

VOX POP

Transportation of treated water and wastewater is a major issue: Experts

The reuse and recycle of wastewater is becoming important policy agenda in India with growing water scarcity in the urban areas. However, lack of proper infrastructure for transporting wastewater to the treatment plant and treated water is a major issue. A concrete policy initiative is needed for implementing proper infrastructure and technology in water and wastewater system in a financially viable way.

Our Experts

Mukund Vasudevan, Vice President and Country Head, Pentair

Shinya Ejima, Chief Representative, JICA India

AB Pandya, Chairman, Central Water Commission

Rishabh Sethi, Executive Director, SPML Infrastructure

S Ramachandran, Executive VP - Environment, Thermax Sustainable Solutions (Energy & Environment)

Dinni Lingaraj, Group Manager - Sustainability, Wipro Water

Views are personal

delivery levels in India, there is large scope to provide support for this basic infrastructure requirement. Water supply and sanitation sector is one of the priority sectors for JICA to extend the technical and financial assistance for various projects in the country. It may be noted that JICA is one of the largest donor to the Government of India in extending financial and technical assistance for water supply and sanitation sector projects. JICA has already extended co-funding with JNNURM projects in Amritsar and Bhubaneswar and the sector reforms initiated under JNNURM, if implemented honestly, will certainly bring larger improvements within the service level improvement in the sector.

With JNNURM II coming up this year, where more than 50 per cent of the projects are in water and wastewater, how do you see that as an opportunity for the growth of your company's business?

VASUDEVAN

Pentair plays in the area of pumping water, regulating flow (valves) and purifying water and wastewater. The municipal projects in India are still using conventional technologies. Also most municipalities are not using membrane based technologies to purify water and wastewater. Hence we need to really wait and watch how much opportunity this yields for us.



EJIMA

Looking at demand and supply and also service

What would be the advantages and challenges in putting a price tag on water consumption? Do you see this as a part of the nations's ongoing reforms?

PANDYA

The quantum of water available annually is on an average constant while its demand is increasing day by day due to rapid growth of population, urbanisation and industrialisation. The pricing is an important aspect of efficient water use. Proper pricing of water has always attracted difference of opinion in public. Since there are economically weaker sections of society, who cannot pay full price of water, telescopic water rates may be levied with hundred per cent metering. This will check the wastage of water and also lead to maximum collection of charges which are mainly towards operation and maintenance costs.

VASUDEVAN

Traditionally, people are used to free or near-free water in India. It calls for big effort on educating the public on the cost of treatment of water to get the desired quality and sharing the burden of this cost. Once there is acceptance then there will be judicious use of water. Yes. This is critical part of the nation's ongoing reforms.

EJIMA

The present level of service deliveries need to be improved to the great extent. The service level deliveries improvement could be possible provided sufficient financial resources and also sector reforms are pursued seriously. In order to secure sustainable water and sanitation services, it is imperative to improve service levels so that the consumers are willing to pay for the improved services. In such a situation, the sector has to think of the cost recovery, even if it is partial, at least full cost recovery for meeting the O&M expenses to start with for the improved service levels.



SETHI

The major advantage of pricing water consumption reasonably is it ensures that all communities, even the poor and marginalised have equal and equitable access to safe, affordable and sustainable drinking water. When we give water a value, we use it more efficiently and carefully.

The greatest water problems occur in states where the government is too weak to either provide adequate services or to regulate the water tariffs. This happens mainly due to political compulsions and public rejection in absence of proper awareness.

RAMACHANDRAN

Pricing will certainly introduce more responsibility in the citizens towards their usage and wastage of an important resource like water. However considering socio-economic aspects, as a majority of our population is less affluent and need water at very low cost, pricing should be introduced with a targeted burden on those who are utilising treated water for commercial purpose or on those who are consuming the treated water on excessively higher side.

Water being a valuable resource facing constant pressure, reforms is the need of the day and such initiatives must be introduced with a clear defining line separating water as a basic necessity and water as an important resource for any commercial activity.

The major advantages are:

- Justified and alert usage of water by people/commercial establishments
- Fund availability enabling drinking water availability to villages/dry regions as well
- Better insulation from water shortages due to

calculated usage and greater recycle

- Greater accountability as well as capability for officials to stop and prevent water wastage from leakages/damaged corporation taps.
The major challenges are:
- Explaining the suitability of governance charges by the government to the tax payer about how the tax paid by him is being utilised specially when the subsidies on products like LPG/diesel is all set to go and he is paying tolls for using roads, surcharges on the electricity.
- Designing an efficient mechanism to ensure that those unable to earn or incapable to own a house are not denied the basic need of water.
- Defining the limits at public places like railway station, public toilets, parks etc and ensuring that it does not lead to inconvenience to the common man for which such initiatives are being planned else it will be self defeating.

