SLB CONNECT FOR URBAN WATER SUPPLY AND SANITATION

Using ICTs for citizen feedback surveys to mainstream demand-side monitoring

December 2016

INTRODUCTION

SLB Connect is an initiative of the World Bank's Water and Sanitation Program, developed in partnership with India's Ministry of Urban Development (MoUD), to complement the Ministry's Service Level Benchmarks (SLB) program. Under the SLB program, providers of water supply, wastewater, solid waste management and storm-water drainage services report data on a standardized set of 28 performance indicators. Grants to municipalities have been linked to reporting on these indicators, and, over time, SLB data have become an integral component of India's urban program formulations.

SLB Connect complements SLB data by gathering feedback from the citizens who use those services. The demand-side data are intended to improve tracking of service outcomes, provide a reality check for supply-side data reported by providers, identify problems with service outcomes at local (ward/zone) level, identify inequities by user groups (for example, households in slum settlements), and ultimately improve service providers' accountability to citizens.

The SLB Connect program leverages the use of Information and Communication Technologies (ICTs) for collecting feedback, which fits with the Government of India's broader interest in using ICTs to strengthen citizen engagement for improving service delivery, including through the development of the National e-Governance Plan. As ICTs continue to develop, there will be increasing opportunities to make processes for gathering citizen feedback more intelligent, inclusive and efficient – and thereby leverage its use in decision making for improving service outcomes.

PROBLEM STATEMENT

Even where water and sanitation services in India exist, they are often of poor quality. Historically, the government has focused primarily on creating infrastructure, and not enough on ensuring that the infrastructure was designed to meet the needs of citizens and used effectively to deliver quality service outcomes. The SLB program was a step forward in shifting the focus from infrastructure creation to outcome monitoring. However, the data it collected came only from the service providers without adequate quality checks, and usually did not reflect the views of the citizens who actually use the services. This called into question the reliability of the SLB data, and their usefulness as a tool for engaging citizens and increasing service providers' accountability.

ACTION

SLB Connect was developed to systematically track the service experience of citizens through feedback surveys using a variety

Key findings

- Collecting feedback from citizens on service levels provides a useful reality check to service providers' reports on their own performance. For example, citizens in Indian cities surveyed by SLB Connect reported experiencing poorer water quality than service providers said they delivered.
- Various modes of collecting feedback can be used in a complementary manner depending on the local context and objective of the feedback exercise. Household surveys conducted using mobile aided personal interview methods tend to be more resource intensive but also more representative than telephone surveys and SMS polls.
- Granular data showing performance at the level of zones and wards, are helpful in attracting the attention of local decision makers – as is making those data publicly available in easy-to-understand maps, graphs and tables. These also facilitate integration in local planning processes.
- ICT platforms offer not just the advantages of speed and scale, but can also help overcome local constraints in resources and expertise, for example, with a default questionnaire template which is customizable using a question bank facility, and experts remotely monitoring data collection at multiple locations simultaneously. These functionalities of SLB Connect were leveraged by the Government of India for conduct of city sanitation ratings in 73 cities across the country.

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FIGURE 1: PERFORMANCE ASPECTS AND CITIZEN SERVICE EXPERIENCE CAPTURED BY SLB CONNECT

PROFILE

Age
Gender
Dwelling type
Address
Income profile

WATER SUPPLY

Access to water
Continuity
Adequacy
Water quality
Complaint redressal
Ease of bill payment

SANITATION

Access to toilets
Toilet usage
Access to sewerage network
Alternate disposal system

FEEDBACK

Satisfaction
Willingness for repeat survey
Contact number
Suggestion to service provider

of ICTs. Mobile to web systems were deployed the most, wherein local agents were employed to interview a cross-section of citizens in their homes, to get their feedback on various aspects of the water and sanitation services they receive (see Figure 1 for a summary of data collected via the questionnaires). The agents recorded the citizens' responses using an Android mobile application, an approach known as MAPI (Mobile Aided Personal Interview). The phone's Global Positioning System (GPS) records the location where the data are collected, and the time. The phones used were standard Android handsets costing around US$130.

An online survey management module (see Figure 2 for a sample screenshot) enables managers to track the progress of surveys in real time, and customize the questions as required. Quality control mechanisms are inbuilt, including predefined validation checks, exceptions flagging, performance reports on individual enumerators and supervisors, and field visits for validation.

