



सत्यमेव जयते



UN-HABITAT



Is Urban India on Course to Achieve MDG 7?



"In a world where some 1.1 billion people lack access to safe water and 2.4 billion people lack access to basic sanitation, what could be a more direct attack on poverty than to enable them to access these vital, life-sustaining services that could protect their health and improve their productivity?"

- Dr. Anna K. Tibaijuka
in her Keynote address
in Stavanger

The Millennium Development Goal (MDG) requires India to halve by 2015 the proportion of people who had no access to safe drinking water and basic sanitation. Is India on course to achieve this goal in cities and towns?

In urban areas, access to drinking water considered safe by the Government's standards rose from about 82% of the population in 1991 to 90% in 2001. This figure, which includes access to non-piped water, could rapidly reach 100%, consistent with the objective of the Ministry of Urban Development to achieve 100% coverage in 2007 (end of the 10th Plan). But in an urban environment non-piped water may not be considered a safe source. Thus, progress toward Target 10 of the Millennium Development Goals (MDG) of halving by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation (in 1990) would need to be measured on the basis of access to piped water. This indicator, which was about 65% in 1990, would need to reach about 87% by the end of the 12th Five-Year Plan (2017) if India is to meet the MDG target. With access to piped water of about 74% in 2001 India appears to be on track to achieve the MDG. The urban population share with access to basic sanitation, which rose from 43% in 1990 to about 62% in 2001, is

likely to improve to about 82% at the end of the 12th Plan, thus exceeding the MDG target of about 72%.

"But access to reliable, sustainable, and affordable water supply and sanitation service is lagging behind."

Based on preliminary estimates, meeting the MDG target in urban areas would require investment of about Rs 695 billion and Rs 875 billion (US\$16 billion and US\$21 billion) for the 11th and 12th Plans.

Improving Reliability

Whether in small towns or mega-cities piped water is usually distributed for no more than a few hours per day, regardless of the quantity available. In urban areas, raw sewage often overflows into open drains because sewers are blocked or pumping stations not functioning. Improving the reliability of service would require clarifying the roles of the actors in the sector (policymakers, regulators, financiers, asset owners, and service operators) and establishing enforceable contractual relationships between them so as to increase transparency in decision making and accountability to end users, in addition, full responsibility for service provision would need to be devolved to the local government. As part of this, the function of "promoter of Infrastructure", now the responsibility of State engineering agencies, such as Public Health Engineer-

ing Departments or State Water Boards, would need to be consolidated with that of "provider of service" which are generally local bodies, to ensure that water supply and sanitation projects are implemented at low cost and correspond to what service providers can operate. The revenues and expenses of water supply and sanitation operations would need to be separated from those of the local government and "ring-fenced"; clarifying the financial situation of service providers is deemed to be essential to design appropriate financial recovery programs. In slums and squatter settlements, communities need to be involved in the decision making process, regarding the choice of scheme, planning, design, implementation, control of finances and management arrangements, Monitoring and evaluation indicators need to be specially developed to provide a comprehensive coverage of inputs, processes, outputs and outcomes, related to various interventions for improving service performance, including periodic feedback from the beneficiary communities.

Achieving Financial Sustainability

A few mega-cities recover from user charges the full cost of water supply and sanitation service, including operation and maintenance and capital costs. But most urban operations still

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survive on large operating subsidies and/or capital grants provided by the States. Achieving financial sustainability would require establishing sound principles for pricing water supply and sanitation service so as to meet financial, economic, equity and simplicity objectives. Aiming at full recovery of operation and maintenance costs from user charges by the end of the 11th Plan (2012) is probably feasible for urban service. Going beyond and contributing to capital costs could be envisaged in a second phase; preliminary estimates show that it is likely that user charges needed to cover operation, maintenance and capital costs would, as an average, be lower than those in countries with water and sanitation sectors comparable to that of India.

The transition from today's highly subsidized sector to a much less dependent one would need to be financed in a transparent and targeted manner, with any operating subsidies still provided by the States linked to actual improvement in the performance of service providers. State financing programs would need to be designed to support the recovery of the urban water supply and sanitation sector, not merely to fill gaps in infrastructure. Finally, external financing needs would have to be harnessed primarily to support implementation of new policies, institutional arrangements, and fiscal incentives, not just to rehabilitate and extend infrastructure.

