



International Environmental
Law Research Centre

STATE RESPONSIBILITY IN THE DRINKING WATER SECTOR

AN OVERVIEW OF THE INDIAN SCENARIO

Meena Panickar

IELRC WORKING PAPER
2007 - 06

This paper can be downloaded in PDF format from IELRC's website at
<http://www.ielrc.org/content/w0706.pdf>

TABLE OF CONTENTS

1. INTRODUCTION	1
II. LEGAL FRAMEWORK FOR DRINKING WATER IN INDIA	2
A. Characteristics of Water Supply Laws	3
1. Definition	3
2. Objective/s	3
3. Regulation of supply	4
4. Water charges	4
5. Permit/licence system	4
6. Strategy for water supply	4
B. Objectives of Laws and Strategy for Implementation: A Performance Assessment	5
III. POLICY FRAMEWORK ON DRINKING WATER IN INDIA	6
A. The Performance of States in the Rural Water Supply Sector	7
B. An Appraisal of Policy Implementation: CAG Report	8
1. Re-emergence of problem habitations	8
2. Non-prioritisation	9
3. Abandoned schemes	9
4. Right Management	9
5. Sustainability of water sources	9
6. Operation and maintenance	9
7. Community participation	9
8. Women's participation	10
9. Monitoring	10
10. Evaluation of impact assessment	10
IV. DECENTRALIZATION MEASURES IN THE DRINKING WATER SECTOR	11
V. CONCLUSIONS	12

I. INTRODUCTION

The rights-discourse in the context of water highlights right to water and more particularly, the right to drinking water as an essential component of right to a 'dignified life'. This approach is reiterated in the international human rights instruments. The International Covenant on Economic, Social and Cultural Rights (ICESCR), 1966, specifically lays down an obligation on the member states for the progressive realization of this right. The General Comment No.15¹ encapsulates the right to drinking water as a priority item. India being a member state of ICESCR is obliged to gradually realize this right *vis-à-vis* its population. In the past two decades, more and more space has been devoted to the discussion on redefining the role of the State in the water sector reforms with special focus on public-private/ community participation in the drinking water supply.

The Five Year Plan documents and the National Sample Survey provide the official figures about the percentage of population, having access to drinking water in rural and urban India. The Planning Commission states that these figures are far from the ground realities, which means the situation is not as rosy as projected in the official circles². Traditionally water supply in India was limited to major towns and cities and that too was within the boundaries of state/provincial units. With the spread of the process of urbanization and declining public health standards in both urban and rural India, post-independent India took a serious initiative in the form of laws and policies.

A two-way approach is adopted by India, in this regard, viz:

1. Legislations focusing on water supply and at times on water supply and sanitation, to be driven by the state agencies
2. Policy initiatives by the central government in order to assist and supplement the states' activities with the overall objective of providing safe drinking water and thereby promoting public health.

In effect the relationship between the right to drinking water as a basic human right and the responsibility of the State for realization of the right in the Indian context faces some limitations. These limitations include the allocation of legislative power on water supply to the states within the Constitution; inadequacy of finance available at the disposal of states which is to be supplemented by the initiatives of the Central Government; and the administrative and financial autonomy, yet to be enjoyed by the local bodies in spite of powers been vested by the 73rd and 74th amendments to the Constitution of India. These limitations indicate a rather difficult way of effectuating drinking water right in India.

The Tenth Plan indicates the measures to be adopted for reforming the drinking water sector in India, which are: the need for people's participation; need to create awareness about the economic use of water; need for private actors' involvement; conservation of water resources; active integration of drinking water supply with sanitation programmes; filing of returns by *Panchayati Raj* Institutions³; constitution of village committees in charge of operation and maintenance of water works; and promotion of traditional methods of water conservation.

The present paper examines the performance of the obligation by Indian State in terms of universalizing access to drinking water to its population. The paper intends to portray that the Indian efforts to provide drinking water to its population show some serious policy shifts in the approach towards realization of the goal. In much of the post-independence years, India adopted a State-centric approach for securing the right for people or in other words, the State acted as the guardian of the people. From the 1990s, the Government realized the need for taking the end-

1 See General Comment No.15 on *Right to Water*, UN Doc.E/C.12/2002/11. Also see generally, Realization of the Right to Drinking Water and Sanitation, Report of the Special Rapporteur, El Hadji Guissé (Commission on Human Rights, Sub-Commission on the Promotion and Protection of Human Rights E/CN.4/Sub.2/2005/25; *Relationship between the enjoyment of economic, social and cultural rights and the promotion of the realization of the right to drinking water supply and sanitation*, Preliminary report submitted by Mr. El Hadji Guissé in pursuance of decision 2002/105 of the Commission on Human Rights and resolution 2001/2 of the Sub-Commission on the Promotion and Protection of Human Rights E/CN.4/Sub.2/2002/10; *Promotion of the Realization of the Right to Drinking Water and Sanitation*, Sub-Commission on Human Rights Resolution 2000/8.

2 See Planning Commission of India, Tenth Five Year Plan Report (2002-2007), available at http://planningcommission.nic.in/plans/planrel/fiveyr/10th/volume2/v2_ch5_5.pdf.

3 Since the Planning Commission feels that the reality of ground level data on rural water supply is not convincing, a survey is needed to be done by the PRIs and a return is to be filed periodically. This method of return filing, the Planning Commission desires, to be inserted as a condition precedent to the allocation of funds in future. See Tenth Planning Commission Report, note 2 above.

users into account. With this objective, the policy documents began using expressions like ‘economic use’ of water; inculcating ‘responsibility in users’ by imposing charges; and ‘responsibility’ for the operation and maintenance of the services.⁴

The scheme of the paper is as follows: following the introduction, the paper highlights an *a priori* position accorded to drinking water by the legal system of India by reference to the provision for drinking water, as incorporated in different state legislations. It is examined whether this *a priori* status accorded to drinking water is effectively realized at the implementation level. In Part 3, the paper examines India’s policy approach with respect to drinking water supply. Part 4 examines the people-oriented approach for securing the right as envisioned in the decentralization process, being implemented in the drinking water sector now. The paper is developed by and large on the basis of primary documents, namely, the official documents and supplemented by limited secondary sources. Since ample writings are available on constitutional safeguards for drinking water and how the Indian judiciary expanded the scope of Article 21 and thereby the right to water in general through an environmental and health prism, the present paper will avoid detailed discussions on those lines. Also, the paper avoids a strict urban/rural division in drinking water supply and approaches the topic generally.

