

# Hydroschizophrenia: The Case of Water Privatisation

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#### Abstract:

The term "hydroschizophrenia" is in the past mainly discussed in the sphere of increased extraction of ground water with reference to use of it for agriculture purpose. The domestic water component and water privatisation of it has not received much attention. This paper tries to discuss it in the sphere of domestic water more specifically drinking water with bringing cases from few of the important cities of India. Case of water supply in Delhi, Chennai, Bengaluru, Hyderabad and Bhubaneswar has been discussed. The result shows that private player emerged mainly to fill the gap of demand and supply of water which the public water supply created or not filled. The paper conclude by stating that the hydroschizophrenia in this sphere led to ill consequences to the ground water resource with both depletion and contamination of it. Thus, it is imperative to bring constructive measures urgently to curtail the suffering of common people especially the poor. The solution is the democratic governance which bring efficient and responsible public water supply and look to the integration of various components of water supply.

#### Keywords:

*Hydroschizophrenia, Drinking water, Water privatisation, Ground water pollution.* 

#### 1. Introduction

American hydrologist Raymond Nace (as cited in Llamas, 1975) introduced the term "hydroschizophrenia" to denote the "mental attitude which leads some of those responsible for water resources policy and planning in a given country to make a radical separation between projects related to surface water and those concerning ground water". Llama (1975; 2015) elaborated the term in discussion of how ground water being exploited without providing much attention to its conservation particularly for the agricultural purpose. Mihir shah, a noted economist who in the report "A 21st Century Institutional Architecture for India's Water Reforms: Restructuring the CWC and CGWB" stated the term as the measures of two importance central organisation namely, Central Water Commission (CWC) who work for the development of surface water and Central Ground Water Commission (CGWC) who look before the ground water resources and it's development, thus both working for the management of water but in different organisation capacity with not much integration among each other, causing "Hydroschizophrenia". The committee, hence

recommended to merge both the organisations into one single organisation so that the activities can coordinate. It is one of the important recommendation by the committee but yet to implement in the country (Shah, 2016).

Thus, previous studies and works mentioning the term hydroschizophrenia revolved around the ground water and surface water with great important given to the agriculture as agriculture being the major beneficiary of ground water resource<sup>1</sup>. Naturally it paid little attention to the domestic water component and drinking water. This paper view it in a different perspective and tries to portray the concept into a different notion, considering the increased thrust of privatisation of water. The definition could be redefined as hydroschizophrenia as the mental attitude which leads the public service provider in a given region do not supply water efficiently and promote privatisation of the same ultimately leading to ill impact of both ground water resources and customers especially poor.

# 2. Privatisation of Water – Classical experiences

It is important to remember in this context the classical example of privatisation of water supply in Cochabamba of Bolivia and Plachimada in the State of Kerala in India both have to stage people's struggle to throw the Multinational Company (MNC) who were in the scene. Commodification of water steal the water of the community and make the community not able to ensure access to the same water in the market (Shiva, 2002), is the main reason of it. It is what happen when water privatisation is made to commodification of it or commercialise it especially when the MNCs came into the picture. Once available with free of cost now has to pay for it. The profit motive of the corporates companies led to the extraction of more and more water on one hand which result in the deteriorating the quality of the water which once readily available to poor. On the other hand, the inability of the poor in access to potable water is creating much health impacts including death by infectious diseases such as diarrhoea, cholera especially among the children (WHO, 2013) and WHO, Walsh (as cited in Gadgil, 1998) emphasize the same. The lack of water supply to the poor is also impact the sanitation by which sewage pollutes which result into the pollution of

<sup>&</sup>lt;sup>1</sup> In Llamas, M. R., & Martínez-Santos, P. (2005). Intensive groundwater use: silent revolution and potential source of social conflicts.



ground water which in turn cause lack of access to potable water resulting the vicious circle (Hussain, 2017). The root cause of the problem is the inefficiency, corruption, unreliability, inequality, issues of quality and mismanagement of the public water supply system.

Do we need to privatise the water supply? The earlier supporters of privatisation of water supply argued it is imperative because the inability of the government to finance the water supply. The experience of privatisation of water supply, in many places suffered with people's popular upheavals. The famous "Water War" in Bolivia is the good example in this context, where people protested against the decision of the government which privatised its water supply and popular struggle led to a war which pressurised government to revoke its decision. The case of Plachimada in Kerala also a notable example in this context though in different aspect. The Kerala government allowed a multinational soft drinks beverage company to start its process. The MNC took the heart of the people by promising employment and overall development of the region. However, of late the region faced severe water scarcity and pollution of the both surface water and ground water. At the same time the company extracted ground water which is the raw good more than it was supposed to extract. The company also dumped the industrial sludge to the soil and some given to the farmer to use it in the agricultural field. The over extraction of ground water led to the depletion of water on one hand and pollution of the resource. The ground water and the surface water both polluted due to dumping of the sludge, culminating in to serious drinking water shortage (Jeeja, 2015). All led to the situation in which the common people could not get access to potable water which earlier time was available without much trouble. The people struggled for their cause and ultimately the MNC had to withdraw from the scene.