Achieving Environmental Sustainability

Most cities compete with the agricultural sector to secure surface water rights and tend to deplete local aquifers that they use as substitute sources; very few cities con-

tribute to the abatement of pollution in receiving bodies. To achieve environmental sustainability, bulk water would need to be priced according to sound economic principles, to give consumers the right signals about the actual cost of this increasingly scarce commodity. Water rights would need to be strengthened and water rights markets developed to allow water-starved cities an official access to water resources that are now used, often inefficiently, by other sectors. Groundwater recharge activities are required to address the "source sustainability" issues in "over exploited" or "critical" aquifers. Given the conflicting groundwater demand from irrigation, industry and drinking water, there is an urgent need for State level regulatory agencies with specific mandates for water resource management and regulation of exploitation of groundwater. Water quality would need to be protected by paying as much attention to proper waste water collection as to waste water treatment; a large share of the waste water now generated never reaches treatment facilities, infrastructure would need to be planned to achieve realistic environmental objectives waste water treatment to the highest level often fails to improve the water quality in the receiving bodies enough to be economically justified. Finally, efforts to support "collective" behavioral change toward better sanitation practices should be continued, particularly those aimed at eliminating open defecation.

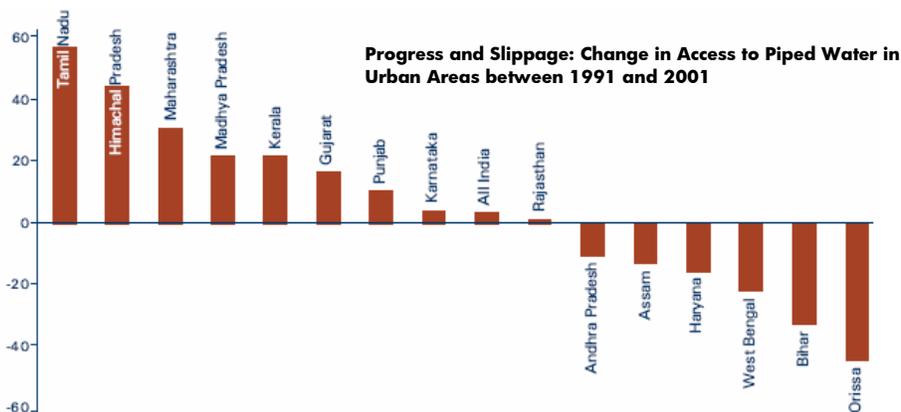
Improving Affordability

Most households, forced to cope with poor quality water supply and sanitation service, spend time and money on expensive and unsafe substitutes and on treatment for waterborne diseases. User charges are

low by international standards, but the cost of the alternatives on which users must rely far exceeds the full cost of providing good quality service. And while the poor may be the intended beneficiaries of the low user charges, they suffer most from the resulting poor quality of service. Due to inadequate O&M and increasing numbers of partially functioning or defunct schemes, the communities revert to conventional substitutes that are often unsafe. Improving the affordability of service would require reducing costs. Cost recovery strategies would need to include transparent, well-targeted subsidies for the poor, both to help obtain connections to service and to encourage the consumption of a minimum quantity of water. It is important that communities living in slums, squatter settlements and peri-urban areas have a complete understanding of the various technology options. The selection of water supply technology should be determined by a number of factors, such as technical feasibility, user preferences and requirements, combined with willingness to contribute towards capital and O&M cost.

"The true challenge is not to increase access to infrastructure to almost 100% of the population, but to increase access to reliable, sustainable, and affordable service. India is unlikely to be able to meet this objective unless it adjusts policies, institutional arrangements, and financial incentives to help improve service delivery..."

In the urban water supply and sanitation sector an important step toward building capacity would be to create an identity for the "Urban Water Supply and Sanitation industry". A professional association of service providers could play a key role in disseminating best practices, implementing full scale benchmarking, and providing training and certification for sector professionals. Training institutions would need to adapt their programs, currently focused mainly on technical design issues, to the new needs of the urban sector. And special information programs would need to be developed for key stakeholders, i.e., local politicians, consumer associations, and the many non-governmental organizations with a special interest in water supply and sanitation.



