

Private Water Tankers: A Legitimate Solution to Delhi's Water Woes?



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Abstract

Delhi has seen the rise of a parallel industry in water supply: the private water tankers or the 'tanker mafia', which have filled a large portion of the gap between demand and supply. This paper explores the mechanism of their operation, and the illegalities involved in this business. This paper also attempts to look into the results of legalisation of this market. One of the key findings of this paper is that the efficiency of operation and water being an essential utility has garnered acceptance to these operators. Furthermore, legalisation will ensure accountability, both towards the government and towards the customers.

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"In an age when man has forgotten his origins and is blind even to his most essential needs for survival, water along with other resources has become the victim of his indifference."

--Rachel Carson, American marine biologist

The Problem: Shortage of Water

Water scarcity is not a new phenomenon for the residents of Delhi. Filling and storing water has become a necessary chore which every household spends a considerable portion of their time on, every single day without fail. Come summer, and this task becomes even more time consuming due to the long queues to fill water from the tankers, regular visits to the Delhi Jal Board for complaints, or arranging a water supplier that might charge positive prices but nonetheless supply water.

The whole and sole authority for providing potable water to all of Delhi is the Delhi Jal Board (DJB). According to their website it is the responsibility of the Delhi Jal Board (DJB) to produce and distribute water that is safe for drinking purposes. However distribution is not handled by the DJB for the New Delhi Municipal Corporation (NDMC) and cantonment areas. Collection, treatment and disposal of sewage also fall under the Delhi Jal Board's jurisdiction.¹

The Delhi Jal Board gets its raw water from the Bhakra storage, Ganga, Yamuna and in small quantities from rainy wells and tube wells (or mainly groundwater).² Since Delhi is dependent on other states for most of its raw water and is prone to having very high population growth rate, the Delhi Jal Board has to constantly struggle to keep up with the growing demand. With the present infrastructure, the discrepancy between the demand and supply is accentuated by leakages and other losses during treatment and distribution. Unauthorised consumption of water builds on to this discrepancy.

Irrespective of the reasons, this shortage of water has led to a number of small scale private players getting involved in the water sector. These illegal private players provide an alternative means to bridge the gap between demand and supply, and have thus created a black-market for water. Private water tanker owners or the 'Tanker Mafias' as the media puts it, the ones which do not operate under the purview of the Delhi Jal Board, command a strong hold over this black-market. From the consumer point of view, the legal status of these tankers is not as big a concern as their daily need for water. For them water is not something they can compromise on, and this is why these tanker owners have gained acceptance among people. When asked whether the residents lodge complaints regarding this illegal business, a sweets-shop owner in the Raju Park area of Delhi, where tankers provide most of the water supply, replied, "*Complaint kyun karega? Complaint toh koi nai karta*". (Why will we complain? No one complains.)

¹Department of Delhi Jal Board website, last modified June 05, 2012, http://www.delhi.gov.in/wps/wcm/connect/doiit_djb/DJB/Home/About+Us

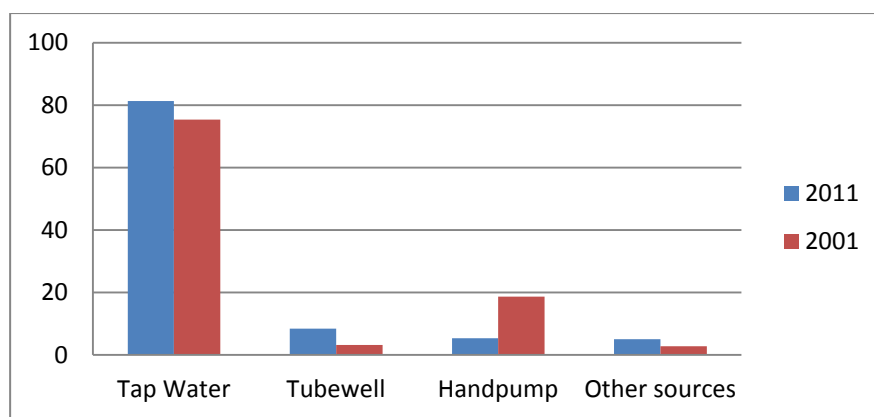
²Ibid.

