

# The water conundrum

PHOTOS: SUMEET SAMWNEY

After reeling under a bad summer and an equally disappointing monsoon, characterised by marathon power cuts and erratic water supply, Delhi residents have some news. For most, it is still difficult to fathom whether it's good news or bad. Egged on by the Planning Commission, the Delhi government has decided to go full throttle on select public-private partnership (PPPs) projects for revamping of existing water supply, transmission and distribution networks.

The Delhi government has launched the PPP programme with an air of confidence. "We will ensure 24x7 water supply to all with PPP," Delhi chief minister Sheila Dikshit told plan panel officials, adding that the Delhi Jal Board (DJB) has already initiated pilot PPP water distribution projects in select areas of Vasant Vihar, Malviya Nagar and Mehrauli. Meanwhile, the plan panel has suggested the entire city to be covered under this PPP model to reduce water distribution losses and ensure potable and safe drinking water to all by 2017.

"Water privatisation will only increase the inequalities in water distribution. Has privatisation of electricity ensured 24x7 supply to us? Only 72 per cent of Delhi's population is provided with piped water connections and only 55 per cent of this water is metered! The Sonia Vihar water treatment plant is already in private hands. Instead of privatising, why doesn't DJB put its own house in order," asks Neelima Kohli, a resident of Delhi's Sheikh Sarai and an ex-Residents Welfare Association secretary.

## The water challenge

Delhi, particularly, has reason to be worried. McKinsey Global Institute in its recent report *Urban World: Cities and the Rise of the Consuming Class* categorically mentions that Delhi will top the expected growth in municipal water demand from 2010 to 2025.

While the PPP may be the first of its kind in Delhi, several such programmes are already underway in rest of India. As early as 2002, a consortium including Thames Water

**Is public-private partnership the way forward in the water sector?**





## FEW KEY PPP PROJECTS

### Nagpur, Maharashtra

**Features:** 24x7 water supply project in selected zones; rehabilitation and distribution improvement; capital investment is publicly funded; performance-based management contract.

### Mysore, Karnataka

**Features:** System study, capital investment planning, rehabilitation, O&M, billing and collection; capital investment plan to be decided after system study. As much as 80 per cent funding from JNNURM; performance-based management contract.

### Belgaum, Gulbarga and Hubli-Dharwad, Karnataka

**Features:** Management contract for 24x7 in select zone; clear demonstration of benefit led to expansion in other zones; tariff increase only after demonstration of benefit.

### Chennai, Tamil Nadu

**Features:** 100 MLD design, build, own, operate, transfer project in JV with Befesa; levelised water tariff over a 25-year period to be paid by Chennai Metropolitan Water Supply Sewerage Board.

*Source: Bringing Water to Your Doorstep – Urban Water Reforms for the Next Decade; PWC (2011)*

won a pilot contract covering 40,000 households to reduce non-revenue water in parts of Bangalore, funded by the Japan Bank for International Cooperation. In 2007, Cyprus-based Hydro-Comp won a 10-year concession contract for supplying water and collecting revenue for a period of 20 years in Latur, Maharashtra. The Jamshedpur Utilities & Services Company (Jusco), a subsidiary of Tata Steel, has three main contracts underway: a lease contract for Jamshedpur, a management contract in Haldia and another one in Mysore. While the list could go on, there is certainly no denying that the reaction of the civil society towards most of these projects has been largely mixed.

Shripad Dharmadhikary of the Manthan Adhyayan Kendra (a Madhya Pradesh-based centre set up to monitor, analyse and research water and energy-related issues) and also a member of the Working Group on Urban and Industrial Water Supply and Sanitation for XIIth Five Year Plan (2012-2017) has strongly maintained that “drinking water supply must be kept out of the ambit of PPP projects...The experience in India does not instil confidence that a PPP domestic water supply scheme can meet the social goals of water for all at affordable rates. On the contrary, many PPP projects have had serious issues with them. The global experiences support this.”