LINGARAJ

Water is regarded as a common resource and everybody has the right to access. But putting a price tag on water is a different perspective considering the cost involved in transportation and distribution. Especially in cities like Bangalore, water comes from large distance. So there is a large energy and transportation cost involved.



What is the progress of various states in pricing urban consumption of water? What are the issues with those that have not?

PANDYA

There is pricing of water in urban areas in various states but the policy/rules as such get influenced politically. The rationalisation and yearly upward revision of price are issues, which should be based on actual operation and management costs. The issue of urban water supply including its pricing is dealt by the Ministry of Urban Development. The 12th Five Year Plan (2012-17), Government of India also talks about the issue.



SETHI

There is no national level water regulatory authority citing water being a state subject. At state level, a few states have initiated it by setting up autonomous body to regulate the water sector in their states. Andhra Pradesh, Maharashtra, Arunachal Pradesh has set up regulatory authorities. Few other states have also passed legislations to set up the autonomous bodies to regulate water sector. But all states and city authorities in water sector need to set up such bodies and give them enough power to regulate the sector for the public benefits. It would be

ideal that the state level regulatory body is set up that can decide on water tariff for each city depending upon the requirement with overall responsibility to issue guidelines for water tariff that should be followed by the cities.

What are the major procurement issues for private developers in the urban wastewater segment? Has collection been an issue? Please explain.

PANDYA

There are number of issues, for eg, collection, transportation and treatment of urban wastewater wherein developers face problems due to non-clarity of the role among Government/Local Self Government (LSG), private developers and community. The household wastewater collection is by choice of house owner's approval. The availability of land is also an issue as either the land is not available for laying down sewerage system or sometimes the owner does not permit to lay the system in his/her land.

SETHI

Transporting the wastewater to the plant and the treated water back to the city is itself a herculean task. The infrastructure for transporting wastewater to the treatment plant and treated water is yet to be planned and developed in an organised manner for the optimum use of resources available.

The huge gap between the generation and treatment poses big challenge for the country. Collection of wastewater is facility-specific. All facilities in a treatment plant have some type of collection system, but the complexity depends upon the number and volume of wastewater streams generated.

RAMACHANDRAN

In India, a project whether government or private, can be brought to the stage of execution after it has successfully overcome stages like land availability, clearances from concerned government departments, funds and effective implementation.

Anticipating the needs of future, government does an excellent job of identifying various initiatives to address these issues by means of various laws, bills pertaining to land acquisition followed by some excellent schemes to tackle the funds issues too. JNNURM was introduced to provide a boost to resolve the funds problem especially to the projects pertaining to the urban needs. This however could not still overcome the problem of implementation and hence a lot of the allocated funds under JNNURM remained unutilised and many projects could not see the light of day since these projects never got transformed from a Detailed



Project Report (DPR) to a Tender stage. In the absence of the Tendering stage, procurement of these projects cannot be taken up by the private developers. Due to this even the second phase of this highly ambitious JNNURM also could not be introduced thereby raising procurement issues for the future as well.

What issues do private players (consultants, contractors and developers) face while dealing with city and state governments on wastewater management projects?

PANDYA

There is low community awareness which causes low response to the private players apart from the incomplete PPP model being adopted by the LSG with little knowledge and enabling environment for works. The lack of coordination among the wastewater producers may damage or disrupt the wastewater management system.

SETHI

The primary requirement for wastewater treatment is adequate supply of electricity which is a deterrent in the present context in almost all the states. Treatment technology selection for different sizes of urban settlements is another issue due to the constraint of land availability. Issues of sanitation and health and public acceptance are also important.

RAMACHANDRAN

There are a number of approvals to be taken for a project which inadvertently delays the processes. This leaves a little time to focus and select from the various options available on the technology front. Moreover, at the second stage, a level playing field is also not provided to the various available technologies. The total cost consideration is never given to all the available technologies. The third part to the problem is the non-adherence to the deadlines in meeting various parts of the project. This delay doesn't only affect in terms of time but it also has a multiplying effect along with the related cost such that the otherwise low capex project also turns into a high capex project to the extent that it may sometimes lead to scrapping of the entire project itself.



LINGARAJ

The viability is always there. If you are able to use treated water for your own use like gardening, flushing, etc, you are bringing down your fresh water intake by about one-third. Viability becomes complex at a city scale at a government perspective. Here this can be viable by way of participation of private players and the kind of technology they offer. But this again depends on the kind of infrastructure existing. IT