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Groundwater Legal Regime in India: Towards Ensuring Equity and Human Rights

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I. Introduction

Groundwater use in India has been constantly increasing over the last few decades. It has become the foremost important source of freshwater for almost all uses. It has been estimated that around 60 per cent of irrigated agriculture depends upon groundwater and more than 80 per cent of drinking water needs are met by groundwater (Garduño et al, 2011: 5; Planning Commission of India, 2007). In many parts of the country, particularly in rural areas, groundwater is the only source of drinking water.

Industries also depend upon groundwater to meet their water needs. Over-exploitation of groundwater by industries causes drinking water shortage and shortage of water for other purposes including irrigation. This has already triggered conflicts on access to and use of groundwater. The ongoing litigation in the Supreme Court involving Perumatty Grama Panchayat and the Coca Cola Company in Plachimada, Kerala is a well known example of the conflict related to groundwater. Similar conflicts are ongoing in other parts of the country also, examples being Kala Dhera (Rajasthan) and Mehdiganj (Uttar Pradesh).

The dramatic increase in groundwater use has resulted in depletion and contamination of groundwater across the country. Deepening of wells to ensure water availability for various purposes is a common tendency in various parts of the country. Contamination of groundwater is a problem across the country that make groundwater unfit for human consumption. For instance, arsenic contamination is an issue in the River Ganga basin. Higher level of fluoride is a critical issue in many states particularly in Punjab, Tamil Nadu, Rajasthan and Haryana. Salinity is a widespread issue in coastal states such as Gujarat, Kerala and Odisha.

This alarming situation necessitated legal intervention. The central government has proposed a model in 1970 and since then the model has been revised three times with the latest version in

2005.[1] Following this, a number of states adopted separate legal framework to regulate groundwater use.[2] A few among remaining states are in the process of adopting a new groundwater law.[3] A separate groundwater law is apparently perceived and promoted as a way to address the constantly aggravating problems of depletion and contamination of groundwater.

The development of legal framework relating to groundwater needs to be viewed in the light of the fact that groundwater is the foremost important source of drinking water. Therefore, access to groundwater is directly related to realisation of the human right to water. Similarly, being a major source of irrigation, access to groundwater has a critical role in ensuring food security. Access to groundwater also plays determining role in ensuring livelihood of farmers. Therefore, inequitable and unsustainable use of groundwater will have tremendous impact and influence on life, livelihood and economy. Equity and sustainability should be, thus, imperative goals of groundwater legal framework.

In this background, this paper examines the existing and evolving groundwater law in India in the context of its capacity to ensure equity, sustainability and realisation of human rights. The critical evaluation of the existing legal framework is followed by an analysis of key gaps in the existing legal framework. This paper also aims to suggest basic principles, norms and approaches that should form as underlying elements of a comprehensive groundwater law capable of ensuring sustainability, equity and human rights.

II. Existing Legal Framework

Existing legal framework on groundwater in India has mainly two features. Firstly, the nature of groundwater rights continues to be dominated by traditional legal rules where access to water was considered as part of land rights which implies limiting groundwater rights to

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1 *See* the Model Bill to Regulate and Control the Development and Management of Ground Water, 2005, available at http://www.ielrc.org/content/e0506.pdf. It is to be noted that as per the Constitution of India, water (except inter-state rivers) is in the state list and therefore the power to make laws relating to water is with the state government, *See* Article 246 together with Seventh Schedule of the Constitution of India.

2 *See, e.g.*, Kerala Ground Water (Regulation and Control) Act, 2002 and West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005.

3 *See, e.g.*, Chhattisgarh Ground Water (Regulation and Control of Development and Management) Bill, 2012; Odisha Ground Water (Regulation, Development and Management) Bill, 2011]

landowners only. Secondly, the adoption of separate groundwater laws by several states introduces a new trend where state assumes power to regulate groundwater use by individuals.

A. Groundwater right as part of land rights

The legal status of groundwater in India is that it is considered as a part of the land. Groundwater does not seem to have a legal existence separate from the land. Right to groundwater is perceived as part of landowner's right to enjoy his property. Thus, right to groundwater means right of a land owner to extract as much groundwater from his land as he wants or wishes (Soman, 2008: 147; Singh, 1991: 39). In the eye of law percolating water belongs to no one (Kader, 2003: 65).

The Indian Easements Act, 1882 is perhaps the most important and directly relevant source asserting this legal position. The often cited provision in the Indian Easements Act is Section 7 which recognises groundwater right as 'the right of every owner of land to collect and dispose within his own limits of all water under the land which does not pass in a defined channel'. The uncontrolled right of a landowner over groundwater is further affirmed by providing that a right to groundwater not passing in a defined channel cannot be acquired by prescription (Section 17.d).[4] While there is no definition of the term 'defined channel' provided under the Indian Easements Act, some of the early cases give the indication that it means a known or determined path in which water flows.[5] Nevertheless, case laws do not seem to provide an elaborate explanation of the scope and implications of the term 'defined channel' in groundwater context.

The development of the legal status of groundwater right as 'an uncontrolled right of the landowners' was largely informed and shaped by early British cases. Thus, an English court in

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[4] While easements and prescriptive rights are not applicable in the case of groundwater not passing in a defined channel, customary rights are held to be permitted. It was held that right to extract water from a well can be a customary right. *See Maheshwari Prasad* v. *Munni Lal*, AIR 1981 All. 438.

