Chapter – 3

Indian State and Provisioning for Drinking Water

This chapter is divided into three sections. The first section deals with the provision of water in the constitutional, legal and administrative provision. The second section discusses different water supply schemes in India since 1954 and the third section deals with people's access to water. In chapter two, issues associated with people's access to drinking water in urban areas were dealt with. While discussing the present status of access to drinking water in urban areas, an attempt is made to link how the state policies or State itself is a party to the present crisis in people's access to drinking water in urban India. In continuation of the earlier discussion, this chapter too focuses on the State and its role in provisioning drinking water to the citizens in urban areas, with a thrust on the changing role of the Indian State in creating provision of drinking water in urban areas.

3.1 Background

There are three important phases in the history of independent India that have to be considered while discussing the delivery of public services to the citizens: (1) 1947-67, (2) 1970-1980, and (3) 1991 till now.

The years following independence in India, problems such as poverty, illiteracy, malnutrition and unemployment were rampant among the general populace of the country. The national leaders including Jawaharlal Nehru saw the wisdom of investing huge sums in heavy industries. This kind of rapid industrialisation of the country, according to the national leaders, was the straight forward way to overcome the problem of poverty, illiteracy, malnutrition and unemployment.[1] The result was that the first and the second Five Year Plans (FYPs) were dominated by demands for rapid industrialisation.[2]

However, the situation changed with the rising food insecurity towards the late 1960s and the continuing problems of poverty and illiteracy. The rise of Indira Gandhi to the national political scene in India witnessed a dramatic shift in the role of State in

India in terms of basic service delivery to its citizens. Indian State adopted the rhetoric of removing poverty and providing universal access to public goods.[3] Under her *Garibi Hatao*[4] program, first put forward during her election campaign in 1971, the Indian State, for the first time, made an explicit pledge to provide public goods to everyone. This rhetoric saw subsequent governments making even broader commitments to the electorate. Consequently, there were several pro-poor policies and programmes that were given go ahead during those years. Hence, the role of State in India took a pro-active turn in terms of welfare policies to the electorate with the rise of Indira Gandhi to the national politics. The same schemes and programmes were continued till the late 1980s under different governments. The 1970s in India saw a phenomenal increase in the role of the State in the areas of poverty reduction and provision of social welfare services.

But 1990s saw the Indian State taking a 'u' turns altogether. In terms of fulfilling people's expectations and the approach towards provisioning of basic civic services to the people, the State started retreating. In late 1980s, the V P Singh led *Janata Dal* (People's Party) coalition was in power at the centre for a brief while (1989-90). The Indian National Congress (INC) was back to power in 1991. The congress party formed a coalition government under the prime ministership of P V Narasimha Rao (1991-96). New Economic reforms were introduced in this period with far reaching consequences. These policy measures included: deregulation, liberalisation and privatisation in accordance with the principles set by the *Washington Consensus.*[5] Consequently, the reforms saw the Indian State withdrawing from its erstwhile responsibilities. A good part of these was earmarked for the private sector.

While this broadly corresponds to the changing role the State in India has played for development as well as service delivery, the water sector and the provisioning of drinking water in urban areas was not immune to such kind of a development in the wake of the reforms in India. As fallout of such a move by the State, private sector participation in terms of financing, management and partnerships in implementation of water supply schemes and programmes are encouraged. As it is seen in major policy documents such as the National Water Policy 2002 and the five year plans (eighth five year plan onwards), there is lot of encouragement to the private

sector to take up the water supply projects to deliver water to the people leaving the State only as a facilitator.

3.2 State provisioning of drinking water in urban areas

It must however be stated that water supply and sanitation service were first recommended as priority areas even in 1940s by the Bhore Committee and the Environmental Hygiene Committee with elaborate plans.[6] The State took upon itself the responsibility for providing water to citizens. Rich references to such a commitment can be seen in the first five year plan.

It would be relevant to examine the provision of drinking water to the people in the Constitutional framework as well as the legal framework in this context. References to State provision of drinking water to the people can be seen in the constitutional framework.

3.3 Water: the constitutional framework

The Constitution of India has several provisions with regard to different uses of water. However, the prime responsibility for water provisioning, according to the Indian Constitution, rests with the states in the Indian union. The Constitution of India states, "Water, that is to say, water supplies" falls within the legislative jurisdiction of the state governments vide item 17 of the List II-State List[7] under Seventh Schedule referred to in the Article 246(3)[8] of the Constitution. State governments are vested with the constitutional right to plan, implement, operate and maintain water supply projects. While this is the main constitutional provision that determines the jurisdiction of the Centre (Government of India) and the state (provincial government in the Indian union) with regard to water, there are several other major provisions that determine individual's access to water in India.

Article 15(2) of the Constitution explicitly states that no citizen shall "on grounds only of religion, race, caste, sex, place of birth or any of them" be subject to any disability, liability, restriction or condition with regard to "the use of wells, tanks, (or?) bathing ghats." This is one of the most important provisions in the Constitution of India determining a person's access to water which finds its place among the fundamental rights. The provision in this article was inspired by the issue of the

socially disadvantaged classes in India being denied access to water and water sources within the community during the pre-independence period and before. This became a prominent feature of the Indian freedom struggle and was reflected in the debates around the framing of this provision that took place in the Constituent Assembly.[9] The other important provision is enumerated in Article 21 which states "the protection of life and personal liberty." This provision of the constitution has been liberally interpreted by the Supreme Court of India to include all facets of life including *right to water.* This provision in the Fundamental rights chapter of the Indian constitution empowers the individuals/citizens to move to courts in case of infringements. There are several other provisions of significance though not justiciable and plays an important role in determining people's access to water.

The Directive Principles of State Policy (DPSP), which the Constitution in Article 37 declares to be non-enforceable, but is considered central to the governance of the country identify the principle of equal access to community resources. Article 39(b) in this provision recognizes the principle of equal access while declaring that the "ownership and control of the material resources of the community are so distributed as best to sub serve the common good." Thus, the provision mandates that the State shall direct its policy towards securing this goal.

In addition, the central government is also empowered by several constitutional provisions, which endows the centre with additional responsibility of jurisdiction in certain situations. Thus, while under Article 245 of the Constitution, Parliament makes laws for the whole or any part of the country and a legislature of the state for the whole or any part of the territory of the state (which also extends to water resources),[10]the Parliament can, under Article 252, make laws even on issues in respect of which it has no powers, provided the legislatures of two or more States resolve that the Parliament should make such a law. Thus, in this regard we have the Water (Prevention and Control of Pollution) Act, 1974, which was a law on a topic relatable to Entries 6 and 17 of the State List.[11] While the constitution of India provides for wide ranging provisions as discussed, in order to facilitate people's access to water, several of these provisions are flouted by the private parties as well as the Central and state governments from time to time for narrow interests. In such

situations, the judiciary (the Supreme Court of India and different state High courts) have stepped in to the rescue of the common people's interests.

3.4 Water: the legal provision

If one cares to peep into the history, laws related to use of water date back to the period when the Code of Manu was prescribed, over 3000 years ago. During the ancient times when water resource was available in plenty and the demand was less, the principle of discovery had applied i.e. whoever discovers the resources dominate over it.[12] This principle had also found its place in the old Roman law and the Common law of England and was later prevalent in pre-independence India. However, according to Ramanathan, in the modern jurisprudence Indian water law can be viewed generally in three contexts - the colonial, the post-colonial and the constitutional.[13] While the colonial context stretches till India became independent in 1947, the post-colonial period continues to this day in the form of many unrepealed legislations of the colonial era.