II. LEGAL FRAMEWORK FOR DRINKING WATER IN INDIA

The constitutional jurisprudence of the country developed by the judiciary has placed drinking water as a derivative right within the purview of right to life under Article 21.⁵ Whenever the shortage of drinking water was brought to the attention of the judicial bodies, their response reflected a deep concern about the issue in terms of basic human rights. This is evident from the observation by the court as given below:⁶

Water is a gift of nature. Human hand cannot be permitted to convert this bounty into a curse, an oppression. The primary use to which the water is put being drinking, it would be mocking the nature to force the people who live on the bank of a river to remain thirsty, whereas others incidentally placed in an advantageous position are allowed to use the water for non-drinking purposes.

Water and related subjects as per the Constitutional scheme is within the purview of the state except in the case of inter-state water disputes.⁷ This being the position, the Indian laws, which we examine for the purpose of the paper, are state laws. An evaluation of the water laws dealing with drinking water makes it clear that the legislations use the expression ‘water supply’ and place drinking water as a component of ‘water for domestic purposes’. In other words, the water supply legislations are meant for drinking and non-drinking purposes. A broad classification of the water supply laws could be laid down as follows:⁸

- Laws establishing water boards for Urban water supply
- Laws enacted for water supply in metropolitan cities
- Laws for water supply in the state as a whole
- Laws on regulation of groundwater extraction, use and transportation
- Laws on protection of water sources
- Laws for supply of water to specific industrial areas.

4 See Tenth Planning Commission Report, note 2 above.

5 See S. Muralidhar, ‘The Right to Water: An Overview of the Indian Legal Regime’, in Eibe Riedel & Peter Rothen eds., *The Human Right to Water* 65-81 (Berlin: Berlines Wissenschafts-Verlag, 2006).

6 *Delhi Water Supply & Sewage Undertaking and Another v State of Haryana and Others* (1996) 2 SCC 572. In *F K Hussain v Union of India* AIR 1990 Ker. 321 and *Attakoya Thangal v Union of India* (1990) 1 KLT 550, the Kerala High Court held the right as part of Article 21. See also *Subhash Kumar v State of Bihar* AIR 1991 SC 420; *M C Mehta v Kamal Nath* (1997) 1 SCC 388; *AP Pollution Control Board v M V Naidu and Others* (1999) 2 SCC 718; *State of Karnataka v State of Andhra Pradesh* 2000 (3) SCALE 505.

7 The Constitutional scheme on water is as follows: Water and land are assigned to the state under Article 246 and List II of the Seventh Schedule; water supplies, irrigation and canals, drainage and embankments, water storage and water power under Entry 17 of List II; article 243 G confers authority on the panchayati raj institutions; drinking water and minor irrigation under Eleventh Schedule, falling within the purview of PRIs.

8 The state laws referred to for the purpose of the study are provided in Table I.

A) Characteristics of Water Supply Laws

1. Definition

In the legislations on water supply, we find that the definition of ‘domestic purposes’ includes water for drinking. The common trend in these legislations is to use an exclusionary mode. For instance, the UP Water Supply and Sewerage Act, 1975 (UP Act) defines water supply for domestic purposes as: those purposes excluding trade, or business; for gardens or irrigation purposes; for building purposes including construction of streets; for fountains, swimming baths, public baths or tanks or for any ornamental or mechanical purpose; for animals, where they are kept for sale or hire or for sale of their produce; for the consumption and use at a restaurant or by inmates of a hotel, boarding house or residential club; for the consumption and use by persons resorting to theatres and cinemas; for watering streets; or for washing vehicles where they are kept for sale or hire. Water supply is defined as a system of providing water to a community for meeting its requirement for drinking and other domestic uses, industry, recreation and various public uses.⁹

2. Objective/s

The legislations are enacted with a single objective of providing and regulating water supply in the state¹⁰ or with a dual objective of water supply in the state and the setting up of corporations¹¹ or boards for the same. In the case of state laws establishing corporations or boards, these institutional arrangements possess the authority to set standards in the state with respect to water supply and sewerage services.¹² At times, the subordinate boards like the UP Jal Sansthan supplement these boards. The Kumaun Act aims at protection of water resources in public interest with a sustainable, conservation perspective.¹³

In the Assam Act¹⁴, the creation of an urban board for development, regulation and maintenance of water supply and sewerage services is stipulated. The legal personality of the Board is specified in Chapter VI wherein it is deemed to be a corporate body, having the status of a local authority. The KWA is considered as an autonomous body.

The Karnataka Act¹⁵ acknowledges the inefficient functioning of local authorities in charge of water supply and aims to improve the situation through the creation of a board, which will have the powers of monitoring various schemes and allocating financial resources *via* loans to the local bodies. However, the board’s function is limited to the urban areas.

In India we find a state legislation, which focuses upon the regulation and control of water resources in the public interest. This is with respect to the Kumaun and Garhwal division. The Act¹⁶ in its preamble states that such a measure is needed to ensure rational distribution of water for the purpose of human and animal consumption, irrigation and industrial development. A study sponsored by the Planning Commission of India provides a narration about the background of the legislation.¹⁷ The study shows that the Act is an instance of gradual substitution of the rights of indigenous community with respect to the management of the water resources, including the drinking water supply with a formal state system. As per the study, the first Rules for the regulation of water resources - the Kumaun Water Rules - were framed under the Scheduled Districts Act of 1874, in 1917. The Rules of 1917 while retaining the state sovereignty over water resources recognized the customary rights since the British Government found it rational to do so in the absence of any potential for extensive commercial exploitation of water resources

9 See UP Water Supply and Sewerage Act, 1975. Under the Kerala Water Authority (KWA), domestic purpose is specified as supply for households, residential flats, Government dispensary/clinic, Government schools (Government Hospitals), Orphanage/ poor homes.

10 Regulating water supply could mean regulating the supply for public, commercial or domestic purposes. See Section 3 of Jammu and Kashmir Water Supply Act, 1963.

11 See the Preamble of the UP Act, note 9 above.

12 See Chapter 2, UP Act, note 9 above. See also the functions and powers of the KWA.

13 See Section 4, Kumaun and Garhwal Water (Collection, Retention and Distribution) Act, 1975 (hereafter Kumaun Act). Under the section, the state has the power to regulate and control the collection; retention and distribution of any water and water resources demarcate the area for protection of water resources and declare the area as protected area.

14 See Urban Water Supply and Sewerage Board Act, 1985.

15 See Karnataka Urban Water Supply and Drainage Board Act, 1973.

16 See Kumaun Act, note 13 above.

17 See Development Centre for Alternative Policies, Evaluation of Varied Approaches for Enabling Sustainable and Equitable Access to Drinking Water in Uttaranchal (Delhi: Development Centre for Alternative Policies, 2003).

in the hills in comparison with the forest resources. The Water Rules of 1917 were modified in 1930 as Kumaon Water Rules of 1930 and there was no change in the law on water resources in the period from 1930 to 1975. During this period a significant extent of loss of forest cover, loss of people's access rights to forest, and the social tensions relating to forest resources occurred the impact of which was not taken seriously in official policy till 1975.