Note: Piped access includes pipes both within and away from the premises.

Source: Census of India 1991 and 2001.

Source: World Bank Report on India's Water Supply and Sanitation – Bridging the Gap between Infrastructure and Service – January 2006

WATSAN Provision in Small and Medium Towns in India - Case Studies of Chertala, Ponani and Bharatpur

Chertala (Kerala)

With around 43,000 inhabitants in 2000, there is an abundance of water and a high incidence of mosquito-related disease, especially malaria and filariasis. Water supply is operated by the state water authority. The main water supply comes from tube wells and is distributed untreated to 437 stand posts (around 1 per 100 people) and 238 house connections. The piped supply is both inadequate and commonly regarded as unfit to drink. There is strong dissatisfaction among the town dwellers with the state agency and there are plans to develop municipal water supplies in each ward. Estimates suggest that 70-80 per cent of households have latrines. There are three pay and use toilets – at the hospital, bus station and market place. Two further toilet complexes are planned. Officials regard these as facilities as only suitable for busy public places, not for residential areas.

Ponani (Kerala)

With a population of 51,770 in 2000, this is one of the poorest towns in the state. Most of the poor live in ten coastal wards and rely on fishing for their livelihoods. The coastal wards have saline ground water for six months of the year and poor drainage. The piped water system has 845 house connections (serving roughly 12 per cent of all households), 75 non-household connections and 488 stand pipes. Most taps deliver water for 8-12 hours a day. Officials estimate that all houses will have latrines by 2001. The positive impact of the communal latrines used by 13 per cent of households was highlighted, as they offered decent access to sanitation for inhabitants of 'problem areas', even if this is relatively expensive and has been financed by external assistance. Each latrine is used by around 20 families, all of whom participate in its cleanliness and maintenance.

Bharatpur (Rajasthan)

This urban centre in Rajasthan had 205,104 inhabitants in the 2001 census.

A study in 2000 found that 61 households have legal household connections to the piped water supplies. The rest rely on stand posts or other water sources. Water supplies in the piped system are intermittent and at risk of contamination.

There are no sewers, 52 per cent of the population rely on toilets connected to septic tanks with 15 per cent using twin pit pour flush latrines and 33 per cent with no latrine or a 'service latrine' (a simple dry latrine in which faeces are deposited on the ground beneath a squat-hole and removed each day by a 'sweeper').

There are also problems with flooding, especially for poorer groups who live in the most flood prone areas.

Mobilizing and Engaging the Community for Implementing Community Managed Water Supply Scheme in Indore

In a public consultation chaired by the Divisional Commissioner, Mr. Ashok Das in Musa Khedi, Indore on 16.01.06, the residents of the notified slum of Shiv Nagar, Shahin Nagar, Chowdhary Park Colony, Pawan Putra Colony, Kamal Nagar and Chowdhary Park came together to put forward their demand for a sustainable water supply scheme for their locality so far deprived of an assured water supply. These settlements, having 1200 houses living below poverty line, are situated in ward No. 64 of Indore city. Presently there are no dug wells or hand pumps available in the locality. Households are mostly dependent on private tube well owners for their water requirements. The poor also fetch water from nearby Lakhani factory, which is located at a distance of about 3 kms. During summer months people get water from the tankers of Indore Municipal Corporation (IMC) and in other months they buy it from private operators. During consultation, CTA, UN-HABITAT, Officials of District Urban Development Agency (DUDA), Indore and Indore Municipal

CMWSS in Indore

The scheme involves construction of an elevated RCC reservoir of 420 kl capacity at Shivnagar and providing 1200 new service connections to the residents of Shiv Nagar, Shahin Nagar, Chowdhary Park Colony, Pawan Putra Colony, Kamal Nagar and Chowdhary Park. A supply line from the extended Narmada water supply network of IMC upto the reservoir will be laid. The IMC will provide 420 kilolitres of water once in two days at bulk water rates to the CWASC. The total capital investment for the operation of the system has been estimated at Rs 3 million. DUDA, Indore will contribute Rs 1 million from the resources at its disposal. The balance amount of Rs. 2 million will be provided by the UN-HABITAT under the CMWSS component of the Water for Asian Cities Programme. The capital work execution is expected to take 7-8 months. Initially water supply will be for a limited period. However, efforts would be made to increase the number of supply hours towards the target of uninterrupted 24 hour supply. Every household has agreed to pay connection charges of Rs 1000 (as against normal charge of Rs 2500 in easy installments of Rs 200 /month as well as user charges of Rs 60 per month. The CWASC will manage proper water supply and recovery of water charge from the households. The CWASC would pay back the capital cost in 4 years. This amount will be revolving fund for implementation of similar scheme for another locality.

