

Nagari

Eighteenth meeting
of the Urban
Think Tank

December 14–15, 2009
New Delhi, India

Improving Water and Sanitation Service Delivery in India

Lessons from a National Workshop on Service Level Benchmarking



Background

Access to infrastructure is increasing in many Indian cities. This is evident through increased access to water and sanitation services in the country; 90 percent of the urban population has improved access to drinking water sources, while 52 percent has improved access to sanitation services.¹ Despite this change in the last decade, water and sanitation services generally are not reliable, sustainable or affordable.

The national Ministry of Urban Development (MoUD) has implemented

the Service Level Benchmarking (SLB) Program in 2008 since it views benchmarking as an important tool for monitoring and initiating improvements in service performance. This *Nagari* captures key points from a workshop (Box I) in late 2009 that brought together more than 30 city-level service providers from different parts of India to reflect on the program's progress so far, and disseminate lessons to a wider audience of urban service providers.

Dr. M. Ramachandran, the then Secretary in the MoUD, told the workshop that "...by providing an opportunity for introspection and self-

improvement...benchmarking will improve service delivery efficiency and quality, strengthen accountability, bring in greater transparency, help in optimal resource allocation, and prioritizing of activities...it becomes highly relevant in view of rising customer expectations, demands for more efficient performance, and ever increasing quality standards." Mr. A.K. Mehta, the Joint Secretary, added that state governments and cities would be expected to regularly collate and analyze performance data to support decision making and public accountability for municipal services.



¹ Core Health Indicators, 2006, World Health Organization.

Box I: National Consultations Workshop: Context and objectives

The National Consultations Workshop on Service Level Benchmarking (SLB) was organized in December 2009, jointly by the Ministry of Urban Development and the Water and Sanitation Program (WSP), for sharing results of the data collected from the SLB pilot cities and for identifying actionable areas for improving performance.

The key objectives of the workshop included:

- Providing cities with an opportunity for presenting their own performance data and cross learning from experiences of other participating cities.
- Discussing and clarifying issues relating to data quality, indicator definitions, and calculation methodology.
- Introducing participants to key principles of Performance Improvement Planning and Information Systems Improvement Planning, including some early lessons.
- Demonstrating international experiences in benchmarking to participants.
- Providing case study experiences on improving water, sanitation, and solid waste services.
- Outlining the institutionalization of SLB, including its scale up to the state level.

Over 150 participants, including water and sanitation (WSS) service providers and utility managers, water sector specialists, and city administrators attended the workshop. They represented different institutional contexts and WSS agencies, including state parastatals, municipal departments, municipal corporations, and water companies. A comprehensive list of the participants is presented in Appendix 2.

The workshop provided the cities a chance to reflect on their performance over four service areas, compare themselves to other cities, and identify their shortcomings and possible strategies to overcome them. It provided a further opportunity to clarify and validate the SLB data, and discuss support required to institutionalize benchmarking of performance data on an ongoing basis. (The agenda for the workshop is presented in Appendix 1.)

The deliberations were characterized by some important ‘firsts’, namely:

- Data were generated and analyzed using a uniform definitional framework articulated in the MoUD’s Handbook on Service Level Benchmarking.²
- The reliability of data was graded, as per the framework provided in the Handbook.
- Cities identified potential Information Systems Improvement Plans (ISIPs) for addressing concerns on data reliability.
- City officials (and not consultants) presented their own performance data, along with a performance gap analysis and improvement planning.

² In 2006, a Core Group of senior experts was constituted under the chairmanship of the Joint Secretary, MoUD, for developing a Handbook on the common benchmarking framework of standard performance parameters for the WSS sector. The Service Level Benchmarking Handbook, covering 28 performance indicators across four sectors—water, sanitation, storm water drainage, and solid waste management—was disseminated to all states in September 2008. Besides setting out guidelines on how to operationalize the framework in a phased manner, it also provided explanations and clarifications on the indicators, including the methodology to be used for calculating them. It was expected that cities would adopt the framework for initiating service improvements. For more details refer to Handbook on Service Level Benchmarking, MoUD, Government of India, at <http://urbanindia.nic.in>.

The SLB Pilot Initiative

Earlier programs in the country on benchmarking have focused on data collection only for water supply services, and have used the data for analyzing performance trends in the sector.³ The SLB program is a first of its kind, and represents an important shift in the orientation of decision making at the national, state, and local levels. It promotes benchmarking as part of an overall performance improvement strategy—through

performance monitoring on a systematic and regular basis for tracking performance, comparing with other similar utilities and sharing best practices, identifying performance gaps, and devising plans to improve performance. The SLB initiative targeted the operationalization of the framework outlined in the SLB Handbook on the ground, in 28 pilot cities, representing different operating environments, and spread across 14 states and one union territory, including 16 Jawaharlal Nehru National Urban Renewal Mission (JNNURM) cities (Table 1).



Table 1: List of cities covered under the SLB pilot initiative

City	State/Union territory
Ahmedabad, Surat	Gujarat
Nashik, Pimpri Chinchwad, Kolhapur	Maharashtra
Indore, Ujjain, Bhopal	Madhya Pradesh
Tiruchirapalli, Udthagamandalam	Tamil Nadu
Imphal	Manipur
Shimla, Palampur, Dharamshala	Himachal Pradesh
Bokaro, Chas	Jharkhand
Hyderabad, Guntur	Andhra Pradesh
Trivandrum, Kozhikode	Kerala
Amritsar, Jalandhar	Punjab
Delhi	Delhi
Bengaluru	Karnataka
Raipur	Chhattisgarh
Bhubaneswar, Berhampur	Odisha
Chandigarh	Chandigarh

