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

Vandana Bhatnagar, Nidhi Batra and Kanak Tiwari

wsp
water and sanitation program

WORLD BANK GROUP

Acknowledgments

Contents

List of Boxes

List of Figures

List of Tables

Abbreviations and Acronyms

AMRUT	Atal Mission for Rejuvenation and Urban Transformation		**KUWSMP**	Karnataka Urban Water Supply Modernization Project
APL	above the poverty line		**lpcd**	liters per capita per day
BPL	below the poverty line		**MAPI**	Mobile Aided Personal Interview
CATI	Computer Assisted Telephonic Interview		**MoUD**	Ministry of Urban Development
CEPT	Centre for Environmental Planning and Technology		**NGO**	nongovernmental organization
			NPMC	National Performance Monitoring Cell
CSO	Civil Society Organization		**PCMC**	Pimpri-Chinchwad Municipal Corporation
CURE	Centre for Urban and Regional Excellence		**SAC**	Social Accountability
			PRIA	Society for Participatory Research In Asia
GoI	Government of India		**SMS**	Short Messaging Service
GPS	Global Positioning System		**SLB**	Service Level Benchmarks
HH	household		**SLB-C**	SLB Connect
HHC	Household Piped Connection		**TA**	Technical Assistance
IBNET	International Benchmarking Network for Water and Sanitation Utilities		**ULB**	Urban local Body
			USAID	United States Agency for International Development
ICT	Information and Communication Technology		**UWSS**	Urban water supply and sanitation
IT	Information Technology		**WASH**	Water, Sanitation and Hygiene
IVRS	Interactive Voice Response System		**WSP**	Water and Sanitation Program

Executive Summary

The water and sanitation sector in Indian cities is characterized by weak accountability processes and lack of customer orientation. The institutional focus of service providers tends to be on creating new assets, rather than delivery of services and performance efficiency. Moreover, in the absence of reliable service data, the planning processes that inform the creation of new assets are often not aligned with the needs and priorities of citizens.

In 2009, the Service Level Benchmarks (SLB) program was introduced by the Government of India's Ministry of Urban Development (MoUD) to strengthen the focus on service delivery. Under this program, service providers report performance on a standardized set of indicators for delivery of water supply, wastewater, solid waste management and storm-water drainage services. While the SLB data have gradually become an integral component of India's urban reform formulations, the availability and quality of this data have tended to remain poor. It is also seen to reflect only the service providers' point of view, not the citizens' perspective on service delivery.

In recent years, various social accountability tools and participation processes have also been introduced in India to strengthen pressures for improved public services and foster citizens' involvement in planning processes. While these initiatives have helped strengthen the overall focus on service delivery, basic services such as water and sanitation have largely remained outside their purview.

It was to address these gaps that the SLB Connect (SLB-C) initiative was operationalized by the Water and Sanitation Program, in partnership with the Ministry of Urban Development. Implemented as a complement to the Ministry's SLB program, SLB-C gathers and analyses feedback from citizens on water supply and sanitation services, in order to:

- Facilitate tracking of service outcomes using citizen feedback;
- Provide a reality check for performance data reported by service providers;

- Generate more granular feedback on services at the intra-city level (ward/ zone) that could help identify problem hotspots and design area-specific interventions; and
- Highlight service inequities across user groups (for example, households in slum settlements), and strengthen the voice of vulnerable groups in service delivery.

Through these processes, an enabling environment is created for strengthening accountability pressures on providers to deliver improved service outcomes. The SLB-C approach leverages the use of Information and Communication

Technologies (ICTs) for collecting feedback, quality assurance, real time analysis and public dissemination of findings. It also uses demand side metrics that are aligned with supply-side indicators, which facilitates ready integration with decision making.

So far, SLB-C has been implemented in eight cities across six states, representing a variety of service delivery arrangements and implementation environments. Feedback has been collected from over 35,000 households using several methods, of which the more predominant has been the Mobile Aided Personal Interview (MAPI) method, followed by telephone surveys and Short Messaging Service (SMS) polls. Drawing from this experience, the SLB-C system and survey approach has been adapted for conduct of City Sanitation Rankings ('Swachh Survekshan') in 73 cities under the Swachh Bharat Mission, wherein 80,000 citizen responses were also collected. The SLB-C approach has also been incorporated in the World Bank funded Karnataka Urban Water Supply Modernization Project.

This report presents the findings, achievements and lessons that emerged from implementing the SLB-C initiative in Indian cities with varied contexts, and its subsequent use under a national urban program. It provides recommendations for future similar initiatives.

Findings

The feedback surveys conducted in eight cities provided concrete, relevant data which served as a useful reality

check to the SLB reports of service providers on their own performance. On questions related to infrastructure provision, the survey data tended to be broadly aligned with the reports of service providers, while significant gaps were observed on several aspects related to service quality, such as duration of supply and incidence of dirty water supply. The granular data analysis helped reveal inequities between slum and non-slum areas, and 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 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 revealed by the surveys. 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. A few implemented interventions to address service gaps.

The responsiveness of city functionaries was found to depend on several factors including their general comfort levels with participatory processes and familiarity with ICTs; 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 planning processes already 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 timeframe 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.

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 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 service metrics from the demand and supply side, 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-C 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 offers a platform which, if hosted by a nodal agency with requisite 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 to stakeholders helped increase the transparency, and hence credibility, of the data collection process. 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 crowdsourced ratings – and they have different strengths and weaknesses. These should be viewed as complementary approaches 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: despite poor service levels reported, 80-90 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 surveys 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 useful metric in this regard could be the perceptions of whether services have improved or deteriorated compared to the previous year.

Way Forward

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; providing granular data which is more relevant for local functionaries.

The national government can help states and cities to adopt citizen feedback processes in several ways. These include capacity building and advisory support; hosting or making available ICT-based solutions; 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.

The recent World Bank directive mandating inclusion of beneficiary feedback processes can give further impetus to adoption of such processes in projects. These should however 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. Support can be provided to clients in adopting these interventions in their operations and decision making. It would also 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.

1. Background

KEY POINTS
- Availability and quality of performance data on service providers poor
- Limited impact of past accountability initiatives on water and sanitation
- SLB-C aimed at addressing existing constraints by leveraging emerging ICTs

The water and sanitation sector in urban India is characterized by weak accountability processes and lack of customer orientation. Coverage is reportedly high, with approximately 70 percent households having access to tap water, and 82 percent having access to toilet facilities. However, the quality of services is often poor, resulting in high coping costs, especially for the urban poor. Services are primarily provided by public providers that lack customer orientation, institutional capacity and accountability for service outcomes. The institutional focus of these providers tends to be on creating new assets, rather than delivery of services and performance efficiency. Moreover, in the absence of reliable service data, the planning and design processes that inform the creation of new assets are often not aligned with the needs and priorities of citizens.

Current status of performance reporting by cities

In 2009, the GoI's Ministry of Urban Development (MoUD) introduced the SLB program with the aim of facilitating a shift in focus from infrastructure creation to the delivery of service outcomes (see Box 1). In 2010, the 13th Finance Commission recommendations incorporated reporting on SLBs as a precondition for release of performance grants to Urban Local Bodies (ULBs). Since then, over 1,000 ULBs have been notifying their performance on the SLB indicators annually.