3. Regulation of supply

The supply of water is regulated depending on the purpose for which it is used. A protective umbrella is given to drinking water purposes. If the supply is meant for non-domestic purposes, the restriction or prohibitions apply from time to time. For example, Section 4 of the J & K Water Supply Act, 1963 stipulates that the license for water supply for purposes other than domestic, may be withdrawn if it is felt necessary to do so to sustain the supply for domestic purposes.

The regulatory mechanism envisaged by the Kumaon Act secures the objective by abolishing all the customary/community rights, which existed at the time of the enactment with respect to the use of water.¹⁸ However, the Act ensures a preferential treatment for village communities or persons whose rights are abolished while the state exercises the powers in terms of regulation and control.¹⁹

4. Water charges

All the water supply laws introduce the system of charges levied on water consumed whether for domestic or other purposes²⁰ (on the basis of meter or number of points installed from the main connecting pipe). However, there is a subsidized system for domestic consumption. The overall responsibility for meter repair, connections, pipes and other matters incidental to water supply is vested with the government.²¹ Some of the enactments stipulate that meters shall be installed at the expense of the consumer, though repairs are to be governed by the respective byelaws.²²

Under the Himachal Pradesh Act (HP Act), the water rate may be determined by the local authorities in those cases where the water supply schemes are handed over to them after payment of capital costs, maintenance and replacement costs.²³ In these situations the local authorities shall have the responsibility for efficient management of the schemes.

In the legislations the various divisions of supply include public, commercial and domestic purposes. The public stand posts erected and operated by the government are meant to provide free water. Hence no water charges are levied under some of the laws. But the KWA imposes the charge for street taps on the respective local authorities.

5. Permit/licence system

It is evident from the legislations that water supply is provided by the respective state authorities on the basis of the application submitted by the required party. It is processed after examining the purpose for which it is to be used and the quantity needed. However, as mentioned above, the non-domestic purposes are meant to be regulated strictly. This means domestic purposes receive a priority over other purposes. It is also clear that not every one in India is dependent on the water supply provided by the state. In the Assam Act, prior permission of the managing director of the Board is required for sinking tube wells in the urban areas.

6. Strategy for water supply

The supply of water is provided and regulated by the state authorities constituted for that purpose. As seen above, different state legislations work on different objectives. In states like Kerala, there is an overall authority, namely, the KWA²⁴ constituted under the Kerala Water Supply and Sewerage Act, 1986. The laws mandate that the authorities

18 Section 3 of the Act states that on and from 15 July 1975 all the existing rights (whether customary or otherwise and whether vested in any individual or in village communities) of use of water, if any, in the areas to which the Act extends, shall stand abolished. See the Kumaon Act, note 13 above.

19 See Kumaon Act, note 13 above.

20 Other purposes include non-domestic (except for industries), industrial (To supply water for manufacturing process which includes service stations, factories, Railways, Roadways, any other establishments where water is used as a raw material) or casual (fairs or any other special use) purposes

21 See Section 13, Jammu and Kashmir Water Supply Act, 1963.

22 See UP Act, note 9 above, Section 69.

23 See Section 6, Himachal Pradesh Water Supply Act, 1968.

24 KWA is a successor to the Public Health Engineering Department, which was constituted under the Kerala Water Supply and Waste Water Ordinance in 1984. The Ordinance was replaced by the 1986 Act.

will not be responsible for the failure in supply due to repairing works or reasons beyond their control.²⁵ The legislations provide for advance notice to the public if the authorities apprehend a disruption in supply. In India we come across pictures of leaking pipes, resulting in wastage of water through distribution, which in turn is responsible for many of the open access pipes producing air than water through the outlets. The law seems to be more inclined to punish the violators²⁶ of the regulatory structure than fixing responsibility for inefficient supply, distribution and management of this basic utility. In the Jammu and Kashmir law, an overall immunity to the jurisdiction of the courts is given to the order annulled, modified or reversed by the Minister-in-Charge of Water Works Department with respect to water supply in the state.²⁷

The HP Act outlines a different scheme altogether. The Act distinguishes between the beneficiary and consumer. As per the Act, the beneficiary is a local authority, which derives benefit from a water supply scheme offered by the state. A consumer on the other hand means either a person who depends upon the beneficiary for water supply or who uses the water from a scheme fully managed by the government. It places the whole responsibility of launching drinking water supply schemes on the government. However, the Act stipulates that although the government will spend on the entire schemes and improvement of water supplies, a cost recovery mechanism has also to be implemented. Under Section 4 of the Act, the costs shall be recovered from the beneficiaries and consumers as the case may be, which shall be 25 % in the case of urban water supply schemes and 12.5% in the case of rural areas.

B. Objectives of Laws and Strategy for Implementation: A Performance Assessment

Studies are conducted in India about the performance of state water supply laws. A study of the water supply system of Tamil Nadu²⁸ serves as an indicator to the generality of the problems suffered by the state water supply agencies in India. Main highlights of the study hold the following as lacunae of the system in Tamil Nadu²⁹: inadequate supervision and monitoring; lack of skilled/trained operating staff; schemes not operating in their full efficiency; huge difference in the quality produced and distributed (known as Unaccounted For Water-UFW); visible leaks remain unattended for long; standby units in pumping plants, chlorinating units and other equipment remain under repair for long; many components of treatment plants not functioning for years; water meters not functioning right from inception; air valves and valve glands dripping and valve pits susceptible to flooding and pollution; no single individual having comprehensive information about the quantity of production, beneficiaries, reasons for non-supply, rate of flow, water level in tanks etc.; public tampering with water installations due to scarcity; officials not interested in placement of maintenance jobs; and non-payment of water charges by local bodies.

As suggested by Tiwari, the concept of water governance has wider meanings in wider contexts. In the water supply sector, governance shall mean efficiency and equity in distribution; delivery process transparent, accountable, participatory and responsive; empowerment of citizens and delegation of powers to enhance their welfare.³⁰ His survey results prefer management contracts as the delivery option and corporatization as favoured by the consumers. Probably preferences indicated by the survey group has a base in the way of performance of water board constituted for the purpose of water supply. The causative factors of poor performance by state agency in Delhi tally with those mentioned in the Tamil Nadu study.³¹

25 See Section 16, Kerala Water Supply and Sewerage Act, 1986.

26 Violators as per the provisions of law are limited to those who take connection for supply of water from water authorities, which in turn, include individual households, institutions and industries.