By how much: the estimates

As per the census, the number of households in Delhi, in the year 2011, was 3.340 million, as compared to 2.554 million in 2001. The same report highlights that drinking water was available within the premises for 78.4 percent of the households in Delhi. The number has significantly increased from 74.9 percent in the year 2001.³ The graph below shows the percentage distribution of households on the basis of the main source of water supply:

Percentage of households by source of drinking water supply

(2001-2011)



Source: *The Houses, Household amenities and Assets, Census of India 2011, NCT of Delhi.* ²

During the formulation of the Master Plan of Delhi for the year 2021, the Delhi Jal Board had predicted that Delhi would be needing as much as 1140 million gallons per day (MGD) in 2011 (at the rate of 60 gallons per capita per day), for a population of 19 million.⁴ The population of Delhi however turned out to be 16.7 million (as per Census of 2011)⁵. Even though the population growth was less than expected Delhi Jal Board failed to meet the actual need. The installed capacity of the Delhi Jal Board is close to 840 MGD currently.⁶

³Census of India 2011, NCT of Delhi, *Houses, Household Amenities and Assets*, accessed on 27 June 2012 at http://censusindia.gov.in/2011census/hlo/Data%20sheet/delhi/5Drinking_water.pdf

⁴Master Plan for Delhi 2021 (Draft), dated 21 December, 2004, page 5, Planning Department, Government of NCT of Delhi, http://dda.org.in/planning/docs/19_Annexure_14-phy.infra.-21.12.04.pdf

⁵Census of India 2011, *Major Trends, Provisional Results*, Ministry of Home Affairs, Government of India, http://censusindia.gov.in/2011-prov-results/data_files/delhi/2_PDFC-Paper-1-major_trends_44-59.pdf

⁶Delhi Jal Board, *Citizen Charter*, page 4, Government of NCT of Delhi, http://www.delhi.gov.in/wps/wcm/connect/doi_t_djb/DJB/Home/Citizen+Charter

If the Master Plan 2021 predictions are to be relied upon, Delhi would need 1380 MGD of water in 2021.⁷It does not require complicated math to conclude that the gap between the supply and demand is a huge one to fill.

Behind the scene: the reasons

To begin with, shortage of water does not mean that the per capita supply of water is insufficient to meet ones daily requirements. Delhi, in fact, gets as much as 191 liters per capita per day supply of water, much higher than other cities in the world.⁸The major concern is the percentage of population that has access to proper water supply. A study done by Delhi Jal Board compares the actual performance of the board along various indicators as compared to the benchmark set by Central Public Health and Environmental Engineering Organisation (CPHEEO), Ministry of Urban Development (MoUD):

Water supply indicators

Performance Indicators:	Benchmark (CPHEEO, MoUD)	Status (DJB)
Coverage (piped water supply)	100%	72%
Per capita supply of water(lpcd)	135	191
Extent of Metering	100%	55%
Extent of Non-Revenue Water	15%	52%
Cost recovery	100%	42%

Source: Delhi Jal Board study by engineers Vikram Singh and V K Babbar⁹

The lack in infrastructure for management of water supply, results in a high percentage of water that is unaccounted for, called Non Revenue Water or NRW. Non-Revenue Water refers to the consumption or wastage of water which is not billed for, i.e.it does not generate revenue. It can

⁷MPD,2021(draft), page 5

⁸DikshaSahni, 21 June, 2012. *Why is Delhi running out of water?* Accessed on 21 June 2012 at <http://blogs.wsj.com/indiarealtime/2012/06/21/why-is-delhi-running-out-of-water/>