More recently, this precondition has been retained for performance grants under the 14th Finance Commission (2015), and has also been integrated into the design of the GoI's urban investment program called the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), covering 500 cities. Several states – including Maharashtra, Odisha and Rajasthan – have also referred to the SLBs when articulating their sector plans or strategies. Consequently, the SLB indicators have become

BOX 1: ABOUT SERVICE LEVEL BENCHMARKS

SLBs are a standardized supply side indicator framework for measuring four basic urban services: water supply, wastewater, solid waste management and storm-water drainage. SLB indicator definitions for water supply largely draw from the globally accepted International Benchmarking Network for Water and Sanitation Utilities (IBNET) indicator framework. Of the 28 SLB indicators, 18 relate to water supply and sanitation. Apart from indicator definitions and calculation methodology, the framework provides for a data reliability scale for each performance indicator. Under a previous engagement, the Water and Sanitation Program (WSP) provided support for finalizing the indicator framework, and rolling out a national pilot across 28 cities to demonstrate implementation of the framework. Further details on the SLB framework are available at: http://moud.gov.in/policies/servicelevel

increasingly mainstreamed into sector vocabulary and program formulations, helping to increase focus on service outcomes.

However, the availability and quality of performance data have often remained poor. They are also seen to reflect only the service providers' point of view, not citizens' perspective on service delivery. One of the objectives of the SLB program was to foster dialog between citizens and municipalities on issues related to service delivery, but this has not taken place as citizens have largely remained unaware of the SLB data reported by cities.

Current status of accountability initiatives in public services

The GoI has started several initiatives aimed at making service delivery more 'citizen centric', such as laws on public disclosure and the right to public services, and the National e-Governance Plan.[1] These have however, tended to focus on public services which are transactional in nature, such as issuing certificates (birth, death, or marriage), property registration, utility connections or bill payments; basic services such as water supply and sanitation have largely remained outside their purview. Moreover, while public participation is mandated as part of various urban programs, local governments or service providers have little capacity to undertake these processes, or clarity on how to do so.

While the above initiatives are helping to improve accountability for some public services, they have had little impact on water supply and sanitation. Channels available for citizens to provide feedback depend mostly on self-reporting by citizens (such as complaint reporting or online feedback options) – and there is little incentive to use them, given service providers' lack of customer orientation. There have been some efforts to proactively collect customer feedback on service delivery through surveys, but these have tended to be one-off initiatives, due to constraints including lack of time, resources, local capacity and interest from decision makers.

The SLB-C initiative was conceptualized and implemented with the aim of addressing these constraints by leveraging emerging ICTs. It also attempted to leverage the national government's SLB program to strengthen the impact of citizen voice and facilitate its integration into government decision making (see Box 2).

Box 2: SOCIAL ACCOUNTABILITY APPROACHES FOR IMPROVING SERVICE DELIVERY

Social Accountability (SAc) is an approach which seeks to stimulate citizen voice and client power to make the state and service providers accountable for meeting their service delivery obligations. Numerous SAc instruments have been developed in recent years, such as citizen report cards, community score cards, community monitoring of public service delivery, participatory budgeting and public expenditure tracking, public commissions, hearings and citizen advisory boards. These demand-side instruments differ from more conventional, supply-side mechanisms such as political checks and balances, accounting and auditing systems, administrative rules and legal procedures.

Experience on the effectiveness of these tools has been mixed. They are heavily influenced by context. Recent studies draw a distinction between 'tactical' and 'strategic' approaches to SAc. The former tend to be localized, information-led approaches premised only on demand-side interventions. The more effective, strategic approach is however characterized by efforts to combine information access with an enabling environment, and coordinate with government reforms to encourage public sector effectiveness (What does the Evidence Really Say?, Jonathan Fox, GPSA Working Paper No.1, 2014; Opening the Black Box, Helene Grandvoinnet, Ghazia Aslam and Shomikho Raha, World Bank, 2015).

---

[1] Enactments on the right to public services stipulate timeframes for public service delivery with penalties for deviation. The public disclosure law requires municipalities to publicly disclose organizational, financial and operational information. The National e-Governance Plan aims to provide Information Technology (IT) infrastructure and mobile platforms to allow citizens easier access to government services.

2. What is 'SLB-Connect' and How Does it Work?

KEY POINTS
- SLB-C addresses accountability gaps in delivery of water and sanitation services by connecting citizen feedback to service delivery and improvement processes
- It captures feedback on various attributes of water supply and sanitation services that impact citizens directly

SLB-Connect, as the name suggests, seeks to address accountability gaps in delivery of water and sanitation services by connecting citizen feedback to service delivery and improvement processes. It was developed as an extension of the SLB program to help mainstream demand-side monitoring through ICT based citizen feedback surveys, and also help strengthen service providers' supply-side reporting under the SLB program.

Citizen feedback surveys have been conducted using mobile-to-web systems and other emerging technologies, and the results analyzed using publicly accessible online platforms. Specific objectives of the SLB-C initiative are to:

- Improve tracking of service outcomes using citizen feedback;
- Provide a reality check for performance data reported by service providers;
- Generate more granular data on service performance at the intra-city level (ward/zone) to help identify problems and design interventions based on specific local needs; and
- Provide data stratified by user groups (for example, households in slum settlements) to highlight potential service inequities that some of these groups may experience, and strengthen their voice in service delivery.

Through these processes, the aim is to create an enabling environment for strengthening accountability and increasing pressure on providers to deliver improved service outcomes.

Using the typology provided in the *Strategic Framework for Mainstreaming Citizen Engagement in World Bank Group Operations* released in 2014,[2] the SLB-C approach corresponds to interventions that entail 'collecting, recording, and reporting on inputs from citizens' and 'citizen-led monitoring'. Within these categories, SLB-C's defining characteristics are: (i) use of demand-side metrics that are aligned with supply-side indicators, facilitating ready integration with decision making; and (ii) use of an integrated and scalable ICT solution to enable transparent data collection, improved quality assurance, real-time analysis and public dissemination of citizen feedback.

2.1 What Does SLB-Connect Measure?

SLB-C captures feedback on various attributes of water supply and sanitation services that impact citizens directly, as shown in Figure 1. The modular architecture of SLB-C also allows for the possibility of including measurement of other services covered by the SLB framework, such as solid waste management.

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

PROFILE	WATER SUPPLY	SANITATION	FEEDBACK
Age	Access to water	Access to toilets	Satisfaction
Gender	Continuity	Toilet usage	Willingness for repeat survey
Dwelling type	Adequacy	Access to sewerage network	Contact number
Address	Water quality	Alternate disposal system	Suggestion to service provider
Income profile	Complaint redressal		
	Ease of bill payment		

[2] Table 3.2, page 24 of the document.

