

# Literature Review on Right to Water for Basic Needs

## (Drinking and Domestic Water, Sanitation)

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# Literature Review on Right to Water for Basic Needs

## (Drinking and Domestic Water, Sanitation)

### Water for Basic Needs

Water for basic needs is understood as mainly water for drinking, bathing and hygiene maintenance and domestic uses such as cooking. This being the primary understanding of water for basic needs, this literature review is structured according to the various themes which are namely the dimensions of water like, Quantity, Quality, Affordability, Access, Pricing and the Mechanism for the delivery of water.

### Quantity of Water for Basic Needs:

The quantity of water required by households is an important aspect of water for basic needs. Water required for basic needs varies according to climate, lifestyle, culture tradition, diet, technology and wealth. Different development agencies recommend different amounts of water requirements for fulfilling basic needs. Peter Gleick, president of the Pacific Institute for Studies in Development, Environment and Security (1996) presents the concept of basic water requirements where he analyses water quantities required for different basic needs. He concludes that a range of 20 to 40 liters of freshwater per capita daily is generally considered to be a necessary minimum to meet needs for drinking and sanitation alone. If water for bathing and cooking is included as well, this figure varies between 27 and 200 liters per capita per day. Basic water requirements suggested by various donor agencies such as the World Health Organization, US Agency for International Development, and the World Bank range from 20 to 50 liters per capita per day. According to Professor Malin Falkenmark of the Swedish International Water Institute, 100 liters a day (36.5 cubic meters a year) is the minimum per capita water requirement for our basic domestic needs. In India studies have shown that water used for basic needs in urban areas goes up to even 135 liters per day. However we must understand that averages of water-use data hide significant variations, with large segments of populations usually falling below the average, while wealthier portions of the population tend to use far more per capita. One needs to understand that there is a substantial difference in the water required to the water used and the water actually available and water accessible for basic needs. Thus the fear that suggesting a particular level of water provision can provide excuses for governments to 'lock' water provision at that level (UNESCO-WWAP, 2006)

The quality of water used by households is an important aspect of the debate regarding water requirements for basic needs as this influences hygiene and public health. Greater amounts of water are also likely to significantly increase health and quality of life (CESR, 2003). Studies suggests that water quantities used by households are primarily dependent on access as determined by distance and/or time for collection. The quantities of water used may decrease where the water supplies are intermittent and the risks of ingress of

contaminated water into domestic water supplies will increase. (Howard and Bartam, 2003)

The dimension of quantity of water if understood as categories of lifeline water and lifeline plus water and luxury water as put forth in the position paper makes it easier for us to understand quantity of water for basic needs. It is only lifeline and lifeline plus water that should be counted as basic needs.

### **Quality of Water for Basic Needs:**

The health implications of poor water quality are enormous. It is estimated that around 37.7 million Indians are affected by waterborne diseases annually, 1.5 million children are estimated to die of diarrhea alone and 73 million working days are lost due to waterborne disease each year. The resulting economic burden is estimated at \$600 million a year. (Khurana and Sen, WaterAid, 2007 )

Water quality is affected by both point and non-point sources of pollution. These include sewage discharge, discharge from industries, run-off from agricultural fields and urban run-off. Contamination of Water takes place due to various chemical pollutants. The problems of chemical contamination is prevalent in India with 1,95,813 habitations in the country are affected by poor water quality. The major parameters of concern are fluoride and arsenic contamination. Iron is also emerging as a major problem with many habitations showing excess iron in the water samples. (Ibid)

According to the Planning Commission (Chapter 20 Drinking water and Sanitation) quality issues are increasing as ground water depletion worsens. The level of natural contaminants such as fluoride and arsenic and chemical pollutants such as pesticides and insecticides is high and rising. Fluoride contamination affects 150 districts in 15 States and excess arsenic affects 8 districts of West Bengal. Fluoride levels are high in Andhra Pradesh, Gujarat, Haryana, Karnataka, Punjab, Rajasthan, Tamil Nadu and U.P. and iron levels are high in the North-Eastern and Eastern part of the country. Similarly salinity is high in Gujarat, Haryana, Karnataka, Punjab, Rajasthan and Tamil Nadu. Exposure to high levels of fluoride, which occurs naturally, can lead to mottling of teeth and, in severe cases, crippling skeletal fluorosis. Similarly, arsenic may occur naturally, and excess exposure to arsenic in drinking-water may result in a significant risk of cancer and skin lesions. Other naturally occurring chemicals, including uranium and selenium, may also give rise to health concerns when they are present in excess.