⁹Vikram Singh, V KBabbar. *Towards Rational Capital Water Supply System* [powerpoint presentation] accessed on 21 June 2012, http://www.urbanindia.nic.in/programme/uwss/uiww/PPT_4th_Meeting/DJB_Water_PPT.pdf

include unbilled consumption by people, whether metered or unmetered, losses due to inaccurate metering, unauthorised consumption and leakages at the distribution, storage or service connection stages.¹⁰ A major chunk of the 52% NRW in Delhi is due to leakages. The low percentage of metered connections also contributes significantly to non-revenue water. Other shortfalls in the performance indicators are due to faults in the distribution mechanism which make it difficult to make water available to the tail end of the distribution pipeline. Also, insufficient capacity for rainwater harvesting and lack in infrastructure for treatment of waste water add to the shortage in potable water.

One important facet of the problem is explained by Jyoti Sharma, President of FORCE.¹¹ She says that it is never an entire area that faces shortage. There are certain pockets in the area which are not able to be served through the piped supply. These are the pockets which are at the tail-end of the distribution network. She points out the fact that apart from pipeline faults like leakages, individual motors installed by consumers at their end leads to the water being sucked up earlier in the network, and as a result the tail end remains devoid of water. These pockets then generally rely on the alternate sources of water supply, namely tankers and bottled water.

The attempt towards solution: government initiatives

The Delhi Jal Board has taken up significant initiatives in the recent past to improve the situation. To increase the raw water supply to Delhi, the government has released Rs 2.15 billion for the construction of the Renuka Dam which will help increase Delhi's potential to store the raw water it gets from Yamuna. Two treatment plants at Okhla and Dwarka are in their construction phase. To reduce the NRW, the DJB has initiated the installation of bulk water meters at different stages of the transmission system that is, at all water treatment plants, water distribution mains, and underground reservoirs. This will help in tapping the flow of water right from the point of treatment to the point of consumption. Also with procurement of around five lac water meters in the previous five year plan, all consumer connections will be metered in the current plan. As of now, installing a meter for their water connection is the responsibility of the consumer who applies for it, and this lack of strict regulation has been heavily exploited by residents.

The main focus of the twelfth five year plan, (2012-2017) are the water reforms, which are said to follow the same strategy as the power reforms in 2002. Privatisation of water distribution and a

¹⁰International Water Association: Assessing NRW and its components - a practical approach, August 2003, accessed on 20 June, 2012, <http://www.iwapublishing.com/pdf/WaterLoss-Aug.pdf>

¹¹ From Personal Interview with Jyoti Sharma, President, Forum for Organised Resource Conservation and Enhancement (FORCE), an NGO working for water issues in Delhi.

complete structural overhaul of the DJB have been suggested. Three pilot public-private partnership (PPP) projects in the distribution and treatment facilities are in their planning phase.¹² The privatisation of water tanker distribution system, which will include outsourcing the tanker management system, has been sped up in order to cater to the problem of illegal water tankers.¹³

How the public copes with the situation: The alternate sources of water supply

The Delhi Water (Jal) Board Act of 1998, which clearly defines powers and duties for the smooth functioning of the DJB, states that "No person shall, without written permission of the Board, use or allow use of water supplied for domestic purpose for any purposes, other than domestic purposes, except to extinguish a fire."¹⁴

However, faults in the management of water supply have caused people to look out for alternate sources of water supply. These alternate sources consist of the small scale private water providers, and personally installed tube wells and bore wells. Since most of the private water suppliers perpetrate buying and selling of water without the permission of the board, their activity is illegal. The water which they supply contributes a significant percentage to the non-revenue water, particularly classified as unauthorised consumption or extraction of water. Such water providers include private tanker providers, private contracted pipelines, and bottled water suppliers.¹⁵ The extent of the hold of these small scale private water suppliers over the distribution network is so large that they form a different sector in itself- the unorganised sector.