The constitutional context started with the adoption of a new constitution in India in 1950 and is manifested both in statutes and in court decisions from time to time. The colonial law makers appeared to be more concerned in irrigation-related laws.[14] They treated water more as an irrigation resource in order to generate revenue. Treatment of water as an irrigation resource during the colonial period also meant that the right to water got intertwined with the right to land[15] and water resource was identified with land resource. The post-colonial context witnessed a slight shift in the system of acquisition of right to water. The Central Public Health Engineering and Environmental Organisation (CPHEEO) in India states three ways of acquisition of right to water[16];

- Riparian system – belongs only and equally to those who possess access to water through ownership of land abutting on a stream.
- Prior appropriation system – two principles of prior appropriation system, (a) beneficial use of water and not land ownership gives the basis of the right to use water, and (b) priority of use and not equality of right is the basis when there is not enough for all.

- Administrative disposition of water use rights – envisages authorisation by the government for using any water declared to be public.

In the post-colonial period, with organised water supply, sewerage, and water pollution, a broad classification of the water supply laws have emerged. According to Panicker those include[17]:

- 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.

3.4.1 Judicial intervention

The constitutional jurisprudence of the country developed by the judiciary placed drinking water as a derivative right, meaning right that is derived, within the purview of right to life under Article 21 of the constitution.[18] 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.[19] In several instances, the Supreme Court of India as well as the state high courts interpreted the right to water as a part of right to life under article 21 of the constitution - part of fundamental rights of the people. The Supreme Court of India invoked Article 21 of the constitution which guarantees right to life and hence to water and environment in 1980.[20]

The Supreme Court of India has intervened in several cases relating to provisioning for drinking water to the citizens. In some of these cases the Court has declared drinking water as a bare necessity, a community property and a fundamental right. The Court observed that State is the trustee of all natural resources including water and it cannot be transferred to the private party. In the following section an overview of some selected cases is taken up.

In 1981, in the *Francis Coralie Mullin*[21] case, the Supreme Court declared, "the right to life includes the right to live with human dignity and all that goes with it, namely, the bare necessaries of life such as adequate nutrition, clothing and shelter

and facilities for reading, writing and expressing oneself in diverse forms, freely moving about and mixing and commingling with fellow human beings. The magnitude and components of this right would depend upon the extent of economic development of the country, but it must, in any view of the matter, include the bare necessities of life and also the right to carry on such functions and activities as constitute the bare minimum expression of the human self." By stressing on the *bare necessities* of life, the Court actually made a point on the availability of food, water, shelter, clothing etc without which *human dignity* cannot be ensured.

The Court recognized that water is a community source which is to be held by the State in public trust in recognition of its duty to respect the principle of inter-generational equity. In *M.C. Mehta v. Kamal Nath*[22] the Supreme Court in 1997 declared that "our legal system – based on the English common law – includes the public trust doctrine as part of its jurisprudence. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment. Public at large is the beneficiary of the seashore, running waters, air, forests and ecologically fragile lands. The State as a trustee is under a legal duty to protect the natural resources. These resources meant for public use cannot be converted into private ownership." The Court in this particular case made natural resources such as water a community property, the ownership of which cannot be transferred to the private party.

In 2000 in the *Narmada Bachao Andolan v. Union of India*[23] case, the Supreme Court, held that "water is the basic need for the survival of human beings and is part of the right to life and human rights as enshrined in Article 21 of the Constitution of India and can be served only by providing source of water where there is none."

In similar words the Allahabad year High Court held right to life as a fundamental right under Article 21 of the Constitution which includes the right to, enjoyment of pollution free water and air for full enjoyment of life. It is further held that 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, air, which may be detrimental to the quality life.[24] In a similar way in 1996 the Supreme Court in its judgment *Chameli Singh v. State of Utter Pradesh*

held that Article 21 includes the right to food, water, decent environment, medical care, shelter and education.[25]

The precautionary principle was applied by the Supreme Court in a case relating to the setting up of an industry in the vicinity of the water body. The Court struck down the notification issued by the Government of Andhra Pradesh exempting an oil industry located in the vicinity of two major water reservoirs from the purview of an earlier ban imposed on the setting up of such units within a 10k.m. radius of the two reservoirs. In 2001 in the case, *A.P. Pollution Control Board v. Prof. M.V. Nayudu*, when initially faced with ambiguous reports of experts, the Supreme Court referred the case to the National Environmental Appellate Authority for further opinion. The scientific reports of independent expert showed that there was every possibility that the unit would pose a potential threat to the major drinking water source. The Court observed, an order of exemption carelessly passed, ignoring the precautionary principle could be catastrophic. It concluded that the industrial unit question had failed to discharge the onus of showing that there would be no danger of pollution even if it adopted the suggested safety measures.[26]

The above illustrate a few of the landmark judgements whereby, the Supreme Court in India appeared to have made the State liable to the citizens. Some of these judgements by the Court have found its manifestation in the policy provision on drinking water.

3.5 Water: administrative provision

The Environmental Hygiene Committee was appointed by the Government of India (1948-49) for an overall assessment of environmental hygiene in India. The Committee suggested certain optimum service level for communities based on population groups. Simultaneously, by the Code of Basic Requirements of water supply, drainage and sanitation (IS: 1172-1983) of the National Building Code of India, a minimum of 135 Litres Per Capita per Day (LPCD) is recommended for all residents provided with full flushing system for excreta disposal. Though the Manual on Sewerage and Sewage Treatment recommends a supply of 150 lpcd wherever sewerage system exists or is planned, a minimum of 135 lpcd is now recommended[27] (see table 3.1).

Table 3.1: Recommended LPCD water supply

Sl no	Classification of towns / cities	Recommended maximum water supply levels (LPCD)
1	Towns provided with piped water supply but without sewerage system	70
2	Cities provided with piped water supply where sewerage system is existing/planned	135
3	Metropolitan and mega cities provided with piped water supply where sewerage system is existing/ planned	150

Source: CPHEEO manual, 1992, p.11.

3.6 Drinking water and national water policy

The first National Water Policy (NWP) was formulated in 1987. It declared water as a prime natural resource and a basic human need. It gave the highest priority to drinking water provisioning. However, soon the policy was realised to be a mere proposition and it appeared there was no serious action taken on it. To quote Iyer, "the operationalisation of the NWP 1987 did not make much headway; it continued to remain largely a set of general propositions."[28] Though in paper it accorded priority to drinking water, in practice it devoted "disproportionate amount of space to large irrigation projects."[29] Subsequently, in 1991 the government adopted a number of reform measures and the 74th Constitution Amendment act was passed in 1994. All these developments changed the context and hence there was need for a new water policy. The revised policy was adopted in 2002. The striking difference between the NWP 1987 and NWP 2002 is with regard to the participation of the stakeholders as well as the private sector. While there was no mention of private sector participation in the NWP 1987, in 2002 it was encouraged on grounds of generating finance, introducing corporate management and improving service efficiency and accountability.[30] Taking cue from the NWP, different states formulated their state water policies.

3.7 Drinking water and state water policies

The same trend of giving priority to drinking can be seen in the policies of different states such as Rajasthan, Madhya Pradesh, Himachal Pradesh, Karnataka, Maharashtra, and Utter Pradesh. Some of the main features of the policies of states on water include;

- Declaration of water as a natural resource.
- According priority to drinking needs on any available water.
- To make the water supplies self-sustaining or at least to meet the O & M costs.
- To involvement the community in planning and managing drinking water supply in urban areas to make the community responsible for O & M of water supply.
- Encourage private sector in financing and implementation of projects for introduction of new technology and benefits by management expertise.