The data are analyzed and presented real time, on an online dashboard using graphs, tables and maps, with traffic light color-coding for easier understanding (see Figure 3 for an example). Demand side metrics are used to

FIGURE 2: SAMPLE SCREENSHOT OF SURVEY RECORDS COLLECTED

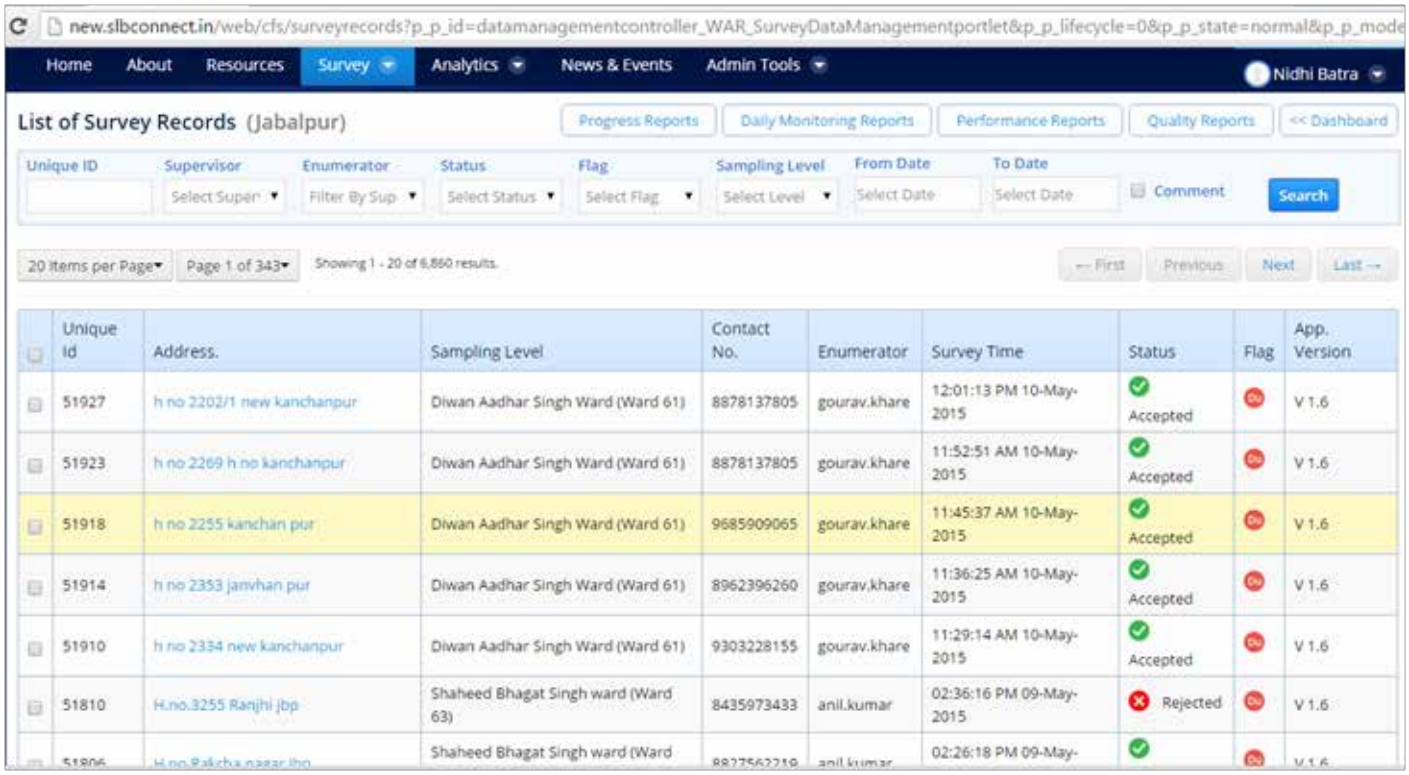
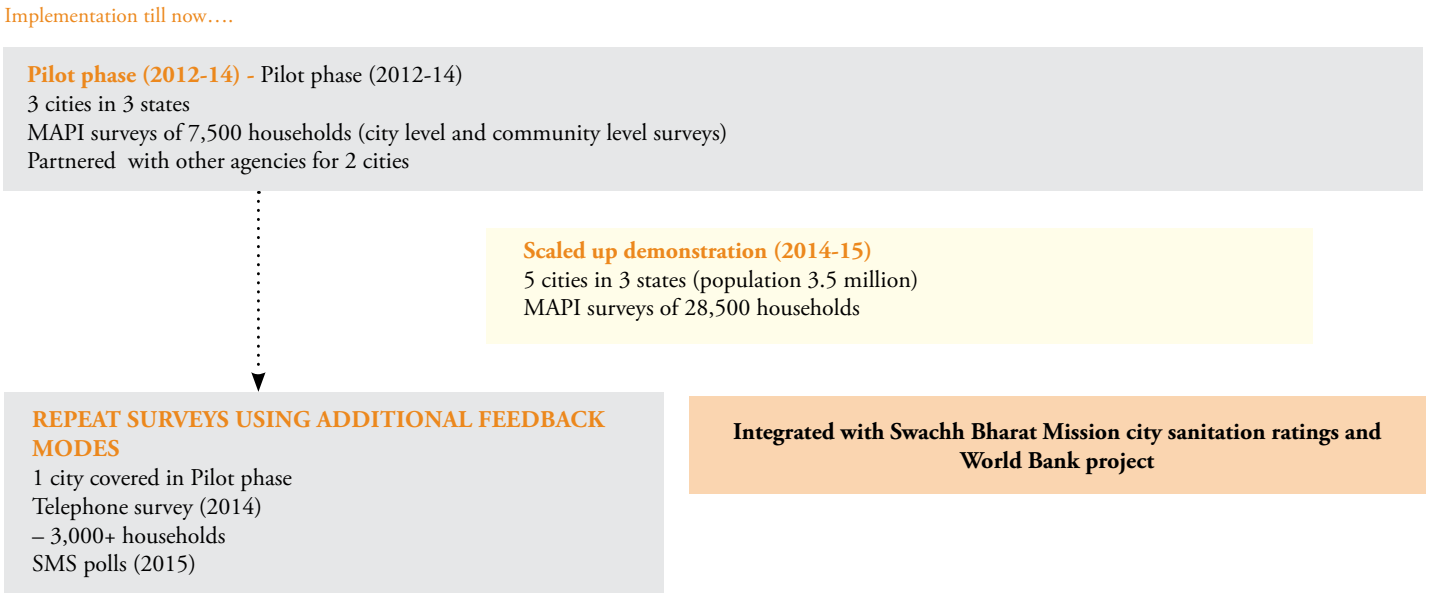


