihoods and municipal use, including public facilities for recreation. Secondary uses include commercial activities, including power generation, industry and large-scale commercial farms and private facilities for recreation. It also provides that where activities are likely to have significant negative impacts on local sources of groundwater, permission for use is contingent on an environmental and social impact assessment.[xxxiv]

Beyond this general prioritisation, the Groundwater Model Bill, 2011 regulates in separate chapters some of the main groundwater uses. With regard to the use of groundwater for livelihoods and irrigation, the starting point is that every person is entitled to use groundwater for their livelihood needs.[xxxv] In the case of industrial, commercial and other bulk uses of groundwater, the Groundwater Model Bill, 2011 provides for a system of permits to abstract groundwater.[xxxvi] These permits can be granted to applicants fulfilling the conditions laid down with the exception of groundwater protection zones 1 where permits cannot be granted. The Groundwater Model Bill, 2011 also provides that industrial or bulk groundwater use shall be priced and a water rate shall be charged. Funds collected through water rates are to be used for groundwater conservation and augmentation activities.[xxxvii]

IV

TOWARDS A MODERN GROUNDWATER LAW IN UTTAR PRADESH

Uttar Pradesh needs a new groundwater legal regime. This has been clearly recognised with the drafting of the Uttar Pradesh Groundwater Conservation, Protection and Development (Management, Control and Regulation) Bill, 2010. Yet, while this draft reflects the need for taking measures to regulate groundwater, it fails to propose a new model that can break with the past. At this juncture, a break away from the existing legal regime is imperative since it is in part the existing legal principles that have led to a situation where groundwater is in the control of big landowners and where elected local bodies cannot take measures to regulate conservation and use at an aquifer level.

The model provided by the Groundwater Model Bill, 1970/2005 is not a model that can provide the bases for a modern, environmentally sensitive and socially equitable legislative framework. Help is however at hand in the form of the model bill of the Planning Commission drafted last year.

The Groundwater Model Bill, 2011 can be used as a framework to start the drafting of a new act. UP will need to ensure that the Groundwater Model Bill, 2011 is adapted to the needs and circumstances of the state. This will require significant work starting from consultation with local communities to policy work at the state level to ensure that the legislation adopted is in line with other existing laws in force at the state and national level.

There is increasing interest for groundwater regulation, as witnessed in the drafting of the Groundwater Model Bill, 2011 by the Planning Commission. This presents an excellent opportunity for everyone in Uttar Pradesh to reflect on forthcoming groundwater legislation. This must be a collective effort that involves all groundwater users, in other words virtually everyone. Further, the effort must also be collective since groundwater conservation and use must be considered in its aquifer dimension, including the broader context that influences groundwater recharge, in particular precipitations.

END NOTES

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iii. *George Chasemore v Henry Richards* (1859) VII House of Lords Cases 349 (House of Lords, 27 July 1859).
iv. *Acton v Blundell* (1843) 12 Meeson and Welsby 324 (Court of Exchequer Chamber, 1 January 1843).
v. *Malyam Patel Basavana Gowd (dead) v Lakka Narayana Reddi* AIR 1931 Mad 284 (High Court of Madras, 23 October 1930).
vi. *Babaji Ramling Gurav v Appa Vithavja Sutar* AIR 1924 Bom 154 (High Court of Bombay, 23 February 1923).
vii. Uttar Pradesh Groundwater Conservation, Protection and Development (Management, Control and Regulation) Bill, 2010, s 3.
viii. ibid s 5.
ix. ibid s 3(2).
x. ibid s 6 & 8.
xi. ibid s 11.
xii. ibid s 12 & 2(o).
xiii. ibid s 13.
xiv. ibid s 14.
xv. ibid s 16.
xvi. ibid s 17.
xvii. ibid s 18.
xviii. *Gowd (dead) v Reddi* n 5 above.
xix. Model Bill for the Conservation, Protection and Regulation of Groundwater, 2011, available at http://www.planningcommission.nic.in/aboutus/committee/wrkgrp12/wr/wg_model_bill.pdf [hereafter Groundwater Model Bill, 2011].
xx. *MC Mehta v Kamal Nath* (1997) 1 SCC 388 (Supreme Court, 1996).
xxi. *State of West Bengal v Kesoram Industries* (2004) 10 SCC 201 (Supreme Court, 2004).
xxii. On the principle of subsidiarity, Groundwater Model Bill, 2011, n xix above, s 5.
xxiii. *Subhash Kumar v State of Bihar* AIR 1991 SC 420 (Supreme Court, 1991). See Groundwater Model Bill, 2011, n xix above, s 8.
xxiv. ibid s 6(2).
xxv. National Green Tribunal Act, 2010, s 20.
xxvi. Groundwater Model Bill, 2011, n xix above, ss 17 and 21.
xxvii. ibid ss 20(1)b.
xxviii. ibid ss 26(1)e and 28(1).
xxix. ibid s 17(1).
xxx. ibid s 11(1)a and d.
xxxi. ibid s 14(3).
xxxii. ibid s 15(1).
xxxiii. ibid s 10.
xxxiv. ibid s 6(4).
xxxv. ibid s 37(1).
xxxvi. ibid s 38.
xxxvii. ibid s 42.