3.8 Provision of drinking water: agencies and institutions

Drinking water supply to the citizens is traditionally seen as the domain of the State. The State, through its various agencies, is directly involved in ensuring water to the people through plans, programmes and executing them in order to supply water. However, institutional responsibilities for water supply in India are highly fragmented, which complicates access to water. Besides the public health engineering agencies of the state governments, state level parastatal agencies, city level water supply and sewerage boards and local governments, a number of unregulated private companies (formally and informally) are involved in the sector. Furthermore, these arrangements differ across states.[31] These agencies are expected to implement the decision taken at the national or at the state level and therefore remain at the mercy of the political decision-making. This has an adverse effect on the municipal services, as they do not have adequate funds to mobilise revenue and have to depend extensively on the state. The hierarchical administrative set-up, unclear divisions of responsibilities dealing with common issues coupled with political patronage, heavy subsidisation of water which is not properly targeted, slack enforcement of pollution control and regulation laws has been the feature of urban water governance in India.

In other words, India shows a fractured institutional set-up.[32] Management of water is through a top-down approach and is virtually a government monopoly.[33] The following section gives an overview of the institutions involved in water supply to the urban areas.

Institutional responsibility for water is divided between the Government of India and the State Governments as per the Seventh Schedule in the Constitution of India. While the centre is equipped with River Boards Act-1956 and Inter-state Water Dispute Act-1956[34], the state governments are entrusted with the jurisdiction over domestic water supply. Further the 74th Constitution Amendment Act[35] gave the urban local bodies the sole responsibility of water supply to the people. However, a number of other national as well as state agencies / institutions are involved with water supply either directly or indirectly.

The Ministry of Urban Development (MUD) is the nodal Ministry for policy formulation and guidance for the Urban Water Supply (UWS). The Ministry's responsibilities include broad policy formulation, institutional and legal frameworks, setting standards and norms, monitoring, promotion of new strategies, coordination and support to state programmes through institutional expertise and finance. The Ministry is also responsible for managing international sources of finance.

The Central Public Health and Environmental Engineering Organisation (CPHEEO), created in 1953, is the technical wing of the MUD, which advises the Ministry in all technical matters and collaborates with the state agencies about water supply and sanitation activities. CPHEEO plays a critical role in giving technical sanction to externally funded and special programmes and those parts funded by the Life Insurance Corporation (LIC) of India. CPHEEO also plays a central role in setting design standards and norm for urban water supply.

As the Technical Wing of the MUD, the CPHEEO deals with the matters related to the following:

- Technical scrutiny of water supply and sanitation including solid waste management schemes submitted by the state governments / local bodies and union territories, for urban sector.

- Techno-economic examination of schemes received from State Governments and local bodies seeking assistance from external funding agencies such as World Bank/ JBIC/UNDP and Bilateral agencies etc.

- Monitoring of water supply schemes under the centrally sponsored Accelerated Urban Water Supply Programme (AUWSP).

- Guidance to state governments in regard to formation of Statutory Water Supply and Sewerage Boards.

- Preparation of the draft material for five year plans and annual plans in respect of water supply and sanitation.
- Assisting the MUD in all matters connected with urban water supply and sanitation and solid waste management including furnishing material for Parliament Questions and VIP references.

- Monitoring and managing information system of water supply & sanitation in the country.

- The issues related to the Millennium Development Goals (MDGs) in regard to water supply.

While the CPHEEO at the national level oversees the plans and programmes, at the state level the Public Health Engineering Department (PHED) is responsible for planning and execution through the municipalities or the local level governments. The state governments supply water to the people through (i) urban local bodies (ii) state level water boards or, (iii) statutory and non-statutory bodies at the city level. In most cases, the concerned state departments, such as the Public Health Engineering Department (PHED), the Public Works Departments (PWD), the Urban Development Department and the Department of Local Self-government through their divisional and district offices carry out the capital works. In few states, such as Tamil Nadu and Karnataka, the responsibilities are vested with the respective Water Supply and Sewerage Boards. There are statutory boards created as specialised agencies to supply water in larger cities or metropolises. As observed by the CPHEEO, these boards are created to financially bail out the local bodies which face serious handicaps in terms

of finance and fund raising. According to the CPHEEO, "these boards are devices by which state governments will be able to establish corporate public entities to construct, manage and operate water and sanitary services on a fully commercial basis in large metropolitan areas as well as in smaller urban communities."[36]

It further states that such boards will have the advantage of; (1) Increased efficiency resulting from financial autonomy, (2) Improved ability to raise capital with confidence and (3) Better realisation of water revenues when it is separated from local politics.[37] Taking cue from the CPHEEO, many state governments have created such independent boards for water supply in cities. For example, Delhi, Hyderabad, Chennai, and Bangalore are a few of the cities which have such boards supplying water to the city population. The main functions of these boards include augmentation of water supply, operation and maintenance of the distribution system, capital works and collection of water charges. Sometimes these boards such as in Hyderabad give bulk amount of water to the municipal bodies against a fixed charge instead of distributing water themselves to the individual households.[38] In cities where boards do not exist, the responsibility for maintaining the capital assets, and collecting water taxes and charges lies with the urban local bodies or municipalities.

While these institutions are directly involved in water supply to the people, there are also several other departments or agencies indirectly adding to the efforts of government. For example, the Central Water Commission (CWC) in the Ministry of Water Resources (MoWR) has responsibilities for regulating the use of surface water for irrigational, industrial and drinking purposes. The CWC also mediates in inter-state water allocation disputes. The Central Groundwater Board (CGWB) of the same Ministry has an overseeing responsibility to monitor groundwater levels and rates of depletion, as well as production of water resource inventories and maps. The National Rivers Conservation Directorate (NRCD) under the Ministry of Environment and Forests (MoEF) oversees the implementation of Action Plans to improve the quality of the nation's rivers.[39] The Central Pollution Control Board (CPCB) was set up in the Ministry to promote basin-wide pollution control strategies. The CPCB liaises with State Water Pollution Control Boards and lays down standards for treatment of sewage and effluents. The Board is also responsible for action in the case on non-compliance. Other government agencies involved either directly or indirectly with

water supply and sanitation in India include the Ministry of Agriculture (MoA), which is involved in planning, formulation; monitoring and reviewing of various watershed based developmental project activities.

State provisioning of drinking water also sometimes involve non-state actors such as market and civil society organisations.

3.8.1 Supply of drinking water through the market

Water supply to the people sometimes has involved the market mechanisms by the State. For example, the Chennai Water Board has contracted with 500 private contractors to supply to various parts of the city, including slums which do not have public stand posts (PSPs). The tankers in turn buy water from farmers outside the city and supply water to the people. They in turn are reimbursed by the Chennai Water Board. Approximately 10% of the Chennai Water Board's annual expenses go towards hiring and monitoring these tankers. The contract is monitored by the Water Board. The tanker owners attend regular vigilance committee meetings.[40] This is a case of employing market mechanisms by the State to provide water to the people.

3.8.2 Supply of drinking water through the CSOs / VOs

Water supply to the people in cities also sometimes involves the civil society organisations or the voluntary organisations. In such case, the civil society organisations or the voluntary organisations are supplied with bulk amount of water and in turn the CSOs / VOs distribute water to the residents in the area. For example, the Resident Welfare Association (RWA) in a particular colony is given bulk water by the municipality or the water board and in turn, the RWA distribute water to the individual houses. The RWA also takes the responsibility of O & M functions and the collection of user charges from individual houses.