FIGURE 3: EXAMPLE OF AN ONLINE DASHBOARD

FIGURE 4: IMPLEMENTATION OF SLB CONNECT



assess service levels and enable comparisons with SLB data as well as across wards/zones in the city. Data can be broken down by user group (for example, slum/non-slums) or geographic unit (for example, zones/wards), and comparisons can be made between locations or over time in the same location. The data are made available to decision makers and the general public: initial meetings are held to discuss findings with city functionaries, then an outreach meeting is held to share results with other stakeholders, and key findings are summarized in flyers (print and electronic) in the local language. Finally, the survey findings are made available through the publicly accessible online dashboard. In addition, SMS messages are sent to all survey respondents and councilors, providing a link to the flyers and the website.

SLB Connect began as a pilot in 2012 in Pimpri Chinchwad, where around 5,200 responses were collected. Informed by the feedback, the city set up a new complaint mechanism and undertook outreach to increase awareness of it. In 2014 and 2015, at the city's request, other survey methods – computer-aided telephone interviews and an SMS poll – were tested to follow up and see if citizens' experiences had improved on specific service aspects.

After further pilots in Mehsana and Delhi, improvements were made to the system's functionality and household surveys were scaled up in 2014-15 for implementation in five further cities: Raebareli, Varanasi, Ajmer, Jhunjhunu and Jabalpur (see Figure 4 and Table 1). The selection of these cities was done in consultation with the MoUD and concerned state governments. In each city, a scoping study was first conducted to understand its institutional arrangements and the status of service delivery, and the questionnaire was customized accordingly – with input also solicited from local functionaries. SLB Connect has now surveyed around 35,000 households in eight cities across six states.

FINDINGS

The SLB Connect surveys provided concrete, relevant data which served as a useful reality check to the SLB reports of service providers on their own performance. On questions of infrastructure provision, it was found that survey data generally validated the reports of service providers. On questions related to service quality, however, there were often significant gaps between the reports of service providers and the experiences of service users. For example, in Raebareli, Jabalpur and Varanasi, between 42 percent and 73 percent of survey respondents said that their water supply had been dirty at least once in the preceding three months – whereas service providers in these cities reported 96-98 percent compliance with water quality standards. Granular data analysis also helped reveal inequities between slum and non-slum areas, as also across wards, with peripheral areas of cities generally seeing poorer service levels.