[5] *Vavaru Ambalam and Anr*. v. *President, Taluk Board of Ramnad*, AIR 1925 Mad. 620 ("in this case, there is no finding that any such odai or water flowing in a defined channel has been diverted into the defendant's lands") and *Kalanath Narottain Kurmi* v. *Wamanrao Yadorao Deshmukh*, AIR 1937 Nag. 310 ("This would result in its being impossible to acquire such a right in the case of surface water flowing in a defined channel, e.g. a river or canal while [see Section 17(d)] it is possible to obtain such a right in respect of underground water flowing in a defined channel").

an 1843 case (*Acton* v. *Blundell*) held that groundwater below the land belongs to the landowner and he can extract it at his free will and pleasure. Even if such an exercise of his right causes depletion of groundwater in nearby land, no legal action can be taken.[6] Similarly, the House of Lords held in an 1859 case (*George Chasemore* v. *Henry Richards*) that:

> The general rule is that the owner of a land has got a natural right to all the water that percolates or flows in undefined channels within his land and that even if his object in digging a well or a pond be to cause damage to his neighbour by abstracting water from his field or land it does not matter in the least because it is the act and not the motive which must be regarded. No action lies for the obstruction or diversion of percolating water even if the result of such abstraction be to diminish or take away the water from a neighbouring well in an adjoining land.[7]

Hence, the legal position in India is that no one has any natural right over groundwater and everybody has the uncontrolled right to extract according to his capacity (Katiyar, 2010: 208). In practice, this means uncontrolled right of landowners to extract groundwater from their land. No legal action can be taken against a landowner for causing depletion of groundwater in neighbour's well due to over-exploitation of groundwater from his own land. The only remedy in such cases of depletion is to sink the well deeper (Katiyar, 2010: 133).

This legal proposition is still continuing in India owing to Article 372 of the Constitution that makes pre-constitution laws in force until they are changed or repealed through subsequent laws. Even though a number of states have adopted new groundwater laws, none of these laws changes this traditionally following common law rule. Instead, these laws restrict its scope to regulating the existing right, that is, the right of landowners to extract groundwater from their land. By doing so, the evolving groundwater laws seem to assert, by implication, the earlier legal position inherited from the common law tradition.

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6 *Acton* v. *Blundell* (1843) 12 Meeson and Welsby 324 (Court of Exchequer Chamber, 1 January 1843). For an account of common law rule on groundwater, *see* EAL, 1910

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

A recent decision of the High Court of Kerala further affirms the continuance of this legal proposition. The High Court of Kerala, when faced with the question of the right of the Coca Cola Company to extract huge quantity of groundwater from its land in the Plachimada village in the state of Kerala, held that in the absence of a specific statute prohibiting the extraction of groundwater, a person has the right to extract groundwater from his land.[8] Similarly, an expert group constituted by the Planning Commission of India asserted that 'it is clear that while the right to use ground water is to be governed by the ownership of the land above it, the extraction rights can and should be curbed by the State if the use of groundwater is considered "excessive",' (Planning Commission of India, 2007: 41). It was further made clear that 'no change in basic legal regime relating to groundwater seems necessary' (Planning Commission of India, 2007: 41). In effect, the legal regime governing groundwater in India seems to strengthen more than a century old rule that right to groundwater is a part of land rights.

As such there is no explicit law or custom altering the rule that gives uncontrolled right to landowners to extract as much groundwater as they want or wish from their land. Customary practices in India also generally considered groundwater as part of the land, and therefore right to extract groundwater was perceived as an uncontrolled right of the landowner.[9]

A new wave of changes is being introduced through the ongoing water law reforms in India, which will have implications on groundwater rights. More and more states are adopting law to introduce a new concept called 'water entitlement'.[10] This term refers to a particular quantity of water an individual or entity is entitled to. In terms of groundwater, it refers to a particular quantity of groundwater one can extract or use. Apparently, the emerging concept of water entitlements would introduce a market based water rights because water entitlements, by nature, are usufructuary rights that can be traded (Prayas, 2009: 20). This means, buying and

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8 *See Perumatty Grama Panchayat v. State of Kerala*, High Court of Kerala, 2005 (2) *Kerala Law Times* 554, Para. 43. For a detailed critical analysis of this case, *see* Koonan, 2010a

9 While this is the general rule, there are certain exceptions to this rule as well. For instance, wells were forbidden within the command area of tanks under traditional tank irrigation systems in Tamil Nadu and Karnataka (Vani, 2009: 448).

10 *See e.g.*, Maharashtra Water Resources Regulatory Authority (MWRRA) Act, 2005; Uttar Pradesh Water Management and Regulatory Commission Act, 2008 and Arunachal Pradesh Water Resources Regulatory Authority Act, 2006.

selling of groundwater would become legally permitted or authorised. Thus, the new system of water entitlements is no less than a private property regime. Hence, it could be seen that the emerging novel concepts of water law also do not seem to change the prevailing legal position of groundwater as a facet of private property.

B. Regulation of Groundwater Use

Adoption of a separate groundwater law by several states in the last ten years constitutes the crux of groundwater law reforms in India so far.[11] More states are in the process of adopting a separate legal framework for groundwater.[12] Even though there are some differences between different state groundwater laws, all of them are substantially similar (Koonan, 2010). This is not surprising because the genesis of these new statutes is the Model Groundwater Bill, 2005 drafted by the Central Government. The idea behind the Model Groundwater Bill was to encourage the state government to adopt groundwater law at the state level. The power of the central government in this regard is limited because state governments are entrusted with the power to adopt groundwater law under the Constitution.[13] The effort of the central government has been a success as states have copied more or less completely the Model Groundwater Bill, 2005.

The evolving statutory framework mainly focuses on regulation of groundwater use. Before proceeding to the regulatory aspects, it needs to be noted that the new groundwater laws do not touch nature and scope of groundwater rights. Resultantly, groundwater rights will continue to remain as a land based right. The scope of new groundwater laws is, thus, limited to regulating groundwater use. The major reason for sticking to this traditional legal approach could be the fact that the 2005 version of the Model Bill itself is almost a copy cat of a much older version prepared in 1970 (Cullet, 2006).