27 See Jammu and Kashmir Water Supply Act, 1963, Section 22.

28 S Ramakrishnan, K N Chandran and P Gopalakrishnan, Improving the Efficiency and Functioning of Operation and Maintenance of CWSS Including Preventive Maintenance Upgradation of Existing Water Conveyance Systems Including GIS for the Existing Conveyance Systems, *TWAD Technical Newsletter*, January 2004, available at http://www.twadboard.com/photos/Newsletter_jan2004_chap7.pdf.

29 *Id.* at 54-6.

30 AP Tiwari, Choice and Performance of Water Supply Institutions: An Exploratory Study of the Stakeholder Preferences of Water Sector Reforms in Metro City of Delhi, India, available at http://agua.isf.es/semana_agua/CAST/wgrw/pon_presentadas/Doc7_APTiwari_2pag_xcara_a_dobre%20cara.pdf.

31 Tiwari's study states: the non-market framework of providing these services has brought substantial inefficiencies in the system, high leakage rates, tampering with meters, theft of water and poor billing collection. In Delhi, the UFW is 40% compared to the acceptable norm at the global level of 10-15%. See Tiwari, note 30 above.

An analysis of the functioning of the water boards/municipalities in the metros of Calcutta, Chennai, Delhi and Mumbai makes a comparison among the agencies and the findings of the study places the Chennai Metro Water Board on a high pedestal, even though it acknowledges that the latter agency is mostly structured around procedures, namely, technical and administrative, and not about providing services.³² The study points out some deficiencies in the organizational settings and accountability of the agencies in the water supply sector. In Calcutta, there is neither volumetric charges nor charges on the basis of estimated consumption. The revenue is generated from a share of the property tax, which is known for low rate of collection and non-assessment of property value on a periodical basis. Water supply in Calcutta is provided by Calcutta Municipal Corporation while the provision for equipments and finance is the concern of Calcutta Metropolitan Development Authority and Calcutta Metropolitan Water Development Agency.

During the period 1994-5, the revenue department of Delhi had shown a figure of Rs.290 million as total arrears in the water supply sector. Delhi being the capital city faces serious problems of lack of coordination between the Delhi Water Board and a number of other nodal agencies involved in the development of Delhi like Slum Wing Department, National Capital Region Board, Delhi Development Authority, Delhi Pollution control Board, Central Groundwater Authority.³³ Above all, at times an intervention by the judiciary is needed for enabling Delhi to receive adequate supply of unpolluted water.

Mumbai Municipal Corporation is responsible for planning, building and management of water supply. However the financial allocation is routed through political inter-sectoral arbitration of the Corporation. Apart from a number of documentary requirements, an applicant has to pay an amount of Rs.3000-5000/- for water connection while it is Rs.2000/- in Chennai. At times a high amount of connection fee is charged in order to compensate for low tariff and insufficient revenues, which is facilitated by financial agencies like HUDCO.³⁴

The authorities envisaged in the water supply legislations are meant to strengthen the objectives for which the laws are enacted. These laws serve a miniscule section of the Indian population and water supply is in the hands of state agencies. However, any kind of supply of basic utilities constantly reminds us about the need for transparency and accountability. Even the autonomous water boards set up by the states to improve efficiency suffer from political nomination of members and lack of financial autonomy.

III. POLICY FRAMEWORK ON DRINKING WATER IN INDIA

As mentioned in the beginning of the paper, the organized water supply in India was limited to the big towns and cities, which was at inadequate levels. For instance, Kerala for generations depended upon the open dug wells and ponds. It was only in 1914 that the first protected water supply system was initiated in Ernakulam town; and in Trivandrum, in the 1930s. More than 80% of the rural population did not have access to safe drinking water, which explains the deplorable conditions of public health as prevailed in the immediate days of independence of the country. The provincial governments depending on the financial resources at their disposal carried out the responsibility of water supply.

The water supply and sanitation were recommended priority areas by the Bhore Committee (1946) and the Environmental Committee (1949) with elaborate plans. Although no immediate measures were adopted by the Central government, in the year 1954, it provided assistance to the states to establish special investigation divisions in the fourth Five Year Plan to carry out identification of the 'problem villages'.³⁵ The Accelerated Rural Water Supply Programme was introduced in 1972-73 by the Central Government keeping in mind the magnitude of the problem and to accelerate the pace of coverage of problem villages. The programme provided assistance to the states and the Union territories with 100% grants-in-aid to implement the schemes in such villages. This programme

32 Joel Ruet and Marie-Helene Zerah, Organizational Analysis of Water Boards/ Municipalities: Lessons from Calcutta, Chennai, Delhi and Mumbai (Paper presented at the Water Mangement Seminar, Centre de Sciences Humaines, 17 December 2002, Delhi).

33 See Ruet and Zerah, note 32 above.

34 See Ruet and Zerah, note 32 above.

35 A 'problem' village was defined as one where no source of safe water is available, within a distance of 1.6 km or where is available at a depth more than 15 meters or water source has excess salinity, iron, fluorides and other toxic materials or where water is exposed to the risk of Cholera or Guinea Worm.

continued till 1973-74. But with the introduction of the Minimum Needs Programme (MNP) during the fifth five-year plan (1974- 75) with the objective of socio-economic development of the community, it was withdrawn. The Programme was however, reintroduced in 1977-78 when the progress of supply of safe drinking water to identified problem villages under MNP was found to be not focusing enough on the problem villages.

There were international initiatives, which boosted India's striving towards providing 100% coverage of rural and urban population with safe drinking water. These initiatives include the WHO movement on health for all by the year 2000(1977), the Alma Ata Declaration on Public Health (1978) and the programmes which began as part of the international water supply and sanitation decade. The drinking water programmes were taken up with a 'mission approach', enriching them with scientific and technological input in order to ensure better performance with less cost. A Technology Mission(TM) was set up by the central Government in 1986 to assist the state in drinking water supply. The aim of the mission was to set up small projects and identify the causative factors for public health problems arising from drinking water sources in a scientific manner. TM has been renamed as the Rajiv Gandhi National Drinking Water Mission [RGNDWM] with the broad objective of providing sustainable safe drinking water to all 'uncovered'/ 'no source' villages and creating awareness among the rural people about the hazards of using unsafe water. The Department of Drinking Water Supply was created in the Ministry of Rural Development by the Central government, and is acknowledged as the nodal agency with the responsibility of providing safe drinking water to all rural habitations.