The survey results also drew attention to the inadequacy of existing formal complaint mechanisms, revealing that

TABLE 1: CITY AND SURVEY SAMPLE DETAILS

	Jabalpur (MP)	Varanasi (UP)	Raebareli (UP)	Ajmer (Rajasthan)	Jhunjhunu (Rajasthan)
City profile					
Total population	1,069,292	1,597,051	191,056	542,580	118,473
Population in slum areas	45%	19%	23%	20%	4%
Agency responsible for water and sanitation	Municipal Corporation	Capital works: Jal Nigam (state agency) Operations and maintenance: Jal Kal (Municipal Corporation)	Municipal Corporation	Water: State agency (Public Health Engineering Department) Sanitation: Municipal Corporation	
Sample details					
No. of wards	70	90	31	55	45
No. of respondents (HHs)	6,693	9,330	3,134	5,500	3,823
Respondents from slum areas	48%	22%	26%	18%	4%

Note: HHs: households; MP: Madhya Pradesh; UP: Uttar Pradesh.

citizens' use of telephone, SMS or online channels was negligible. In most cities, only around 5 percent of citizens had lodged a complaint, mostly in person, and only a third of complaints had been resolved.

The authorities in all cities accepted the survey findings, though they subsequently displayed varying levels of interest in acting on the concerns the surveys revealed. Some cities publicized the survey results on their municipality websites; some integrated them in proposals for funding under national urban programs such as the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart Cities and Swachh Bharat Mission.

The responsiveness of city functionaries was found to depend on several factors including their general comfort levels with participatory processes and familiarity with ICT; degree of decentralization of service delivery function to local body; the local survey partner's capacity and working relationship with city authorities; the degree of cohesion among local political leaders; and the extent to which there were already planning processes underway for service improvements, into which survey findings could feed in.

The SLB Connect ICT platform enabled surveys to be conducted at scale in a short time frame and with a limited number of technical experts. It also proved able to cope with diverse environments, reaching a significant percentage of respondents who are female, below the poverty line or living in slum areas.

Experience in Pimpri Chinchwad with the follow-up surveys using telephone and SMS found that, while cheaper and quicker than MAPI surveys, these methods had some drawbacks: household status (for example, whether in a slum or not) could not be validated; fewer female respondents were reached; and respondents were reticent about answering questions on toilet use.

Drawing from the experience gained under SLB Connect, MoUD adapted the SLB Connect platform and survey approach for undertaking City Sanitation Ratings (called 'Swachh Survekshan') across 73 cities as part of the Swachh Bharat Mission. Field data were collected within just two weeks in January 2016 and 80,000 citizen responses were collected for the rating assessments, using Interactive Voice Response System (IVRS). The SLB Connect platform and methodology is also being used for a baseline survey of 150,000 households for the World Bank-supported Karnataka Urban Water Supply Modernization Project, and subsequent annual feedback surveys to monitor service levels.

KEY LEARNINGS

As far as possible, demand-side metrics should be aligned with supply-side indicators. Aligning the questions asked in citizen surveys with data reported by service providers (see Table 2 for examples) makes it easier to generate interest among stakeholders who are already familiar with service provider metrics, to track outcomes, strengthen monitoring,and hold service providers to account. Creating a common vocabulary of

TABLE 2: COMPARISON OF SELECTED SLB METRICS AND SLB CONNECT METRICS DERIVED FROM FEEDBACK DATA

SLB (reported by service provider	SLB Connect (results of household surveys)
% HHs with individual/shared household piped connection for water supply	% HHs reporting individual/shared household piped connections as primary source of water supply
Duration of water supply	Median value of responses on duration of supply
Quantity of water supplied per capita per day	% of HHs reporting adequate supply to meet the needs of the family
% of water samples meeting specified standards	% of HHs reporting no incidence of dirty water supply in last 3 months
% of complaints resolved in one day	% of HHs that lodged complaints, reporting resolution in 1 day
Revenues collected as a percentage of revenues billed	% of HHs reporting regular receipt of bills, and that find the location, timing of bill payment to be convenient
% of household connections with functional meters	% of HHs reporting functional meters
% of HHs with access to individual, shared or public toilet	% of HHs reporting access to an individual, shared or public toilet
% of properties with connection to sewer network	% of HHs reporting connection to sewer network

Note: HHs: households.

service metrics helps consumers and their representatives to dialog more effectively with service providers.