3.9 Drinking water and the five-year plans

Although at the beginning of Five-Year Plans in India it was realized that providing safe drinking water to the people was vital for the development of the country, the plan outlay was not significant. During the Fifth Five-Year Plan, it was realized that no improvement in the standard of the people could be brought about

without providing safe drinking water. From this plan the Minimum Needs Programme (MNP) was introduced and provision of safe drinking water was included in it. During the 8th plan it was implemented in a more decentralized manner with the involvement of people and local institutions and the role of government was restricted to planning, monitoring and partial financial support. During this plan also there was a major policy shift of the government towards water as it declared water to be managed as any other commodity. The striking feature in the 8th plan is the involvement of private sector. Private sector efforts for construction and maintenance of drinking water projects was given go ahead and mobilised to the maximum extent feasible. From this plan onwards, private sector involvement is encouraged and has become a regular feature in five year plans.

Significantly the 9th plan saw the role of the government shifting from that of a service provider to a facilitator in policy framework, institutional capacity building and financial reforms. In the light of the Constitution (74th Amendment) Act, while State agencies may continue to plan and implement capital works, the responsibility of distribution may be progressively decentralised to local bodies, and where feasible, to the private sector, within the policy guidelines of the state governments to strengthen the delivery and management of drinking water. It was also decided that, plan funds would be used not only for direct intervention but also as a leverage instrument. This strategy has to be increasingly adopted to activate and sustain the funds flow from outside the government sector. The percentage share gradually increased from the 1.28% to 1.38% between First to Eighth Plan and then dramatically improved to 2.17% of the total public sector outlay in the Ninth Five Year Plan (see table 3.2).

The Tenth Plan shifted the role of government from direct service delivery to that of planning, policy formulation, monitoring and evaluation, and partial financial support. Further the Eleventh plan, made special emphasis on creating conducive atmosphere to private sector investment in urban infrastructure such as water supply. Therefore, private sector participation in the urban water supply has become the cornerstone of planning strategy since the eighth plan.

Table 3.2: Water supply plan-wise allocation (Rs. in crores)

Plan Period			Total Plan Outlay/Expdr. Under Water Supply & Sanitation Sector		Plan Outlay/Expdr. for Urban Water Supply	
			Amount (Rs. Crores)	% of Public Sector Outlay	Amount	% of Public Sector Outlay
1.	I Plan (1951-56)	Outlay	49.00	1.46	43.00	1.28
		Expenditure	11.00	0.56	8.00	0.41
2.	II Plan (1956-61)	Outlay	72.00	1.07	44.00	0.65
		Expenditure	74.00	1.58	44.00	0.94
3.	III Plan (1961-66)	Outlay	105.70	1.23	89.37	1.04
		Expenditure	110.17	1.28	91.34	1.07
4.	IV Plan (1969-74)	Outlay	437.00	2.75	282.00	1.77
		Expenditure	458.90	2.91	250.90	1.59
5.	V Plan (1974-79)	Outlay	1030.68	2.62	549.44	1.40
		Expenditure	1091.60	2.77	539.51	1.37
6.	VI Plan (1980-85)	Outlay	4047.00	4.15	1766.68	1.81
		Expenditure	3997.78	3.66	2334.53	2.14
7.	VII Plan (1985-90)	Outlay	6522.47	3.62	2965.75	1.65
		Expenditure	7093.13	3.24	2557.81	1.17
8.	VIII Plan (1992-97)	Outlay	16711.03	3.85	5982.28	1.38
		Anti. Expenditure	16932.00	4.33	7316.00	1.87
9.	IX Plan (1997-02)	Outlay	39538.00	4.46	18624.00	2.16
10.	X Plan (2002-07)	Outlay	44206.55	2.89	19758.55	1.30

Source: www.cpheeo.nic.in

There has been a significant increase in the plan allocation in the country's FYP over the years. From the modest plan investment of Rs. 43 crore in the first FYP (1951-56), the allocation increased to Rs. 19758.55 crore in the tenth FYP (2002-07).

However, the plan proportion of urban water supply has been maintained at about 1.2-1.3 percent, notwithstanding the fact that the urban population has risen from 62.4 million in 1951 to 285.31 million in 2001.

Apart from the Five-Year Plans, the government at the national level has from time to time launched various programmes to provide the people with safe drinking water. The programmes are summarised here;

3.10 Water supply programmes: 1954 till date

In accordance with the policy pronouncements and commitment of the government towards providing drinking water to all, several specialised schemes are announced from time to time. A list of such important schemes of government to provide drinking water to the people is given below.

- National Water Supply and Sanitation Programme (NWSSP, 1954)
- Village Water Supply Programme (VWSP),
- Urban Water Supply Programme (UWSP),
- Accelerated Rural Water Supply Programme (ARWSP), 1972-73
- National Programme of Minimum Needs or MNP, 1974-75
- Technology Mission or Rajiv Gandhi National Drinking Water Mission (RGNDWM), 1986
- Accelerated Urban Water Supply Programme (AUWSP), 1993
- Swajaldhara, 2002
- Jawaharlal Nehru National Urban Renewal Mission (JNNURM), 2005

Since it is out of purview of the present work to discuss schemes in rural areas, the present discussion is confined to urban sector only. The schemes to provide drinking water to urban areas are briefly discussed here.

3.10.1 Urban water supply programme (UWSP)

Urban Water Supply Programme like the Village Water Supply Programme (VWSP) was implemented in order to provide drinking water to the urban areas. It was being executed by municipalities and corporations with loans provided by the

Central and state governments. A sum of Rs 89 crores was provided for Urban Water Supply and drainage during the 3rd plan.[41]

3.10.2 Integrated development of small and medium towns (IDSMT)

IDSMT was launched in 1979–80 to improve the economic and physical infrastructure and to provide essential facilities and services in small and medium towns. Till March 2007, a total of 1854 towns, out of 5092 small and medium towns were covered under the scheme. Out of an approved outlay of Rs 1304.65 crore for the Tenth Plan, the anticipated expenditure is Rs 566.43 crore. The scheme has since been subsumed in JNNURM as Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT).[42]

3.10.3 Accelerated urban water supply programme (AUWSP)

During the eighth plan (1992-97), in 1993-94 a new programme was launched for urban drinking water supply. This programme was targeted at small towns with population less than 20,000 in 1991 census, for drinking water supply as they had been excluded or not given due importance earlier.[43] Funding for this programme was envisaged by central and State governments in the ratio of 50:50. In special cases, 100 per cent finance is available as the central share. The AUWSP is being administered through the CPHEEO at the Centre.

The primary objectives of the programme are; to provide safe and adequate water supply facilities to the entire population of these towns within a fixed time frame, to improve the environment and the quality of life and for better socio-economic condition and more productivity to sustain the economy of the Country.

The programme was operationally integrated with the Public Health Engineering Department / Water Supply and Sewerage Board and Urban Local Bodies for the provision of water supply facilities. In so far as the operation and maintenance of assets created under the programme are concerned, the stress was on the community to operate and maintain it. Priority was given to the towns with special problems such as:

- Very low per capita supply
- Very distant or deep water source

- Drought-prone areas
- Excess salinity, fluoride, iron content in the water source
- High incidence of water borne diseases

Evaluation of the programme was made in November 2003 for 62 towns in 24 States. Major recommendations included handing over of the scheme to ULBs, timely release of state funds, periodic review of tariff, and training to field engineers for effective implementation.[44] The scheme has since been subsumed under JNNURM.