Private bottled water supply: the supplement

Bottled water supply can be either be organised like packaged drinking water and mineral water or unorganised illegal bottled water supply. The former two have to obtain permits for bore wells as well as quality certification from the Bureau of Indian Standards (BIS) which lays down regulations for their classification and the treatment facilities which need to be installed for the manufacturing

¹² Issues and Challenges for 12th Five Year Plan -2012-17, Chapter 3, Water Supply and Sanitation, http://delhi.gov.in/wps/wcm/connect/DoIT_Planning/planning/important+links/issues+and+challenges+for+12th+five+year+plan+-+2012-17

¹³ Deepanshu Roy, "DJB takes quiet steps to privatisation", *Millennium Post*, 11 July 2012, <http://millenniumpost.in/NewsContent.aspx?NID=5190>

¹⁴ Delhi Jal Board, DJB Act, Chapter 3, accessed 26 June 2012, http://www.delhi.gov.in/wps/wcm/connect/doi_t_djb/DJB/Home/Information/DJB+Act/Chapter+-+III

¹⁵ Urban Finance, Vol 6 No. 3. "Small scale private water providers- A growing reality", National Institute of Urban Affairs, http://www.niua.org/Publications/newsletter/urban_finance_sep03.pdf

of these bottles.¹⁶ The latter, however, do not adhere to any norms laid down by the government. International brands like Pepsi, Kinley and national brands like Bisleri are the market leaders in the organised sector.¹⁷ The Delhi Jal Board has started supplying packaged drinking water under the brand 'Jal' in order to provide more services to its consumers.¹⁸

In the unorganised segment of the market, bottled water suppliers usually work individually. Since bottled water comes at prices as high as Rs.70 for twenty litres, it acts as a supplement to the Delhi Jal Board supply. The quality of the piped water (DJB) suffers degradation due to seepage and contamination which can be attributed to the old and disrupted pipelines. In such a case, people resort to buying bottled water for drinking purposes and using the piped water for other domestic purposes like washing and rinsing. For the bottled water supplier, their source of water varies from leakages in pipelines, bore wells, personal water connections to water tankers, be it private or Delhi Jal Board's.

Private water tankers: the big guns in the black market

The Delhi Jal Board provides potable water via pipelines; DJB official tankers, tankers hired from MCD, NDMC, and other private tanker owners; and also bottled JAL containers. The board owns around 250 tankers at present, and has to rent as many as 750 tankers in order to respond effectively to complaints of shortage and to cases of emergency. Along with that, it has to supply water to 18,349 delivery points on a daily basis.¹⁹ All such tankers which operate under the Delhi Jal Board have been referred to as the DJB tankers.

Apart from the tankers hired by the Delhi Jal Board to overcome the deficit in the number of tankers it has, any tanker that supplies drinking water without permission from the board is operating illegally. However, in the past few years, the number of such private tanker owners has increased rapidly with the increasing demand. Estimates say that the number is somewhere close to 2000 tankers.²⁰ Their high efficiency and the unavoidable nature of water as a utility have made this

¹⁶SanjanJanardhan, "CII-Seminar on the packaged water industry", *India Water Portal (Blog)*, Initiative by Arghyam, 3 July 2012, <http://www.indiawaterportal.org/post/6790>

¹⁷Kilian Christ, 28 October 2011, Bottled Water- A Rapidly Growing Market in India, accessed on 3 July 2012, <http://www.waterandmegacities.org/bottled-water-a-rapidly-growing-market-in-india/>

¹⁸Delhi Jal Board, *Delhi Jal Board's Packaged Drinking Water Bottling Plant*, Government of NCT of Delhi, http://www.delhijalboard.nic.in/djbdocs/r_t_information/pdf/DJBs%20JAL.pdf

¹⁹Indian Express, To curb pilferage DJB to privatise tanker system, 11 July 2012, <http://www.indianexpress.com/news/to-curb-pilferage-djb-to-privatise-tanker-system/972884/>