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11 *See e.g.*, Kerala Groundwater (Control and Regulation) Act, 2002; Goa Groundwater Regulation Act, 2002 and Himachal Pradesh Groundwater (Regulation and Control of Development and Management) Act, 2005. For a comparative analysis of state groundwater laws, *see* Koonan, 2010.

12 *See e.g.*, Uttar Pradesh Groundwater Conservation, Protection and Development (Management, Control and Regulation) Bill, 2010 and Karnataka Ground Water (Regulation and Control of Development and Management) Bill, 2011.

13 *See* Article 246 coupled with Seventh Schedule, List II, Entry 6, 14 & 17.

The new groundwater laws envisage mainly three regulatory tools. First, it follows a geographical classification method. This is generally done through notification of some areas in the State where groundwater situation requires regulatory intervention.[14] Another prevailing method is to classify areas into different categories according to the extent of groundwater problem. For instance, the groundwater law in Goa envisages classification of areas into scheduled, water scarcity and over-exploited areas.[15] The purpose of this classification is to regulate groundwater use in such areas. The idea behind the notification process is to limit the scope of regulation to selected areas. To put it in a different way, the new groundwater laws do not tend to restrict the groundwater use or groundwater rights unless it is so necessary to do so.

Second, the new groundwater laws generally follow licensing system. Therefore, users in notified areas are required to seek permission from the groundwater authority constituted under the groundwater act. The use of groundwater is regulated through terms and conditions that may be imposed by the authority while giving license. Terms and conditions in the license may be altered or cancelled if the groundwater situation demands so.

Third, registration of drilling agencies is another tool through which the new groundwater laws seek to exercise control over groundwater use. Drilling agencies are required to register their machineries. Further, drilling agencies are bound by the instructions issued by the groundwater authority.[16] Thus, the new groundwater laws seek to control and regulate groundwater use through a licensing system covering users as well as drilling agencies.

In states where separate groundwater law does not exist, similar kind of regulation can be implemented by the Central Ground Water Authority (CGWA). The CGWA is an authority constituted under a central legislation- the Environment (Protection) Act, 1986 and therefore, it has, in principle, jurisdiction all over the country. It is one of the important functions of the

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14 *See* Kerala Groundwater (Control and Regulation) Act, 2002, Section 6.

15 *See* Goa Groundwater Regulation Act, 2002, Section 4. Different terminologies – over exploited, critical and semi-critical – but with similar regulatory implications have been used in Uttar Pradesh Groundwater Conservation, Protection and Development (Management, Control and Regulation) Bill, 2010, Section 2(g).

16 *See e.g.*, Bihar Groundwater (Regulation and Control of Development and Management) Act, 2006, Section 8.

CGWA is 'to regulate and control, management and development of groundwater in the country and to issue necessary regulatory directions for this purpose'.[17]

The evolving groundwater law can be subjected to critique on various aspects and grounds. A major limitation is its exclusive focus on regulation and thereby impliedly affirming the outdated legal perception of land based groundwater rights.

The regulatory approach has also several shortcomings. Most importantly, the required notification process could affect negatively the effective regulation. The groundwater authority will have to wait for the notification to be in force to take regulatory actions. The role of the groundwater authority in this regard is very limited because the power to notify areas is vested with the state government. This could be a severe blow to the regulatory mechanism particularly in situations like an industry causing groundwater pollution and depletion. In fact, this has been the situation in the state of Kerala at least in a couple of cases.

Another major shortcoming is the compartmentalised approach of the new groundwater laws. The new groundwater laws do not recognise or take into account the fact that groundwater is a part of water ecosystem. Most importantly, the relationship between groundwater and surface water is not well recognised. This is of critical importance because of the mutual dependence of groundwater and surface water. Groundwater cannot be protected in a system where surface water is not well protected (Kumar, 2010: Ch. 6). Therefore, it would be highly artificial and a failure in terms of desired objectives to treat groundwater as if it is a separate unit.

Further, the new groundwater laws do not incorporate some of the emerging legal developments that are very relevant in the groundwater context also. Emerging environmental law principles such as precautionary principle and doctrine of public trust have not yet found explicit manifestation in groundwater laws. Even though the human right to water has been

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17 Ministry of Environment and Forests, Notification Constituting the Central Groundwater Authority, 14 January 1997 (as amended on 13 January 1998, 5 January 1999 and 6 November 2000). For the role of CGWA, see CGWA, Policy Guidelines of CGWA, available at http://cgwb.gov.in/GroundWater/CGWA%20guidelines%20for%20NOC%201.pdf. As on 2 December 2006, the CGWA has notified 43 areas for groundwater regulation mostly in states were groundwater regulation does not exist. The list of notified areas is available at http://cgwb.gov.in/GroundWater/authority_area.htm.

repeatedly recognised by the higher judiciary in India, the new groundwater laws failed to incorporate that also. In a way this is understandable given the fact that the state groundwater laws are copied from the Model Groundwater Bill that is too old to recognise and incorporate these legal developments. Therefore, groundwater laws are likely to remain incomplete and to some extent ineffective, until and unless these developments are operationalised through the statutory framework.

III. Towards Abolishing Land Based Groundwater Rights

While the need for challenging and changing land based groundwater rights are long standing on the basis of equity and sustainability, there has not been any express legal initiative in this regard. This is particularly evident from the groundwater laws adopted by various state governments in the last one decade where land based groundwater rights remain untouched. However, human rights and environmental law jurisprudence provides a starting point to change the traditionally following system. It provides a legal basis upon which justifications for changing the traditional land based groundwater rights can be built up.