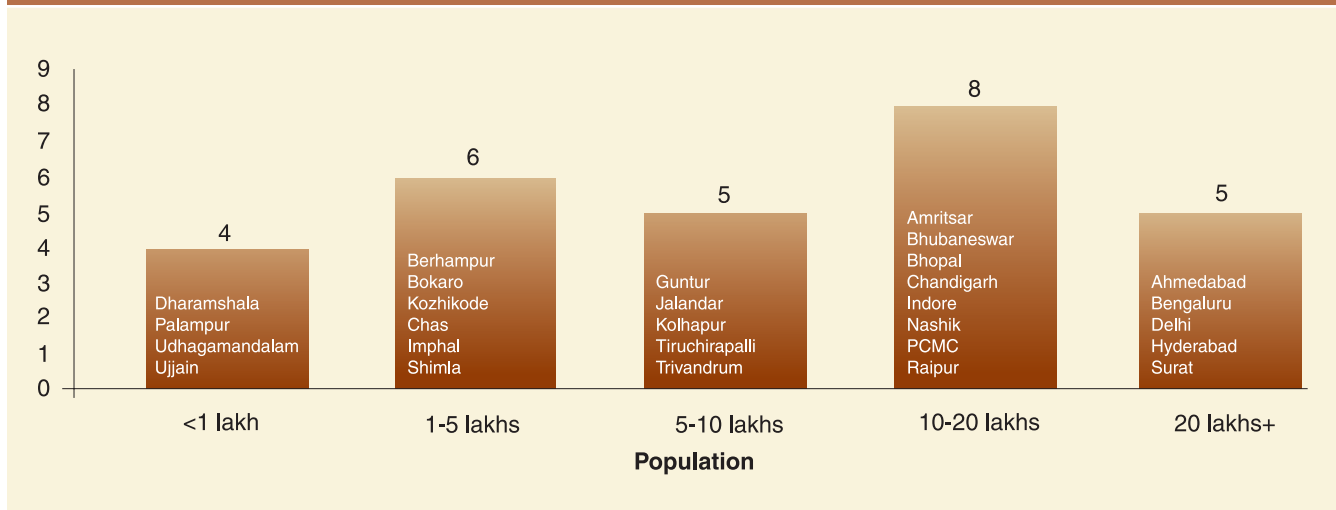
Note: Calicut is now known as Kozhikode, Bangalore as Bengaluru, Ooty as Udthagamandalam, and Orissa as Odisha.

The cities range from small towns to very large cities (Figure 1), and represent approximately 20 percent of India's total urban population, located in the plains, coastal or hilly regions, with varied climatic conditions and institutional arrangements for service delivery. The pilot project was initiated through a partnership of development agencies including Water and Sanitation Program (WSP), Japan International Cooperation Agency (JICA), Gesellschaft für Technische Zusammenarbeit (GTZ), Centre for Environmental Planning and Technology (CEPT), and Department for International Development (DFID), and their respective consultants.

³ A two-phase project for the collection and analysis of performance data from over 20 cities was started by the Water and Sanitation Program in 2003–04. Phase I involved the collection and analysis of performance data for 13 utilities in 23 cities and towns, covering a population of almost 50 million. Besides collecting benchmarking data from 10 JNNURM cities, Phase II (2005–2006) focused particularly on highlighting the importance of quality information systems for collection of benchmarking data.



Figure 1: Cities, by population size



Note: PCMC is the Pimpri Chinchwad Municipal Corporation.

Heart of the Matter

Participants reflected positively upon the SLB experience, since the data collection enabled cities to undertake an honest self appraisal of their performance from a service point of view. On completion of data collection, city functionaries undertook a performance gap analysis and, based on the analysis, submitted proposals to the MoUD for information system improvements.

To many, the exercise was an “eye opener”, since the exercise helped compare themselves to their peers and at the same time helped “set up goals to achieve better performance”. Many concurred that it was “a soul searching initiative for improvement of service delivery”, “a knowledge experience in terms of getting to know indicators versus benchmarks”, and that they had “found the goal to achieve the goal”.



Cities were, however, concerned about their performance, especially since the target benchmarks seemed very ambitious. Cities were assured that while the SLB Handbook had set ambitious targets, they could set intermediate targets and gradually

move towards the service level benchmarks over a period of time. Accordingly, the participating cities were encouraged to undertake this exercise on an ongoing basis to deliver year on year performance improvements.

Data Results and Analysis

A summary of the SLB indicators for the four sectors, along with the average values for the data presented by the cities, is tabulated in Box 2. Overall, the data results indicate that while coverage of services has increased, service deficiencies still exist in terms of access, reliability, and quality.

For water supply services:

- In spite of significant investments, *coverage* through a direct piped connection still remains low (68 percent). No city provides continuous water supply, indicating significant gaps in quality of access to water supply services.
- A low level of *continuity of supply* (3.3 hours a day), in spite of high levels of per capita availability, reflects a poorly managed network system. Inequities also exist in the

per capita supply and hours of supply, indicating that there is scope for improvement in network management.

- High levels of *nonrevenue water* (NRW)⁴ indicate that there is much scope for immediate improvements in network efficiency, through full metering of production flow and consumption, identification and repair of leaks, elimination of illegal connections, and improved billing, without necessarily resorting immediately to significant new infrastructure investments.
- *Consumer level metering* still remains very low, with substantial variations in metering policies. Capacity building and advocacy is required for bringing about an acceptance of consumer metering at a citywide level.
- *Cost recovery* levels are currently very low. Improvements could be brought about through initiatives such as energy audits, NRW reduction, and improved billing collection efficiencies. Emphasis should also be placed on debt management practices and collection of arrears.
- There is significant room for improvement in *water quality monitoring*. No standard protocols exist for water quality monitoring; current systems are irregular, weak, and lack validation through third party checks.

Box 2: Summary of SLB indicator values

Water supply services		Sewerage and sanitation services	
Coverage	66.6%	Toilet coverage	87.9%
Per capita consumption	126.4 lpcd	Sewerage network coverage	52.6%
Nonrevenue water	44.1%	Wastewater collection efficiency	75.7%
Consumption metering	49.8%	Wastewater treatment adequacy	76.5%
Continuity of supply	3.3 hours/day	Quality of wastewater treatment	91.3%
Quality of water supply	67.2%	Reuse and recycling of treated wastewater	14.8%
Cost recovery	67.2%	Cost recovery	65.9%
Collection efficiency	78.8%	Collection efficiency	76.5%
Complaints redressal	80.4%	Complaints redressal	83.1%
Solid waste management services		Storm water drainage	
Household level coverage	47.7%	Drainage network coverage	21.05%
Collection efficiency of MSW	75.3%	Incidence of waterlogging	135.3
Segregation of MSW	19.5%		
MSW recovery	31.73%		
Scientific disposal of MSW	8%		
Cost recovery	17.3%		
Collection efficiency	31.4%		
Complaints redressal	89.1%		

⁴ Nonrevenue water, or NRW, is the extent of water that does not earn the utility any money.