²⁰Jayshree Nandi, Groundwater half of supply, Times of India, 14 July 2012, http://articles.timesofindia.indiatimes.com/2012-06-14/delhi/32234233_1_groundwater-central-ground-water-board-water-table

business extremely profitable. Also the demand for a bulk amount of water by large establishments like hotels, hospitals, and shopping malls make these private tanker suppliers a favorable option.²¹

The operation and why the private tankers are never short of water

The private water tanker business in Delhi, given the ineffective implementation of regulations, turns out to be a low investment and high profit venture. Hence a lot of individual private players have emerged in this business of supplying water to the under-served population of Delhi.

In the name of equipment, what is needed for one to enter this business is a fleet of a few tankers, and a bore well. Water is extracted from this bore well and supplied to the address specified by the consumer. Most operators involved in this business do not even own a shop. They generally operate on phone, where they ask for details like address and quantity of water needed and assign a fixed time when the delivery will be made. Delivery usually takes place at night, when it is easier to avoid the police. Even if their shops exist, they are not easy to spot, and drinking water supply is a secondary business in most of these cases.

Even if the tanker owner does not own a bore well himself, it is not difficult to find a bore well owner who is ready to sell water for these tankers at very low prices. Observations from field visits have pointed out that most of the private tankers fill up from bore-wells in farmhouses on the outskirts of Delhi and this extraction of water just means some extra income for the owner of the farmhouse. A study shows that farmers sell water for as low as Rs 50 for a usual one kiloliter tanker.²² Also there are bore-wells in the unauthorised colonies of Delhi, which are meant to fulfill the drinking water needs of the residents, but serve as a niche for these tanker owners to flourish.²³

Another aspect of this business that has come to the light recently uncovers an alliance between the private tanker operators and the DJB officials at the ground level management. Kumar Vikram, reporter, Mail Today pointed out in his report, that these tanker suppliers usually mix water from chilling plants, in order to make the quality of water they supply better. His report also showed instances where the tankers filled up from DJB's booster pumping stations. This is not possible without the assistance of someone from the board itself. The Delhi Jal Board has promised strict action against the employees who are found to be involved in buying and selling of water.

²¹From a personal interview with Mr.Nitya Jacob, Programme Director: Water, Centre for Science and Environment (CSE), New Delhi.

²²*Excreta Matters*, published by Centre for Science and Environment, Volume 2, 71 cities, Page 86.

²³From a personal interview with Mr.Nitya Jacob.

²⁴Mr. Vikram, however, admitted that the participation of the employees in this transaction is constrained to the ground level management only and does not form a very large nexus.²⁵Bore wells remain the major source of water for these tanker operators, and also present an additional challenge to the issue.

Regarding other informal costs of the running the business, many people admitted that bribery and other such monetary exchanges between the tanker owners and employees of the board and the police do form a part of the transaction, but it does not constitute a significant amount of the profit. An auto driver revealed, "It is generally the beat constables which are bribed, just like us *auto wallahs* pay entry". Thus pricing of water is not affected by these. What plays a major role in determining prices is the willingness of the customers to pay that price.

The calculation part to measure profit is not tough. Taking the case of Raju Park in Delhi, people pay Rs.400 per kiloliter of water. If a tanker of ten thousand liter capacity makes three trips like that in a day, it makes somewhere around twelve thousand rupees. Thus the initial investment, which is roughly the cost of buying the tankers, is easily recovered from a thirty kiloliter supply in just one or two months. Going by the earlier estimate of 2000 tankers in the city, the total profit in the tanker business can be estimated to be around Rs. 24 million every day. Looking from the other side of the business, this is the amount of money that residents of Delhi spend on water in a day. A study by Centre for Science and Environment on this issue also presents a similar estimate for the SangamVihar area.²⁶ Various interviews and news reports suggest that prices are based on the economic capacity of people in the area. For posh colonies like VasantVihar and Malviya Nagar, prices may be as high as Rs. 1000 for a kilolitre.²⁷

Operating without permission, is that it?