TABLE 1: COMPARISON OF PERFORMANCE METRICS IN THE SLB-C (DEMAND-SIDE) AND SLB (SUPPLY-SIDE) FRAMEWORKS

Attribute	SLB-C indicator definition [SLB indicator definition]
	WATER SUPPLY
Access	% of HHs reporting individual/shared household piped connections as primary source of water supply* [SLB: % of HHs with individual/shared household piped connection for water supply]
Continuity	Median value of responses on duration of supply* [SLB: Duration of water supply]
Adequacy	% of HHs reporting adequate supply to meet the needs of the family [SLB: Quantity of water supplied per capita (lpcd)]
Quality	% of HHs reporting no incidence of dirty water supply in the last three months [SLB: % of water samples meeting specified standards]
Complaints	% of HHs that lodged complaints reporting resolution in one day* [SLB: % of complaints resolved in one day]
Bill Payments	% of HHs reporting regular receipt of bills and finding the location and timing of bill payment to be convenient [SLB: Revenues collected as a percentage of revenues billed]
Metering	% of HHs reporting functional meters* [SLB: % of household connections with functional meters]
	SANITATION
Toilet Access	% of HHs reporting access to an individual, shared or public toilet* [% of HHs with access to individual, shared or public toilet]
Toilet Usage	% of HHs having access to toilets where all family members report use of toilets [No indicator]
Access to Sewerage	% of HHs reporting connection to sewer network* [% of properties with connection to sewer network]
Alternate Disposal	% of HHs reporting full or partial disposal of wastewater to any onsite facility [No indicator]

*SLB-C indicators that are directly comparable with SLB indicators.

Note: HHs: households; lpcd: liters per capita per day.

2.2 Linkage between Demand- and Supply-Side Metrics

SLB-C is aligned with the SLB framework on service attributes that directly impact users, as summarized in Table 1.

2.3 System Components of SLB-Connect

Till now, data have been collected under SLB-C, primarily through enumerator-based household surveys conducted using mobile applications, also known as Mobile Aided Personal Interview (MAPI) systems. Additional modes of collecting feedback have also been tested, such as telephone surveys and Short Message Service (SMS) polls. This section provides process and technical details of the MAPI surveys, while the other modes are discussed in later sections.

The main components of SLB-C using MAPI systems are: (i) surveying sample households on service aspects using a mobile survey app; (ii) real-time monitoring of the survey process using an online survey management module; and (iii) real-time analysis of survey results using a web-based dashboard and data analysis tools. Survey results are thereafter made accessible on a public online platform. The integrated, workflow-based design of the ICT system distinguishes it from other solutions used for conduct of MAPI surveys.

2.3.1 Data Collection

An Android-based mobile survey application is used to get citizen feedback on various service aspects. Enumerators using the mobile survey app collect the data in the local language through a detailed household survey, ensuring equitable representation of all sections of citizens geographically and demographically, including feedback from residents living in informal settlements. A Global Positioning System (GPS) in the cell phones tracks the location from where data are collected, thereby enhancing the reliability of data collection and enabling a granular analysis at the zone/ward level. These functionalities are available on regular mobile phones in the budget price range; the cost of handsets used in the SLB-C project was approximately US$130 each.

2.3.2 Survey Management

A web-based survey management module enables survey managers and sector experts to plan a survey and track its progress in real time using remote monitoring. Predefined workflow logic enables seamless process control – from data collection, using the mobile app, to approval of records for analysis. Users are assigned access and approval rights based on their role in the survey process: functionaries from the agency responsible for conducting the survey (for example, the Society for Participatory Research In Asia (PRIA)) are assigned roles such as survey administrator, supervisor or enumerator, while other users such as WSP resource persons can be assigned rights to provide secondary oversight.

Quality control is exercised using predefined validation checks, exceptions flagging and various performance reports which enable the tracking of individual enumerators and supervisors. The availability of all records collected makes the survey results more credible to service providers. The module is designed for replication of surveys at scale. The questionnaire can be customized using a 'Question Bank' and 'Survey Form' facility, while the 'Survey Planning' module allows sample design, user management and work allocation to be customized for each survey task. Previous survey forms or survey tasks can be copied to readily initiate a new survey. There is a facility to send SMS messages thanking respondents, where they have provided a contact mobile number.