Corporation (IMC) were also present. The residents of the locality were informed that DUDA with financial support from UN-HABITAT would help the community create facilities for water storage and distribution system under the community managed water supply scheme (CMWSS) to be operated and managed by themselves, for which the community has to organise themselves to form a Community Water and Sanitation Committee (CWASC), a legal entity, to whom required finance for the scheme will be provided as loan. The CWASC will be responsible for implementation of the scheme and pay back the loan amount in easy installments to DUDA. During the consultation, the residents decided to form the (CWASC) for the implementation of the scheme and elected the office bearers through voice votes. The Divisional Commissioner asked the newly elected office bearers of the newly formed CWASC to work together for the overall improvement of the living condition of the locality.

CEE Organizes Resource Teachers visit to Gujarat

UN-HABITAT in Collaboration with Centre for Environment Education (CEE), Ahmedabad is setting up Human Values-based Water, Sanitation and Hygiene (HVWSH) Classrooms focusing on Human Values-based Water, Sanitation and Hygiene Education (HVWSHE) in each of the four project cities, viz. Bhopal, Indore, Jabalpur and Gwalior in Madhya Pradesh and Savarkundla in Gujarat, India.

In order to develop and promote Human Values-based Water Sanitation and Hygiene Education within the project cities a training cum exposure trip of resource teachers of the schools where WATSAN Class rooms are proposed was carried out during 1st - 4th January 2006. The objective of the study visit was to sensitize the teachers to various hands-on approaches and activities that can more effectively convey the educational messages related to water and sanitation to children. All together 12 teachers from 4 schools of Madhya Pradesh participated in the visit. On the first day of the programme, the resource persons of CEE shared the concept of HVBSHE and demonstrated various activities through which students in playful mode could learn about the values of water and sanitation.

The visiting teachers had an opportunity to visit to Safai Vidyalaya (Hygiene School) in Ahmedabad, a premier institution in the country in the field of water, sanitation and hygiene. Here different types of models of toilets and pits, which make very less use of water and can be suitable for rural areas, were shown to the participants. In a nearby village school, teachers were shown the different environment friendly practices adopted in the school. In Anandshala schools of Chota Udaipur tehsil of Vadodra district, participants were able to observe the physical

infrastructure in the school and how it helped in increasing the over all standard of educational environment in the school. The rooftop rainwater harvesting structures and how they complemented the water sources in the school, especially during the lean season were also seen by participants. The sanitation units and how their cleanliness was managed by the students were also seen and explained. Students had also made dustbins from waste material and kept in the school at different places which the participants found as a good exercise. The participants also interacted with the teachers and students of the school and discussed about the effects of the Anandshala project in their school.



Teachers from schools of Madhya Pradesh at Anandshala in Gujarat

Water Education Experts Plan Roundtable Meet in India

A one day meeting of the Education Experts was held in Manila on 25th January 2006 with the objectives of reviewing the Human Values-based Water, Sanitation and Hygiene Education Programme of UN-HABITAT WAC Programme in Asia, evaluate progress in implementation and draw up an action plan to strengthen and expand the programme in Asia. The meeting which was, inter alia, attended by Dr. D.P. Dhall of Educare, Australia, Dr. Art-ong Jumsai of SPW, Thailand and Dr. Chantavit Sujatanond of SEAMEO, Thailand. After discussions felt that

the availability of an adequate resource pool of trainers would be the key to successful delivery of the programme in the region. Clearly there was a shortage of resource persons. Therefore, there was need to develop a broad based resource group to run the programme in the region. There was also a need for developing well researched resource material for mainstreaming HVWSHE in schools. It was decided that a Round Table would be held in India with Centre for Environment Education (CEE), Ahmedabad and other Water Education Experts in April 2006.

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