No, the fact that the small scale private tanker owners operate without the written permission of the Delhi Jal Board is not the only reason why they are illegal. Though this forms one of the primary reasons, there is another aspect to their legal, or rather illegal status.

As explained above, the private tankers rely on bore wells as a source of water. As late as 2002, there was no regulation on the use of groundwater for domestic or commercial purposes. In the

²⁴Kumar Vikram, Hakeem Irfan. 14 June 2012, Tanker Mafia mint money from Delhi's water crisis. *India Today*, <http://indiatoday.intoday.in/story/tanker-mafia-djb-officials-delhi-water-crisis-sheila-dikshit/1/200574.html>

²⁵From a Personal Interview with Mr. Kumar Vikram, journalist with *Mail Today*.

²⁶*Excreta Matters*, Volume 2, 71 cities, Page 86.

²⁷Observations from field visit along with newspaper reports.

wake of large scale depletion of groundwater resources, the Central Groundwater Board (CGWB) passed various notifications prohibiting the installation of any structure for groundwater usage. After March 2006, every district of Delhi has been recognised as over-exploited in terms of groundwater extraction and further groundwater usage has been restricted. As per an order by the Lt. Governor of Delhi:

“In the whole of the National Capital Territory of Delhi no person, group, authority, association or institution shall draw ground water through bore-well or tube well (both new as well as existing and drawing groundwater without permission of Central Ground Water Authority) for domestic, commercial, agricultural and or industrial uses without the prior permission of the "Competent Authority" that is to say, the Delhi Jal Board or the New Delhi Municipal Council as the case may be.”²⁸

For drinking water purposes, the competent authority for most parts of Delhi is the Delhi Jal Board. Any bore well for which permission has been granted by the DJB is listed with both the CGWB and DJB and periodic checks are conducted to ensure that the sanctioned limit of extraction has not been crossed. Also, the concerned person or institution that has been permitted to install the bore well has to pay water tariff, as told by a senior DJB official.

But, in reality, most of the bore wells which these private water suppliers use for extracting water lack any sort of permission i.e. they are basically illegal. There are also cases of farmers who had their bore wells installed for irrigation purposes but have abandoned farming and taken up selling water for livelihood. The same notification as above states that any person or institution that does not adhere to the directions is punishable under the Environment Protection Act of India. The Central Groundwater Authority (CGWB) had issued a notification, asking the deputy commissioner in each revenue area to seal all unauthorised structures involved in the abstraction of groundwater in the notified areas.²⁹ One thing that draws attention in this issue is that, even though the Delhi Jal Board is the authority for granting permission for drinking water bore wells, it does not have any power to carry out checking for violation, sealing of illegal bore wells and take decisions against defaulters. The notification has identified the Deputy Commissioner (Revenue) for a revenue area, as the designated authority for looking into the matters mentioned above. These loose regulations make it easy for

²⁸F8(348)/EA/Env/09/1041-1061, Order in the name of the Lieutenant Governor (LG), Of the National Capital Territory of Delhi. Subject: Direction under section 5 of the Environment (Protection) Act, 1986.

²⁹Public Notice No 10/2000 (R), issued by Central Groundwater Authority (CGWB), can be found in Hindustan Times dated 19th Oct, 2000

people to extract groundwater without adequate permission. It is not hard to infer that the legality of these private water suppliers is compromised from the very beginning of their operation.

Health and environmental concerns

It has been established that the citizens of Delhi, in areas which do not have adequate government water supply, rely on private water tankers to fulfill their need for domestic water. But when asked about whether this water is potable, the answer is negative. Mohit, a private tanker supplier in South Delhi admits that the water that is supplied by these tankers is untreated groundwater, and differs from the DJB tanker water in this respect. The Delhi Jal Board water that is supplied via tankers contains adequate quantity of chlorine, and is hence apt for drinking purposes. According to one of the several buyers of water, the private tanker water needs to be purified before drinking, either by boiling or through modern purifiers. Another user however, does not find much difference in the quality of water; both require almost the same amount of effort in order to make it fit for drinking.