3.10.4 Jawaharlal Nehru national urban renewal mission (JNNURM)

The Prime Minister of India launched JNNURM on December 3, 2005 to give focused attention to integrated development of urban infrastructure and services in select 63 cities with emphasis on provision of basic services to the urban poor, including water supply. A provision of Rs 50000 crore has been made as reform-linked Central assistance over the Mission period of seven years beginning from 2005–06. The provision of Central assistance is linked to the implementation of certain mandatory as well as optional reforms at the State and ULB/parastatal levels during the Mission period. Against the allocation of Rs 4900 crore for 2006–07, an amount of Rs 3906 crore was released. In 2007–08, an amount of Rs 5500 crore has been allocated.[45]

3.10.5 Urban infrastructure development scheme for small and medium towns (UIDSSMT)

JNNURM scheme consists of only 63 cities and towns. For the remaining 5098 urban areas, the Urban Infrastructure Development Scheme for Small and Medium Towns has been launched. Under this scheme, the cities and towns proposing to access funds for urban infrastructure improvements such as water supply will have to undertake mandatory as well as optional reforms. Under the scheme, the States are authorized to prioritise cities and projects to be provided assistance. The scheme will be implemented through a State level nodal agency.[46]

3.10.6 Mega city

A programme on infrastructure development in the mega cities was introduced in 1993–94 to cover a wide range of projects on water supply and sewerage, roads and bridges, city transport, solid waste management, etc. The anticipated expenditure of Central share released during Tenth Plan amounts to Rs 908.69 crores against an allocation of Rs 1050 crores. The scheme has since been subsumed in JNNURM.[47]

3.10.7 Urban reform incentive fund (URIF)

The Tenth Plan underlined the need for broad based reforms in urban governance and made it obligatory for assessing Central assistance. One of the reform measures under the URIF was to revise the user charges to cover operations and maintenance costs of water supply. An allocation of Rs 300 crore was made under URIF for allocation to different States for implementing the reform agenda. The scheme was later subsumed in JNNURM.

3.10.8 National urban infrastructure fund (NUIF)

The commercial banks are hesitant to lend to ULBs due to apparent lack of capacity of the ULBs to meet their debt. Therefore the NUIF is proposed to be set up as a trust to provide source of funding for bankable projects/ schemes pertaining to the ULBs. This also includes projects relating to urban water supply at the city level.

An analysis of the programmes and schemes undertaken by the State in India for providing drinking water reveals that the major concern and areas of emphasis have changed significantly during recent years with the changing policy perspectives at the macro level. Most of the programmes for providing basic services in the period following independence were primarily financed by the central government. However, there has been a large scale policy shift in such areas and the responsibility has shifted from the national government to the regional or the local bodies in India.[48] On the other hand, beginning the Eighth Five Year Plan (1992-1997), there has been a major policy shift at the macro level with the emphasis shifting to a greater reliance on private capital, institutional financing and resource mobilisation by the concerned public agencies for provisioning drinking water in urban areas.[49] Thus the policy shifts at the macro level and the changes in the nature of water supply schemes and

pattern of financing for these programmes have affected the availability and accessibility of drinking water to urban population and particularly, the poor.[50]

A sense of urgency was expressed in the planning for water supply with the adoption of United Nations Water Supply and Sanitation Decade (1981-1990) in accordance with the Mar Del Plata declaration in 1977. Accordingly a National Master Plan of India for the water decade was brought out by the Ministry of Works and Housing, Government of India in 1983. The master plan highlighted the sector position in terms of coverage targets, financial requirements, and the need for reforms in planning, implementation, monitoring and O&M of water supply. However it was realised that there was no special efforts made in terms of allocation of resources. Only a few states like Rajasthan, Utter Pradesh and Madhya Pradesh made special allocations for water supply.[51]

In several cases, the state governments have discontinued the programmes owing to lack of funds after the central government stopped funding. Some other state governments have opted for institutional financing at high interest rates rather than budgetary allocations. The result, these states have put more emphasis on cost recovery and hence the pro-poor bias has been diluted in the process. Thus, the weak financial position of the state governments and the local bodies has serious negative implications on the people's access to drinking water. On the other hand, the financial institutions like HUDCO and other international agencies such as the World Bank and the IMF, which finances these schemes at the regional level, insist on cost recovery by increasing water tariffs. Since increasing water tariffs is a politically contentious issue, the implementing agencies find it an uphill task to fulfil and hence can not avail institutional finance. Therefore, cost recovery and financial viability have become the underlining principles in the new changed policy environment. As a result, those projects which are remunerative in the long run take precedence over projects that have long term growth potential for the urban centres and infrastructural facilities. [52]

The urban water sector is characterized by the absence of effective regulation, controls and coordination between the concerned agencies. In India, for instance, there is a multiplicity of public bodies at the federal, state and local level. Some agencies elaborate and define policies while others are limited to an advisory or planning role.[53]

Furthermore, in the entire process of drinking water provisioning, the role of NGOs, civil society organizations and ultimately the community participation is poorly defined. The community members play a very little or no role in the planning and implementation process of different schemes thereby making it partially successful. Supplying potable drinking water has always been a case of centralized planning and all the decisions are taken at the central level. The activity is essentially governmental, centralized, with a top-down approach whereas the need is for a people-centered planning.[54] The beneficiaries of water services, the consumers and members of community are overlooked while plans and projects are being finalized. The urban local bodies which are constitutionally mandated to play the main role in supplying drinking water ends up doing only the execution work with no role in planning and decision-making.[55] It appeared over a period of time that the centralised planning and implementation of water supply did not yield expected results. Hence a more decentralised approach to the implementation of water supply programmes was taken up with the passing of 74th Constitution Amendment Act 1994.

3.11 The constitution 74th amendment act

A new era in the constitutional history in India was ushered in with the 74th Constitution Amendment Act (CAA). The Act gave the urban local bodies (ULBs) a constitutional status with self governing democratic institutions. The CAA has empowered elected representatives and the community leaders with decision making powers through institutional frameworks such as Ward Committees and District Planning Committees. The emphasis was on *bottom-up* approach and the discarding of the *top-down* approach. Through the Act, the ULBs are empowered with the responsibility of water supply to the urban areas. The CAA made specific provisions for decentralization of functions, finances, and functionaries in order to enable the ULBs to function as *institutions of self government.* However in reality, fiscal and administrative decentralization have lagged behind political decentralization.

With the adoption of economic reforms in the early 1990s and the passing of 74th CAA, there is a shift in the way policies on drinking water are adopted. There is now more talk of cost recovery, meeting O & M costs and private participation. This is further fuelled by the donor agencies and their conditionality. The donor agencies

such as the World Bank, the IMF and the Asian development Bank (ADB) conduct several training programmes for the high ranking water officials, bureaucrats and the engineers to infuse in them the idea of cost recovery, charging for water and private participation. While on the one hand these agencies promote such idea as Millennium Development Goals (MDG), on the other, they finance various drinking water projects and put conditionality.

Besides, one can find the importance that is attached to drinking water in different State policies and programmes from time to time. In addition, there is enormous increase in plan expenditure over the years for providing safe drinking water to the people. However, the goal of providing safe drinking water universally has remained ever challenging to the government.

While on the one hand, the State policies endorse drinking water for all, on the other, the same State policies make a distinction and deprive certain section of the people of their basic rights – right to drinking water.

