Technical Session No. 4 : Water for Drinking, Domestic & Industrial Use

An Invited Contribution

Dr. Asit K. Biswas
Founder and President, Third World Centre for Water Management Atizapan, Mexico, and Distinguished Visiting Professor, Lee Kuan Yew School of Public Policy, Singapore

More than six decades after independence, India's urban water quality is worse than before. Admittedly, the population has grown tremendously. Equally, agricultural and industrial activities and the levels of urbanization were not issues to consider. However, even though population of the country is well over one billion at present, and industrial activities and urbanization have increased very significantly during the post-independent period, the country's economic development has also accelerated substantially, as also have its knowledge, experience and technology. At present, there is absolutely not a single good reason as to why the urban population of India cannot have access to clean water which can be drunk without treatment from the taps, wastewater cannot be properly treated before being discharged to the rivers, and monsoon rains cannot be promptly drained so transportation systems are not paralyzed. The problems have been known for centuries, solutions have been known for at least five decades, and financial and management needs can be successfully met. Yet, the problems continue to persist. Analysis of the current situations and trends indicate that there is no realistic possibility that the problems will be solved during the next 30 years in any meaningful way for the most of urban India. The question thus arises why it has not been possible for India to solve its urban water problems.

Let us first consider some myths which are often used as excuses for the status quo. The first myth, confirms Benjamin Disraeli's wisdom: "There are three kinds of lies: lies, damned lies, and statistics". This is very appropriate for the urban water sector of India! The problem is effectively hidden under the statistical fog! According to the latest report (2010) of WHO and UNICEF, as well as those of the Government of India, 98 percent of urban India has access to "improved sources of water". If one believes that "improved sources" means drinkable water without any adverse health impacts, which most of the world interprets it to mean, they could not be more mistaken! The real fact is that "improved sources" have no linkage to quality. The water quality of an urban centre may have declined very significantly, as has been the case for many of India towns and cities, but officially they are considered "improved sources"! When I proposed the International Drinking Water Supply and Sanitation Decade IDWSSD to the Secretary General of the UN Water Conference, in early 1976, our thinking was unambiguous. The view of access to clean water meant that everyone will have clean drinking water which is safe to drink without any health hazard. This simple definition now means that as long as people have access to water, no matter what is its quality, it is an "improved source". The main issues should be availability of adequate quantum of water per person, of right quality, and with easy access.

The second myth is there is not enough water to assure 24-hour supply. Take any large Indian city. The unaccounted for water is usually over 50% (mostly between 40-60 percent of supply). Even then, most inhabitants of these cities use more than twice the average daily consumption of any citizen of Hamburg, Munich or Rotterdam, and people are told that there is not enough water to assure a continuous 24/7 safe water supply! Water is almost free in nearly all India cities. Ask anyone what is their electricity bill, they would know the actual amount. Ask the same person, what is their water bill, they mostly have not a clue! Yet, while municipalities provide almost free water, the coping costs of the Indian householders is quite high and significant. In fact, nearly all the households in urban India have become mini-utilities. When water comes for a few hours a day, it is stored in underground tanks. It is then pumped to an overhead tank from where it is withdrawn for a 24-hour supply. Each household has its own treatment system, often provided by the private sector companies like Aqua-guard, before it is drunk. The coping costs for poor and ineffective water supply means that each household now pays for electricity costs for pumping water regularly during the day, operation and maintenance costs to the private sector for the treatment system so that water can be drunk, and cleaning of both underground and overhead systems every two to three months. Thus, the cost of using municipal water is quite high to each household, even though supply is basically free from the municipalities.

The third myth is that 75 percent of the urban residents have "improved" or shared sanitation. When I proposed the idea of the IDWSSD, sanitation meant that wastewater would be collected from the cities, taken to a wastewater treatment plant, treated properly and then discharged safely to the environment. This objective has also been

corrupted with the catch-all term “improved”. Cities like Delhi discharges its untreated, or very partially treated, wastewaters directly to Yamuna River and Ahmedabad to the Sabarmati River and both claim that they are doing well with sanitation! Last time I visited Ahmedabad, its primary treatment plant was not even working and raw sewage was being discharged straight to the river. One could smell the stink from a distance of 1 km from the sewage outfall to the river, and I was informed that the even primary treatment plant was not working for years. One wonders what the State and Central Pollution Control Board are doing. Sadly, the present situation for a country like India is difficult to justify. If we consider a city like Phnom Penh, Cambodia, in 1993, it was even in a worse situation compared to what are now in Delhi, Kolkata or Mumbai. The unaccountable water loss in Phnom Penh then was around 75 percent, few people had access to water and that to for only for 2-3 hours each day, and quality of water was poor. The utility was bankrupt and corrupt. The Cambodian Government put a good, competent and dedicated manager, Ek Sonn Chan, in charge. Within a short period of five years, the situation changed dramatically. By 1997, Phnom Penh Water Supply Authority, an autonomous public sector corporation, started to make a profit, and since then its profit has increased each year. The consumers pay for a 24-hour supply of good quality water which can be drunk straight from the tap without any health concern, corruption has been virtually eliminated through enlightened leadership, strict enforcement of rules, better salaries for all staff, and good training. In fact, by 1997, PPWSA had to pay a tax to the government on its profit as a public corporation. It was $550,000. Since then every year its profit, and taxes paid to the government, have increased. In 2009, it paid a total tax of over $12.5 million. The consumers cover all its expenses for an excellent supply, and it has a tariff system which has actually reduced the water cost of the poor households by around 75%.

Compared to the Indian urban centres, Phnom Penh appears to be a fairy tale! How did Phnom Penh do it? It reduced its unaccountable loss from the system to about 7 percent at present, which is very significantly better than London, Paris or Los Angeles. Every household now pays for water, rich or poor, that is metered and which covers all expenses and also a reasonable profit which is reinvested to continually improve and expand the system. This “miracle” was achieved in only five years, and the system has been continually improved since then, every year. Yet, Cambodia does not have the same technical, management and administrative expertise as in India, no private sector to which some work could be outsourced. Mr. Chan and his team completely transformed the Phnom Penh Water Supply Authority. Impressed by their performance, I nominated them for the prestigious Stockholm Industry Water Prize, which they received in 2010. If Phnom Penh can do it, why cannot cities like Delhi, Kolkata, Mumbai or Chennai follow its example? The water utilities can give many excuses, none of which can withstand any serious scrutiny. Public in India is now used to receiving a third grade service, and has accepted that they have to cope with this poor service by spending through own efforts. There is absolutely no reason, technical, economical or social, as to why the Indian urban population can not have a 24-hour uninterrupted good quality water at around half the total cost which the households are spending at present.

Key Words : Urban Water Management, Water Quality, Myths, Phnom Penh experience.