As regards the institutional structure for rural drinking water supply, the Ministry of Rural Development , Department of Drinking Water Supply, is responsible for planning, policy formulation, direction, financing, monitoring and reviewing the implementation and progress at the central level. The Ministry had set up the National Drinking Water Mission Authority with the Prime Minister as Chairman and an Empowered Committee headed by the Cabinet Secretary to review the progress of implementation of the programme. At the State level, the Public Health Engineering Departments, Panchayati Raj Departments, Water Boards, etc. are executing the Programme. However, in Gujarat, Kerala, Maharashtra, Tamil Nadu and Uttar Pradesh, the Programme is being executed through the Gujarat Water Supply and Sewerage Board, Kerala Water Authority, Maharashtra Jeevan Pradhikaran, Tamil Nadu Water Supply and Drainage Board and Uttar Pradesh Jal Nigam respectively. The institutional structure of rural water supply (of the Centre) in India is provided in Table II.

The Accelerated Urban Water Supply Programme (AUWSP) was introduced by the central Government in 1993-94 to cover towns having a population of less than 20,000 as per the 1991 census. In the rural sector the reformatory process was initiated with the sector reforms project and Swajaldhara. These programme areas reflect a change in the attitude of the Government since the community involvement is the focal point. These programmes spell out the need for community participation in the choice of drinking water schemes, their planning, design and implementation and control of finances and management. These reformatory moves also seek for full ownership of drinking water assets by the community by contributing their shares. Apart from the policies, a number of externally aided projects have been completed or are in the process of completion in various urban areas. A list of completed projects has been given in Table III.

A. The Performance of States in the Rural Water Supply Sector

The Department of Drinking Water Supply has developed a system for monitoring and regulating the various programmes and schemes for the supply of drinking water. The reports of performance by states in this sector are discussed and reported in the agenda notes³⁶ of State Secretaries' Conference held in different parts of the country. These reports are prepared on the basis of the use of variables like the number of rural habitations (not covered, partially covered and fully covered) facilitated with drinking water supply; slipped back habitations³⁷; schools having drinking water supply; number of SC/ST population getting the benefit of the supply etc. However, it may be noted that women do not find mention among the variables though this group could have been a major contributor to and beneficiary of the schemes to be successful.

36 Agenda notes of the Conference of State Secretaries on Rural Drinking Water Supply and Total Sanitation Campaign (held on 8-9 September 2005 at Kolkata; 15-16 September 2005 at Delhi; 29-30 September 2005; 6-7 October 2005 at Chennai); and the Conference of State Ministers of Rural Drinking Water and Sanitation (held on 31 January-1 February 2006 at Delhi). (Documents on file with the author).

37 These are habitations which were fully covered habitations and slowly fallen into the category of not covered or partially covered habitations.

The Parliamentary Standing Committee on Rural Development for the year (2005-2006) in its Report to the Lok Sabha³⁸ after reviewing the reports on the states' performance sought the response of the Department of Drinking Water Supply (DDWS) on many crucial issues. Some of the main comments and observations of the Committee are:

- The DDWS projects a bright picture as opposed to the ground position on the availability of drinking water in the country. The achievements projected by the Department shall be realistic and accurately presented in the documents presented to the Government and the Committees.
- The mechanism of reporting adopted by the States is inappropriate since it fails to provide a reliable and convincing picture with regard to the accessibility and availability of drinking water. The States noted a gross mismatch between the physical and financial achievements. It could be seen that in some states the physical achievement is less than 50 per cent while in some others an inflated hike as much as 2320 per cent or 1300 per cent is shown.
- Some of the States are unable to contribute an equal amount of what is contributed by the central Government under ARWSP. The Committee failed to understand how the States as per the stipulated guidelines release the central allocation without ensuring equal allocation.
- The Committee expressed its dissent to the Government proposal to replace ARWSP with Swajaldhara. It stated that these two are different schemes of drinking water and hence to be implemented separately. It is proposed to gradually introduce the reform process of community participation as part of ARWSP from the eleventh plan onwards.
- The Committee feels that each drop of drinking water is to be conserved. Hence the Department shall take a serious note of water conservation and management.
- Insufficient attention is paid by the Government to the suggestions by the Committee on treatment of used water and the subsequent supply for drinking purposes; and effective management of leakage of water from the pipes where the supply is through pipes.

B. An Appraisal of Policy Implementation: CAG Report

The Comptroller and Auditor General (CAG) of India in its 2002 Report stated that the water supply in terms of providing potable drinking water to all villages by 2004 is known for misplanning and negligence.³⁹ The picture is far from satisfactory despite spending an amount of Rs.32,302.21 crore on RWSP since the First Five Year Plan.

On reviewing the implementation of the rural water supply programme during the period 1992-1997 in Report No.3 of 1998 (Civil), the CAG observed deficiencies in planning, unscientific identification of water sources, re-emergence of problem villages/habitations, non-functional water treatment plants, expenditure on non-priority areas, incorrect reporting of financial achievements, diversion/misuse of funds, ineffective control, monitoring and review, excessive purchases of materials, etc. In their Action Taken Note submitted in February 1999, the Ministry had stated that all rural habitations would be provided drinking water by the end of the 9th Five-year Plan. It further stated that instructions had been issued to all States to ensure sustainability of the sources, regular monitoring of the functioning of hand pumps/tube wells, development of inventory of sources, and that recourse was not taken to diversion/misuse of funds and improvements in the monitoring and evaluation of the Programme.⁴⁰

Implementation of the programme during the period from 1997-98 to 2000-01 was again reviewed by the CAG through test checks conducted in the Ministry, Public Health Engineering Departments, Water Supply Boards and other implementing agencies in 185 districts and 306 divisions of 25 States between November 2000 and June 2001. The Major findings of the Report are as follows:

1. Re-emergence of problem habitations

The Report pointed out 73,197 problem habitations as re-emerging in seven states, namely, Gujarat, Haryana, Karnataka, Maharashtra, Tamil Nadu, Tripura and West Bengal.⁴¹

38 Ministry of Rural Development, Eleventh Report of the Standing Committee on Rural Development to the 14th Lok Sabha, 2005-06, available at <http://164.100.24.208/ls/committeeR/rural/11rep.pdf>.

39 See Comptroller and Auditor General of India, Report of the CAG on the Union Government (Civil): Performance Appraisals (2002), Chapter 3, available at http://cag.nic.in/reports/civil/2002_book3/chapter3.pdf.

40 *Id.* at 106.

41 *Id.* at 109-10.