A. Implications of Expanding Fundamental Right to Life

The scope of the fundamental right to life as enshrined under Article 21 of the Constitution of India has been expanding dramatically in the last couple decades. Article 21 has been interpreted widely by the higher judiciary in India to include a number of new rights such as the right to livelihood, right to food and right to health.[18] This development is relevant in the context of groundwater rights also. The human right to water and the right to pollution free environment are two recent developments in this context that are directly relevant to groundwater legal regime. These human rights are particularly relevant in redefining the prevailing notion that groundwater right is a part of land rights.

The human right to water is a part of the fundamental right to life under Article 21 of the Constitution. Even though there is no statute in India explicitly recognising the human right to

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18 *See, e.g., Consumer Education and Research Centre* v. *Union of India*, (1995) 3 SCC 42 (right to health) and *Narendra Kumar* v. *State of Haryana*, (1994)4 SCC 460 (right to livelihood).

water, there are a number of judicial pronouncements which makes the human right to water as part of fundamental right to life. The Supreme Court of India in *Subhash Kumar case* held that:

> The right to live is a fundamental right under Article 21 of the Constitution and it includes the right of enjoyment of pollution free water and air for full enjoyment of life. If anything endangers or impairs that quality of life in derogation of laws, a citizen has a right to have recourse to Article 32 of the Constitution for removing the pollution of water or air which may be detrimental to the quality of life. [19]

Having been declared repeatedly by the higher judiciary, the fundamental right to water has become the law of the land and therefore, all other courts in the country are bound by it.[20]

The human right to water casts various duties upon the state. Human right to water imposes both negative and positive obligation on the state. In one way state is required not to interfere with the enjoyment of human right to water and on other side, state is required to take affirmative actions for the progressive realisation of the human right to water. The affirmative role of the state has been strongly emphasised under the human rights jurisprudence. The United Nations Human Rights Committee in its General Comment No. 6 adopted in 1982 states that the expression 'inherent right to life' cannot properly understood in a restrictive manner, and the protection of this right requires that state adopt positive measure. Thus, the concept of human right to water makes it a duty of the state to take all possible and appropriate

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19 *Subhash Kumar* v. *State of Bihar*, AIR 1991 SC 420, Para. 7. For other cases (*e.g*., *Narmada Bachao Andolan* v. *Union of India*, AIR 2000 SC 375 and *Vishala Kochi Kudivella Samrakshana Samithi* v. *State of Kerala*, 2006 (1) KLT 919) where the higher judiciary followed similar legal construction, see Cullet, Philippe and Koonan, Sujith eds. (2011), *Water Law in India: An Introduction to Legal Instruments*, Oxford University Press, New Delhi, pp. 17-19. *See* Cullet (2010) for an analysis of case laws asserting the existence of the fundamental right to water in India and Cullet (2011) for an analysis of initiatives in India towards realisation of the human right to water.

20 Article 141 of the Constitution states that: "The law declared by the Supreme Court shall be binding on all courts within the territory of India".

measures towards realisation of the human right to water which necessarily includes adoption of legislative measures.[21]

In the light of normative contents enshrined under human rights jurisprudence, it could be argued that the inclusion of the human right to water as part of water law is imperative. It is even more imperative in the case of groundwater law because, it is the foremost important and largely used drinking water source in the country. Hence, deterioration of groundwater – both in terms of quality and quantity – by any individual or company may result in obstacles to the realisation of the human right to water of present as well as future generations. Thus, the human right to water mandates and requires the state to take legal measures to restrict the over-exploitation and pollution of groundwater by private parties having land and money to invest.

Similarly, the right to pollution free environment also imparts restriction on right of landowners to extract groundwater their land. The right to pollution free environment has been declared as part of the fundamental right to life by the Supreme Court.[22] Hence, every individual is entitled to pollution free environment which obviously includes pollution free groundwater. The uncontrolled extraction of groundwater would likely to lead to pollution and thereby results in a situation where enjoyment of the right to pollution free environment would be difficult.

This means, there are potential restrictions emanating from the right to pollution free environment on landowner's property rights. To put it in a different way, owning a land does not imply uncontrolled right to extract groundwater or a right to enjoy that land in a manner resulting in environmental pollution. The law in this regard is gradually being concretised through case laws. Recently the Kerala High Court in *Thilakan case* elaborated this legal position and held that:

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21 *See* CESCR, General Comment 3, 1990, The Nature of States Parties Obligations. See also Report of the independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation, adopted by the Human Rights Council in Fifteenth session, UN Doc. A/HRC/ 15/31, 29 June 2010.

22 *See Subhash Kumar v. State of Bihar*, AIR 1991 SC 420; *Vellore Citizen's Welfare Forum v. Union of India*, (1996) 5 SCC 647 and *Indian Council for Enviro-Legal Action and Ors. v Union of India*, (1996) 3 SCC 212.

> "The people... have the right to have a decent environment, which is part of their fundamental right under Article 21 of the Constitution of India. No one can be conceded any unfettered freedom to excavate and degrade the land owned by him. It will have repercussions on the neighbouring land and its owners and the eco-system of the area in general. No man can claim absolute right to indulge in activities resulting in environmental degradation in the land owned by him".[23]

In the light of this evolving jurisprudence, it can be argued that it is primarily the duty of the state to ensure, through legislative and executive actions or measures, that private individuals or companies do not obstruct realisation of fundamental rights by their activities in their premises.[24] Thus, it is an indirect duty on everyone not to indulge in activities in their premises or land that result in environmental harm or degradation. It is also an imperative to fix a legal duty on land owners not to use natural resources including groundwater in detrimental to others' right over such resources which includes rights of future generations also.