3.12 Impact on access to water

At a macro level the State policies are designed in such a manner as to provide universal access to drinking water to all people irrespective of their class, caste or social status. Since independence it has been seen, in major policy decisions of the government like the Five Year Plans and other programmes for water supply that the basic thrust of the State policy is universal access to safe drinking water for all. Besides, the major policy of the government in order to provide safe drinking water to the poorest of the poor is the highly subsidised water. Government across states have policies for a heavily subsidised water supply. However, access to safe drinking water is still a mirage to millions of people in the country.

These are policies at the macro level. A little digging at the policies at the micro level shows how contradictory these policies are with the end results. There are several entry barriers whereby the poor and people in the lower strata do not have an easy sail to get a municipal water connection or easy access to drinking water supplied by local authorities.

3.12.1 High connection costs

One of the primary reasons which, to a great extent, have determined people's access to drinking water in the urban areas is the charges or fee attached to granting a new water connection. Connection costs, ironically called donation is collected from all new piped water connections. These are as high as Rs 10,000/- to Rs 15,000/- in many Indian cities. For example, in Hyderabad (Andhra Pradesh) it is around Rs 12,000/-. In such a situation, people living in the poorer areas and the poor people cannot afford to pay such a high amount for a new water connection. Consequently, they do not have formal water connection and thus their access to clean drinking water is grossly compromised. Therefore, the problem for the poor in urban areas in accessing water is not one of affordability only but also of the inherent capital expenditure involved in obtaining new water connections.[56]

3.12.2 Land tenure

One of the primary requirements for granting a new water connection is the land tenure. In contrast, most of the people living in the urban slums lack legal land tenure which provides people with official status and documentation to live in their settlement as legal settlers.[57] Therefore, in the absence of legal land tenure in the official records the slum settlers become illegal settlers and hence basic services including water supply cannot be provided to them. Since supplying them with basic services amounts to their being politically and legally recognized as bonafide legal settlers, the State agencies stay away from such a practice, hence depriving the poorer communities' access to safe drinking water.[58] On the other hand, at times these slum settlers are seen as outside the urban periphery and in the process of planning and policy design they are overlooked. Ashis Nandy defines it as "the city that was never part of the formal *master plan* but always implicit in it."[59] This unintended city consists of the growing number of poor housed in slums and streets. Their presence is not counted while different policies and programmes are being implemented and hence they are not entitled to get connected to the water supply system.

3.12.3 Subsidised water for the poor

The most cynical of the State policies is the subsidised water supply. Water supply to urban households in India is highly subsidised.[60] They are aimed at assisting the poorest to have access to water supply. But as has been pointed out earlier, majority of the urban poor do not have access to organised water supply being the illegal settlers and not being able to pay the high connection cost. Therefore, the poor in the urban areas do not get benefit of this subsidised water. Further, it's always the poor who suffer from not having access to water.

On the other hand, these subsidies intended for the poor benefit the rich class people having water connections to the main supply lines. Furthermore, raising water tariffs which rests with the political executives is highly politically unpopular and contentious issue. Besides, this increased tariff affects only the legally connected users and illegal connections are untouched.[61] Therefore, in the name of poor it is actually the rich who are perpetuating the benefits of subsidised water and yet the poor do not get access to municipal water and depends on other private sources, at times highly contaminated. Therefore, the subsidies provided through the public agencies for basic service delivery in urban areas justified in the name of poor are cornered by richer sections that have the ability to pay.[62]

3.12.4 Private provisioning of drinking water

In the face of wide spread disparities in water supply, inefficiency in the system, increasing water loss, inefficient water use and the widely *perceived* scarcity of water, with increased financial burden on the State agencies, the policy makers and planners have found an easy way out in the form of private provisioning.[63] It was declared that water has to be managed as a commodity as any other resources, which was a major shift from earlier plans. Further, private sector efforts for construction and maintenance of drinking water projects were encouraged since the Eighth Plan. In the Tenth Plan (2002-2007) it was further stressed that, water supply to consumers would normally be demand based rather than supply based which the consumers are willing to maintain, operate and finance. This indicates that those having purchasing capacity will have easy

access to drinking water and it's a dream for the people having no purchasing capacity.

The privatization of water sector in India has taken place in two ways. First, the outright privatization of water supply by management contracts. The second that is more insidious and have a far-reaching impact is through the water sector reforms. These policies were pushed by the donor agencies with an underlying objective of converting potable drinking water from a fundamental right to a mere commodity which cannot be claimed but can be bought or sold in the market. Thus, privatising water sector or private provisioning of drinking water has put a big question mark on the sustainability and most importantly the social justice and equity aspect.[64]

3.12.5 Low quality water / pollution

Pollution of both surface and underground water has emerged to be one of the major concerns among the policy makers in India. Among others the major area of worry is the pollution of water at the source level. Due to rapid urbanisation, industrilisation and increased usage of fertilizers, quality of water has decreased considerably. There is also problem of fluorosis and salinity in water making it inconsumable for the people.

Moreover, all urban centres in India have intermittent water supply i.e. few hours a day. In this scenario, the supply pipeline is empty for the rest of the time and due to back siphoning pressure, contaminated water and waste water enter the supply line. Eventually when water is supplied next, these contaminants are delivered to the people resulting in contaminated water and subsequent water borne diseases. On the other hand, for a healthy society, it is imperative that the entire population has assured sources of safe drinking water. The burden of population getting contaminated water is reflected in the health expenditure of the country.

3.12.6 Water loss or unaccounted for water (UFW)

Water supply infrastructure in many Indian cities is age old and maintained poorly. This amounts to linking pipelines and high transmission losses. In addition

to this, there is water theft and unauthorized water connections which altogether amounts to a high level of unaccounted for water. For instance, unaccounted for water in Delhi amounts to around 50 per cent of the total water pumped into the system, whereas it is around 35 to 40 per cent in the case of Hyderabad and Bangalore.[65] Nobody accounts for that amount of water and consequently the quantity of water supplied to the people is decreased and supply to the poorer areas is overlooked.

One can make out now that all is not well with the urban water supply and consequent people's access to water. While on the one hand, the State policies advocate water for all, on the other, when water is actually delivered to the people it makes a distinction. In the final analysis, it is actually the poorer sections who are the worst sufferers of such policies, denying them their basic right to water. Therefore, the present policy framework for urban water supply appears to be less *inclusive*[66] and segregates people in terms of economic capacity. The techno-managerial, bureaucratic approach to urban drinking water supply has segregated the people in terms of their assumed economic status. Thus, disadvantaged groups in India are systematically excluded from using public goods such as water by social processes of discrimination.[67] The most polarised and the vast majority who do not have personal connections with a powerful patron are left out in the process. Further, the engineering-dominated supply side approach meant that the attention was focussed on water resource development and the manner in which water was used or managed received little attention. This approach also found its manifestation in the inter-linking of rivers project. The major rivers in India are supposed to be interlinked and water supplied to the water stressed area. However, there is vehement opposition to it from environmentalists on grounds of destroying the ecological balance. Therefore, it appears to be a policy inadequacy on the part of the government, which stresses more on the new projects rather than efficiently managing the existing ones. The government is rather more interested in finding distant new sources rather than regulating and properly managing the existing ones such as the nearby tanks and rivers and their catchment areas.