By employing various techniques, the quality of water can be improved, and made fit for consumption to avoid any harm to personal health. But, in indiscriminately extracting water from the natural underground reservoirs, these illicit private operators harm the environment beyond repair. Centre for Science and Environment, revealed in their study that over fifty percent of Delhi's need for water is satisfied through groundwater extraction. But going by the DJB statistics, the usage lies at around twelve percent. The main cause of this discrepancy is attributed to the illegal tanker business.³⁰ The Delhi Jal Board and CGWB's attempts at encouraging people to adopt rain water harvesting seem to have failed at getting a positive response. The order of the lieutenant governor, clearly mentions that any tube well or bore well in existence or to be installed needs to have a rain water harvesting structure installed and also ensure effective reuse and recycling of water.³¹ But for people who have not taken permission from any authorities, rain water harvesting is certainly not the priority.

³⁰Jayshree Nandi, Groundwater half of supply, *Times of India*

³¹F8(348)/EA/Env/09/1041-1061, LG Order. Point no 10.

Illegal, but no one complains. Why?

The high efficiency of the private tanker suppliers, high importance of water for sustenance and the widening gap between demand and supply are some of the main reasons why these illegal tankers continue to function uninhibited in the city.

It is been reiterated by various consumers that the Delhi Jal Board takes a lot of time to respond to calls for tankers. It is partly because the DJB has a limited number of water tankers and a limited number of filling stations. As told by Jyoti Sharma from FORCE, the DJB's capacity to meet the demand for tankers is constrained by these limited resources. Every tanker needs 3-4 hours to fill, and this is when we assume constant supply of electricity. Hence there is a delay in responding to complaints. Acquiring more tankers is an overhead for the board as the demand is usually not as high in the winters.

Another fact that came to light from newspaper reports and personal interviews was of the drivers of the official DJB tankers charging money for the otherwise free service. The DJB website clearly states that in case of shortage of water in a particular area, tankers will be supplied free of cost.³² But in reality, the people cannot draw water from the tanker unless the driver is paid. Residents of Raju Park area in Delhi say that the official tanker driver charges as much as Rs 500 per tanker. Moreover, if contacted directly, the drivers easily agree to divert a portion of the water they are supposed to supply elsewhere, for a positive price. Hindustan Times, a leading newspaper in the country also reported of tanker water being sold at the local Delhi Jal Board offices.³³ When people have to pay for both services, anyone would choose efficiency over waiting for a thing as essential as water. Electricity can be compromised on, but not water.

³² Supply of water tankers, under Customer Section, Water, Delhi Jal Board Website, http://www.delhi.gov.in/wps/wcm/connect/doi_djb/DJB/Home/Customer+Section/Water/

³³ Rajat Arora, 3 July 2012, Touts take over water depot, run amok, *Hindustan Times*, page 2.

Can they be made legitimate and how?

The private tanker operators provide an essential service. If their dubious legal status is ignored for a moment, one would agree that they help in bridging the gap in the demand and supply. This is, as stated earlier, one of the reasons why complaints against them operating in the city are not common place. But given the extent of groundwater depletion caused by the large scale extraction, accountability is necessary.

The current scenario evades any sort of accountability on behalf of the private tanker operators. With minimum options at hand, the consumer has to settle for substandard quality of water. The Delhi Jal Board, which has braced up for major changes in its working, has also planned outsourcing of distribution of water through tankers. The project includes electronic management of tankers through GPS and installation of flow meters and auto lock facilities to check wastage of water by tankers. The DJB has planned to increase the number of tankers it has by 385, which will be operated by a private firm. The entire process will be handled by Delhi Integrated Multi Modal Transit System (DIMTS) on behalf of the Delhi Jal Board.³⁴ According to a DJB official, the board aims to procure enough tankers that will enable it to cater to the demand without hiring tankers. According to another official, public private partnerships or PPPs enable the public sector to incorporate the quick decision making power of the private players and hence increases their efficiency in meeting with short term goals which are essential to the consumers.