B. Restricting Land Based GW Rights: New Legal Bases

Development of environmental law provides new legal bases to restrict the landowners' right to exploit groundwater. To put it in a different way, the legal proposition that groundwater is part of the land in which it exist no longer holds good and sustainable in the light of emerging environmental law principles such as public trust doctrine, common heritage and precautionary principle. These principles together tend to provide a legal basis to restrict the traditionally following land based groundwater rights. These principles require the government to take measures to prevent arbitrary exploitation of groundwater or any action by the landowners that may affect the quality and availability of groundwater.

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23 *Thilakan v. Circle Inspector of Police*, AIR 2008 Ker 48, Para. 11.

24 There is also an argument that some fundamental rights under Part III of the Constitution are applicable against private parties as well. Under this argument, where rights are addressed to the state such as obligation expressly vested on the state under Article 14, such rights can only be enforced against the state. Where rights are addressed to fellow citizens (Articles 17, 23 and 24), it should be read as horizontally applicable. This means, there will be direct constitutional duty upon private parties also. In the case of provisions which are ambivalent about who they are addressed to, it could be applied to both citizens and the state. *See* Krishnaswamy, 2007: 47-73.

The public trust doctrine offers a strong legal foundation by authorising the state to take legal measures to prevent over-exploitation and pollution of groundwater. As per the public trust doctrine, the state is the trustee of key natural resources and the government is duty bound to manage, use and develop such resources in the interest of general public.[25] The underlying idea behind the public trust doctrine is that some parts of the natural world are gifts of nature so essential to human life that private interests cannot usurp them (Takacs, 2008). Takacs (2008) further argues that 'the philosophy and the obligation are the central elements of the doctrine, not the specific resources to which the ideas and duties attach. As such, the Public Trust Doctrine's reach seems constrained only by the imagination of those who would protect both the natural world and the public's right to the sustainable use of that world'. Groundwater is the foremost important source of drinking water across the country and the growing source of freshwater for other purposes including irrigation. In this background there would hardly be any dispute regarding the public importance of groundwater and there is no reason why it should not be governed by the public trust doctrine.

While there is no statute explicitly making the public trust doctrine applicable to groundwater resources, there are case laws throwing light upon this issue. The issue whether the public trust doctrine applies to groundwater has been addressed in few cases also. For instance, the Supreme Court in *Kesoram case* endorsed that:

> "Deep underground water belongs to the State in the sense that doctrine of public trust extends thereto. Holder of a land may have only a right of user and cannot ask any action or do any deeds as a result whereof the right of others is affected. Even the right of user is confined to the purpose for which the land is held by him and not for any other purpose."[26]

Another principle which can be useful in developing an equitable and sustainable groundwater law and water law in general is the concept of common heritage. The concept of common

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25 *See MC Mehta v. Kamal Nath*, (1997) 1 SCC 388.

26 *State of West Bengal v. Kesoram Industries*, (2004) 10 SCC 201, Para. 387. Same view was taken by the Andhra Pradesh High Court in *MP Rambabu v. District Forest Officer*, AIR 2002 AP 256, Para 36.

heritage of mankind finds its legal basis in international law.[27] Key aspects of this concept as present in international law makes it attractive to apply in water laws at the domestic level also. The most important aspect of the concept of common heritage is its strong equity dimensions. In the natural resource context, the common heritage concept disregards the idea of individual control and appropriation. Instead, it promotes and requires the use and conservation of such resources for benefit of all (Cullet, 2009: 188).

The strength of this equity and pro-weak dimension owes significantly to the context in which this concept emerged at the international level. Developing countries advanced this concept at the international level since late the 1960s to prevent over-exploitation of sea bed minerals by technologically developed countries. Hence, the underlying objective was to assert equal rights of every nation over such resources and to ensure that such resources are not used by few developed countries and instead, preserved and used for the benefits of all (Anand, 1997).

Even though there may not be several strong precedence of application of the common heritage concept in domestic natural resource law context, an argument can be advanced to incorporate it into domestic water laws. In the context of groundwater, the relevance of this concept is high because of its potential in redefining the power of the government as well as individuals. This is mainly because the strong equity goal of the concept of common heritage demands control of appropriation of the resource for the advantage of a few by depriving the benefit of use of such resources to the weak and the poor. Applying this to the groundwater law context means providing a basis to change the legal status of groundwater as a part of the land. It further provides a basis to dilute and control the right of landowners to extract groundwater under their land and imposing duty upon the state to ensure the use of groundwater for benefit of all irrespective of land ownership. In this regard, the concept of common heritage could be considered as a developed application of the idea of trusteeship (Birnie and Boyle, 2002: 144).

The precautionary principle also constitutes a legal basis for restricting land based groundwater rights. The precautionary principle as defined by the Supreme Court of India in the *Vellore Citizen's Welfare Forum case* casts duty upon the state to take measures to '…anticipate,

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27 *See* United Nations Convention on Law of the Seas, 1982, Part XI, UN Doc. A/CONF.62/122.

prevent and attack the causes of environmental degradation'.[28] Now it is hardly a disputed fact that over-exploitation of groundwater by one person or company may cause depletion as well as contamination of groundwater in other areas. In this context, the precautionary principle justifies, supports and mandates the government to take appropriate measure to prevent over-exploitation of groundwater by landowners.