Designing surveys to be replicated at scale could help to address local capacity constraints. Most local bodies lack the capacity to undertake citizen surveys. SLB Connect suggests how to make this easier: provides a default template which is customizable with different questions from a question bank; enables surveys conducted in multiple locations to be remotely monitored online in real time, making best use of a limited number of experts. It provides a platform which is hosted by an agency with the requisite credibility and technical expertise, could serve as a monitoring unit in the government, a regulatory agency, a research institution or civil society organization.

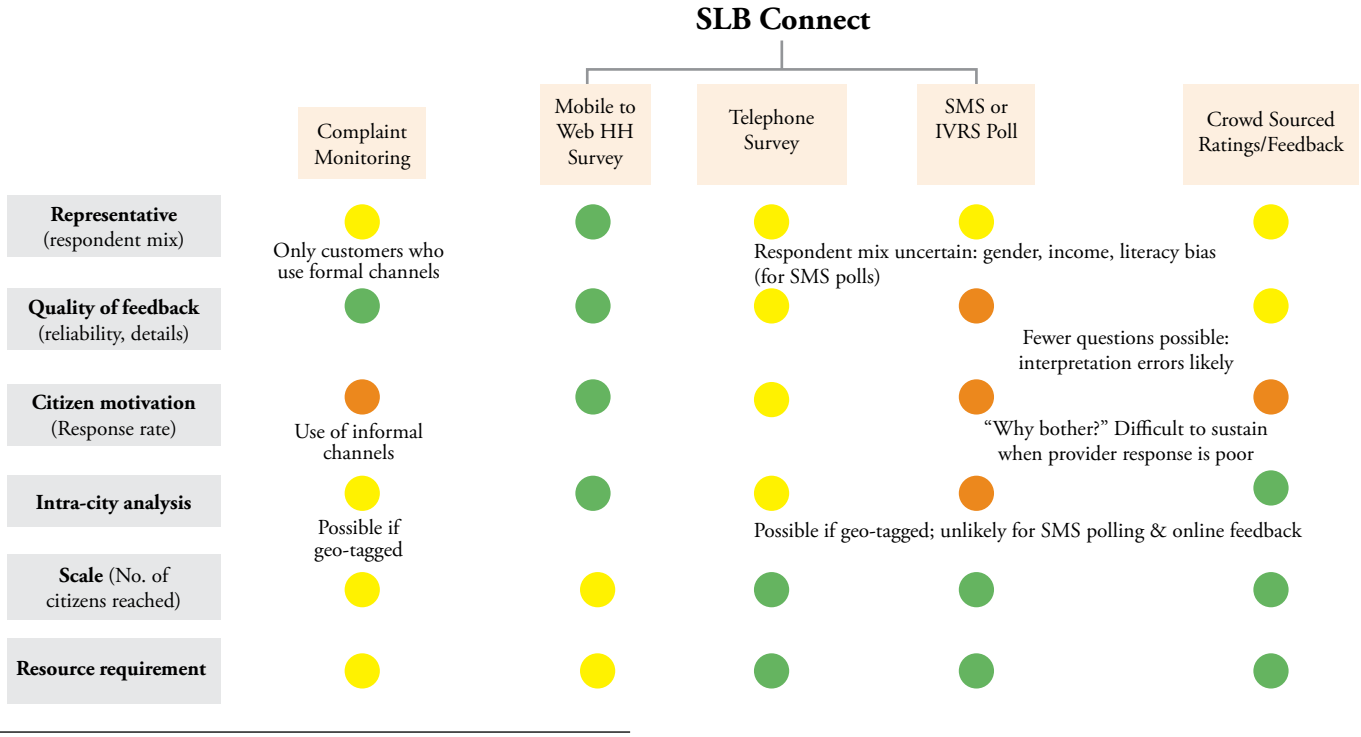
ICTs can improve impact by providing credible, transparent, immediately actionable information. Making all the data accessible – including rejected records, enumerator details, time stamps, geo-coordinates and photo images – made the integrity of SLB Connect's data collection process more transparent to stakeholders, increasing its credibility. In contrast to traditional survey methods – which often take months to report, by which time the findings are dated – the system also enabled results to be made available to decision-makers immediately.

Differing ways of obtaining feedback have different advantages and drawbacks. There are various ways of seeking citizen feedback – MAPI surveys, SMS polls, telephone surveys, formal complaint mechanisms, and crowd sourced ratings – and they have different strengths and weaknesses, as illustrated in Figure 5. SLB Connect primarily used MAPI surveys, which are relatively resource intensive but have the advantage of reaching a representative sample of citizens – not only those who happen to have access to particular technologies, or who are highly motivated to respond. They are therefore especially suited to capturing detailed feedback at the start of a project in a context of poor service delivery. Cheaper methods, such as SMS polls, should be viewed as complements, rather than as interchangeable substitutes.