Bacterial contamination of water continues to be a widespread problem across the country and is a major cause of illness and deaths with 37.7 million affected by waterborne diseases annually. (Ibid) The major pathogenic organisms responsible for water borne diseases in India are bacteria (*E. coli*, *Shigella*, *V. cholera*), viruses (Hepatitis A, Polio Virus, Rota Virus) and parasites (*E. histolytica*, *Giardia*, Hook worm).(Ibid)

Water borne diseases are of most important concern when it comes to water quality.

Water for personal and domestic hygiene is important in reducing the rates of ascariasis, diarrhoea, schistosomiasis, and trachoma. Sanitation facilities decreased diarrhoea morbidity and mortality and the severity of hookworm infection. Better water quality reduced the incidence of dracunculiasis, but its role in diarrhoeal disease control was less important than that of sanitation and hygiene. (Esrey et al 1991).The link between drinking water and water for sanitation is very important. The greatest microbial risks are associated with ingestion of water that is contaminated with human or animal (including bird) faeces. Faeces can be a source of pathogenic bacteria, viruses, protozoa and helminths (WHO Guidelines). Improved water supply and excreta disposal facilities have also helped in controlling diarrheal diseases among children and has significantly

improved the health status of the young. (Esrey et al 1985) The WHO guidelines suggest that preferred strategy should be a management approach that places the primary emphasis on preventing or reducing the entry of pathogens into water sources and reducing reliance on treatment processes for removal of pathogens.

The quality criteria of drinking water prescribed by the Indian Standards Institute (IS: 10500-1989) and the Indian Council of Medical Research are exacting and exhaustive. However, the department of rural water supply, ministry of urban development, Indian Council of Medical Research under ministry of health and Central Pollution Control Board (CPCB) all have prepared norms and standards on their own. These norms and standards are different from each other. (Lodhia 2006)

The WHO Guidelines for drinking water quality is by far the most comprehensive document and the most useful source of information on water quality and health. This document can be complemented with the Guidelines for Drinking Water Standards in Developing Countries, which informs on other legal aspects needed to establish drinking water standards and also helps health regulators and policy makers on how they should proceed from a practical point of view (making diagnosis, searching for information, establishing committees, negotiating among interested parties, etc.)

As the WHO Guidelines recommend developing national drinking-water standards based on the WHO Guidelines, it will be necessary to take account of a variety of environmental, social, cultural, economic, dietary and other conditions affecting potential exposure. A programme based on modest but realistic goals – including fewer water quality parameters which are attainable consistent with providing a reasonable degree of public health protection in terms of reduction of disease or reduced risk of disease within the population – may achieve more than an over ambitious one, especially if targets are upgraded periodically (WHO). The Bureau of Indian Standards agrees that it is sufficient to follow WHO guidelines for drinking water quality.

### **Affordability:**

The discussions of affordability often take particular modes of provision of water and/or technology as a given. Instead low cost options should be given preference. While we do hear of how people are willing to pay for safe drinking water rather than risk their health, we also must realise that there are people who simply cannot afford to spend on safe drinking water and are willing to risk their health. Naandi Foundation, a Hyderabad-based NGO had a proven record in offering drinkable water through setting up reverse osmosis (RO) technology based plants. <sup>1</sup> While this technology has made drinking water safe and offers villagers water at the cost of Rs. 1 per litre for domestic use and Rs. 1.50 a litre for commercial use there still may be people who cannot afford even that amount.

The primary responsibility of the state should be free lifeline water as recommended in the position paper.