There could very well be an argument that these abstract principles cannot as such restrict a legal right. In fact, this was the argument taken by the Coca Cola company in the plachimada case and this argument was accepted by the Division Bench of the Kerala High Court.[29] However, this argument needs to be revisited in the contemporary context. The land based groundwater right as it stands now in India is borrowed from common law as developed by English courts in the 19th century when little was known about groundwater hydrology and technology was not developed to extract groundwater in huge quantity in an unsustainable way (Phansalkar, 2006 and Soman, 2008). Hence, the legal proposition that landowner can extract any quantity of groundwater with impunity was developed more as a matter of practical convenience rather than based on any legal reason or principles and scientific understanding of groundwater hydrology.

The common law rule is dated and unable to address contemporary issues related to groundwater. It neglects the recent developments in law such as the human right to water and progressive principles of environmental law such as the precautionary principle and the public trust doctrine. The new groundwater laws enacted by various states have ignored these recent legal developments and thereby failed to use an opportunity to make the groundwater legal regime progressive and responsive to contemporary issues.[30]

IV. Decentralisation and Participation for a Comprehensive Groundwater Law

Achievement of the goal of equity and sustainability significantly depends upon the process through which norms are made and implemented. Hence, the nature of institutional mechanism and approaches are critically important. In this context, this part highlights the need for and

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28 *Vellore Citizen's Welfare Forum v Union of India, Supreme Court of India,* (1996) 5 SCC 647, Para 11.

29 *Perumatty Grama Panchayat v. State of Kerala,* High Court of Kerala, 2005 (2) *Kerala Law Times* 554.

30 *See, e.g.,* Chhattisgarh Ground Water (Regulation and Control of Development and Management) Bill, 2012

scope of decentralisation and participation as a preferred approach to be recognised and implemented through groundwater laws.

A. Need for Decentralised Groundwater Regulation

The existing groundwater regulatory framework in India follows a centralised command and control approach. For instance, groundwater laws adopted by states envisage groundwater regulation by a state level authority.[31] This centralisation trend is not surprising given the fact that most of the sate groundwater laws have followed the Model Groundwater Bill, 2005. Wherever such state groundwater law does not exist, the Central Groundwater Authority has the power to regulate groundwater use.[32] This exposes even more extreme level of centralisation because the Central Groundwater Authority is an authority constituted under central legislation (Environment (Protection) Act, 1986) and therefore working under the Ministry of Environment and Forest of the Union Government.

The impropriety of this centralising trend of the existing and evolving groundwater legal framework may be explained on various legal, ecological and pragmatic grounds. Firstly, the subsidiarity principle as envisaged under the Constitution needs to be considered in this context. The 73rd and 74th amendment of the Constitution promotes devolution of powers to local governing bodies. As per the constitutional scheme, groundwater management and regulation is envisaged to come under the purview of local governing bodies such as village panchayats and municipalities.

In strict legal terms, the 73rd and 74th amendment do not make it mandatory for the state governments to devolve power and responsibility to local governing bodies. The constitutional provisions in this regard are not mandatory but discretionary and advisory in nature except few provisions such as the provisions prescribing the constitution of local bodies (Article 243B) and duration of panchayat (Article 243E). The constitutional provision dealing with devolution of powers and responsibilities to panchayats (Article 243G) clearly conveys this position by

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31 See, e.g., Kerala Groundwater (Control and Regulation) Act, 2002 and West Bengal Ground Water Resources (Management, Control and Regulation), 2005.

32 Ministry of Environment and Forests, Notification Constituting the Central Groundwater Authority, 14 January 1997 (as amended on 13 January 1998, 5 January 1999 and 6 November 2000).

saying that 'legislature of a State may, by law, endow the panchayats with such powers and authority...' Similar expression is used in the provision dealing with devolution of powers and responsibilities to municipalities (Article 243W).

Given the fact that a number of states have adopted laws to implement the 73rd and 74th amendment, it could be assumed that the states have generally accepted the idea of decentralisation.[33] Having accepted the idea of decentralisation, it needs to be internalised and operationalised in all relevant regimes and sectors including groundwater law. Nevertheless, the general trend is that even the states that have adopted law to implement decentralisation failed to respect and operationalise the idea in groundwater law.[34] The state of Kerala is perhaps a classic example in this regard. Even though the state of Kerala is generally known for its advanced level of decentralisation, the Kerala Ground Water (Regulation and Control) Act, 2002 adopts the centralised command and control approach by envisaging a state level groundwater authority to regulate groundwater use.

Some of the recent legal changes, particularly the laws enacted with the object of promotion of development and investment, tend to disregard the decentralisation principle as envisaged under the Constitution. For instance, the Kerala State Single Window Clearance Boards and Industrial Township Area Development Act of 1999 expressly takes away the regulatory powers of local bodies vis-à-vis the designated industrial areas.[35] The issue of power of local bodies to regulate the groundwater use in such industrial areas has discussed by the Kerala High Court recently in the *Pepsi case*, wherein the power of the panchayat was not upheld in the light of the express statutory provision omitting the jurisdiction of the panchayat in industrial areas. [36]

Secondly, the centralisation trend of the groundwater regulatory framework is contradictory to the basic principles underlying the ongoing reforms in laws concerning surface water resources

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33 *See, e.g.*, Arunachal Pradesh Panchayati Raj Act, 1997 and Bihar Panchayati Raj Act, 2006.

34 One notable eexception in this regard is the West Bengal Ground Water Resources (Management, Control and Regulation), 2005 where decentralised institutional framework has been envisaged.

35 *See* Section 6 of the Kerala State Single Window Clearance Boards and Industrial Township Area Development Act, 1999.

36 *Pepsico India Holdings v. State of Kerala*, Kerala High Court, 2008(1) *Kerala Law Journal* 218.

(Cullet, 2006). The ongoing water law reforms recognise decentralisation and participation as basic principles. Laws and policies adopted in the past one decade testify this aspect of water law reforms in India.[37] Hence, the ongoing water law reforms as it stands now shows co-existence of centralisation and decentralisation. Such co-existence as such is not negative in nature and implications. However, it requires proper justification on scientific, legal and pragmatic grounds and such proper justifications do not seem to exist in the case of centralised command and control approach followed in groundwater laws.