For sanitation and solid waste services:

- Data suggest that *toilet coverage* is high. However, as discussions revealed, considerable scope exists for improvement in access and usage, through appropriate information, education, and communication (IEC) activities.
- Large portions of the *sewerage network* in cities are lying unutilized because of the missing last mile connection. Increased consultations with communities encouraging them to connect, coupled with maybe a lower cost to connect, could incentivize and increase connections to sewer networks.⁵ It is recognized that infrastructure investments are required to safely treat and dispose of the wastewater coming from the sewer networks.
- The sewerage coverage indicator does not take into account alternate arrangements such as septic tanks, soak pits, and so on. Where these exist, urban local bodies (ULBs) need to pay urgent attention to a sound septage management policy that ensures efficient collection and treatment of waste from those households dependent on onsite sanitation arrangements.
- *Wastewater collection efficiency* is generally poor. While some cities report nil wastewater collection, there are others that report poor collection efficiency despite having high sewerage coverage, mostly due to outflows on to the hill sides or natural drains.
- *Door-to-door* solid waste management (SWM) and collection



is not practiced in most cities. Standard models for door-to-door collection must be developed and shared, and community participation in such activities needs to be encouraged.

- *Waste generation* numbers need to be determined more robustly through sample surveys or weighbridges at the disposal site, since these numbers help determine the capacity and technology of treatment plants.
- Currently treatment plants may not be working at full capacity, since processing and recovery requires *segregated waste* for their operation. Many ULBs reported nil segregation, which meant that

unsegregated municipal solid waste (MSW) is transported for treatment. ULBs would need to keep this factor in mind while designing treatment options that require segregated waste for being feasible.

- ULBs need to ensure *scientific disposal of solid waste* to achieve the desired public health and environmental outcomes. Even with treatment of MSW, extensive open dumping still persists because of the absence of landfills for disposal of all remaining waste including rejects and residues.

⁵ Households sometimes do not connect since they have already spent significant monies on alternate arrangements such as septic tanks and soak pits.

While the benchmarking data reflect a grim situation, significant investments are being made in the urban watsan sector to improve services. The flow of sectoral investments has only grown over the Plan periods. The 11th Five-Year Plan (2007–2012) foresees investments of Rs. 127,025 crore (US\$28.23 billion⁶), for urban water supply and sanitation, including investments in storm water drainage and solid waste management. Many central government schemes, including the Jawaharlal Nehru National Urban Renewal Mission and the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), also provide the required impetus for

improvements in the sector. The JNNURM alone has provided approximately US\$3 billion for the water and sanitation sector for 63 identified large cities.

Data Reliability

Benchmarking of the service indicators is hampered by low data availability and reliability. These data inadequacies could arise from lack of appropriate infrastructure and systems to measure and record data, the absence of requisite procedures for ongoing data monitoring and analysis, and a lack of incentives for utility staff to collect data and maintain a database.

As explained in Box 3, each of the indicators is assigned a data reliability grade. The SLB Handbook defines the reliability scale in terms of availability and accuracy of measurements, frequency of collection, and recording of the parameters for each indicator. The reliability grade has nothing to do with the indicator value itself (whether it is high or low) but concerns only the reliability of the value given. The grading could enable decision makers to understand the quality of data as they identify priorities and measure progress.

Specific issues and challenges in systems and practices that result in a poor grade for data reliability were highlighted and included:

- Absence of updated household databases for the service areas.
- Low levels of metering at the production, intermediate distribution, and consumption points.
- Poor observance of water quality monitoring protocol and/or lack of access to accredited laboratories.
- Lack of a separation of accounts, especially for water and sewerage services.
- Absence of data recording and monitoring systems, including billing systems, weighbridges, and customer complaints monitoring systems.

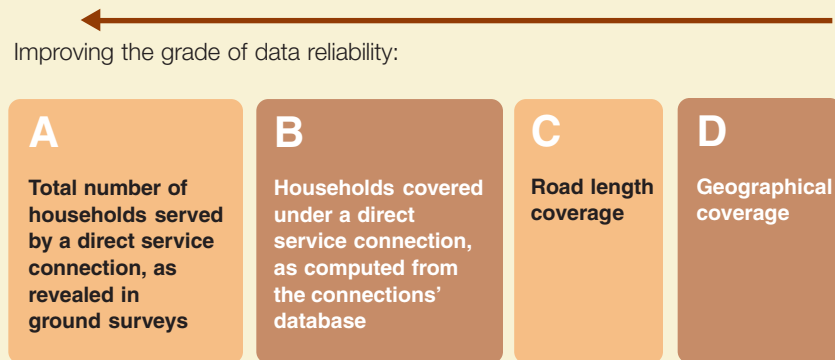
As a result, several pilot cities were unable to provide reliable data on many indicators, including NRW, per capita supply, coverage, water quality, customer

Box 3: Reliability scale for service level indicators

Apart from the definition from each of the service level benchmarking indicators, the Handbook specifies a system of grading the reliability of measurements for each of the indicators. The grading system is:

- A – Highest/preferred level of reliability using accurate measurements of values.
- B – Intermediate level using estimates of parameter values required.
- C – Intermediate level using less accurate estimates of parameter values.
- D – Lowest level of reliability using surrogate parameters or least reliable estimates.

For example, the reliability grade for water supply coverage looks as follows:



⁶ US\$1 = Rs. 45 (as of September 2010).



grievance redressal, and solid waste generated and treated. As a follow-up action, cities were urged to develop Information Systems Improvement Plans that include operational and infrastructure interventions to improve data quality. Some of the participating cities shared their experiences in improving data systems for capturing a few of the indicators. Surat showcased a good example of a regular Water Quality Surveillance Program (Box 5), while Chandigarh shared its experience of accurately capturing continuity of water supply at the ward level.

Lessons from International Good Practices on Benchmarking

Strategies for institutionalizing benchmarking as a tool for monitoring and improving performance could vary between different countries. Most



Box 4: Benchmarking for efficient investment projects and improved performance

In **Indonesia**, the development of a benchmarking program for water and sanitation services utilities was conceived as part of World Bank support to the sector. The key local partner for developing this program was PERPAMSI, the professional association of Water Utilities (called PDAMs) in Indonesia. The benchmarking system, including technical, financial, managerial, and customer orientation indicators, was implemented in 2002–2003. It has been used as a management tool for the participating utilities to monitor performance and compare themselves to peer companies.

In **Brazil**, the SNIS is a national information system covering water supply, sanitation, and solid waste services. It is managed by the federal government and gathers operational, financial, managerial, accounting, and quality data for these services. It contributes to planning and development of public policy for the WSS sector, guides the allocation of public resources, and supports regulatory practices at the federal and state level. It also encourages reform and efficiency improvement of services through performance evaluation and benchmarking at the municipal level.