The National Water Policy 2002 categorically emphasised that ‘private sector participation should be encouraged in planning, development and management of water resources projects for diverse uses, wherever feasible.’ Even the draft National Water Policy released earlier this year by the ministry of water resources states that “the service provider role of the state has to be gradually shifted to that of a regulator and water-related services should be transferred to community and/or private sector with appropriate ‘PPP’ model.”

Quite a few PPP models are being watched closely at the moment. For example, Haldia Development Authority (HDA) has entered into a Concession Agreement with Haldia



Water Management Limited (HWML), a joint venture between Jusco and Ranhill Utilities Berhard (Malaysia) for development and operation of Haldia Water Supply Scheme. The concession includes setting up a new 25 MGD (million gallon daily) water treatment plant on a BOT basis along with operation and maintenance of the existing and new water supply system for a period of 25 years at an expected investment of about ₹100 crore. As per the agreement, the entire facility shall revert back to HDA on the expiry of the concession period. Under the agreement, HDA shall have a pre-determined annual guaranteed income along with revenue sharing. The guaranteed income to HDA over the concession period is estimated to be ₹1,220 crore.

Another example worth mentioning is New Tirupur Area Development Corporation Limited (NTADCL), established by the government of Tamil Nadu, Infrastructure Leasing & Financial Services Limited (IL&FS)



and Tirupur Exporters Association to implement the first water sector-related project under the PPP framework in the country. It is the first water supply project to be financed commercially on a limited recourse basis.

### The emerging gap

“Privatisation in water is more of an exception (United Kingdom) and not a rule. Management contract and long-term lease (with asset ownership lying with the government entity) is the most common model. With the present state of the sector’s economy, full scale privatisation is neither viable nor attractive for private companies. ...Increasingly some investment from private sector is necessary for ensuring that the private operator has stake in long-term development of the sector,” says Ranen Banerjee, executive director/partner–public finance/urban utilities & governance at PricewaterhouseCoopers (PwC).

Banerjee, in the same vein, points out that Nagpur is a good example

of involving private sector in city-wide water distribution: “The pilot was successful and has been scaled up to cover the entire city. It remains to be seen if the results of pilot can be replicated on a city-wide basis.” Nagpur’s case is indeed an interesting one. Data suggests that the PPP pilot in the city resulted in reducing unaccounted water from 52 to 28 per cent!

Now, Veolia Water India, subsidiary of Veolia Water, has been awarded the drinking water service operation and maintenance contract by the city of Nagpur for 25 years. A special purpose entity, Orange City Water, will deliver drinking water to homes of the 2.7 million people living in the city 24x7. The service will be provided to the entire population of Nagpur, including the third of the population living in the city’s slums. Estimates suggest that the cumulative revenue for Veolia Water will be ₹387 million. The contract includes an initial five-year works programme

at a cost of ₹60 million. This will be 70 per cent funded by the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and Maharashtra state, and 30 per cent by the operator. Besides installing 6,000-8,000 water metres each month, the humungous task includes increasing the amount of water available per person from 90 litres a day to 130 litres over the next five years!

The question on commercial viability for a project of this scale is a natural one. “A PPP is not privatisation because there is no transfer of ownership of the public infrastructure (such as plants, drinking water, distribution networks, etc.) to the private company. Here, decisions regarding water tariffs remain under the authority of municipal corporations and the private sector involvement is in the form of a performance and time-bound contract,” says S.V.K. Babu, director, Veolia Water India.

Babu adds: “Contractual arrangements have to be balanced, clear and



respected by both parties, if projects in the water sector are to be commercially viable. The authority and control powers rest with the municipal corporation, while tangible improvements and professional efficiency is the responsibility of the private company. In recent years, the Government of India has taken active steps to ensure the commercial viability of projects and attract private sector funding and expertise. Schemes such as the JNNURM and the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) have played an important role in ensuring a more balanced sharing of the commercial risks associated with urban water projects... It is the responsibility of the public authority to devise affordable water tariffs while ensuring adequate revenues for the private company through investment structures."