### **Access to Water for Basic Needs:**

The question of quantity and quality is closely linked to access. The quality dimension of water is determined by the accessibility of drinking water. Not having easy and safe access to drinking water has several impacts on health as people compromise on the quality of water. Studies have shown that prevalence and duration of diarrhea among

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<sup>1</sup> <http://www.topnews.in/hyderabad-based-ngo-transforms-punjab-villagers-lives-clean-drinking-water-2200135>

children under five in rural India are significantly lower on average for families with access to piped water than for households without it ( Jalan and Ravalliaon 2001). Howard and Bartram (2003), while analysing access conclude that more than 1000m to access or 30 minutes total collection time , the quantity collected is often 5 l/c/d and the consumption is not assured, making hygiene impossible unless practiced at the source of water resulting in very high levels of health concern. When the source is between 100 and 1000m or 5 to 30 minutes of total collection time, there is basic access. The average quantity of water is unlikely to exceed 20 l/c/d, consumption here should be assured and hygiene such as hand washing and basic food hygiene is possible while laundry/bathing is difficult to assure unless carried out at source. In this case the level of health concern is high. When the water is delivered through one tap on a plot or within 100m or takes 5 minutes of total collection time, then the access is intermediate and the average quantity is about 50 l/c/d. Here the consumption is assured and hygiene such as all basic personal and food hygiene is assured as well. Laundry and bathing is also assured. The level of health concern here is very low. When the water supply is through multiple taps continuously, there is optimal access to water making the average quantity 100 l/c/d and above. All consumption and hygiene needs are met and the level of health concern is low. According to the General Comment 15 of the United Nations (UNESCO, 2002:clause12) water facilities and services have to be accessible to everyone without discrimination, within the jurisdiction of the State party. Accessibility has four overlapping dimensions:

### ***Physical accessibility:***

Water, and adequate water facilities and services, must be within safe physical reach for all sections of the population. Sufficient, safe and acceptable water must be accessible within, or in the immediate vicinity, of each household, educational institution and workplace. All water facilities and services must be of sufficient quality, culturally appropriate and sensitive to gender, lifecycle and privacy requirements. Physical security should not be threatened during access to water facilities and services;

### ***Economic accessibility:***

Water, and water facilities and services, must be affordable for all. The direct and indirect costs and charges associated with securing water must be affordable, and must not compromise or threaten the realization of other Covenant rights;

### ***Non-discrimination:***

Water and water facilities and services must be accessible to all, including the most vulnerable or marginalized sections of the population, in law and in fact, without discrimination on any of the prohibited grounds; and

### ***Information accessibility:***

Accessibility includes the right to seek, receive and impart information concerning water issues.

Physical Accessibility to drinking water is the important aspect to understand accessibility. The 2001 Census interprets physical access to drinking water in terms of three distances namely within premises, near premises and away from premises. Of the total number of 191,963,935 households, 74,803,269 households had access to water

within the premises, 85,112,270 had access near premises and 32,048,396 had access away from premises. (GOI 2001)

Physical Accessibility of water has great impact on the quality of lives of women and children as they are often the ones responsible for collection of drinking water. Safe and easy access to water for basic needs has several benefits for women such as reduced drudgery, higher income, and greater women's empowerment through the changing gender relations within the household. Inadequate access to water means women have to spend more time on locating a source, collecting water, this takes away time from other activities, but improved access, means time saved which can be used for other activities such as productive (economic), domestic activities such as cooking, cleaning looking after children etc personal like sleeping, socializing etc, or development and management like community activities etc. (James et al 2002).