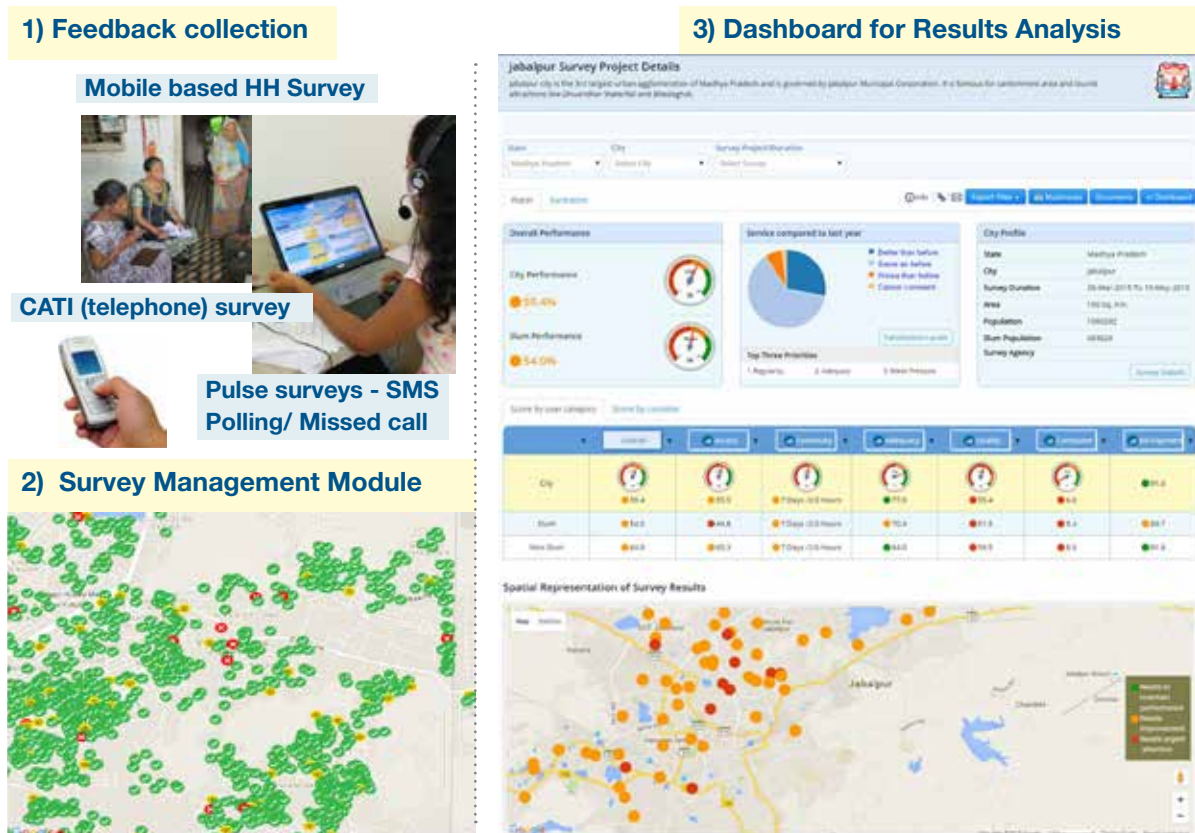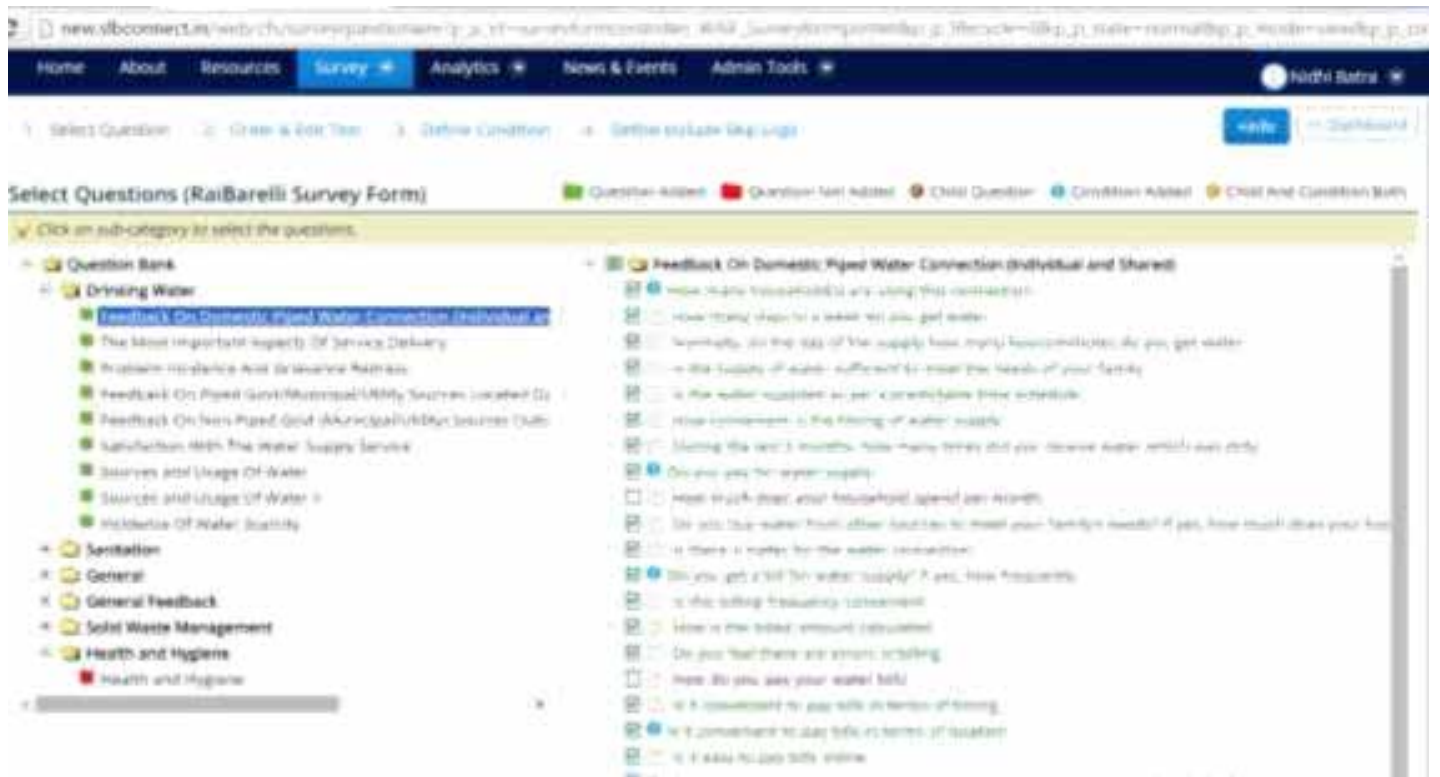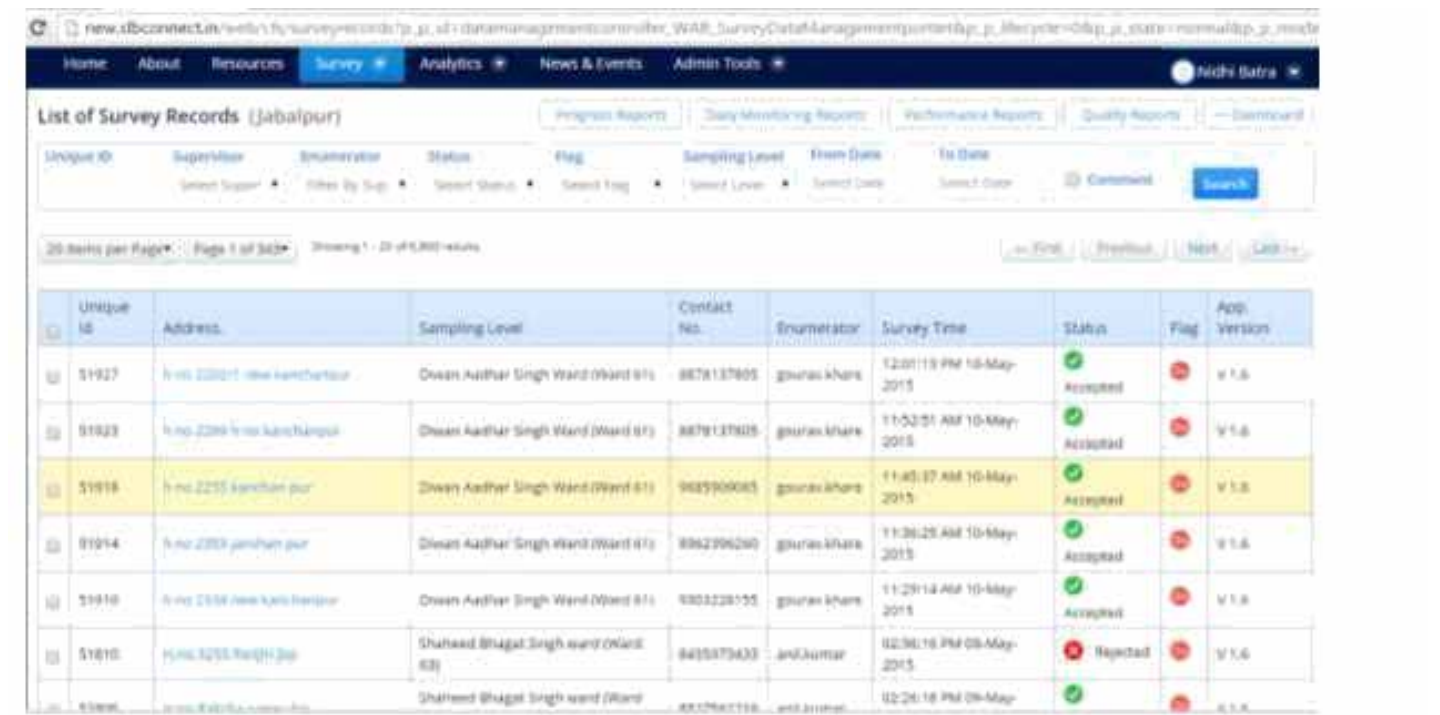**FIGURE 2:** SYSTEM COMPONENTS OF SLB-C

FIGURE 3: SCREENSHOTS OF SURVEY MANAGEMENT MODULE

Survey Questionnaire Module

Survey Monitoring Module

2.3.3 Data Analysis and Dissemination

All the data that pass through these quality assurance and approval steps feeds into a web-based 'dashboard', which enables real-time analysis on the various service indicators through graphs, tables and maps. The dashboard is accessible online to decision makers, functionaries and other stakeholders – including the public – once the survey results have been finalized. The detailed analytics help service providers identify gaps and develop interventions, either as part of a city-wide service improvement plan or routine operational reviews. Simple traffic-signal color codes facilitate easy inferences on performance levels. Analysis is possible for different user groups (for example, slum/non-slums) and geographic units (for example, zones/wards), with maps showing survey results down to individual responses and dashboards enabling detailed analysis at the ward level. This granularity of information helps citizen groups and Councilors to understand service gaps in their areas and reference them when asking providers to take action. Comparison across wards can also generate competition to improve performance. Finally, the system provides for comparison of SLB-C metrics across surveys conducted in different cities or in the same city at different points in time. The system features are summarized in Table 2.