2. Non-prioritisation

The CAG noted that expenditure was incurred on non-priority areas by governments in many of the states while there were no source habitations or no safe source habitations. A sum of Rs.283.90 crores were reportedly spent on non-priority areas like the setting up of independent water works in places where there is no shortage of water supply while ignoring the localities with utterly no supply of water. In the period 1998-2001, UP Jal Nigam installed 21,607 hand pumps in 11 districts at a cost of Rs.44.96 crores while these districts possess 12,488 hand pumps and 3,61 PC and 45 NC habitations are left uncovered.⁴²

3. Abandoned schemes

A sample check revealed that in 19 states, the implementing agencies abandoned 2,371 schemes in the course of their execution after incurring an aggregate expenditure of Rs 197.52 crore, rendering the entire expenditure fruitless.⁴³ The reasons include drying up of water sources, failure of tube wells, wrong selection of sites, non-availability of land due to local people's resistance, non-construction of treatment plant etc, which basically show the ineffective planning.

4. Right Management

131 rigs in 9 States [Assam (16), Andhra Pradesh (6), Gujarat (47), Jammu and Kashmir (16), Manipur(2), Meghalaya (1), Orissa (20), Tripura (7) and West Bengal (16)] were lying unused or were beyond economic repairs since 1996. In Orissa and West Bengal, Rs 15.68 crore was spent on drilling tube wells through private contractors while departmental rigs were underutilized. In Gujarat, of the 45,000 bores drilled during 1997-2000, 7,000 bores drilled at a total cost of Rs 10.16 crore failed due to wrong selection of sites based on the opinions of the MLAs and Sarpanches. The implementing agency had not utilized the available data of the Central Ground Water Board before selecting sites for drilling. As a result, the expenditure of Rs.3.86 crore had gone to waste.⁴⁴

5. Sustainability of water sources

Twenty per cent of ARWSP funds were to be earmarked and utilized for addressing problems related to water quality and sustainability of sources. Sample check of records in various States, however, revealed that sites were selected without using satellite imagery, data of the Central Ground Water Board, scientific technology or taking advantage of the assistance of expert agencies like the National Remote Sensing Agency (NRSA) as was envisaged in the instructions of the Ministry. This contributed substantially to the failure of the schemes in Bihar and Jharkhand, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Mizoram, Nagaland, Orissa, and Sikkim.⁴⁵

6. Operation and maintenance

Sample check of records in 13 States revealed that 85,301 hand pumps, 80,046 tube wells, 752 piped water schemes, 687 power pumps, 1,268 mini water schemes and 35 RWSS involving a total investment of Rs 369.20 crore were not functioning at all or were non-operational on account of various reasons such as drying up of sources, collapse of assemblies, lowering of water table, filling up of bore wells, blocks in pipes, failure of pumping machinery and distribution system, poor maintenance by local bodies and nonadoption of scientific technology for identification of sources, etc.⁴⁶

7. Community participation

Under the Programme, the Central Government had sanctioned 58 pilot projects in 22 States at a cost of Rs 1,690.71 crore. The projects were sanctioned without conducting any initial survey of the willingness of the people for participation. Of the Central Government share of Rs 1,577.18 crore, Rs 473.15 crore had been released as of March 2001, against which an expenditure of only Rs 6.13 crore was incurred, indicating that the progress was very poor.⁴⁷

42 *Id.* at 111.

43 *Id.* at 111

44 *Id.* at 112.

45 *Id.* at 113.

46 *Id.* at 115.

47 *Id.* at 121.

8. *Women's participation*

The guidelines of the programme envisaged the involvement of women for efficient performance and effective maintenance of water supply systems. At least 30 per cent of hand pump mistries under the National Human Resources Development and other training schemes were to be women of the local areas/habitations for better operation and maintenance of hand pump schemes. The guidelines also envisaged the engagement of women caretakers for hand pumps in the habitations and that certificates of completion of schemes should be obtained from women's groups in the habitations. Samples revealed that there was no involvement of women in Arunachal Pradesh, Assam, Sikkim, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Manipur, Nagaland, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal.⁴⁸

9. *Monitoring*

The monitoring, inspection and review of the Programme at the Central and State levels was inadequate, particularly in the context of ensuring the correctness of physical and financial achievements. Records in the Ministry did not reveal any evidence to indicate that achievement of the basic objective of providing 40 litres of water per day for each person on a sustainable basis was monitored.⁴⁹ Monitoring of the Programme was not done or was inadequate in Assam, Bihar and Jharkhand, Goa, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. In Karnataka, the high-level Committee appointed by the State Government met only once after its formation in January 2000. The Empowered Committee did not meet at all and the district level Committees were not constituted. Inspections were not scheduled in Meghalaya and not conducted in Jammu & Kashmir. The records of inspections that had been conducted were not maintained in Arunachal Pradesh, Gujarat, Himachal Pradesh, and Mizoram.⁵⁰

10. *Evaluation of impact assessment*

Evaluation of the Programme by different agencies on the basis of the parameters of adequacy, regularity, quality, distance, community participation, O&M, etc. revealed poor performance in the States of Andhra Pradesh, Rajasthan, Karnataka, Maharashtra, Madhya Pradesh, Gujarat, West Bengal, and Bihar. Significant re-emergence of NC/PC habitations was also revealed in Karnataka, AP, UP, MP, Rajasthan and West Bengal due to the drying up of sources, failure of borewells, etc.

While addressing the conference organized by the RGNDWM,⁵¹ the Prime Minister stated that a recent comprehensive survey of national opinion revealed the centrality of access to drinking water for our people. When asked what would make respondents proud of India, about 73 per cent said that availability of safe drinking water to all our people would truly make them proud of being an Indian. The agenda of the Government for securing this basic demand of the people are: provision for uncovered habitations with supply at the earliest; address of the problem of the 2.8 lakh habitations which have slipped out of full coverage for a variety of reasons; and address the problem of poor quality of water supplied. It was pointed out that an important criticism of India's water infrastructure is that its growth has not been accompanied by an improvement in the quality of governance of water services. Development analysts have criticized the water sector policy as one of 'build – neglect and rebuild.'

The PM in his speech pointed out the five aspects of the agenda to be considered on a priority basis. These are, eliminating the backlog and providing safe water to all remaining habitations which are either uncovered or have slipped back from full coverage; addressing problems of water quality; entrusting the responsibility of water supply management to local institutions and building their capacity in the management of water supply; improving comprehensive management of water supply by strengthening the management of our environment; and mobilizing communities to spread awareness of the linkage between good health and safe water supply.

From the above discussion it may be clear that the policy implementation in the country with respect to safe drinking water supply suffers from serious deficiencies. It is also important to note that the responsible authorities like the Parliamentary Standing Committee, the CAG and the Prime Minister himself highlight these deficiencies. Therefore, it may be safely concluded that State responsibility in terms of providing access to drinking water is not

48 *Id.* at 122.

49 *Id.* at 132.

50 *Id.* at 132.

