

## **Introduction to the Non Revenue Water Management Workshop**

1. Throughout the developing world, the provision of water supply is marred by inefficiencies: low coverage, high non-revenue water (NRW) levels, intermittent supply, and poor water quality. India is no exception. High NRW is particularly disturbing. In many cities in India, NRW is as high as 60%. NRW is the difference between the volume of water put into the distribution system and the amount of water actually billed to customers. NRW consist of physical losses and commercial losses. The physical losses are the "real" losses resulting from leaks in pipes and reservoirs. The commercial losses are the "apparent" losses due to illegal connections, theft, metering inaccuracies, among others. High levels of NRW are detrimental to the financial viability of water utilities and the quality of water itself. Reducing NRW to an economically optimal level is fundamental to improving the urban drinking water supply, and for effectively responding to rapid urbanization and growing concerns of water security.
2. The problem of NRW in India is further exacerbated by intermittent supply, which not only poses a serious public health risk as empty pipes allow for easier contamination of water inside the pipes but also un-pressurized pipes lead to very high burst frequencies resulting in higher physical losses. The development of new water sources may not be necessary if NRW is better managed thereby saving the water operator considerable amounts in infrastructure investment. Acknowledging the significance of NRW, the Ministry of Urban Development has given high priority for reduction of NRW under the Government's flagship program, the Jawaharlal Nehru National Urban Renewal Mission.
3. One of the major reasons for high NRW is the failure of water operators and decision-makers to understand the complexities, magnitude and costs of NRW losses. Only by understanding the nature of NRW and all its components can appropriate strategies be developed to address the same. For the strategies to be executed successfully, support from the highest levels of management is needed. This is amply demonstrated in many cases of water operators that have successfully reduced their NRW to sustainable levels including Phnom Penh Water Supply Authority and Manila Water Company.
4. Several cities in Asia have turned to private sector participation as a potential answer to these problems. In 1997, the cities of Manila and Jakarta offered their cities' water supply and sanitation (in the case of Manila) operations to private concessionaires. Each of Manila and Jakarta were split into two zones operated by the private sector. Despite some problems, these concessionaires have yielded very encouraging results. The case of the West Zone of Manila is of particular interest as it offers a lot of insight on the pitfalls of designing private contracts. The concession has been successfully re-tendered and is now gaining considerable success in the area of NRW management.
5. The proposed workshop aims to provide participants with sufficient understanding of public-private partnership (PPP) in water supply with special focus on NRW reduction, and what to avoid in designing contracts with the private sector. It will also enable participants to understand the basics of NRW management, hear first-hand accounts of how successful utilities in Asia are addressing NRW reduction, as well as gain better understanding of possible approaches and strategies to involve the private sector in the provision of water supply and NRW management. The workshop will also foster information exchange amongst participating utilities with the end view of overcoming difficulties and share experiences. The invitees for the workshop will be from among senior state, city and other officials associated with policy-making and program management of urban water supply, including top managers of water utilities.