## **Mechanism for the delivery of drinking water (Sectoral Reforms in Drinking Water)**

The supply of drinking water has primarily been the responsibility of the state. The state has always prioritized the need to provide drinking water. It has been recognised as a fundamental right and has been upheld by the Supreme Court (Ramachandraiah, 2001) and is accorded top priority as per the National Water Policy. However water being a concurrent subject, water laws have developed in a sectoral manner with a lot of apparent contradictions and each state in the union of India has a number of laws covering a variety of water uses such as irrigation and different water bodies such as groundwater etc. but there is a clear lack of coherent and clear drinking water centric legislations. (Cullet, 2009)

The state today is however delegating its responsibility of supplying drinking water. The State in the pre-reform period had primarily a supply driven approach wherein the focus was on exploiting additional water resources, and on construction and creation of assets rather than on management and maintenance of the facilities built, equitable distribution of the available water, the question of water quality, or the sustainability of the source. In his analysis of the changing role of the Indian state towards drinking water, Philippe Cullet notes that, "the provision of drinking water is primarily the responsibility of states. Yet, the union government played an important role in fashioning the policies that states apply and provided significant funding to ensure access to water in rural areas. The Rajiv Gandhi National Drinking Water Mission (RGNDWM) has been the key institution with regard to the development of policies and the administration of the rural drinking water sector. Among the schemes it implements, the Accelerated Rural Water Supply Programme (ARWSP), which is funded by the government of India and state governments, plays a central role. The ARWSP was first introduced in 1972, and has been a central component of the government's attempts to ensure full coverage of all habitations throughout the country. It continues to provide the basis for the union government's interventions in rural drinking water. Over time, the efforts of the union and state governments have made a major difference to crores of people throughout the country. While the government's intervention has not ensured that every individual in the country has access to the minimum defined in the ARWSP, it is not disputed that significant successes have been achieved since the 1970s. The government's intervention was not undertaken on the basis of any act passed by Parliament and the ARWSP Guidelines do not refer to fundamental rights. Yet, the government showed through the

policy framework it adopted and its actions in practice a clear intent to fulfill the fundamental right to water” (Cullet, 2009).

However the State has slowly chosen to formally delegate service provision to non-State actors. It has developed a neo liberal outlook to the provision of services. A paradigmatic shift has emerged in “from the State as a provider (and guarantor) of basic services to a ‘facilitator’ that enables access to these services. Resources and services like water, energy, health and education—rights that the state is bound to secure for its citizens on the path of development—are now called socioeconomic goods that people must own and maintain on their own. Increasingly in almost all service sectors—energy, health, education or water— ‘demand-driven’ projects are formulated and executed by ‘user committees’ that are supposed to establish ‘community ownership’ through initial cost-sharing with all operations and maintenance costs borne by the users. Added to this, establishment of independent regulatory commissions like those witnessed in the power as well as water sector mean that citizens can no longer hold the Indian State directly accountable for securing basic services for all citizens. In the economic logic of this paradigm shift, ability to pay, in other words being a ‘user’ seems to be the new minimal criteria for access to services, and thus for the privileges of citizenship. In effect, this implies a privatization of resources and service provision through the divestment of state responsibility.”(Sampat, 2007)

In the drinking water sector the state developed this neo liberal framework in the eighth five year plan (1992-1997), wherein it introduced the concept of water as a commodity that should be supplied based on effective demand, the cost recovery principle and managed by private local organisations. Through the 1990’s the World Bank already had a series of water supply and sanitation projects in various states of the country based on these principles. Of particular relevance to the ongoing water sector reforms in the country is the World Bank initiated drinking water and sanitation pilot project with the Government of Uttar Pradesh in 1996, Swajal (Sampat, 2007).

Private sector participation in developing countries like ours should be understood in the context of donor approaches and international policies. International financial institutions, in particular, have promoted neo-liberal reforms advocating for the State to reduce public spending and avoid significant investments. Some of the reforms leading to greater involvement of the private sector have been imposed through loan or aid conditionalities, debt reprogramming or loan forgiveness. From the perspective of human rights, the crucial aspect is that the State has delegated the task of providing water and sanitation services to a third actor (Albuquerque, 2010).

The World Bank encouraged the state to replace its supply driven approach that “resulted in inefficient service driven delivery and poor quality of construction with a demand driven approach where decision making responsibility would be with the beneficiaries, to integrate rural water supply, environmental sanitation, environmental management, catchment protection, and health and hygiene ,introduce cost recovery to increase sector sustainability; and develop a state water resource management policy.