2.4 Additional Modes of Collecting Feedback

SLB-C has tested two additional modes of collecting feedback: Computer Assisted Telephonic Interviewing (CATI) and SMS polls. In addition, citizen feedback was collected using the Interactive Voice Response System (IVRS) under the MoUD-led city sanitation ratings. These interventions used off-the-shelf systems, and did not entail development of software tools. They were found to be quicker and cheaper than MAPI surveys, but with more constraints on data quality: they captured a narrower range of data, and it was difficult to assess the extent to which their findings were representative of the survey population. Based on the SLB-C experience, the various modes of feedback – MAPI, CATI, IVRS and SMS polls – are seen as complementary approaches having relevance for different kinds of citizen feedback applications. Their relative advantages and disadvantages are discussed in greater detail in later sections.

TABLE 2: SLB-C SYSTEM FUNCTIONALITIES

Purpose	Mobile Interface	Web Interface		
	Feedback Collection	Survey Planning	Survey Management	Dashboard Analysis
	Mobile-based household survey	Question bank; survey planning, configuration for a specific survey task	Survey data management and monitoring	Configuration module and dashboard to view survey results

Functionalities	√ Conduct survey in local language
	
	√ Conduct in 'training' and 'live' mode
	
	√ Geo-tagging of all locations
	
	√ Can work in offline mode, requiring connectivity only for syncing data
	
	√ Records time and duration of survey
	
	√ Records pictures/video
	
	√ Additional comments can be recorded
	
	√ Integration with 'survey planning' and 'survey management' allows key functionalities of:
	
	  – Work allocation
	
	  – Regular monitoring and reporting
		√ Develop a survey form for an area with the help of a 'question bank', either editing an existing survey form or creating a new one
		
		√ Create 'users' and allocate them 'work' for the survey process
		
		√ Formulate survey sample and methodology
		
		√ Define up to three levels of spatial hierarchy to plan for sampling and analysis
			√ View real-time survey data in tabular and spatial form
			
			√ Export survey data in user-friendly formats for offline use
			
			√ Monitor and review survey data based on system-defined validation checks
			
			√ View various monitoring reports, performance and progress reports for each survey area and each enumerator and supervisor
				√ A 'dashboard' provided for each survey task, with the survey analytics in graphical, tabular and spatial forms
				
				√ Analytics available as SLB-C metrics, as well as detailed analysis, stratified for location and user categories
				
				√ Dashboards available per zone/ward
				
				√ Option to customize analytics for a specific survey task
				
				√ Define access levels to view survey results
				
				√ Option to upload additional docs/PPTs/ links onto a specific dashboard

3. Experience with Implementation of SLB-Connect

KEY POINTS
- **SLB-C was piloted in 2012 in Pimpri Chinchwad Municipal Corporation**
- **Scaled up demonstration took place in five cities across three states**
- **MoUD used the SLB-C platform to undertake City Sanitation Ratings as part of the Swachh Bharat Mission**

SLB-C has so far been implemented in eight cities across six states, representing a variety of service delivery arrangements and implementation environments. These surveys have been conducted at the behest of MoUD, with the exception of Mehsana and Delhi. Feedback has been collected from about 35,000 households till now. For purposes of analysis, the implementation experience has been categorized into three phases:

- *Pilot phase of MAPI surveys (2012-14)*, encompassing the proof of concept in Pimpri Chinchwad followed by implementation in Mehsana and Delhi under partnership arrangements. In Delhi, the survey was not city-wide, but conducted at local level in two slum settlements;

- *Scaled up demonstration of MAPI surveys (2014-15)*, with implementation in five cities (Ajmer, Jabalpur, Jhunjhunu, Raebareli and Varanasi) using an upgraded ICT platform, with functionalities and capacity enhanced to support scaling up; and

- *Repeat surveys using additional modes of feedback (2014-15)*, conducted in Pimpri Chinchwad using CATI systems and SMS polls.

This section provides details of the implementation approach followed in the various phases, the experience so far, and integration into a national urban sanitation program and World Bank funded project. Survey findings are elaborated in the next section.

FIGURE 4: IMPLEMENTATION OF SLB-C

PIMPRI-CHINCHWAD - Proof of concept
1.7 million population; 47 water zones
Survey in 2012 - 5,200 HHs

MEHSANA -
180,000 population; 14 wards
Survey in 2013 - 1,400 HHs
Partnership with Gates project

DELHI- Community level (2 slum settlements)
Survey in 2014 - 300 HHs & 600 HHs
Partnership with CURE (NGO)

PCMC -- Repeat exercise
Telephone survey in 2014 - Over 3000 HHs
+ SMS Pulse survey in 2015

Scaled up demonstration
5 cities in 3 provinces
Surveys in December 2014 to April 2015
Approx. 28,000 HHs

Integrated with national urban program and World Bank funded project

Note: HHs: households; NGO: nongovernmental organization.

3.1 Pilot Phase

In 2012, SLB-C was piloted in Pimpri Chinchwad Municipal Corporation (PCMC), a city with a population of 1.7 million as per the 2011 census. The city was selected in consultation with MoUD and after confirming that city functionaries were willing to participate. A basic mobile-to-web system was developed to conduct the survey in alignment with the SLB-C framework. Throughout the design and implementation process, the Commissioner and senior officials from the Water Department and e-Governance unit were consulted for suggestions and feedback, to ensure their ownership of the initiative and align the survey questions with the information they need for their decision making. The survey was implemented as a municipality initiative, with enumerators carrying IDs and letters of introduction from the municipal authority. Over 60 questions were included in the mobile survey app, with the focus primarily on water supply services. Over 5,200 households were surveyed within two months, spread across 47 water zones – approximately 100 households per zone.

The survey findings were presented to city officials, and also presented at a workshop attended by elected representatives, local civil society representatives, citizens and the media. Highlights were reported in the local press, and a link to the survey dashboard was posted on the municipality website. The municipality took on board the relatively poor feedback it received on water quality and customer complaint redressal processes, and intervened to address these issues. In 2013, the city launched a new helpline facility called SARATHI with more streamlined processes for lodging complaints, including online, mobile app and call center, and provision for monitoring and follow up. Importantly, the launch was accompanied by intensive outreach to make citizens aware of the facility. Within six months, around 150,000 citizens had used SARATHI's channels to lodge complaints or ask for information.