How citizen feedback is expected to improve services should be clarified in advance. Citizen feedback can potentially be leveraged in several different ways to improve service delivery, such as informing service providers about gaps; mobilizing public opinion to generate pressure on service providers; or feeding into plans to improve policies or infrastructure. Clarifying in advance how feedback is expected to be leveraged could help to decide the extent and nature of civic mobilization and stakeholder engagement required to accompany the survey.

It may be difficult to generate popular demand for service improvements. The survey results revealed low expectations on service delivery: even though service levels were reported as relatively poor, nonetheless 80-

FIGURE 5: COMPARING FEEDBACK CHANNELS



Note: HHs: households.

90 percent of respondents said they were partially or fully satisfied. This suggests there may be limits to the extent to which civic mobilization is possible for service improvement. The survey also showed that customers with complaints often address them to their local councilors, who could potentially play a greater role in putting pressure on service providers. A suitable pressure point in this regard could be the metric measuring perceptions of whether services have improved or deteriorated compared to the previous year.

Advocacy and capacity building are needed for standardized performance indicator frameworks to be adopted and mainstreamed. Development agencies can play a critical role in this, in partnership with the national government. Interest and buy-in of local functionaries can be increased by involving them in the preparation of questionnaires; employing locals, such as students, rather than outsiders to gather the data; and providing granular results that are more relevant for local functionaries.

The national government can help states and cities to adopt citizen feedback processes in several ways. These include providing guidance, capacity building and advisory support; hosting or making available ICT-based solutions for feedback processes; strengthening incentives by integrating these processes in government programs and formulations; and developing orientation modules for citizen groups and political representatives on how to interpret the resulting data and use it for advocacy.

WHAT ELSE DO WE NEED TO KNOW?

What potential does the SLB Connect platform have to be adapted for other purposes? The benefits offered – in terms of speed, scale, accuracy, data integrity and transparency of process – may be more widely applicable. For example, the MoUD has already adopted the SLB Connect platform to undertake City Sanitation Ratings (called 'Swachh Survekshan') as part of the Swachh Bharat Mission. The initial implementation done in January 2016 covering 73 cities is now being further scaled up to cover 500 cities in the next round of ratings planned for 2017.

What lessons can be drawn from discrepancies between demand- and supply-side data? Some trends were common to all cities, such as citizens reporting better access to toilets than did service providers. In contrast, trends were mixed for water supply. In the two cities surveyed in Rajasthan, for example, where water supply is the responsibility of the state rather than cities, water supply access was reported by service providers to

be lower than according to citizens surveyed by SLB Connect – the opposite of results in other cities. It would be useful to explore further what incentives might exist for overly conservative reporting, and also whether these are influenced by institutional arrangements.

How can insights from SLB Connect be integrated with those from similar experiences elsewhere? It would be useful to consolidate learnings from SLB Connect with those from other World Bank experiences in citizen engagement using ICTs, such as Maji Voice (Kenya), Vozelectrica (Dominican Republic) and Citizen Feedback Monitoring Program (Pakistan). There is potentially scope to reduce the costs of future such initiatives by creating a platform to share knowledge.

How can the World Bank best support clients in adopting citizen engagement interventions? The recent World Bank directive mandating inclusion of beneficiary feedback processes can give further impetus – but these processes should not be limited to self-reporting options such as helplines, SMS or online feedback. They should also include mechanisms to collect feedback proactively, and identify factors that may inhibit citizens' use of formal grievance redressal mechanisms.

By Vandana Bhatnagar and Andrew Wright

For more information, see report SLB Connect: Mainstreaming citizen feedback on service delivery using ICTs: Findings and lessons from ICT-based feedback surveys on water supply and sanitation services in Indian cities by Vandana Bhatnagar, Nidhi Batra and Kanak Tiwari

About the project

Service Level Benchmarking, Citizen Voice and Performance Improvement Strategies in Urban Water Supply and Sanitation (UWSS) in India is a WSP project focused on improving accountability for service outcomes in the UWSS sector, by providing support for strengthening supply and demand side monitoring processes under national programs in India, and integrating use of performance data into decision making by public providers, with specific focus on services to the poor.

The Water and Sanitation Program is a multi-donor partnership, part of the World Bank Group's Water Global Practice, supporting poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

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