The **Water Utility Partnership for Capacity Building in Africa (WUP)** was launched in 1996 to help the water sector in Africa improve its performance and achieve economically and environmentally sustainable service delivery. The WUP has started a project, called the Service Providers' Performance Indicators and Benchmarking Network (SPBNET), to provide utilities with sustainable arrangements for compiling and sharing performance data on a regular basis. The program targets the collection of performance data from utilities and producing a data bank on the performance of utilities in Africa.

South East Asian Water Utilities Network (SEAWUN) was established in 2002 with the support of the Asian Development Bank, the objective being to help member utilities improve their performance in the delivery of water supply and sanitation services for all. Since then it has had three rounds of benchmarking data and the membership of the program has only grown. Besides providing government and respective ministries with a current status, the network seeks to serve as the basis for developing effective and efficient investment projects.

programs have had some reform focus that includes linking benchmarking to improving performance and, in some cases, also to accessing finance (Box 4).

In the Philippines, the benchmarking program capacitated a large number of small service providers to achieve performance improvements and access



finance.⁷ The benchmarking program was launched in 2004 with the objective of building institutional capacity, and has so far demonstrated that performance is not related to size. In fact, many smaller service providers have performed better than bigger ones. Being integrated with the Small Water Utilities Improvement Project, the program has been effectively utilized as a tool for performance improvement, and is also being leveraged for provision of financing to service providers.

A similar exercise in Bangladesh collected benchmarking data for 17 towns, with the water service indicators covering financial, accounting, service level, and technical aspects. The interesting outcome of the exercise here was the development of a utilities network within the country, comprising 16 utilities that organize exchanges of performance improvement initiatives within themselves for quick peer-level learning.

Lessons from Good Practices in Service Provision

Benchmarking also helps share best practices among member service providers. In India, while the SLB program is institutionalized and utilities become ready to share best practice experiences, they could take advantage of the Peer Evaluation and Reflective Learning (PEARL) program of the National Institute of Urban Affairs. The program focuses on sharing best practices on various urban initiatives and effective service delivery models. Cities could also compare their performance

⁷ Of the 2,000 services providers in the Philippines, 90 percent are small size providers, with less than 5,000 connections. These small providers cater to 50 percent of the population.

⁸ Spot billing refers to a system where bills are generated on the spot and handed over to the consumer once meter readings are entered in the data loggers. This helps utilities streamline and implement effective billing systems, improve cash flows, and make the processes more customer-centric.

with international utilities by becoming part of a larger global virtual benchmarking network, the International Benchmarking Network for Water and Sanitation Utilities (IBNET). With data of more than 2,000 utilities from 80 countries, the IBNET targets bridging the gaps in information on performance levels in the WSS sector.

The pilot cities of Trivandrum, Surat, and Chandigarh have implemented innovative and low-cost or no-cost performance improvement options. Surat has developed a good practice in water quality monitoring, Chandigarh an effective metering practice, and Trivandrum software to improve billing and collection practices (Box 5). Chhattisgarh has improved connectivity by reducing its water supply connection costs. Improved billing practices via spot billing are being undertaken by the Bangalore Water Board.⁸

Cities interested in implementing 24x7 water supply projects could learn from Veolia Water, which has undertaken a continuous water supply project on a pilot basis for the Government of Karnataka, in the three cities of Hubli-Dharwad, Belgaum, and Gulbarga. Besides 24x7 supply, the project also has important lessons for cities implementing a holistic NRW management program. The main objective of the project was to undertake capital maintenance on the distribution network to prove 24x7 continuous clean water is achievable in the Indian context. The project also proves that such supply is affordable, sustainable over time, and does not require additional water resources to keep the pipes pressurized. The continuous water supply project is now being scaled up on a citywide basis.



Box 5: Good practices in Surat, Trivandrum, and Chandigarh

Surat Municipal Corporation's (SMC) Hydraulic Department has established a decentralized water-quality monitoring system for ensuring superior water quality. Appropriate technologies, instruments, equipment, and so on, were installed in accordance with ISO 10500 standards, for effective sampling and monitoring of water quality. To check and measure parameters such as pH, turbidity, total dissolved solids, dissolved oxygen, chlorine, and ammoniacal nitrogen, online meters including a multi-parameter deployable river-monitoring instrument, a digital turbidity meter, and a digital residual chlorine analyzer were installed. In-house chemical and bacteriological tests and fogging activities were undertaken on a regular basis. Uniform procedures were followed for record-keeping at all the workstations. Continuous education and capacity-building programs were also organized for staff for ensuring that these procedures were systematically followed.

Trivandrum has a good practice in billing and collection practices. The city has implemented an Advanced Billing and Collection Utility System (ABACUS)—a computerized billing and revenue monitoring system that helps it achieve a 100 percent revenue target. Besides supporting bi-monthly spot billing, the system enables faster consumer services and a computerized complaints redressal system. The system allows for consumer bill generation including its issuance, generating reading sheets for meter readers, posting meter readings from the reading sheet to the system, and generating a demand and collection statement. It helps track collection efficiency and other services including meter replacement, disconnection and reconnection, and new connections.

Chandigarh is one of the few cities in India whose water service provider, the Municipal Corporation of Chandigarh (MCC), has relatively high levels of consumption metering. Multi-jet meters are used for the water connections. Of the total 143,966 connections, 121,444 connections are metered. About 87 percent of these meters are in working condition. The MCC has a good meter maintenance policy including a quick meter repair policy; a 15-day turnaround timeline is mandated for meter testing and replacing/redressing the faulty/leaking meter. Meter reading and bill generation is undertaken on a bi-monthly basis on specific dates. Consumers are also provided the convenience of paying their bills at any one of the existing 11 Sampark Centers. It also has a clear and simple connection policy, including a two-week timeline for the sanction of a new water connection.

Implications Going Forward and Linking to PIPs and ISIPs

The SLB exercise highlighted performance gaps in various services vis-à-vis the performance benchmarks. Cities were encouraged to develop Performance Improvement Plans (PIPs) and ISIPs using the information generated by the SLB exercise. The PIPs were distinct from the routine planning processes driven by budgetary considerations, and targeted service outcomes. The ISIPs were designed to strengthen data collection and monitoring systems with particular focus on improving reliability.