After the pilot in PCMC was successfully completed, interest expressed by other development agencies led to two more feedback surveys being conducted. In 2013, a survey was implemented in Mehsana (Gujarat) in partnership with the Centre for Environmental Planning and Technology (CEPT) University, and funded by the Bill and Melinda Gates Foundation. About 1,400 households were surveyed in less than a month, spread across 14 wards in the city. The survey scope was expanded to cover sanitation services more comprehensively, and findings were used to inform a service improvement plan under preparation for the city. In 2014, a survey was undertaken in two slum settlements in New Delhi in partnership with the Centre for Urban and Regional Excellence (CURE), a nongovernmental organization (NGO). About 900 households were surveyed in one month by volunteers from the local community itself.

The outputs of the pilot phase were:

- Proof of concept for the SLB-C mobile-to-web system;

- A survey questionnaire on water and sanitation services and a framework for analysis of survey results, both embedded in the mobile-to-web system;

- A default sampling methodology and implementation approach for conducting surveys, including coordination with city functionaries and political representatives;

- Limited components for a strategy of dissemination and stakeholder engagement;

- A partnership model in which the SLB-C platform is used by other agencies to conduct surveys under their projects; and

- Demonstrated applicability of SLB-C not just at a city level but also at more local level.

3.2 Scaled-up Demonstration

As a follow up to the pilot phase, a scaled-up demonstration was undertaken with the following objectives:

- Operationalize an ICT system with a higher processing capacity and enhanced functionalities to handle scaled-up implementation;

- Validate the scope of the questionnaire and analytical framework for water and sanitation services across a wider cross-section of service delivery arrangements;

- Assess the applicability of the SLB-C approach and systems in urban environments with weaker institutional capacity and poorer economic profile of residents (as the cities in the pilot phase had been from more developed states); and

- Demonstrate use of citizen feedback data to inform planning and project preparation processes.

The scaled-up demonstration took place in five cities across three states: Ajmer and Jhunjhunu in Rajasthan; Raebareli and Varanasi in Uttar Pradesh; and Jabalpur in Madhya Pradesh. The cities were selected in consultation with MoUD, which then solicited their participation. The choice of cities was guided by two main considerations. Firstly, they needed to be from economically weaker states with diverse service arrangements, to assess the applicability of the approach in such contexts. Secondly, they needed to have a project (existing or proposed) under a GoI-, state- or donor-funded program which could demonstrate use of the feedback data in project development or performance tracking. Details of the cities and surveys are shown in Tables 3 and 4.

Over 28,000 households were surveyed between December 2014 and April 2015. The implementing agency, PRIA, conducted the surveys in partnership with local NGOs. In most cities, the enumerators were youth from nearby colleges and universities, who were trained to use the SLB-C tools. City-level dialogs were held to validate and disseminate survey findings, in partnership with municipal officials and elected representatives. A flyer was also prepared, summarizing results in English and Hindi; it was uploaded on the SLB-C website and the link was disseminated through bulk SMS.

In parallel to these surveys being conducted, the SLB-C system was redeveloped to increase data processing capacities and make them more robust, along with additional functionalities for users to customize tasks. This caused some challenges and delays in conduct of some of the surveys. However, through close coordination across the teams, the problems were resolved and all survey tasks were completed successfully. The process followed for each city in the scale-up phase is explained in Box 3.

TABLE 3: CITY AND SURVEY SAMPLE DETAILS

	Jabalpur	Varanasi	Raebareli	Ajmer	Jhunjhunu
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%
No. of wards	70	90	31	55	45
Sample details					
No. of respondents (HHs)	6,693	9,330	3,134	5,500	3,823
Respondents from slum areas	48%	22%	26%	18%	4%

TABLE 4: SERVICE DELIVERY ARRANGEMENTS IN SURVEYED CITIES

City	Agency responsible for water supply	Agency responsible for sanitation
Ajmer, Jhunjhunu (Rajasthan)	Public Health Engineering Department (state agency)	Municipal Corporation
Raebareli (Uttar Pradesh)	Municipal Corporation	Municipal Corporation
Varanasi (Uttar Pradesh)	Jal Kal Department (the water department of the Municipal Corporation) - Operations and Maintenance functions Jal Nigam (state agency) - capital works	Jal Kal Department (Municipal Corporation) - sewerage Municipal Corporation - septic tanks, etc. Jal Nigam (State agency) - capital works
Jabalpur (Madhya Pradesh)	Municipal Corporation	Municipal Corporation

Box 3: SLB-C SURVEY PROCESS FOLLOWED IN THE FIVE SCALE-UP CITIES

Preparation

- Introduce the project to city officials and get them on board as partners;
- Conduct scoping assessment to understand status of service delivery, institutional arrangements, and obtain baseline information; and
- Confirm/refine standard SLB-C questionnaire to suit city context. Obtain feedback on questionnaire from city functionaries. Design survey plan and work allocation. Configure survey task, questionnaire and mobile app.

Training of survey team

- Train enumerators and supervisors, including on system functionalities. Participation of city functionaries in training and oath-taking by enumerators, and in providing municipal IDs for enumerators.

Implementation, monitoring and quality assurance of the survey

- Conduct survey, accompanied by real-time monitoring of data using survey management module. "Thank you" SMS sent to respondents on submission of survey data in mobile app; and
- Online monitoring at three levels: locally, by the supervisor; direct oversight by PRIA (Delhi); and secondary checks by the WSP team (Delhi and Bengaluru). Field validation/visits to monitor survey process and address quality concerns.

Synthesis of survey findings

- On completion of the survey, review results on the dashboard and through offline analysis; check for anomalies or unexpected findings; synthesize key findings into a presentation.

Sharing of survey findings

- Hold validation meeting with city officials, deliberate on key takeaways and areas requiring interventions. Discuss integration of data in improvement plans/project design;
- Conduct a dissemination workshop in partnership with city functionaries, to share findings with municipal councilors and other stakeholders (for example, NGOs, Civil Society Organizations (CSOs), housing societies, media). Coverage in local media. Flyers prepared synthesizing key findings in the local language; and
- SMS outreach to all survey respondents and councilors, providing a link to flyers and the website.

3.2.1 Engagement of Urban Local Body in the Scaled-up Demonstration of SLB-C

Local functionaries in the five cities were engaged at all stages of the survey process. Before initiating the survey, the questionnaire was discussed with the service providers, their inputs were solicited and they were encouraged to participate. Survey results were shared with them for validation prior to public dissemination. City-level sharing was undertaken with the support of the municipality. Table 5 provides details of the various points of engagement and factors used to assess responsiveness of the municipality.