51 Prime Minister's Speech, 31 January 2006, available at <http://pmindia.nic.in/speech/content.asp?id=271#>.

fulfilled successfully due to the undermining factors in the implementation stage. One vital factor, which needs deep scrutiny, is the accountability of the state agencies for failure to perform due to their own bad governance. It is not clear whether the law has an effective mechanism to address the mismanagement and the consequent failure of the grandiose schemes run by the state agencies.

IV. DECENTRALIZATION MEASURES IN THE DRINKING WATER SECTOR

In the preceding portions we have come across the way in which the Indian State tried to perform its obligation to provide drinking water arrangements. In the recent years India developed a twist in its strategy from state as the service provider to state as the facilitator. This facilitating role envisages more decentralization of the drinking water sector. The shift from a supply-based approach to demand-driven strategy seeks for community participation. The externally funded water supply and sanitation projects speak about public-private participation.

Critiques argue that though the Indian model of decentralization fulfills the modalities of administrative decentralization, it lacks fiscal and political decentralization.⁵² The National Commission on Urbanization observed how water supply system was unequal, unjust, and highly biased in favour of the rich. It is observed that the 'social construction of power structure' makes water 'artificially scarce' for the poor.⁵³ What we could perceive of, as a viable strategy could be democratic decentralization. It implies more than the downward delegation of authority. It entails a system of governance in which citizens possess the right to hold local public officials to account through the use of elections, grievance meetings and other democratic means.⁵⁴

Thus we are at a particular juncture in drinking water sector reforms wherein a role dominated and performed by the State is now expected to be discharged by the community and private actors. Although the people centered approach is a welcome step for the success of water supply and sanitation programmes, it is not clear whether we need to continue with a top-down approach than the bottom-up mode. The Government began the exercise of imparting training to local bodies about the need for conserving the water sources, know-how about the operation and maintenance of water works etc. In comparison with the proposed strategy of the Government for involvement of users, the paper argues for decentralization and democratization from below. It is pertinent to see how this process can be effectuated? Some important case studies have been reported from the different parts of the country about people participation in the supply of drinking water. In one study conducted in Gujarat, the survey indicates popular awareness about water supply schemes in the locality, water charges and the responsibilities of the users. The survey reports that gram sabha is considered as the ideal local institution in which people express their faith. However, low participation and poor management at the village level is attributed to lack of time or improper timing of the meetings held by the gram sabha, literacy levels and other factors. Women were not part of these deliberations. The survey indicated a preference for village level self-sufficiency.

While evaluating the state performance in the drinking water sector, Kerala has been pointed out as having shown a dismal performance the reasons for which are: an unacceptable top down approach to planning, non-involvement of the users, highly inadequate levels of cost recovery, depletion of sources due to overdraw, frequent breakdowns due to poor operation & maintenance, etc.⁵⁵ The Kerala Rural Water Supply and Sanitation Project (*Jalnidhi*) is designed and implemented by the users themselves as against the "top-down approach". This will be owned, operated and maintained by the users themselves on a total cost-recovery basis. The survey by the authors is limited to one of the project areas. Among the people surveyed, only a few know that it is the government, which has to refund the money borrowed from the World Bank. But everybody is unaware as to the period of repayment and the rate of interest. As many as 217 beneficiaries justified the act of seeking foreign money, since it is a

52 For more conceptual discussion, See Craig Johnson, *Decentralisation in India: Poverty, Politics and Panchayati Raj* 4-5 (London: Overseas Development Institute, 2003).

53 See Samanta Sahu and Rajashree Padhi, *Access to Drinking Water in India: State and Market Interventions* (Paper presented in the National Institute of Rural Development (NIRD) Foundation Day Seminar on *Democratization of Water* held on 10-11 November 2006, Hyderabad).

54 See Johnson, note 52 above.

55 See T M Joseph and Jos Chathukulam, *State- Society Partnership in Drinking Water Management: the Case of Jalnidhi Project in Kerala* (Paper presented in the National Institute of Rural Development (NIRD) Foundation Day Seminar on *Democratization of Water* held on 10-11 November 2006, Hyderabad).

problem of drinking water.⁵⁶ The low level of knowledge of the project among the beneficiaries again indicates that the project could achieve only limited success in activating the rural community.

There is a wide divergence between the perception of the beneficiaries about the role of the *panchayat* and its assigned role. The people lend legitimacy and credibility to the institution of Panchayat. However, the *panchayat*'s role is limited just to select the Support Organizations (SO) from the list of SOs approved by the state government and provide 10% financial assistance to the project. It has no control over the SO in the process of designing and implementing the project. At the same time, all complaints against the SO are to be settled by the *panchayat*. Authors argue that this dichotomy was not visualized in the *jalanidhi* project. According to them, the SO on the other hand, takes this opportunity to exert their authority over the beneficiaries. Having bestowed with technical knowledge and expertise, they tend to ignore the indigenous knowledge and wisdom of the local people.⁵⁷

A similar outcome is shown in the public/private participation study about water supply in Tirupur.⁵⁸ The study acknowledges that public-private Partnership (PPP) could be a way to utilize the best of both worlds, while overcoming the specific weakness of each. However the study point out that it is difficult to appreciate PPP from human rights lens of water as a public entitlement, access to which does not depend on one's ability to pay. Charging for water 'viewing water as a resource' raises questions such as water right. Charging for water so as to 'recover capital cost incurred in constructing the facilities' is generally viewed wrong because in a welfare state it is a state obligation. There is a general acceptance for charging the Operation and Maintenance costs and there are some Village Panchayats in Tamil Nadu that has the practice of collecting user charges from house service connection (HSC) holders. It is a responsibility the local body is supposed to carry out with the support of the user community.

It is worth noting that in the decentralization and community participation debate, an important factor overlooked is that traditionally drinking water supply systems were effectively managed by communities in India. For instance, in Uttaranchal State, informal institutional networks involved in the use-management of all natural resources, including water. These village institutional frameworks have been responsible for the creation and management of hundreds of thousands of drinking water systems [naulas, and bauries], about 16000 traditional irrigation systems or guls, and 50,000 gharats or water mills.⁵⁹ However, the passing of the 1975 legislation brought water resources and structures under state administration. Data provided by the Kumaon Jal Sansthan indicates that even according to conservative estimates, 45 percent of the total systems constructed are non-functional due to widespread damages. A further 20% are only partially functional. The Kumaon Jal Sansthan reports a total breakdown of 1022 rural drinking water systems, resulting in the loss of several hundred crores of rupees of investment on them.⁶⁰

V. CONCLUSIONS

The aforesaid discussions highlight the changing nature of responsibility of the state with respect to drinking water supply. This changing phase may be a difficult proposition for the average Indian mindset that still believes in an omnipotent role of the state in the basic utilities sector. Our analysis of the water supply laws show that most of these legislations were enacted at a time when state was perceived as predominant actor in the public sphere. These specific water supply laws are characterized by some limitations as follows:

- *Water supply is limited to the connections on the basis of applications, be it the household or industry;
- *State as the service provider regulates the supply and connections;
- *Charges are levied from the subscribers;
- *Individual households dependent on the connections, by and large are limited to towns and cities;
- *Laws focus more on offences by the subscribers while no accountability language is deployed with reference to state authorities.