The GoI initiated the Sector Reform Pilot Projects (SRPP) in April 1999 with the implicit strategy of these reforms premised on the understanding that people will be willing to maintain and operate water supply schemes only if they owned the assets; had been involved in the projects throughout from choosing structures to installations and repairs; know that the government will not maintain the asset; had sufficient funds for maintenance and had to pay for operation and maintenance of the system.

The Swajaldhara programme which was a national upscaling of the SRPP as a country wide community managed water supply and sanitation system was a bold break from the past, and was commended for the stupendous effort it made to scale up to national-level, a

community-based, demand responsive and participatory drinking water supply programme in a vast and diverse country like India. But in a country where we have had largely subsidized services this shift in policy has had great repercussions. There was inadequate guidance for this change to government officials and the responsible officials were not even involved in conceptual and operational discussions and clarifications; NGOs were not involved in discussions; and capacity building for key implementers was inadequate. Further, all members of village communities were not involved and the formation of committees and their takeover of O&M and finances did not really constitute 'community management'. The poorest of poor communities were ignored. In fact the programme highlighted the problems faced by any social engineering initiative in a multilayered, textured and hierarchical society that is rural India. The rural elites became the users, dalit communities were not included, and gender was not even a major concern. Access to water was looked at very narrowly without looking at resource and energy issues. The whole issue of technological requirements was not attended to by the state but left to the local elites to decide which cost the exchequer more money. Several studies carried out in Maharashtra, Rajasthan as well as in Andhra Pradesh have pointed all this out (James, 2004; Sampat, 2007; Cullet, 2009).

In the context of supply of drinking water in urban areas the scenario is similar though there are important differences. On one hand there is the whole issue of inefficient and poor supply of water and on the other hand the need to ensure the economic viability of the water supply is an overriding issue in all Indian cities. The key difference between rural and urban water supply lies probably in the fact that there seems to be a lot of thinking among the different state and non-state actors of new approaches to more reliable water supply and their acceptance of public private partnerships as a major tool for delivery of services to water consumers (Mackenzie & Ray 2006).

## Privatization of water

Sampath et al (undated) in their arguments against privatization, from whose paper the following sections are derived state that one of the main arguments for privatization of drinking water supply is that the public sector lacks funds for major investments, is corrupt, inefficient and bureaucratic. Water privatization involves transferring of water control and/or water management services to private companies. The water management service may include collection, purification, distribution of water, and waste water treatment in a community. Traditionally this service has been provided by the local governmental institutions such as the municipalities or local city councils. The pro privatization lobby including water corporations, the World Bank and IMF have aggressively campaigned for water privatization on the grounds that, while water subsidies promote wasteful practices, commodification of water should allow market forces (supply and demand) to set the water tariff, which in turn will reduce water consumption and promote water conservation. Furthermore, it is argued that opening this sector to private providers will bring in badly needed capital for upgrading and development of infrastructure. There are several models of water privatization that are currently in vogue in different parts of the world.

Depending on the degree of privatization, these models can be broadly categorized into: Service Contracts – In this model, public authority retains overall responsibility for the operation and maintenance of the system, and contracts out specific components. Service contracts last 1-3 years and include services such as meter reading, billing and maintenance. While public ownership is maintained and community accountability

structures remain in place, the transparency of operation can be limited. Contracts are often not openly negotiated and regulation and oversight is usually lacking.

(Design), Build, Operate, Own and Transfer or (D)BOOT – This model of privatization is usually used for system infrastructure development such as water treatment plants that require significant finance. The private operator is required to finance, construct, operate and maintain the facility for a specific period of time (usually more than 20 years). At the end of the term, the infrastructure may be turned over to the municipality or the contract is renewed. This model is more prevalent in developing countries. Examples of (D)BOOT include Tiruppur Project in TN India and Cochabamba experience in Bolivia.