The protection and enforcement of the right to water in India makes it apparently clear that having an enabling legal regime is by itself not sufficient to realise that objective. The policies of the State that are progressively inconsistent with the constitutional recognition of the right to water require to be continuously interrogated and challenged Although there is in India a fairly developed body of case law that recognizes the right to water and the need for the State to preserve and protect that right, there are a number of barriers that require to be overcome before the effective and equal access to water to every citizen is made a reality. The recently enacted Maharashtra Water Resources Regulatory Act 2005 places restriction on the availability of affordable water by linking the payment for water to the size of the family. S.12 (11) of this law states: "Notwithstanding anything contained in this Act, a person having more than two children shall be required to pay one and a half times the normal rates of water charges fixed…"[68] That a basic right should be purchasable denies the right to any person without purchasing power. This is a direct denial of the basic right to water by the statute.

At the community level, there is a conflict between the States on the one hand and the village level administrative bodies on the other over the control of water sources. Such conflicts have given rise to serious concern that the constitutional scheme of decentralization of power over water sources may in fact be rendered unworkable by the States. The tensions over control and contestation pose a serious challenge to decentralization of water governance structures.[69]

In addition, most of the urban services have been monopolised by a large section of urban middle class, who gained from the New Economic Policy, thereby depriving large sections of poor. The inadequacy of water supply by urban authorities has led to a boom in bottled water across the country in the name of mineral water.

The present chapter examined the role of the State in water provisioning to the people in urban areas. It is observed that there have been shifts in the role of the State and its policies over a period of time from that of a service provider to that of a facilitator. The shift in State policy had far reaching consequences for people's access to drinking water. While more stress is on the cost recovery approach, the State has particularly found it difficult to finance the water supply projects and hence funds from the market are seen as the viable option. In the new policy environment, the role

of private sector is emphasised. The next chapter deals with the role of market and civil society organisations in water provisioning to the people.

[1] The principal objectives of the Indian planning at that time included bridging the gap in income inequality through employment generation, increases in national income through rapid industrialisation and thus the emphasis was on heavy industry and a central role for the public sector. Towards this end, at the beginning of second Five Year Plan, the Industrial Policy Resolution was formulated in 1956 which more or less spelt out the goals of planning as stated above. I. J, Ahluwalia, "Contribution of Planning to Indian Industrialisation", in T J Byres (Ed.), *The State and Developing Planning in India,* Oxford University Press, New Delhi, 1993, pp.347-90.

[2] This type of an assertion by the Indian State has sometimes been criticized by the Marxist political economists such as Byres (1993). In his article, Byres argued that the nature of the post-colonial State is to create the condition for a successful, transforming capitalist development and thus, the State is only an instrument towards a capitalistic development (T. J, Byres, "State, Class and Development Planning in India", in T J Byres (Ed.), *The State and Developing Planning in India,* Oxford University Press, New Delhi, 1993, p.10). This was obvious from the formulation of Bombay Plan of 1944 which primarily was conceived by eight eminent industrialists. However, contrary to this, Rudolph and Rudolph (Lloyd Rudolf and Susanne Rudolf, *In Pursuit of Laxmi: the Political Economy of the Indian State,* Oxford University Press, London, 1987) argued that the creation of a large public sector is itself the evidence for socialism and a socialist State in India.

[3] Abhijit Banerjee and Rohini Somanathan, "The Political Economy of Public Goods: Some Evidence from India", *Journal of Development Economics,* Vol- 82, 2007, p. 288.

[4] Indira Gandhi made the removal of poverty *(Garibi Hatao)*, the cornerstone of her successful election campaign in 1971 and it became increasingly common for election campaigns to be fought on the basis of who would deliver the (public) goods. The national elections of 2004 saw a marked anti-incumbency wave and the post-election survey by Center for the Study of Developing Societies found widespread dissatisfaction of the electorate with basic infrastructural facilities. Ibid, p. 293.

[5] The term *Washington Consensus* was originally coined by John Williamson and refers to the widespread view among the policy makers, particularly in the circles of IMF, the World Bank and other bilateral donor agencies that a more liberal economic model was desirable. The key elements of the Washington Consensus besides the above mentioned are; fiscal discipline, reorienting of public expenditures, tax reforms, financial liberalization, trade liberalization, openness to foreign direct investment and secure property rights. For details see, John Williamson, "Democracy and Washington Consensus", *World Development,* Vol- 21, No- 8, 1993, p. 1332.

[6] Meena Panickar, "State Responsibility in the Drinking Water Sector; an Overview of the Indian Scenario", *IELRC Working Paper – 06,* 2007, p. 6.

[7] The Constitution of India while distributing the legislative powers between the centre and the states clearly enumerates the areas where they can have exclusive power to make laws and where they both can co-exist. The areas or items are defined in the Seventh Schedule of the Constitution in three lists. List-I, i.e. Union List has 97 items where the Union of India or as is referred to as the central government has exclusive jurisdiction to make laws, List-II, i.e. the State List has 66 items where the federating units or as is referred to as the states in India has exclusive jurisdiction to make laws in normal situations, and the List-III, i.e. the Concurrent List has 47 items where both the central government or the government of the states can make laws. But in case of conflict, the union government shall prevail.

[8] The Article 246(3) of the Constitution states, subject to clauses (1) and (2) of Article 246, the legislature of any state, has exclusive power to make laws for such state or any part thereof with respect

to any of the matters enumerated in List II in the Seventh Schedule (in this constitution referred to as the "state list").

[9] S Muralidhar, "The Right to Water: an Overview of the Indian Legal Regime", *IELRC Working Paper,* Geneva, Switzerland, 2006. Available online at http://www.ielrc.org/content/a0604.pdf

[10] The legislatures of the different states have sought to enact a large number of statutes that touch upon the various aspects of the control, regulation and distribution of water. Thus, we have an elaborate network of laws relating to canals and irrigation (The Northern India Canal and Draining Act, 1873, The Bombay Irrigation Act, 1879, Karnataka Irrigation Act, 1965, The Rajasthan Irrigation and Drainage Act, 1954), use of water sources [The Kumaon and Garhwal Water (Collection, Retention and Distribution) Act, 1975], water sewerage and drainage (The Utter Pradesh Water Supply and Sewerage Act, 1975), and ground water (Madras Metropolitan Area Ground Water (Regulation) Act, 1987, Kerala Ground Water (Control and Regulation) Act, 2002, Karnataka Ground Water (Protection and Regulation for Drinking Water) Act, 2003 are some illustrations. The aspects of collection of taxes and cesses on the use of water are also covered by legislations enacted by both Parliament as well as State legislatures (The Water (Prevention and Control of Pollution) Cess Act, 1977).

[11] Entry 6 in the State List reads: 'public health and sanitation; hospitals and dispensaries.' Entry 17 reads: 'water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of Entry 56 of List I.

[12] Chhatrapati Singh, *Water Rights and Principles of Water Resource Management,* Indian Law Institute, New Delhi, 1991, p. 15.

[13] Usha Ramanathan, "Legislating for Water: the Indian Context", *IELRC Working Paper,* Geneva, Switzerland, 1992. Available online at http://www.ielrc.org/content/w9201.pdf

[14] There has emerged a huge number of literature in recent times on irrigation management during the colonial times. Most of the literature identifies revenue as the basic rationale behind the overwhelming interest the colonial rulers attached to irrigation. It was also identified as the important means to control larger section of the society. More on this can be found in David Mosse, *The Rule of Water: Statecraft, Ecology, and Collective Action in South India*, Oxford University Publications, New Delhi, 2003, pp.25-73.

[15] Indian Easement Act of 1882 confers the sole right of ownership of water to the land owner. Under the Act, 'land' also includes all things permanently attached to the earth. In the Land Acquisition Act of 1894 also, 'land' has a similar expression.