The workshop also set the expectation for ULBs and utilities to integrate the SLB framework into their internal decision processes that would help improve the quality of planning and project development. One of the state water departments—the Housing and Urban Development Department, Government of Odisha—shared experiences in developing PIPs and ISIPs in two pilot cities of Bhubaneswar and Berhampur. Extensive consultations were undertaken with the concerned officials, including those of the Public Health Engineering Department, for arriving at a consensus on indicators, and measures for improving services including data reliability. Some of the initiatives that are being undertaken include improving data reliability for NRW, reform of the connection policy for improving coverage, and institutionalizing the SLB initiative in the pilot cities. The SLB framework is now being extended to all the UIDSSMT-supported towns and cities in the state.

The Way Forward

The consultations provided useful insights for the water and sanitation sector, in particular highlighting key policy and operational improvement areas that need to be addressed for sustainable service improvements. The deliberations received recognition from Dr. Arun Maira, Advisor, Planning Commission, who felt that the workshop ended with a “big bang” and hopes to see the SLB framework set standards for achieving better outcomes. Mr. Mehta, Joint Secretary, MoUD, stated that the Ministry would remain committed to the SLB initiative and would find ways to continue the capacity building and training support required to institutionalize the framework in many more cities and states in the country (Box 6).

Participating cities concurred that the workshop provided an excellent opportunity for presenting performance data using a uniform definitional framework, including performance highlights and weaknesses, and



proposed action plans for improvement. The workshop also reflected that the SLB initiative had gathered the support of many cities and states, further strengthened by interactions with other participating cities. The demonstration effect also encouraged the late entrants (cities and states) into the initiative to adopt the

SLB framework in their context, by witnessing some of the quick win performance improvement initiatives that cities were adopting based on the SLB performance assessment.

Some state governments also demonstrated greater keenness for scaling the program to more cities and for using it as a tool for monitoring performance at the state level. Some states, such as Karnataka, Maharashtra, Gujarat, Odisha, and Madhya Pradesh, are already in the process of scaling up the benchmarking exercise to cover a larger number of cities. These can further serve as a demonstration for other states to adopt similar scale up strategies.

Cities expressed the need for information on the SLB program and performance status to be made available in local languages to ensure wider coverage. They also felt that municipal councilors and other political representatives needed to be inducted into the SLB exercise. Some cities highlighted the need for setting targets for themselves at the organizational and individual zone/officer level. Participating cities left with great enthusiasm for “internalizing and institutionalizing” the framework, particularly for strengthening the information systems required for capturing the service level benchmarking indicators. They also indicated that they would set standards for themselves, besides improving on the service level benchmarking indicators, including data reliability, within a set timeframe.

Box 6: The MoUD's strategy towards institutionalizing the SLB framework

- Making disclosure of performance as per the SLB framework mandatory for a city as part of the Public Disclosure Law (PDL).
- Incentivizing cities to adopt SLB practices through measures such as awards and recognition.
- Providing assistance to ULBs in the development of software to enable them measure performance parameters for SLB.
- Supporting capacity building and assistance in implementation of ISIPs and PIPs.



End Note

The principle of accountability for delivering certain service levels is now gaining broad-based acceptance at all levels in the country. The SLB initiative has made an important contribution to lending further momentum to this process. The MoUD is now using the benchmarking program to monitor and evaluate delivery of improved urban water and sanitation services, no longer as ad hoc performance reviews, but through a Government of India-led, structured monitoring program that is linked with the MoUD's reform agenda. It is keen on incorporating this principle in all its programs and initiatives including the JNNURM, UIDSSMT, as well as bilateral and multilateral programs.

The MoUD is also committed to providing necessary support to states and cities that make an effort to institutionalize the SLB framework in their context. It has provided cities with funding support to implement follow-up actions under their ISIPs. Already, 13 of the 28 pilot cities have submitted their ISIP proposals, and Rs. 46 crore (US\$10.22 million) has been approved by the MoUD for information systems improvements. Some of the common proposals across the cities include household surveys to update customer databases, installation of bulk flow meters and pressure gauge systems, installation of weighbridges, hydraulic modeling on a pilot basis, and the development of a protocol on water quality monitoring.

Last but not the least, the principle of benchmarking has been endorsed by



the 13th Finance Commission, which has included SLB as one of the conditionalities for the allocation of performance-based grants to ULBs, amounting to approximately Rs. 8,000 crore (US\$1.78 billion) over

the period 2010–15. It is hence hoped that state governments will embrace the principle of service accountability and take the lead in using the SLB framework to deliver improved services for their citizens.

Appendix 1: Agenda

**December 14–15, 2009, New Delhi
Program**

Day 1: December 14, 2009		
Schedule	Theme	Resource Person
1000–1030	Registration	
Opening Session: Introducing Service Level Benchmarking in the Indian Context		
1030–1230	Welcome remarks	E.P. Nivedita, Director (WS & LSG)
	Gol's Service Level Benchmarking initiative: Links with Performance Improvement Planning and the urban reform agenda	A.K. Mehta, Joint Secretary, MoUD
	Key data findings from the SLB pilot initiative	Nabaroon Bhattacharjee, WSP
	Linking benchmarking to UWSS service reform: Experience from the Philippines	Leila Elvas, WSP
	Views from the states and cities	State urban secretaries, city functionaries
	Keynote address	Dr. Ramachandran, Secretary, MoUD
	Benchmarking for improved planning of urban services	Arun Maira, Planning Commission
	Vote of thanks	National Coordinator, SLB
Session I: Performance Results from the SLB Pilot Initiative and Integrating for Urban Governance		
1330–1630	SLB experiences from pilot towns: Parallel sessions for pilot cities; detailed results for a specific city; findings of performance analysis; learnings and challenges faced	Representatives from pilot cities
	Group A Delhi, Bengaluru, Hyderabad, Ahmedabad, Chandigarh, Bhubaneswar, Raipur, Shimla, Bokaro, Chas (Observers: Vandana Bhatnagar, Srinivas Chary, and Vedala V.K. Chaurasia)	A.K. Mehta— Group A Ramesh Ramanathan— Group B Nabaroon Bhattacharjee— Group C Feedback by: Centers of Excellence and sector experts
	Group B Berhampur, Kolhapur, Guntur, Trivandrum, Kozhikode, Tiruchirapalli, Udhagamandalam, Imphal, Dharamshala (Observers: Vishal Jain, R. Sethuraman, and J.B. Ravindran)	Rapporteur by: SLB consultants (ICLEI, AILSG, UMC, CRISIL, DENE, ASCI)
	Group C Surat, Nashik, PCMC, Bhopal, Indore, Ujjain, Amritsar, Jalandhar, Palampur (Observers: E.P. Nivedita, M. Sankaranarayanan, and M. Dheenadhayalan)	