Divestiture – In this model, the government or public authority awards full ownership and responsibility of the water system including the water source to a private operator under a regulatory regime. This is also done in the form of 10-20 year renewable contracts on the entire system. The government moves operation to private hands thus improving efficiency. Competition is limited through the process of bids on the divestiture. The private sector firm is then expected to take the risks and recoup investment/profits. This model cedes tremendous power over an essential resource to corporations. Examples of divestiture include the Rasmada scheme, under which a 22-year lease over a stretch of the Shivrath River in Chattisgarh was accorded to Radius Water, Inc.

Water privatization has been recommended by the Indian government's national water policy to address the issue of water scarcity. In its article 13 titled, "Private sector participation" the policy says that "private sector participation should be encouraged in planning, development and management of water resources projects for diverse uses, wherever feasible". This has placed water privatization at the forefront of developmental policies implemented by several state governments.(Ibid)

## Arguments against Water privatization

### *Price hikes are unaffordable for the poor:*

Water privatization has invariably led to price hikes in almost all the regions in the world where water has been privatized. This is because there are considerable costs involved in upgrading water harnessing, purification and distribution systems. For such expensive projects, water companies borrow private money, which is subject to high interest rates from financiers and state taxation. The companies recover their costs and expenses by charging the consumer. Not only is the capital cost divided among all the consumers but also the interest, taxes and overheads on the capital. Thus, the consumer is forced to bear the burden of higher payments on company loans. In contrast, tax-free public financing results in low costs for such projects in community owned or state controlled water systems. It has been argued that privatization will lead to reduced water consumption and promote conservation. However, while market forces will determine the water tariff and make it costlier in scarce areas, it is doubtful if this can actually reduce consumption. The price hikes following privatization have almost always made water unaffordable to the poor. However the rate increase does not make a dent on agriculture and industries where the price hikes are affordable. (Ibid)

In developing countries such as India, the water price hike is also an indirect consequence of the conditions imposed on the governments by the World Bank and IMF in return for structural adjustment loans. The privatization of public services such as water and electricity is often a sine qua non for such loans. Furthermore, full cost recovery is demanded by the World Bank and IMF as a prerequisite to privatization. For instance, during the severe flooding in Orissa in 2001, the World Bank demanded an increase in the

water tariffs as a cost recovery measure on the use of water. Rates for water irrigation have since doubled or even tripled. Increased consumer fees for water can make safe water unaffordable for the impoverished and vulnerable populations. Families are often forced to make trade-offs between water, food, schooling and health care. (Ibid)

These cost recovery conditions mean that user fees paid by water consumers must cover all water system costs, which usually include the costs of operation, maintenance and capital expenditure, and sometimes the cost of servicing past utility company debt. The World Bank justifies cost recovery requirements by contending that, with higher payments from consumers, private companies will have an incentive, as well as the revenues, to extend pipes to those relying on water trucks or unclean sources. However, there is little evidence of the multinational water companies' commitment to expanding service, especially to poor communities where the ability to pay increased fees is limited. This is because the poor communities offer little or no margins to the water corporations. Instead, the multinationals, which have only recently started their major moves into developing countries, have quickly racked up very poor social and environmental records. (Ibid)

### ***Unsustainable water mining:***

Many potential risks emerge once a resource as fundamental to life as water is privatized. One of the foremost reasons to oppose water privatization is the threat of unsustainable water mining by the water corporations in an effort to maximize profits. These corporations, which are answerable only to their shareholders, have a declared agenda to make profit. Once water becomes a marketable commodity and a corporation is given sole rights to a body of water, then it is within the corporation's rights to mine as much water as it deems fit. Furthermore in an effort to maximize profits, if the corporation mines an environmentally unsustainable amount of water and depletes the water body at a rate faster than it is replenished, then the government officials and the affected population can do very little to legally prevent the corporation from doing so. The fact that this is a real and tangible threat is apparent from the increasing number of community complaints against indiscriminate mining of groundwater by Coca-Cola in the Khammam district of Andhra Pradesh, Athur village near Chennai and Plachimada in Kerala. Residents from villages in the Palghat district in Kerala surrounding Coke's Greenfield soft-drink bottling factory in Plachimada say that Coke's indiscriminate water mining has dried up many wells and contaminated the rest. Coca Cola's bottling plant was set up in 1999 in the middle of fertile agricultural land, with proximity to a number of reservoirs and irrigation canals. Coke's mining of more than 1 million liters of ground water per day has parched the lands of some 2000 people within 1.2 miles of the factory. The company's usage of agricultural land for non-agricultural purposes has also been questioned by local residents. Due to the indiscriminate mining, the ground water has become contaminated with excessive calcium and magnesium from the dissolution of limestone that is associated with the groundwater deposit. Nearly 100 people have reported recurring stomach aches, which they relate to the brackish and milky white water that they are being forced to drink. Public protest over the issue has only met with violent arrest by the police of local villagers (including women and children) involved in peaceful picketing of the Coke factory. (Ibid)