While a similar implementation process was followed in all cities, and the mandate from the Ministry provided a valuable entry point for initiating dialog, the level of involvement and response of city functionaries and stakeholders varied considerably, as illustrated in Figure 5. In some cases (for example, Ajmer, Raebareli), the level of involvement also shifted as implementation progressed. Factors influencing the response included:

- Extent to which the municipality was responsible and accountable for service delivery;

TABLE 5: ASSESSMENT OF RESPONSIVENESS OF MUNICIPALITY

Points of engagement and assessment parameters for ULB responsiveness to SLB-C

1. Willingness to initiate feedback process

2. Ownership of and involvement in implementation of survey

   - Inputs for scoping study
   - Nodal officer appointment
   - Inputs on questionnaire
   - "Thank you" SMS to respondents on behalf of ULB including a helpline number of the municipality
   - Memorandum of Understanding with NGO/external agency conducting survey
   - Participation in training (oath taking)
   - Provision of ID cards to enumerators

Points of engagement and assessment parameter for responsiveness of ULB to SLB-C

3. Interest in inputs received from citizen feedback

   - Validation meeting – participation and interest
   - City-level dissemination workshop – participation and ownership of findings
   - Providing inputs for flyer (details of development schemes, contact person)
   - Providing link to SLB-C findings on ULB website
   - Sending SMS disseminating survey findings to citizenry and officials
   - Exploring use of SLB-C findings for plans and proposals being developed by ULB
   - Exploring applicability of SLB-C findings for new accountability initiatives by ULB
   - Exploring applicability of SLB-C process for citizen engagement initiatives by ULB
   - Institutionalizing SLB-C process in ULB developmental framework

- Degree of cohesion or dissent among local political leaders and parties, and their working relationship with city administrators;

- Orientation of the city manager (Commissioner) and local leaders to participatory processes;

- Local survey partner's capacity and working relationship with city authorities;

- Preparation of service improvement plans or proposals in the pipeline; and

- Familiarity and comfort of municipal officials with use of ICTs.

FIGURE 5: RESPONSE OF MUNICIPAL FUNCTIONARIES TO SLB-C
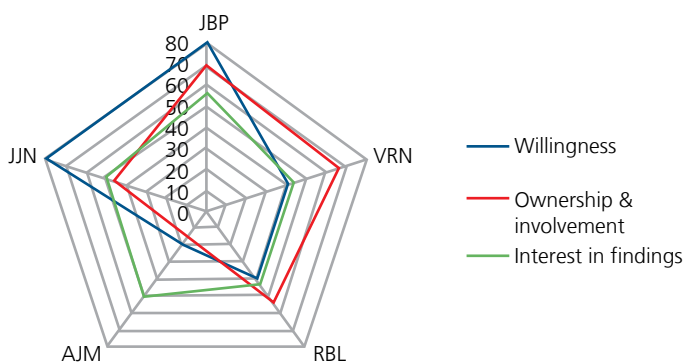
Note: JBP: Jabalpur, VRN: Varansi, RBL: Raebareli, AJM: Ajmer, JJN: Jhunjhunu.

In particular, where service delivery is a municipal responsibility (for example, Pimpri Chinchwad, Jabalpur), the pressures for accountability were more localized (for example, through municipal councilors) than where it is the responsibility of the state department (for example, Ajmer). The response was also greater in cities where service providers were better capacitated to take action (for example, Pimpri Chinchwad) than those where weak local capacity meant there was greater dependence on the state government, or infrastructure interventions took place through a state agency (for example, Varanasi).

All cities accepted the survey findings. Two provided a link on their municipality website to the findings, and most cities also integrated the findings in proposals/plans submitted for funding under the national urban programs AMRUT, Smart Cities and Swachh Bharat. Jabalpur and Varanasi also initiated immediate measures to review and address specific areas of concern, for example, poor water quality.

Oath taking with Municipal Officials in Varanasi; enumerators conducting the SLB-C survey in the field.

City-level sharing at Jabalpur and Raebareli with Mayor, Commissioner and Ward Councilors.

Dissemination in the local media and results flyer.

3.3 Additional Modes of Feedback – CATI Survey and SMS Polls

Concurrent to the scaled-up demonstration of MAPI surveys described above, at the request of PCMC, repeat surveys were conducted in the city to assess service levels after the first survey in 2012. These surveys were conducted using other modes of feedback: telephone calling surveys (CATI systems) and SMS polling. The implementing agency, pManifold Business Solutions Pvt. Ltd., implemented these in close coordination with PCMC's e-Governance Cell and Water Department.

The CATI survey was conducted in September and October 2014 by three to four trained call agents, collecting feedback from 3,200 households spread across six administrative zones.[3] The questionnaire had 42 questions relating to the

SLB-C parameters and additional aspects requested by PCMC (for example, interest in receiving 24x7 water supply). The firm used a database of telephone numbers collected from respondents during the MAPI survey of 2012; due to a sizeable degree of attrition, these needed to be supplemented by additional numbers obtained from PCMC's database. Figure 6 provides process details of the telephone call survey.

The use of the introductory SMS from the municipality helped familiarize respondents with the survey, and reduced the time the call agent needed to spend on initial explanation. While the telephone survey required fewer resources than the MAPI survey, some challenges were faced:

- It was difficult to validate respondents' profile information, in particular their habitation status (slum vs non-slum area);

FIGURE 6: PROCESS OF TELEPHONE CALL SURVEY IN PIMPRI CHINCHWAD

SMS from PCMC

Introductory SMS sent by PCMC to respondents

Call a contact number

Permanent Failure
- If invalid number, or number does not exist, then stop.

Temporary Failure
- If so, then attempt once again next day, if not repeat following day, then stop.

If call is connected

Valid Past Respondent
- Validate identity based on few questions from past
- Use questionnaire Q1
- Thank you SMS sent

Valid New Respondent from same HH
- Validate identity based on few questions from past
- Use questionnaire Q1a - Thank you SMS sent

Valid New Respondent (from PCMC area, but not a previous respondent HH)
- Use questionnaire Q2
- Thank you SMS sent

Invalid Respondent Number - relocated out of PCMC area. Stop.

---

[3] The duration was longer than anticipated due to coordination delays in obtaining telephone numbers from the PCMC database, and testing of an incentive component which complicated the sampling protocols for the call campaign.

- Questions on toilet access and use were not well received – call agents had to be specially trained to solicit the right response for these questions; and

- A sizeable share of telephone numbers were on the Telecom Regulatory Authority of India's Do Not Call registry, which has been set up to prevent unwanted telemarketing calls and SMS. These numbers required alternative arrangements as they cannot be called from commercial call centers without explicit permits.

The survey feedback showed a few areas of concern, such as poor water quality and problems in billing. To track these further, a series of SMS polls were conducted in June and July 2015, using seven questions decided in consultation with the PCMC Water Department. These were translated into the local SMS language (Marathi in English text), and their length limited to 160 characters (including response options) to be accommodated as a single message. Twenty polls were conducted (22,000 SMS messages sent) over two months. Polling was conducted in the following ways:

i.   Zone-specific, one-time questions (four);

ii. City-wide, one-time question (one); and

iii. City-wide, trend questions using fixed and rotating panels (one each).

Responses were obtained in the form of SMS coded options or SMS free text. The process is show in Figure 7.