Thirdly, owing to the decentralised nature of water availability and use coupled with the cultural and ethnic plural nature of the Indian society, local knowledge, rules, practices and institutions have been in existence for long. The internalisation and incorporation of such time tested local knowledge, rules, practices and institutions need to be a fundamental principle of groundwater management and groundwater legal framework. The ongoing tendency to harmonise regulatory techniques and tools and centralise institutional mechanism without respecting the customs, practices and knowledge evolved over time is likely to yield more failures than success (Vani, 2009a).

Fourthly, the centralisation trend does not respect decentralised nature of water availability in India. Water ecosystem in India predominantly depends on rainfall which is highly temporal and decentralised in nature. A centralised regulatory mechanism cannot accommodate these diversities and therefore, such a legal framework is unlikely to yield desired results (Vani, 2009a). So diverse and decentralised are the uses of groundwater. Management of millions of wells by a state level agency is practically very difficult and perhaps economically not feasible also because of the high scale of human resource and money required.

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37 *See e.g.*, Andhra Pradesh Farmers' Management of Irrigation Systems Act, 1997; Gujarat Water Users' Participatory Irrigation Management Act, 2007; Maharashtra Management of Irrigation Systems by the Farmers Act, 2005 and Tamil Nadu Farmers Management of Irrigation Systems Act, 2000. The way in which these laws operationalised the idea of decentralization and participation has been criticised on various grounds such as exclusion of landless farmers and women from participation and inadequate or no role for local bodies such as gram sabha or grama panchayat. For a critical analysis of this aspect, *see* Sangameswaran and Madhav, 2010; Upadhyay, 2010 and Cullet, 2009.

B. Participatory Approach in Regulation and Management

Participation is one of the objectives the ongoing water sector reforms seek to achieve (Cullet, 2006). The idea has been floating for last several years and there have been policy initiatives by the government to promote participatory water resource management. The National Water Policy, 2002 encourages 'involvement and participation of beneficiaries and other stakeholders'.[38] Ministry of Water Resources of the union government has been specifically promoting the need for legal framework for participatory irrigation management.[39] Gradually, the idea of community participation is transgressing into the area of regulation and management of groundwater. For instance, the national water mission document explicitly identifies community participation in regulation and management of groundwater as a preferred strategy for ensuring sustainability of groundwater resources.[40] The broad objective behind the idea of participatory management of water resources is to limit the role of the state to that of a facilitator and vest regulatory and management powers and responsibilities on users and local bodies (Upadhyay, 2009: 131).

It is in this context that water laws in India have undergone dramatic changes recently to implement participatory water resource management. Notable legal changes happened in irrigation laws where several states have adopted participatory irrigation management laws.[41] The objective was to constitute Water User Associations (WUAs) to take care of irrigation systems. While this is the major legal change, similar changes have been happening in the drinking water sector through policy instruments. For instance, the Swajaldhara, a rural

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38 *See* Para 6(8) of National Water Policy, 2002.

39 Ministry of Water Resources, Report of the Working Group on Water Resources for the XI Five Year Plan 2007-2012 (New Delhi: Ministry of Water Resources, 2006), http://planningcommission.nic.in/aboutus/committee/wrkgrp11/wg11_wr.pdf.

40 Government of India, National Water Mission-Comprehensive Mission Document, Volume-I, April 2011, p. 17.

41 *See e.g.*, Andhra Pradesh Farmers Management of Irrigation Systems Act, 1997; Rajasthan Farmers' Participation in Management of Irrigation Systems Act, 2000 and Maharashtra Management of Irrigation Systems by Farmers Act, 2005.

drinking water scheme introduced by the union government, sought to implement community participation in management of rural drinking water supply.[42]

While participation has been a corner stone of water law reforms in India at least since late 1990s, the idea has been almost completely ignored when it came to the case of groundwater laws. Groundwater laws as adopted by several states in the last ten years seem to have ignored this key development by following the traditional command and control approach. Given the specific decentralised nature of groundwater, likelihood of failure of such a legal system is very high.

It is in this background that the idea of participation becomes relevant and necessary in the groundwater law context. On the one hand, it is a matter of maintaining consistency in water law in general in terms of basic principles or approaches and on the other hand, it is an unavoidable necessity for making groundwater law equitable and sustainable. Groundwater regulation is unlikely to work in the absence of effective involvement by individuals and community. Likewise, management and conservation efforts are also unlikely to yield desired results in the absence of participation. For instance, concerns of poor and landless are unlikely to be addressed if they are not given adequate opportunity to participate in the norm making and implementation process.

While incorporating and implementing the idea of participation in groundwater law, adequate precautions must be taken. This is because participation can have different meaning and scope. Most importantly, participation as understood in the ongoing water law reforms ignores democratically elected bodies at the local level. Further, the implementation of participatory irrigation management laws resulted in accumulating more powers in the hands of higher caste people (Reddy and Reddy, 2005). Representation of women in Water User Associations was minimal and the scope of participation was limited to landholders (Cullet, 2009: 115). Similarly, the implementation of swajaldhara drinking water scheme also exposed that the likelihood of confining the scope of participation to local elites and thereby sidelining poor and vulnerable are very high (Sampat, 2007 and Srivastava, 2009).

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42 Government of India, Swajaldhara Guidelines, 2002, available at http://www.ielrc.org/content/e0212.pdf.