Day 1: December 14, 2009		
1630–1730	Institutionalizing benchmarking for urban governance and sustainability Panel: Dr. Ramachandran (Chairperson), A.K. Mehta, Nabaroon Bhattacharjee, Sanjay Srivastava, Ramesh Ramanathan, Vishal Jain, M.P. Singh, Soumen Bagchi	
Day 2: December 15, 2009		
Session II: Using Benchmarking for Performance Improvement Planning		
0930–1000	Summary of Day 1 Feedback from parallel sessions	
1000–1100	Performance Improvement Plans and Information Systems Improvement Plans <ul style="list-style-type: none"> • Why prepare them, and what are these? • Sample PIPs and ISIPs from pilot cities • Early experiences from the SLB Pilot Initiative • Low-cost, no-cost options for PIPs and ISIPs 	WSP ASCI
1100–1215	Good practice experiences <ul style="list-style-type: none"> • Surat (water quality) • Chandigarh (metering practices) • Trivandrum (billing and collection) • Veolia Water (NRW, continuous supply) 	Case study presenters
Session III: International Experiences in Benchmarking and Knowledge Networks		
1215–1330	Introduction to IBNET and global knowledge sharing Experiences from knowledge networks: <ul style="list-style-type: none"> • Bangladesh's experience • PEARL • Water links 	Alexander Danilenko (World Bank) Md. Akhtaruzamman (WSP) Chetan Vaidya, NIUA ECO–Asia
1330–1400	Distribution of mementos Closing remarks and Way forward	Arun Maira, Planning Commission A.K. Mehta, Joint Secretary, MoUD

Appendix 2: List of Participants

Organization	Name of Participant	Designation
Ahmedabad Municipal Corporation	Capt. Dilip Mahajan	Deputy Commissioner
Ahmedabad Municipal Corporation	Tarun	City Engineer
Ahmedabad Municipal Corporation	S. Gar	Deputy Municipal Commissioner
Ahmedabad Municipal Corporation	T.M. Ladi	City Engineer
AILLSG, Maharashtra	N.H. Kusnur	Principal Project Officer
AILLSG, Maharashtra	J.J. Chekwala	Advisor
AILLSG, PMU-MoUD	R.K. Malik	General Manager
AILLSG, PMU-MoUD	Ashish Jaiswal	Manager
AILLSG, PMU-MoUD	Dipti Panda	Manager
All India Radio	Pooja Shali	Reporter
Amrita TV	Manoj Amrita	Cameraman
Amrita TV	Deepu Revathy	Staff Reporter
ASCI, Hyderabad	N.C. Rachnakar	Senior Research Associate
ASCI, Hyderabad	Purushottam Kesar	Senior Research Assistant
ASCI, Hyderabad	T. Murali Mohan	Faculty
ASCI, Hyderabad	Swadha Mishra	Consultant
ASCI, Hyderabad	Vijaya V.	Faculty
Asianet News	Deeju Sivadas	Senior Reporter
Asianet News	Madhu Menon	Cameraman
Bangalore Water Supply, Karnataka	T. Venkata Raju	Chief Engineer
Beshampur Municipal Corporation	R.N. Mallik	Executive Engineer
Bhopal Municipal Corporation	Manish Singh	Municipal Commissioner
Bhopal Municipal Corporation	Mayank Verma	Nodal Officer
Bhopal Municipal Corporation	Andleeb Warsi	Computer Programmer
Bhopal Municipal Corporation	Arvind Kumar Dubey	Additional Commissioner
Bhubaneswar Municipal Corporation	Deoranjana Kumar Singh	Commissioner
Bhubaneswar Municipal Corporation	M. Maheshwar Rao	Special Commissioner
Bhubaneswar Municipal Corporation, Berhampur	B. Manseth	Municipal Commissioner
Calicut Corporation	S. Vijayakumar	Secretary
CEPT University, Ahmedabad	M. Mehta	Professor Emeritus
CEPT University, Ahmedabad	Chandan Chawla	Professor
CEPT University, Ahmedabad	Dinesh Mehta	Professor
CNEB News	Vipin Chaubey	Correspondent
CNEB News	Suraj Bali	Cameraman
CPHEEO, MoUD	M. Dheenadhayalan	Deputy Advisor
CPHEEO, MoUD	R. Sethuraman	Consultant
CPHEEO, MoUD	M. Sankaranarayanan	Deputy Advisor
CPHEEO, MoUD	J.B. Ravinder	Assistant Advisor
DD News	Anil Kumar	Camera Assistant
Delhi Jal Board	Santosh Vaidya	Additional CEO
Dharamshala	Er. J.S. Rana	Municipal Engineer (Urban)
Directorate of Municipal Administration, Bengaluru	C.G. Suprasanna	Joint Director
Directorate of Municipal Administration, Chennai	P. Thankamany	General Manager
Government of India	Gaurav Dwivedi	Senior Deputy Director
Government of India	H.M. Mishra	Professor
Government of Kerala	Dr. Sharmila Mary Joseph	DUA & PD, KSUDP
Government of Madhya Pradesh	Raghav Chandra	Principal Secretary
Government of Manipur	N. Gitkumar Singh	Chief Town Planner
Government of Manipur	S. Sunderlal Singh	Commissioner