### ***Creation of water monopolies:***

Privatization by definition eliminates public control of the resource in question. Public control of water is essential not only because water is necessary for survival and human

fulfillment, but also because of the severe and ever-worsening water crisis that the world is faced with.

Unlike privatization of other sectors such as airlines or telecommunications, privatization of water services (and other essential services) often does not leave the consumers with a choice of provider. Physical reliance on a single water pipe network (and often a single water source) leaves little room for competition, which lends monopolistic attributes to privatization in this sector. This underscores the need for a highly competent, well-funded and politically autonomous regulatory body before privatization is undertaken. Yet in the poorest countries where privatization is promised to bring the greatest benefit, these institutional preconditions are almost always missing. Furthermore, the water corporations demand exclusive service provider rights for periods of 5-20 years claiming long recovery periods for costs involved in upgrading water infrastructure. The end result is almost invariably a water monopoly sanctioned by the government agencies. (Ibid)

### ***Water quality compromised:***

Corporations in search of profits can compromise on water quality in order to reduce costs. This is especially true in a country such as India, where the water quality regulatory boards do not have the teeth to enforce their standards. There have been numerous instances of outbreak of epidemics due to poor quality of water. The report of the study conducted by the Centre for Science and Environment on the quality of bottled water was a revelation in many directions. First, there was the shocking fact that bottled water sold in India contains more than 30 times the pesticide residue prescribed by European Union standards. Second, the response to the report – a progressively defensive reaction– indicates that the process of setting standards is more an exercise in compromises and conveniences than the outcome of any scientific exercise. And, third, that the status of the standards, institutions and their mechanisms for standard setting and monitoring are way below those in developed countries. The 32 pesticides that have been detected in bottled water include Malathion, DDT, Parathion, BHC, Chlorpyrifos and Endosulfan. Some of these have been banned for domestic use in many countries and others have been discontinued because of their long-term toxic effects.(Ibid)

### ***Potential Export of Bulk Water:***

Fully aware of the \$2 billion water market in India, private companies are in a frenzy to access fresh water sources that they can sell at huge profits. For instance, the huge market for drinking water in the perpetually water starved city of Chennai has prompted several private companies to mine the surrounding villages for groundwater. The residents of Mathur Village in North Chennai sued several bottled water companies in 1995 for illegally extracting groundwater. By the time the case was taken up in 1999, more than 60 private companies supplying water by tanker trucks had sunk additional illegal wells in Mathur. Privatization opens the door to bulk water exports as control over this scarce resource is transferred from local communities to profit minded global corporations. Bulk water exports will have disastrous ecological and environmental consequences. (Ibid)

vi) Corruption and lack of transparency: Indian government agencies are notorious for their lack of accountability and transparency in awarding of service contracts to private corporations. The Enron scandal – in which the Maharashtra government awarded Enron a contract for generation and supply of 695MW of electric power, has epitomized the allegations of bribes and “kickbacks” that have plagued practically every major service contract awarded by governments in India. In many cases the government guarantees against any losses incurred by the water corporation by setting up hedge funds for such

purposes or assuring regular payments to the corporations for fixed amounts of water regardless of actual usage. Furthermore, the potential for huge profits and long-term monopoly over supply of an essential resource such as water has doubly increased the incentives for private corporations active in this sector to offer bribes in order to secure contracts. Executives of many water corporations have been convicted for bribing government officials world wide. (Ibid)