Thus, across the world the privatisation of water supply did not succeeded and common people who when realise the situation rise their voice. The solution to improved water supply is thus not privatisation. Devi (1990) viewed the community participation with the support of the state could be the better option to it and Suresh (2007) assures that democratisation as the solution to water crisis. It is also important to understand that the solution differ from region, state and also with respect to rural or urban.

#### **3.** Water – more than a natural resource

We also need to look about the water as a natural resource. At what level it consider water when think of commoditising it. Mineral Oil and natural gas are also natural resources and it is also natural resource but it consider as the commodity in the market. Where we draw the line? The different lies due to the reason that the drinking water is the basic need of the human for his survival. The case of oil and natural gas is not the case. Also, the need of water and other natural resources is different as human need water not only for drinking purpose but also for making food, bath and sanitation all considered very much necessary for the overall well-being of him.

## 4. Water Pricing – Where to Draw the Line?

We discussed that the earlier pro-privatisation argument was that the inability of the government to finance and mismanagement of the water supply and due to popular struggle it has to withdraw in various places across the world. The improvement of technology the current scenario is more focusing and advocating for water pricing (India Economic Summit, 2017). The argument for water pricing is that there is huge water wastage and to curtail it and to make the people aware about the value of water it is imperative to have water with a price tag. Now the question is how much to price and what the criterion is and who will accrue the price. In this respect, expert views the water price could be included the water transportation cost and operation and maintenance cost (India Economic Summit, 2017 and Big Think, 2011). If it is with the public, this could be achieved with little payment but if the provider is private then the situation may change and the profit seeking private players will charge higher payment. For instance, Delhi Jal Board (DJB) which supply potable water through pipe water system to nearly 180 lakh population in Delhi, provides water at the cost of Rs. 21.97 per 1000 litre<sup>2</sup> (Delhi Jal Board, n.d.). In Singapore, potable drinking water supply costs around \$1.21 per 1000 litre (Singapore Government, 2018), that is around Rs. 76.81 per 1000 litre<sup>3</sup>. However, in the case of Singapore we should understand the per capita income of the country is much beyond the per capita income in India. At the same time one litre of bottled water costs minimum<sup>4</sup> Rs. 15 and some company charge Rs.20 per litre portraying how it is valued when it became a bottled water. For that matter DJB provides free water supply to the household who consume water up to 20,000 litre per month.

The exorbitant price by the private player is made the people to struggle much. In Hyderabad, instances were reported that the people charged Rs. 3000 for 5000 litre water, which equal to Rs. 625 for 1000 litre water which almost 20 times more than the price of government water supply (Lasania, 2014). To this effect, considering if a household consume 1000 litre per day, the monthly cost will be Rs. 18,750, which is much beyond the capacity of a common man. Even if the private players do not fix this much higher price on the regular situation, there is

 $<sup>^2</sup>$  This amount is for those consume water in the slab 20,000 to 30,000 litre per month which is Rs. 21.97 per month. DJB has different slab. According to it water is free for those who consume up to 20,000 litre water per month and having a functional water metre. Those who consume above 30,000 litre water in a month has to pay Rs. 36.61 per month.

Considering one dollar cost Rs. 63.48.

<sup>&</sup>lt;sup>4</sup> In Tamil Nadu, the *Amma Kudineer* which is produced by the Government of Tamil Nadu is sold at Rs. 10 for 1 litre of bottled water.



chances when they could increase the prices based on the demand, scarcity and for their profit. The issue of poor will be unimaginable if the service of this precious resource is with the private profit motive players.

# 5. Case Descriptions of Water Supply of some Indian Cities

Following are the some case description of various cities in India and the experiences of water supply in these cities. It focuses mainly on how the public water supply working and what contributed to the presence of private players in the sphere of water supply.

#### 5.1. Delhi

In Delhi, Delhi Jal Board under the Government of Delhi supply water to its population with its own water treatment plant and distribution system. The gap in the public water supply is the major source to private players. The consequence is firstly, people have to pay increased price for the access to water. Secondly, as ground water is main source of water for the private players and they extract much more water to meet the need of the people, result of ground water depletion. The lack of reliability of the quality of water is led to another issue. As people cope it up with buying water purifier and other technology to make it safe for drink and it costs considerable amount (Dutta et al. 2005). The interesting part is, the cost to buy such equipment and measures in a year are at least double the cost of entire operation and maintenance of Delhi Jal Board in a year (Hussain, 2017). Thus, the result is inefficient and unreliable water supply in this city led people spending more money to ensure access to drinking water. It also the reality that the poor and who live in the slum cannot afford to manage these water purifying equipment suffering them the most.