⁵⁶ See Joseph and Chathukulam, note 55 above.

⁵⁷ See Joseph and Chathukulam, note 55 above.

⁵⁸ See generally G Palanithurai and R Ramesh, Public Private Partnership in Drinking Water Supply: Empirical Enquiry Conducted on Globalization and Decentralization in Tamil Nadu (Paper presented in the National Institute of Rural Development (NIRD) Foundation Day Seminar on *Democratization of Water* held on 10-11 November 2006, Hyderabad).

⁵⁹ See Development Centre for Alternative Policies, note 17 above.

⁶⁰ See Development Centre for Alternative Policies, note 17 above.

*Above all, inefficiency is and its root causes did not receive serious remedial measures.

The drinking water policies focused in the study are mainly those, which are initiated at the central level. The operation of a number of policies simultaneously by different agencies raises the issue of coordination among them and the generation of conflicting data on the status of access to drinking water. As pointed out earlier, policies are on the lines of constitutional goals and hence there are fewer interfaces between the water supply laws and policies.

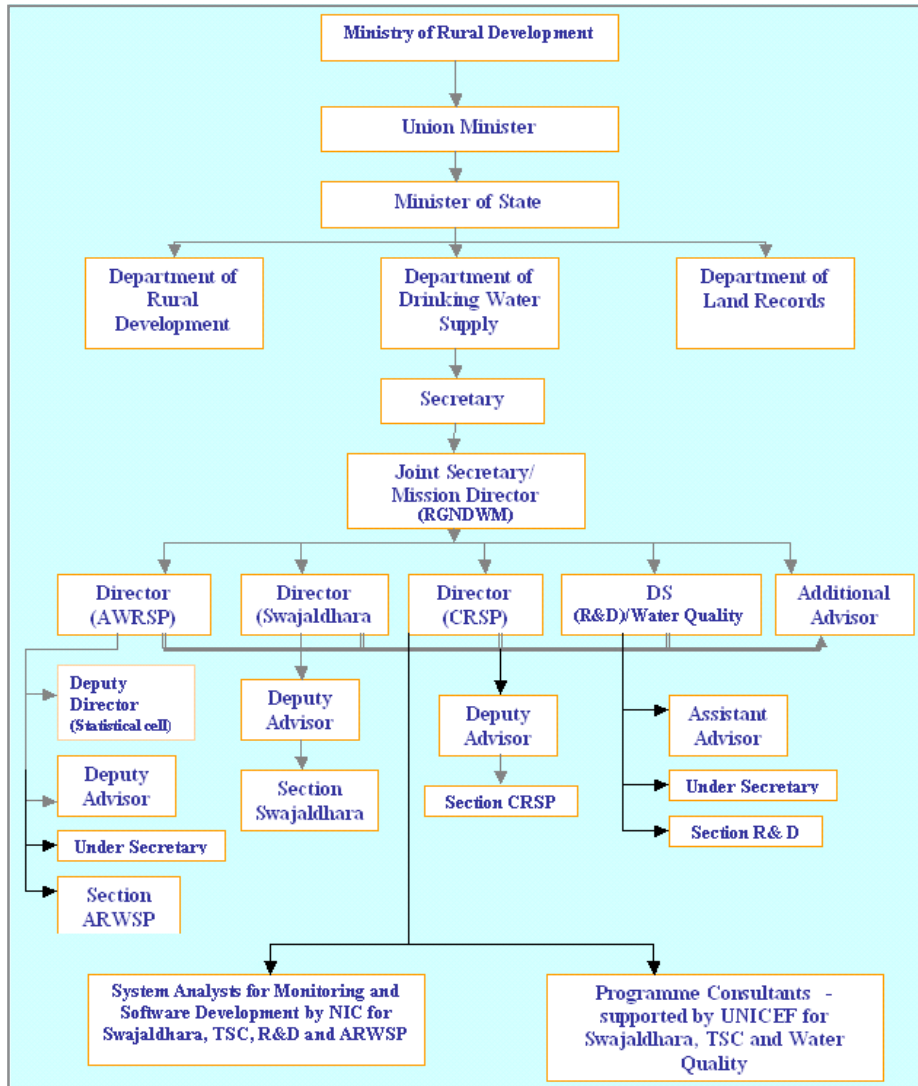
In a vast country like India it may be a utopian idea to evolve uniform strategy for drinking water supply. By and large it is clear that users' are to have definite role in decision-making and implementation. It is necessary to incorporate the existing models of people's participation, if any, in the decentralization package. However, this people-oriented approach is at variance with the one suggested by the Government in terms of the users bearing the costs incurred capital costs, operation and maintenance of water supply etc.. Where does the interests of the society find any mention or reflection? This point is vital to be examined at least in the future law/policy making to deviate from the time-old paternalistic role of the state where the ward has no voice or his/her voice is unheard. The engineered solutions for drinking water need to be supplemented with a social response in terms of the end-users' participation and the deployment of indigenous wisdoms. We should evolve a policy based on the feedback from the community for which a preliminary investigation is needed, gathering people's perspective on schemes run by the State.

Appendices

Table I-List of legislations focused in the study

SI No.	Name of the enactment	Year
1	Jammu and Kashmir Water Supply Act	1963
2	Jharia Water Supply Act	1914
3	Kumaun and Garhwal Water (Collection, Retention and Distribution) Act	1975
4	UP Water Supply and Sewerage Act	1975
5	Himachal Pradesh Water Supply Act	1968
6	Urban Water Supply and Sewerage Board Act(Assam)	1985
7	Gujarat Municipalities (Cost of Local Cess on Land Revenue and Water Rate) Rules	1979
8	Gujarat Panchayats Act	1993
9	Karnataka Urban Water Supply and Drainage Board Act	1973
10	Tamil Nadu Groundwater (Development & Management) Act	2003
11	Kerala Groundwater (Control and Regulation) Act	2002
12	West Bengal Groundwater Resources (Management, Control and Regulation)Act	2005
13	Madras Metropolitan Area Groundwater (Regulation) Act	1987

Table II- Institutional Structure



(Source: Department of Drinking Water Supply, Ministry of Rural Development, Government of India)

www.ielrc.org