Abhay Kantak, director, urban practice at CRISIL, an analytical company, agrees that "PPP in urban water supply projects has mainly gained momentum on account of a high level of grant funding made possible through schemes like JNNURM."

### The way forward

"The downside of these JNNURM-funded projects," Kantak adds, "is that pre-approved Detailed Project Reports (approved under JNNURM) are poorly and hastily prepared with little reflection of ground realities. Mysore and Khandwa (Madhya Pradesh) are such examples. Also, service-level expectations from the PPP contract are not aligned to the project design. For example, the Mysore DPR was not designed for 24x7 while bidders bid for the project with 24x7 as the service-level expectation." In Khandwa, Kantak elaborates, the private operator was commissioned to build a 60 km-long distribution network. But during project implementation, the required length of the distribution system was found to be 192 km. Similarly, in Mysore, the contract required the private operator to build 800 km of distribution system, but the ground reality is that the requirement is a 1,800 km-long distribution network.

## WATER WOES



SANJAY BORADE

- ♦ 64 per cent of urban population is covered by individual connections and stand posts in India, compared with 91 per cent in China, 86 per cent in South Africa and 80 per cent in Brazil.
- ♦ Duration of water supply in Indian cities ranges from 1 hour to 6 hours, compared with 24 hours in Brazil and China and 22 hours in Vietnam.
- ♦ Per capita supply of water in Indian cities ranges from 37 lpcd (litres per capita per day) to 298 lpcd for a limited duration, while Paris supplies 150 lpcd continuously and Mexico 171 lpcd for 21 hours a day.
- ♦ Most Indian cities do not have metering for residential water connections.
- ♦ 70 per cent of water leakages are from pipes for consumer connection and due to malfunctioning of water meters.
- ♦ Non-revenue water (NRW) accounts for 50 per cent of water production, compared with 5 per cent in Singapore.

Source: *Water Sector India, 2011* by AFII Infrastructure Advisors Ltd.

Interestingly, Manthan Adhyayan Kendra conducted a detailed study of the Khandwa project. The study shows the lack of private interest in the project due to financial viability propositions. It cites while the tender documents of the project were bought by 19 companies, only 12 companies eventually attended the pre-bid meeting and of that only four companies submitted their bids for

the project. "Most of the companies stated that the project is not financially viable, therefore they are not interested in implementing it."

Kantak says that "cities do not own the data that they provide. Bidders have to assess the risks on their own. Mishaps like Khandwa and Mysore will continue to happen... More money by way of a grant or a PPP model or the introduction of a regulator is often seen as the panacea to all problems. These external interventions, though needed, should supplement the cities' efforts."

Amanullah, executive vice president, SPML Infra Ltd, echoes Kantak: "There definitely needs to be a robust DPR, Request for Proposal (RFP) and PPP project documentation. Also, an empowered requisite legal-regulatory framework for allocating appropriate risk to the parties (including authority and private party) most capable to undertake those risks. Project viability should be addressed from the project inception stage and client must ensure its participation (financially) to make projects financial viable. The client must support the private party in overall project delivery and O&M." SPML Infra already has three PPP water projects under development phase: at Aurangabad, Bhiwandi Nizampur City Municipal Corporation and at Latur. Recently, Delhi Jal Board also awarded it the Mehrauli, Vasant Vihar and Malviya Nagar projects.

Banerjee of PwC brings another important point to the fore saying that "acceptance of cost-based user tariffs to be applicable before cities go ahead with PPPs so that imposition of user tariffs is not equated with PPP but seen as a requirement for long-term sustainability of the sector." On the issue of tariffs itself, Babu of Veolia India adds that "a PPP should be both economically viable for the public sector and financially viable for the private sector. This means that the public sector, which is in charge of setting the water tariffs, needs to set realistic performance indicators, pragmatic timeframes and balanced water tariff to ensure affordable service for all and adequate revenues to cover project costs."

♦ KIRAN YADAV