Socio-economic Issues Related to 24x7 Water Supply

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1.0 Introduction:

1.1 In western developed countries 24x7(x365) drinking water supply is nothing new and it has been there since many years and therefore it is taken for granted. But in developing world including India, it is considered a luxury even now. There can be several reasons – that can be different in different areas. But the most unfortunate part is that even today, there are corporation cities in Gujarat that do not get drinking water every day. Some are supplied water on alternate days; somewhere it is twice a week! Even in such a situation also there is no guarantee!

1.2 In developing countries, very high percentage of poor population poses many socio-economic problems. People who are not able to ensure two square meals for the family are not in a position to pay the water charges. Among poor people also there are several layers. People having no roof over their heads that include footpath dwellers having no address, mobile people like labourers moving from place to place to earn their bread and so on.

1.2 In developed countries the water supply is considered a service and mostly it is provided by private companies. They run them as a business and when it is business there has to be adequate profit and return on investment. Therefore every drop of water provided has to be paid for. Efficiency, economy and professional management are the hallmarks of any business including water supply.

2.0 Issues:

2.1 Water is most essential for all living beings. At the same time now a days it has to be treated as a commercial commodity. In the earlier days in India it was treated as a free gift of God and it was so but at the source like flowing river or natural lake. But due to development of the concept of irrigation and storage for off season use, the flow in rivers was tempered with – either reduced or stopped in dry season. This brought the concept of riparian rights of the down stream settlements.

2.2 Surface water either in river or natural lakes got polluted due discharge of waste water in them. Pollution beyond a limit made it necessary to treat it before its use for human consumption.

2.3 When human settlements came up at places far away from water sources, conveyance and pumping of water became necessary. Development of local sources like artificial storage, well, tube-well also will involve some cost.

2.4 All the factors stated above added to the price of water that was a free gift of God. And the water that is treated, pumped, conveyed, stored and distributed through a distribution network got a price tag at the delivery point. And the consumer has to pay the price. Thus abstraction, treatment, conveyance, pumping and distribution became a commercial activity and water became a commodity!

2.5 Therefore when one is dealing with a commercial commodity, its pricing, measurement, wastage management, cost recovery, etc become a part of the system. And therefore metering, leak detection and control and a diligent and alert maintenance 24x7 become inseparable activities.

3.0 Pricing:

3.1 While fixing price of water factors like total investment, cost of normal and special maintenance, renewal and replacement costs of equipments, administrative cost, element of return on investment etc; are taken into consideration. This is as far as simple economics is concerned.

3.2 Recovery of cost from the beneficiary community actually causes real problems. Factors like affordability, minimum needs, recovery from sqatters, slum dwellers and mobile population, etc; pose many socio-economic problems particularly where these groups are considerably bigger compared to the total beneficiary population.

3.2.1 Affordability and minimum needs go together. There is a school of thought that water being essential for sustenance of life, population having no shelter above their head must be supplied minimum needs free of cost. Another argument is that water should top the list of priorities of anyone however poor. Normally water is provided at public stands for homeless, sqatters and slum dwellers. In a 24x7 system no agency can afford to keep public stands running all the time for obvious reasons. Public stands are kept running for certain hours of the day for which again extra personnel have to be employed to operate the valves at predetermined hours. The valves must be secured against unauthorized operation or tempering. Continuous and meticulous maintenance of stands for leaking taps and pipes is a must. For water audit purpose, these stands also must be metered and record of stand-wise daily consumption must be maintained. Some agency dealing with poverty alleviation should pay the charges for the quantity consumed. It is for this agency to decide if it wants to charge the beneficiaries some token amount or not. If the Government or the local body (an extended administrative arm of the Government) is the agency for this service (that is mostly the case in India), people expect it to supply water free of cost. In a 24x7 system, this is not possible.

3.2.2 In developing world, an element of cross subsidy is in-built in the tariff structure. The domestic consumers are charged a subsidised rate for quantity considered minimum daily need. Then the rate is raised for the next slab and for affluent class who have big property having garden are charged very high rate that should be deterrent to high consumption. Commercial establishment are charged high rates as for many of them water is a raw material. Then there are institutions like hospitals, hostels, etc; that have to be charged reasonably. All the local politics come into play while preparing the tariff structure if the system is run by the local body.

3.2.3 Generally therefore a separate entity is created to operate 24x7 water supply systems that will be efficient, economical, self sustaining and insulated from local politics. It can be a private company or a public-private partnership vehicle but it has to function like a business. Various models have been tried at various places and deriving lessons from such cases, a suitable model can be adopted for a particular community.

4.0 Conclusion:

4.1 In my opinion, 24x7 water supply is very easily said then done. The system has to be fully metered, quantity consumed measured and charged, round the clock alert maintenance, leak detection and control to be within specified limits, water audit on permanent basis, etc have to be part of the system.

4.2 Community served has many advantages. It dispenses with storage requirement that is a must for intermittent resulting in saving of lot of private investment. Electrical pump-sets and energy consumption by the community are also avoided. A reasonable pressure is maintained in the pipelines. Pollution of water in pipeline caused by infiltration is avoided due to pressure in the pipeline.

4.3 In the end we can conclude that the 24x7 water supply is user friendly and adopted in the whole developed world and there is no reason why it should be denied to the citizens of urban India.

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