#### 5.2. Chennai

The city in the southern India in the state of Tamil Nadu is also not different. Here the gap generated due to lack of public water supply is filled with the private players. The private industries as mentioned above extract water from the ground water table. Due to depleting the ground water resources, and over extraction of the ground water that they supposed to extract, the revenue official has to shut down numerous bottle water plant but with cost of strike by the bottled water industry leading to suffer heavily bottled water dependent urban areas. This experience lighten the importance of the role of public sector in provision of water to the needy people. Even the government want to shut down the bottled water industries, people struggles because of scarcity of water (Govindarajan, 2017). This study shows it is important to have private water supply to cater the need of the people who cannot ensure access to potable water.

#### 5.3. Bengaluru

water requirement of the city. But when the dependence on river Kaveri for the water need fulfilled, the lakes were undermined by the authority and presently many of the lakes were not in existence. Being no attention made to conserve the lakes, it became the reservoir for the sewage and waste led to the pollution of the water bodies. The water in the lake actually recharge the aquifers also filled with pollutants led to the pollution in the ground water. With increasing pressure on Kaveri on water sharing and combined with climate change the condition of water scarcity is huge. The stress is also led to poor and people who live in the slum devoid of water access. The unavailability of water for sanitation contributed to enter the human wastage in to the sewage and it in turn reaching to the lakes resulting in to the ground water pollution. Thus creating a situation of vicious circle (Hussain, 2017).

The case of Bengaluru is not different. Here, there

were numerous lakes in the city which supported the

#### 5.4. Bhubaneswar

The case of city Bhubaneswar in the state of Orissa is not different. The major portion of the area is supplied with drinking water by the Bhubaneswar Municipal Corporation (BMC) and the source of drinking water is the river. Many private players also utilise the river water for the supply to their customers and there is no regulation available in restricting the use of river water. As mentioned in the above cases private enterprises fill the gap which is created due to the lack of reach of BMC water supply to every region especially to the poor, people living in the slum. These people bear the issue of health, sanitation and also pay the cost for in terms of loss of manpower and hospitalisation and so on. The supply to the slum areas are not fully ensured and constraints such as lower duration of supply, and lack of infrastructure including pipe connections to the poor. The case of unauthorised poor is more pathetic and they have to rely most of the time to the leakage of the pipe system and they also depends on the institutions such as school, government office during the scarcity (Lenka, 2014).

Also many news reported as the contamination of the public tank leading to the health risk of the people who use it. Commonly the poor is the beneficiary of such a water supply situation. The need of the hour is to make the people aware along with the proactive action from the authority who have responsibility to save people form health risk and provide safe drinking water to the population.

#### 6. Discussion

The mentioned cases shows how and why the private players play their role in the water supply field. It can be noted that they emerged mainly to fill the gap between demand and supply. While doing so, we saw that the main focus is towards extraction more water mainly from the



ground water. It is also important when water supply must integration of many components ranging from sourcing the water to conserving the water. In majority of the cases the privatisation of water supply only focuses distribution which is only a single component to it. Rest of the part could be best done by the public investment as in this sphere the private could not find much profit to earn. For instance, Delhi Jal Board work for the conservation of water which include measures such as rain water harvesting and water recycling (Delhi Jal Board, n.d.a). Result will be its tremendous impact on the ground water table questioning the sustainability of the resource. As the Hydroschizophrenia existed and exist in this sphere since policy makers reluctant to understand and increasingly promote the privatisation of the water supply or do not fill the gap of demand and supply.

# 7. Conclusion

Public water supply has to empower to ensure the water need of the public in the particular region, if public support is needed in water supply. The gap which makes by the inefficiency of the public water supply is filled by the private player. However, the increased reliance of private player to the ground water is a biggest concern where it lead to the ground water depletion and decrease in water quality. Various measures needed to recharge the ground water aquifers and conserve water including rain water conservation and water recycling, water reuse. Most of the time, this actions is not the game of the private players. The result is, for common man, more lack of access to ground water in one hand and increased pollution on the other, with increasing cost to extract water.

The parallel water industry emerged where there is a gap between demand and supply in water by the public authority. Thus, the solution for a sustained water supply is augment water resources from different sources such as river, ground water, rain water conservation, reuse and recycle of water and at the same time measures to recharge the aquifers so that the ground water get recharged and it can curtail the increasing depth of water table. However, public support is essential in this endeavour. Of the late, with understanding the importance of aquifer recharge for the sustenance of ground water, Government of India adopted National Project on Aquifer Management (NAQUIM) to map the aquifer across the country. The preliminary studies of the aquifer mapping in the Gangetic basin shows that the shallow aquifers are contaminated (Press Information Bureau, 2017 and Rajya Sabha TV, 2016), we need to make our policy and actions accordingly. As stated above the solution is more democratisation, community participation with the support of the government.

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