[16] *Manual on Water Supply and Treatment,* CPHEEO, Ministry of Urban Development, New Delhi, 1999, pp. 526-31.

[17] Op cit, No- 6, p. 2.

[18] Op cit, No- 6, p. 5.

[19] This is evident from the observation by the court in numerous cases such as, *Delhi Water Supply & Sewage Undertaking and Another* vs. *State of Haryana and Others* (1996) 2 SCC 572. In *F K Hussain* vs. *Union of India* AIR 1990 Ker. 321and *Attakoya Thangal* vs. Union of India (1990)1KLT 550, the Kerala High Court held the right as part of Article 21. *See also Subhash Kumar* vs. *State of Bihar* AIR 1991 SC 420; *M C Mehta* vs. *Kamal Nath* (1997)1 SCC 388; *AP Pollution Control Board* vs. *M V Naidu and Others* (1999) 2 SCC 718; *State of Karnataka* vs. *State of Andhra Pradesh* 2000 (3) SCALE 505. Op cit, No-6, p.5.

[20] For further details please see, Vishwa Ballabh, "*Governance Issues in Water Sector*", accessed from internet on 02.01.2008, http://www.irma.ac.in/silver/themepaper/BALLABH.pdf

[21] *Francis Coralie Mullin v. The Administrator, Union Territory of Delhi* 1981 (2) SCR 516.

[22] For an important decision regarding closure of a hotel resort which was polluting the Beas river in Himachal Pradesh, see *M.C. Mehta v. Kamal Nath* (1997) 1 SCC 388.

[23] *Narmada Bachao Andolan v. Union of India* (2000) 10 SCC 664 at 767.

[24] Syed Masood, "Article 21 and right to pollution free environment: a human right approach", *Central India Law Quarterly,* 2001, p. 56.
[25] AIR SC 1996 (2) SCC 549 at para 4 cited in Syed Masood, 2001, p. 59.
[26] *A.P. Pollution Control Board (II) v. Prof. M.V. Nayudu* (2001) 2 SCC 62 at 79. More recently, the Supreme Court declared as illegal the action of the Government of Karnataka excluding the land brought under mining by the Kudremukh Iron Ore Company Ltd. excluded from the purview of notification issued under s.35 (1) of the Wildlife (Protection) Act 1972 declaring the Kudremukh National Park to be a national park: *T.N. Godavarman Tirumalpad v. Union of India* (2002) 8 SCALE 204.
[27] Op cit, No. 16, p. 10.
[28] Ramaswamy R. Iyer, *Water: Perspectives, Issues and Concerns,* Sage Publications, New Delhi, 2003, p. 55.
[29] Ibid, p.56.
[30] National Water Policy 2002, Ministry of water resources, Government of India, New Delhi, 2002.
[31] Joel Ruet, V S Saravanan and Marie-Helene Zerah, "The Water and Sanitation Scenario in Indian Metropolitan Cities: Resources and Management in Delhi, Calcutta, Chennai, Mumbai", *CHS Occasional Paper No-6,* French Research Institutes in India, New Delhi, 2002, p. 4.
[32] Ibid, pp.4-5.
[33] *India Assessment 2002: Water Supply and Sanitation,* Planning Commission, Government of India, 2002, p. 18.
[34] Sometimes these Acts are criticised on the grounds of merely supporting and promoting large scale multi-purpose projects and in strengthening State control of water resources.
[35] The 74th Constitution Amendment Act, 1994 gave the urban local bodies constitutional status in India.
[36] Op cit, No. 16, p. 521.
[37] Op cit, No. 16, p. 521.
[38]Hyderabad Metropolitan Water Supply & Sewerage Board (HMWS&SB), www.hyderabadwater.gov.in
[39] Previously their activities were confined to the Ganga Action Plan, but now extend to the polluted stretches of 27 major rivers with works spread over 149 towns in 16 states.
[40] David McKenzie and Isha Ray, "Household Water Delivery Options in Urban and Rural India", Paper prepared for the 5th Stanford Conference on Indian Economic Development, June 3-5, 2004.
[41] Third Five Year Plan, Planning Commission, Government of India, 1961-66, p. 347.
[42] Eleventh Five Year Plan, Planning Commission, Government of India, 2007-12, Vol-III, p. 402.
[43] Ninth Five Year Plan, Planning Commission, Government of India, 1997-02, Vol-II, P. 265.
[44] Op cit, No. 42, p. 397.
[45] Op cit, No. 42, p. 398.
[46] Op cit, No. 16.
[47] Op cit, No. 42, p. 401.
[48] Amitabh Kundu, "Access of Urban Poor to Housing and Basic Amenities; Issues Concerning Vulnerability, Social Security and Governance", Seminar Paper on Social Security in India, Institute of Human Development, April 15-17, 1999.
[49] Eighth Five Year Plan, Planning Commission, Government of India, 1992-1997.
[50] Op cit, no. 48.
[51] Op cit, No. 48.
[52] Op cit, No. 48.
[53] Marie Llorente and Marie Helene Zerah, "The Urban Water Sector: Formal Versus Informal Suppliers in India", *Urban India*, Vol- xxii, No- 1, January-June, 2003. Available online at http://www.cerna.ensmp.fr/Documents/MHZ-UrbanIndia-2003.pdf

[54] Ramaswamy R Iyer, "Water: Towards a Transformation A Critique and a Declaration", *Occasional Paper No. 10,* CPR Occasional Paper Series, Centre for Policy Research, New Delhi, 2004.

[55] *Drinking Water and Sanitation Status in India: Coverage, Financing and Emerging Concerns,* Water Aid India, New Delhi, 2005, p.1.
[56] Op cit, No. 48.
[57] Belinda Calaguas and Virginia Roaf, "Access to Water and Sanitation by the Urban Poor", paper presented at the Development Studies Association Conference, Manchester, 10 September 2001.

[58] Ibid.
[59] Ashis Nandy, "Introduction: Indian Popular Cinema as the Slum's Eye View of Politics" in Ashis Nandy, (Ed.), *The Secret Politics of Our Desires: Innocence, Culpability and Indian Popular Cinema,* Oxford University Press, Delhi, 1998, p. 2.
[60] Christine Sijbesma and M P van Dijk, (Ed.), *Water and Sanitation: Institutional Challenges in India,* Manohar, New Delhi, 2006.
[61] Ibid.
[62] Op cit, No. 48.
[63] It was basically during the Eighth Five Year Plan (1992-97), that the role of private sector was strongly promoted in the water sector as part of the reform programmes. The same trend continued with the National Water Policy 2002, and subsequently different state governments' water policies.
[64] Op cit, No. 28.
[65] Government of India, City Development Plans, JNNURM, Ministry of Urban Development.
[66] Inclusive is synonymous with equitable. For a detailed analysis on *inclusive growth,* please see Mahendra S. Dev's, *Inclusive Growth in India: Agriculture, Poverty and Human Development,* Oxford University Press, New Delhi, 2008, p. 2.
[67] Philip Keefer and Stuti Khemani, "Democracy, Public Expenditures and the Poor: Understanding Political Incentives for Providing Public Services", *The World Bank Research Observer,* Vol-20, No-1, 2005.
[68] The Maharashtra Water Resources Regulatory Authority Act 2005, *Law, Environment and Development Journal,* 2005, p. 80-97, available at http://www.lead-journal.org/content/05080.pdf
[69] Op cit, No. 9.