Organization	Name of Participant	Designation
Government of NCT of Delhi, New Delhi	Vijay Singh	Joint Secretary (UD)
GTZ	Sanjay Kumar Srivastava	Advisor
GTZ	Sanchita Deb Roy	Programme Officer
GTZ-ASEM	Vaishali Nandan	Senior Technical Expert
Guntur Municipal Corporation	Dr. Ilambarithi K.	Municipal Commissioner
H&UD Department, Government of Odisha	Deepak Mohanty	Additional Secretary
H&UD Department, Government of Odisha	M.R. Nanda	Executive Engineer (PHED)
H&UD Department, Government of Odisha	D.S. Mohapatra	Executive Engineer (PHED)
H&UD Department, Government of Odisha	S.K. Das	Executive Engineer (PMU Cell)
Hyderabad	Neetu Prasad	Additional Commissioner
Hyderabad Water Supply & Sewerage Board	Ashok Reddy	Executive Director
ICLEI-SA	Soumiya C.	Consultant
ICLEI-SA	Ashish R. Ghorpade	Consultant
ICLEI-SA	Bedoshruti Sadhu Khan	Consultant
India Urban Space	Shrinivas Kowligi	Chief Executive Officer
Indiavision News	P.B. Anoop	Reporter
Indore Municipal Corporation	Anil Jain	City Engineer
Inside Story	Kumari Manisha	Junior Reporter
Inside Story	Aruna	Reporter
Integrated Research Action & Development	Vidya Kaumudini	Research Associate
Jai Hind TV	Mahesh V.K.	Cameraman
Jai Hind TV	Sanil Philip	Reporter
Jain TV	Rahul Mishra	Senior Correspondent
Jain TV	Mahendra Singh	Senior Cameraman
Janagraha	Ramesh Ramanathan	Co-founder
JICA India	M.P. Singh	Principal Development Specialist
Kairali TV	T.K. Hareesh	Reporter
Kairali TV	Jayesh	Cameraman
Kerala Water Authority	Kishan Chandu V.	Assistant Engineer
Kerala Water Authority	Susan Jacob	Managing Director
Kolhapur Municipal Corporation, Maharashtra	R.J. Tade	Executive Engineer
Kolhapur Municipal, Maharashtra	Vijay Singhal	Municipal Commissioner
Kozhikode Corporation	Ramesh K.P.	Assistant Executive Engineer
MA & UD Department, A.P.	P.K. Jha	Special Secretary
Manorama News	Binu Aravind	Correspondent
McKinsey & Co.	Badal Malick	Management Consultant
Ministry of Urban Development	M. Ramachandran	Secretary
Ministry of Urban Development	A.K. Mehta	Joint Secretary
Ministry of Urban Development	E.P. Nivedita	Director
Ministry of Urban Development	Sudha Krishnan	JS & FA
Ministry of Urban Development	Nikita	PS
Ministry of Urban Development	Seema	PA
Ministry of Urban Development	M. Umamaheshwaran	PS to JS (UD)
Ministry of Urban Development	Raj Kumar	Assistant
Ministry of Urban Development	Shekhar	Assistant
Ministry of Urban Development	Balbir Singh	Daftari
Ministry of Urban Development	V.K. Chhikara	LDC
Ministry of Urban Development	Manoj Kumar	LDC
Ministry of Urban Development	M.K. Mandal	Assistant

Appendix 2: List of Participants (Continued)

Organization	Name of Participant	Designation
Ministry of Urban Development	Nisha Sangal	Stenographer
Ministry of Urban Development	R.S. Kunwar	Section Officer
Ministry of Urban Development	M.M. Sharma	PA
Ministry of Urban Development	D.S. Rawat	PS
Ministry of Urban Development	Sahdev Mehta	Peon
MPUSP, Bhopal	M.J.S. Tulsi	Deputy Director (Engg)
Municipal Administration, Housing & Urban Development Department, Manipur	W. Bharktaraj Singh	Executive Engineer
Municipal Corporation of Delhi	Sunil Kumar	SE (DEMS)
Municipal Corporation, Amritsar	D.P.S. Kharbanda	Commissioner
Municipal Corporation, Amritsar	Pardhuman Singh	Executive Engineer
Municipal Corporation, Amritsar	Sunny Makkar	System Manager
Municipal Corporation, Chandigarh	S.K. Bansal	Chief Engineer
Municipal Corporation, Chandigarh	R.S. Ahluwalia	Executive Engineer
Municipal Corporation, Chandigarh	Dr. Roshan Sunkaria	Municipal Commissioner
Municipal Corporation, Jalandhar	Narinder Singh	Executive Engineer
Municipal Corporation, Shimla	K.K. Sharma, HAS	Assistant Commissioner
Municipal Council Dharamshala, HP	J.S. Rana	Municipal Engineer
Nashik Municipal Corporation	U.B. Pawar	Executive Engineer
Nashik Municipal Corporation	P.M. Gaikwad	Executive Engineer
Nashik Municipal Corporation	S.S. Magare	Executive Engineer
Nashik Municipal Corporation	S.R. Vanjari	Deputy Engineer
New Delhi Municipal Council	Amit Prasad	Director
New Delhi Municipal Council	K. Murugan	Deputy Director
New Delhi Municipal Council	Gyanesh Bharti	Secretary
New Delhi Municipal Council	Ramesh Raina	Chief Engineer
News 24	Puneet	Correspondent
News 24	Manoj Kumar Gupta	Cameraman
NIUA, New Delhi	Chetan Vaidya	Director
NIUA, New Delhi	Nilanjana Dasgupta Sur	Research Fellow
NVR	Sanjay Dey	Analyst
Palampur Water Supply	T.C. Bhatt	Junior Engineer
PCMC, Pune	Asheesh Sharma	Municipal Commissioner
Press Information Bureau	Tasneem F. Khan	Information Officer
PROOF	Sanjeev Ranjan	National Coordinator-SLB
PROOF	Vishal Jain	Trustee
PRUDA-AILSGL, New Delhi	Akshay Anand	Associate Project
Pune, Maharashtra	Ashok Sharma	Municipal Commissioner
Punjab Water Supply & Sewerage Board	K.L. Swara	Director (P & D)
RAID	A.A. Khan	Editor
Raipur Municipal Corporation	Alok Chandravanshi	Deputy Commissioner
Raipur Municipal Corporation	K.K. Singh	Executive Engineer
Sahara TV	Suman Kumar	Principal Correspondent
Sahara TV	Pradeep Pandey	Coordination
SENES	Mainak Hazra	Director
Skoch Consultancy	Agransh Anand	Team Associate
Skoch Consultancy	Sameet Kochhar	Chief Executive Officer
Skoch Consultancy	Gursharan Dhanjal	Chief Operating Officer
Surat Municipal Corporation	Nilesh Patel	Executive Engineer
Surat Municipal Corporation	K. Khetwani	Executive Engineer
Surat Municipal Corporation	E.H. Patham	Solid Waste Manager