Legalisation of private water tankers would include similar steps as in the packaged drinking water business. Permit for groundwater usage would be one of them. However this is also one of the key challenges in the implementation. As with the case of metering their own connections or getting their bore wells registered, the DJB made an obvious mistake of assuming that its customers are law abiding and reliable. There is a huge incentive right now to escape the regulations.

But legalisation of this unorganised black market for water will create an avenue for accountability. If all private tankers operating in the city are made accountable for what they buy and what they supply, an equitable supply of water to all people can be ensured. Some of the prospects of legalisation are explained below.

³⁴Indian Express, To curb pilferage, DJB to privatise tanker system

Accountability for the source of water:

The major sources of water for these private operators are bore wells. With regulations against illegal extraction of groundwater already in place, all that is needed is effective implementation. With underground water table dwindling, and Delhi being one of the most vulnerable to climate change, groundwater is a precious resource which needs to be saved. Monitoring bore wells for use and imposing tariff on groundwater extraction is the need of the hour. Nitya Jacob, from CSE suggests that an effective census for bore wells and tankers in Delhi is needed to formulate the best methodology to do this. Proper tariff will also provide for a motivation of reducing leakages from tankers.

Incentivise the entry in the business:

As stated earlier, commercial extraction of groundwater requires the concerned person or institution to install rain water harvesting structure. But since this increases the cost of entering the business, and does not ensure legality, there is an obvious motivation for these suppliers to bypass this regulation. With legalisation, and properly metered groundwater supply, these private suppliers will be incentivised to invest in such schemes. By making these private water tanker suppliers legitimate, there will be an opportunity for them to access the DJB schemes for rain water harvesting and artificial groundwater recharge. As of now, the DJB provides technical as well as financial assistance for installing rainwater harvesting structures for institutional buildings.³⁵ Such schemes will not only benefit the environment but also prove beneficial to these suppliers by recharging their source of supply.

Accountability for water sold:

With legalisation, comes increased competition, since it cuts down on the risk involved in the business and informal costs like bribes. With more number of entrants in the area competing for customers, it will lead to a reduction in prices and increase in the level of quality of water. At present, these private water suppliers generally have monopoly in the area they cater to and water is generally delivered at night to evade any trouble with the police. Legalisation will impart more choice to people and give these operators an incentive to improve. Consumers will be able to

³⁵ Delhi Jal Board website, frequently asked questions, Rainwater Harvesting. Last updated 5 December 2011, Government of NCT of Delhi.
http://www.delhi.gov.in/wps/wcm/connect/doi_t_djb/DJB/Home/Rain+Water+Harvesting/Frequently+Asked+Question

exercise their rights as in cases of other consumer goods, i.e. access to consumer courts for any lack in the service.

Bulk supply of water:

According to a DJB official, unauthorised colonies are unique to Delhi. With their narrow lanes and unplanned architecture, it becomes a herculean task to design a water supply network, or pipeline layout that would provide for the needs of the area. In such a situation, people have to resort to tanker services. For areas such as these, a provision of bulk supply of water to private operators would help relieve people of their water woes. Even now the DJB hires tankers for its supply, but what is suggested is a small scale outsourcing of its services.

In short, legalisation would imply accountability, both to the DJB which currently holds the right to water supply in Delhi, and to the consumers, which will allow them to hold the private tanker suppliers accountable, for something they have bought. Treating water as an economic good reduces its wastage, as there is cost associated with every drop. With a legitimate market in place, water too will become a self-monitored good, with incentives for everyone to use it judiciously, which as is common knowledge, is the need of the hour.

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