Therefore, adequate care and attention need to be taken while incorporating the idea of participation in groundwater law. One way to address this issue is to expressly declare the link between groundwater law and the principle of non-discrimination under the Constitution. The underlying idea is to eliminate all forms of discrimination particularly discrimination on various grounds such as caste, gender and race. Implications of relying on the constitutional principle of non-discrimination are mainly two. Firstly, it prohibits the practice of exclusion as a matter of policy, and secondly, it mandates and support special consideration for poor and vulnerable. Further, the idea of participation should not be restricted to participation of users or community. Instead, it should give key role to the democratically elected local bodies such as panchayats and municipalities as well as representative bodies such as the Gram Sabha.[43] This is very crucial to ensure equity and sustainability.

V. Conclusion

The development of a separate legal framework for groundwater in various states in the last one decade apparently testifies the growing importance given to the need for regulation and management of groundwater resources through a legal and institutional framework. This development introduced a significant legal change by empowering the state to control groundwater use by private parties as well as government agencies. However, the new groundwater laws fall short of defining the nature of groundwater rights and consequently, groundwater rights continue to be an uncontrolled right of landowners. The system of land based groundwater rights is untenable from an equity and human rights point of view as it restricts or denies access to groundwater to landless and poor. Further, it is legally improper to perceive a natural resource critical for sustaining life, livelihood and economy to be under control of few privileged. The equity and human rights dimensions are going to be even more crucial given the way groundwater resources are being depleted and contaminated.

Existing legal system in India provides a lot of opportunity and guidance in terms of principles and approaches to make groundwater legal framework capable of addressing equity and human rights concerns. At the more substantive level, to change the land based groundwater rights,

[43] Gram Sabha is a body consisting of persons registered as voters in the electoral roll of a village comprised within the area of the Panchayat at the village level. *See. e.g.*, Haryana Panchayati Raj Act, 1994, Section 2.

one obvious way is to internalise and operationalise the concept of human right to water. The human right to water is an inherent part of the fundamental right to life by the Supreme Court of India. Therefore, it is necessary to give effect to the human right to water through groundwater laws. The concept of human right to water, together with principles of environmental law such as public trust doctrine and precautionary principle give ample legal bases to change the outdated land based groundwater rights. Having not given effect to these recent legal developments relevant to groundwater, an opportunity was missed to replace an antique legal proposition evolved out of sheer practical convenience and scientific ignorance with a progressive legal framework respecting equity and human rights.

Procedural and institutional concerns are also equally important. Even though decentralisation and participation are generally accepted as preferred ways to deal with water management and regulation, the existing groundwater legal framework follows the method of centralised regulation. At the practical level, centralisation is unlikely to work in the case of groundwater and at a conceptual level, it is a disregard to the established constitutional goals. Hence, decentralisation and participation could be key contributing factors towards a comprehensive and progressive groundwater legal framework. While incorporating and implementing the idea of decentralisation and participation, adequate care must be taken to ensure that it is not exclusionary in nature. This is particularly relevant in the context of the past experience in water law reforms in India where decentralisation was implemented by excluding or limiting the role of elected bodies at the local and participation was limited to few privileged. Such an exclusionary approach would be unseemly in the light of the constitutional goals of non-discrimination and decentralisation.

While the states continue to follow the dated model of groundwater management and regulation, the need for an overhaul in the groundwater legal regime has been recognised by the central government. The planning Commission of India initiated the process by setting up an expert group to draft a new model groundwater bill to guide the states to update or replace the existing groundwater legal regime. A draft version of the Model Bill for the Conservation, Protection and Regulation of Groundwater, 2011 (Model Groundwater Bill, 2011) has been

published by the Planning Commission of India.[44] The Model Groundwater Bill, 2011 seeks to modify the existing legal regime by replacing dated rules and principles with modern progressive rules addressing the sustainability and equity concerns.

The Model Groundwater Bill, 2011 recognises groundwater as 'common heritage of the people of India held in trust' and makes it clear that 'it is not amenable to ownership by the state, communities or persons' The fundamental right to water as recognised by the Supreme Court of India has been explicitly endorsed. Thus, the Model Groundwater Bill, 2011 seeks to introduce revolutionary changes by replacing the dated common law rule with modern principles of public trust and the fundamental right to water.

The Model Groundwater Bill, 2011 envisages management and regulation of groundwater at the local level and thus respects decentralisation principle as envisaged under the 73rd and 74th amendments to the Constitution. The operationalisation of the subsidiarity principle has been made through groundwater committees at various levels but key regulatory and management powers vest with groundwater committees at the lowest possible level. For example, the Gram Panchayat Groundwater Committee is entrusted with the power to prepare groundwater surety plan which shall provide shall 'provide for groundwater conservation and augmentation measures, socially equitable use and regulation of groundwater, and priorities for conjunctive use of surface and groundwater'.

The precautionary principle has also been operationalised under the Model Groundwater Bill, 2011. For example, the Model Groundwater Bill, 2011 provides for demarcation of groundwater protection zones. Critical natural recharge areas of an aquifer and those areas that require special attention with regard to the artificial recharge of groundwater have been put on high priority and extraction or use of groundwater, apart from use as basic water, is not allowed in such areas.

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[44] The draft version of the Model Bill for the Conservation, Protection and Regulation of Groundwater, 2011 is available at http://planningcommission.nic.in/aboutus/committee/wrkgrp12/wr/wg_model_bill.pdf.

While the Model Groundwater Bill, 2011 seeks modernise the groundwater legal regime in India, its actual impact depends upon how states accept and implement it. The Model Groundwater Bill, 2011 is still in a draft stage and it is too early to comment upon its actual impacts at the state level. While state are seemingly supportive of enacting groundwater laws, it is yet to be seen if they are willing to take the challenge of a complete overhaul of existing legal regime.

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