Organization	Name of Participant	Designation
Surat Municipal Corporation	H.S. Suthar	Deputy Engineer
TCS Ltd.	Mritunjay Kumar	Consultant
Tiruchirapalli City Corporation, Tiruchirapalli	P. Chandrasekaran	Assistant Executive Engineer
Tiruchirapalli City Corporation, Tiruchirapalli	S. Ragooraman	Junior Engineer
Tiruchirapalli City Corporation, Tiruchirapalli	R. Chandran	Executive Engineer
Tiruchirapalli City Corporation, Tiruchirapalli	T.T. Balsamy	Commissioner
Tiruchirapalli City Corporation, Tiruchirapalli	J. Ragooraman	Junior Engineer
Trivandrum Corporation	Radha Krishna Kurup C.	Additional Secretary
Udhagamandalam Municipal Council	L.S. Girija	Commissioner
Udhagamandalam Municipality	B. Vishwanaathan	Assistant
Udhagamandalam Municipality	K. Balraj	Assistant
Ujjain Municipal Corporation	Pradeep Saxena	Nodal Officer
Ujjain Municipal Corporation	Dilip Naghane	Sub Engineer
Urban Development Department, Government of Chhattisgarh	Sanjay Shukla	Commissioner
Urban Development Department, Government of Jharkhand	Gajanand Ram	Associate Town Planner
Urban Management Center, Ahmedabad	Arvind Kumar Singh	Program Manager
Utkal News	L.K. Arora	Correspondent
VADD, Bhopal	Kamal Shrivastava	Chief Engineer
Veolia Water India	Babu S.V.K.	General Manager
Voyans Solutions	Himanshu Tilwankar	AVP
Voyanta Partnering Vision	B.S. Mahiya	Project Engineer
Voyanta Partnering Vision	G.M. Rathore	Project Engineer
VSPL	S.H.A. Zaidi	Senior Task Manager
Water and Sanitation Program	Chris Heymans	Regional Team Leader
Water and Sanitation Program	Somnath Sen	Consultant
Water and Sanitation Program	Alexander Danilenko	Consultant
Water and Sanitation Program	Rajat Jain	Consultant
Water and Sanitation Program	Abhay Kantak	Consultant
Water and Sanitation Program	Vandana Bhatnagar	Financial Specialist
Water and Sanitation Program	Heidrun Zeug	Junior Professional Officer
Water and Sanitation Program	Pronita Chakrabarti	Economist
Water and Sanitation Program	Vandana Mehra	Regional Communications Specialist
Water and Sanitation Program	Bibhas Mahapatra	Consultant
Water and Sanitation Program	Suseel Samuel	W & S Specialist
Water and Sanitation Program	Cesar E. Yniguez	Consultant
Water and Sanitation Program	Anand Jalakam	NTA
Water and Sanitation Program	Nabaroon Bhattacharjee	Team Leader India
Water and Sanitation Program	Ajith Kumar	Water and Sanitation Specialist
Water and Sanitation Program	M. Kullappa	Water and Sanitation Specialist
Water and Sanitation Program	Sanjay Gupta	Consultant
Water and Sanitation Program	Suneetha D. Kacker	Urban Specialist, SWM
Water and Sanitation Program	Akhtaruzzaman	Team Leader Bangladesh
Water and Sanitation Program	Nitika Surie	Program Assistant
Water and Sanitation Program	G.N. Raiken	Consultant
Water and Sanitation Program	Vivek Raman	Research Analyst
Water and Sanitation Program	Rakesh Bhati	Database Coordinator
Water and Sanitation Program	Chandra Ganapathy	Manager
WaterAid	Mohammad Parman	Correspondent
WebVarts	Srinivas Rao Podipireddy	Senior Water Specialist
World Bank	Leila Elvas	Regional Team Leader
WSP Philippines		

Water and Sanitation Program

World Bank
55 Lodi Estate
New Delhi 110 003
India

Phone: (91-11) 24690488, 24690489
Fax: (91-11) 24628250
E-mail: wsp@worldbank.org
Web site: www.wsp.org

The Urban Think Tank

The Urban Think Tank is a participatory forum which enables experts and practitioners to address issues related to the service delivery of water supply and sanitation services to the poorest sectors of the community. The Think Tank is also intended to spark policy-level debate and provide a forum where the issues and concerns of municipal managers can be brought forward. Regular meetings have been hosted by the Water and Sanitation Program (WSP) since December 1994.

The 18th Urban Think Tank was held in New Delhi on December 14–15, 2009, and discussed the issue of 'Improving Water and Sanitation Service Delivery in India: Lessons from a National Workshop on Service Level Benchmarking for Urban India'. Over 150 participants, including water and sanitation service providers and utility managers, water sector specialists, and city administrators attended the workshop. They represented different institutional contexts and WSS agencies, including state parastatals, municipal

departments, municipal corporations and water companies. The workshop provided the cities a chance to reflect on their performance over four service areas, compare themselves to other cities, and identify their shortcomings and possible strategies to overcome them. It provided a further opportunity to clarify and validate Service Level Benchmarking data, and discuss support required to institutionalize benchmarking of performance data on an ongoing basis.

Through *Nagari*, the proceedings and key issues of meetings are disseminated to municipalities all over India. The purpose of this information note is to share lessons learnt, highlight emerging issues, illustrate example of best practice, and provide a link between municipalities and other stakeholders to foster a better operating environment in the sector of water supply and sanitation services. We welcome your ideas on any of the issues discussed, and feedback forms are enclosed for this purpose. Please also write to us with any comments and suggestions on topics that you feel are important for managers of local urban bodies.

WSP MISSION:

WSP's mission is to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services.

WSP FUNDING PARTNERS:

The Water and Sanitation Program (WSP) is a multi-donor partnership created in 1978 and administered by the World Bank to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP provides technical assistance, facilitates knowledge exchange, and promotes evidence-based advancements in sector dialogue. WSP has offices in 25 countries across Africa, East Asia and the Pacific, Latin America and the Caribbean, South Asia, and in Washington, DC. WSP's donors include Australia, Austria, Canada, Denmark, Finland, France, the Bill and Melinda Gates Foundation, Ireland, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank. For more information, please visit www.wsp.org.

AusAID provides WSP programmatic support.

ACKNOWLEDGMENTS:

Text prepared by: Pronita Chakrabarti Agrawal, with peer review comments provided by Chris Heymans, Cesar Yniguez, Vandana Bhatnagar, and Vandana Mehra
Edited by: Anjali Sen Gupta
Photographs by: WSP
Created by: Write Media
Printed by: PS Press Services Pvt. Ltd.

PARTNERSHIPS: This Think Tank was organized by the Water and Sanitation Program. The purpose was to provide opportunities for water supply agencies in South Asia to learn from the experiences of water supply agencies that have succeeded in sustainably reducing their NRW levels. The workshop objectives were to locate billing and collection within the broader framework of NRW, introduce all participants to successful practices from other utilities in the region and globally, and catalyze further initiatives to reduce NRW among participating water utilities. (See Box I: National Consultations Workshop: Context and objectives, for more details.)