## Lessons from South Africa

The South African water policy and law reform process has certain lessons for the Indian law makers. The Water supply and sanitation in South Africa is characterized by both achievements and challenges. After the end of apartheid, newly elected government inherited huge services backlogs with respect to access to water. About 15 million people were without safe water supply and over 20 million without adequate sanitation services. The government thus made a strong commitment to high service standards and to high levels of investment subsidies to achieve those standards. Since then, the country has made satisfactory progress with regard to improving access to water supply: It reached universal access to an improved water source in urban areas, and in rural areas the share of those with access increased from 62% to 82% from 1990 to 2006. Some important features that distinguish water policies and institutions in South Africa from most other countries in the world are, the existence of water institutions between the national and local government in the form of Water Boards, strong linkages between water supply and sanitation on the one hand and water resources management on the other hand through these Water Boards; and a policy of free basic water and sanitation, i.e. free water per month (40 litre/capita/day for a family of five or 25 litre/capita/day for a family of eight). South Africa has introduced a policy of free basic services, including water, electricity and solid waste collection. As part of that policy, every eligible household receives the first 6 cubic meters per month for free. The policy was not to be implemented immediately, but gradually and within the means of each municipality. Municipalities would decide if free basic water would be made available only to the poor, and how the poor would be defined and identified, or if it would be granted to all water users. The cost of the policy has been estimated at 1.5bn Rand or 0.15% of GDP. The subsidy is to be financed either through subsidies from the national government from the "equitable share" automatic transfers, through cross-subsidies from other users or local taxes. Making the subsidy available to the poorest users is a challenge. According to Nkululeko Gmuede, a former official at the Department of Water Affairs, around 75% of all free water benefits people who can pay for it. The policy is more successful in wealthier municipalities than in low-income rural areas. This is one of the reasons why the government is reviewing its implementation strategy for free basic water, possibly through registers of poor users.<sup>2</sup>

South Africa has adopted a progressive law and policy framework for water which is based upon the constitutional recognition of the right of access to water. While on the one hand the implementation of the right to water has resulted in the development of a policy of free entitlement to water for consumption and domestic use, there remain today huge disparities in access to basic water services and allocation of water, mostly as a legacy from the apartheid regime but also as the result of the application of an economic approach to water policy.

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<sup>2</sup> [http://en.wikipedia.org/wiki/Water\\_supply\\_and\\_sanitation\\_in\\_South\\_Africa#cite\\_note-GWI-31](http://en.wikipedia.org/wiki/Water_supply_and_sanitation_in_South_Africa#cite_note-GWI-31)

As in India with the sector reforms, South Africa too has adopted the policy of full cost recovery of the maintenance and operation costs which is basically again driven by International donors, World Bank and International Monetary Fund. In South Africa water services are either owned or operated by the local government but are restructured following market principles in order to increase their efficiency or the management of state-owned water services is delegated to private corporations. The focus basically is on the promotion of cost recovery and other market principles often at the detriment of more human rights-oriented considerations.

The integration of such concepts as cost recovery and privatization in water policy have contributed to maintain the poorest segments of the population with little or no access to water for household needs and sanitation, and limited water infrastructure. This creates tensions that underpin the management of water resources at the national level. In terms of water policy, it seems therefore that radical legal change has not translated into significant, substantive improvements for the majority of the poorest citizens. (Gualtieri, 2007)

## Conclusion

The point to be noted is that the position paper holds that there should be certain non-negotiables along with mechanisms of redressal. The non-negotiables being the provision of a certain amount of water to meet basic needs (lifeline water), which should be included in the legal instruments that govern the working of the concerned public or private body (such as contracts, acts of parliament etc) along with clear mechanisms of redress in case of violation of the non-negotiables. A basic rule of thumb should be that any guidelines or norms of water provision and/or policy changes in the realm of water (be it about pricing, reducing leakages, norms about participation, or others) need to be evaluated against the framework of a right to water.

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