Over 960 valid responses were received, representing a response rate of 4-5 percent, which is in line with industry norms for SMS polls; however, significant variance was observed across the different polls. Useful learnings include:

- Most responses were received within the first 72 hours. This suggested that the period for collecting responses should be kept short – typically two to three days – as interest tends to flag thereafter;

- There was a significant probability of consumers not understanding a 1-5 rating scale. Better responses could be achieved by using Y/N options or multiple choice questions;

- For trend questions, rotating panels showed higher response rates than fixed panels. Where fixed panel polls were used, response rates tended to drop after two rounds of polling;

FIGURE 7: PROCESS OF SMS POLL SURVEY IN PCMC
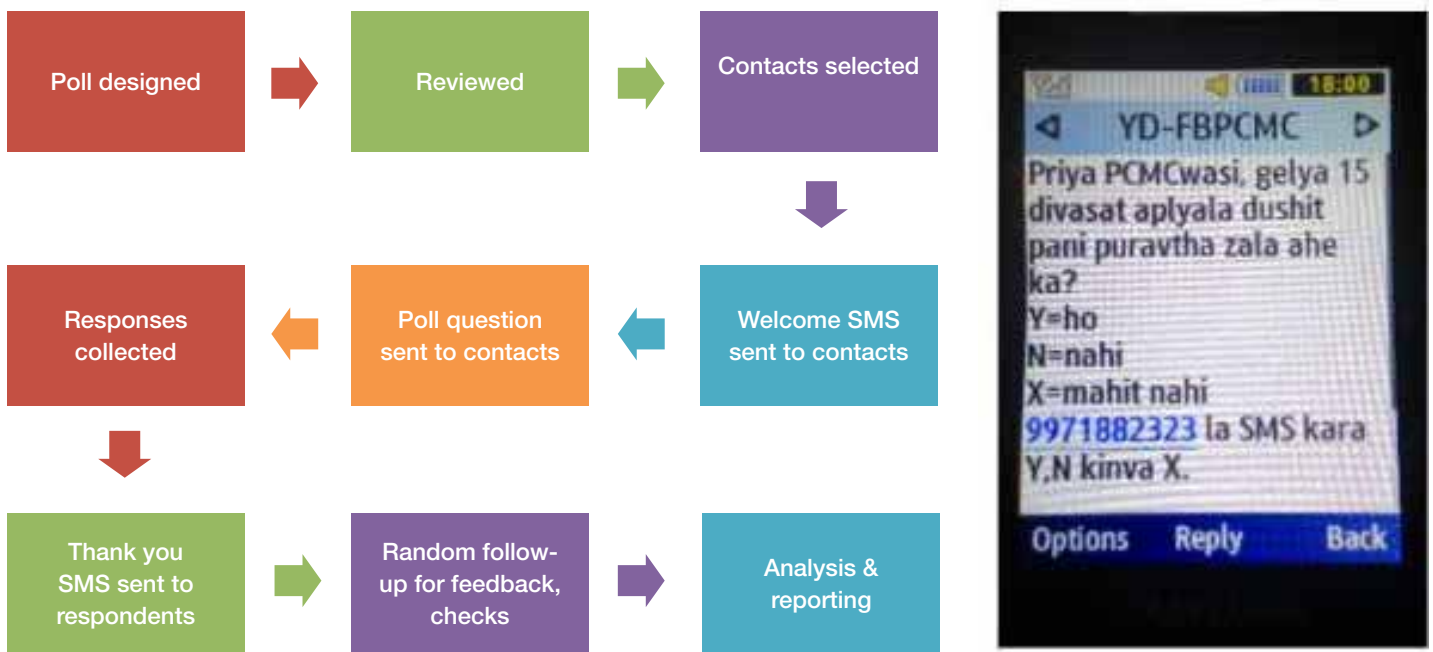
- Questions on consumers' daily routine (for example, water quality, timing) seemed to elicit a higher response than those on infrequent occurring events (for example, complaint redressal, bill payment); and

- To increase response rates, awareness creation efforts need to be made before and during the survey through outreach campaigns (via radio, posters, newspaper advertisements, public events). ULBs have an important role to play in this.

The experience in PCMC allowed SLB-C to compare three modes of feedback collection: the MAPI survey of 2012 (which provided detailed baseline feedback), the CATI survey in 2014 (a rapid follow-up assessment), and the SMS poll in 2015 (for further tracking of specific zones and service issues). One interesting observation was that the share of female respondents fell from 67 percent in the 2012 survey to 22 percent in the 2014 survey; this could be because mobile numbers provided were typically those

of the male head of house. Table 6 summarizes the points of comparison.

Based on insights gained through the implementation experience, PCPM decided to operationalize a Customer Services Monitoring Cell which could periodically undertake such feedback processes, and analyze data generated from the city's customer complaints unit.

3.4 National Dissemination and Mainstreaming

Throughout the SLB-C program implementation, dialog was maintained with sector practitioners and partners and an Advisory Committee was formed, consisting of senior representatives from the government, think tanks, NGOs and international development agencies. On completion of the scaled-up demonstration, a national workshop was held in November 2015 to share learnings and experiences: "Smart Urban Services: Putting Citizens at the Center – Improving Urban Water Supply and Sanitation Services through Citizen Participation".

TABLE 6: COMPARISON OF THREE FEEDBACK SURVEYS IN PIMPRI CHINCHWAD

	MAPI (2012)	**CATI (2014)**	**SMS Poll (2015)**
Method	Trained field surveyors conduct in-person interviews.	Trained telephone surveyors conduct phone interviews following initial SMS.	Scheduled SMS polls through SMS gateway system. Initial message sent by ULB.
Respondent group	Preselected group. Low drop-out rates. Female respondents: 67%.	Limited preselection. Higher drop-out rates. Female respondents: 22%.	Uncontrolled group: participation completely voluntary. Female respondents: unknown.
Significance	Used for in-depth data collection on respondent profile and on different service parameters.	Used for limited data collection within cost constraints. In-depth study possible, subject to availability of prior information on respondents.	Used for real-time feedback on specific aspects of service delivery. In-depth feedback not feasible.
Questionnaire	Out of 69 questions, respondents had to answer an average of 58 questions applicable to them, based on questionnaire logic.	Out of 42 questions, respondents had to answer an average of 33 questions. Most profile questions were prefilled as respondents came from previous survey database.	Out of a long list of 37 questions, 7 were shortlisted by the ULB.
Interview time	Average 12.5 minutes per interview (median 9.0 minutes)	Average 8.1 minutes per interview (median 7.2 minutes) 35% less time required to complete surveys, compared to MAPI.	
Cost for respondent	Nil	Nil	SMS charges as applicable.
Duration of data collection and peak surveyor strength	Over 2 months, data collected on 45 days with 19 surveyors at peak.	Over 2.5 months, data collected on 59 days with 4 surveyors at peak.	Polling done over a period of 62 days. 0.25 surveyor used.
Surveyor productivity	5,208 validated surveys collected. Average surveyor productivity of ~12 completed surveys per day (peak performance of 14).	3,200 validated surveys collected. Average surveyor productivity of ~17 completed surveys per day (peak performance of 28).[4] 30-50% less effort required for similar completion rates/duration, compared to MAPI.	965 valid responses collected (approximately 22,000 SMS messages sent).

[4] Additional time and resources were required due to multiple sub-groups, which complicated survey planning and execution.

MoUD expressed interest in using the SLB-C platform to undertake City Sanitation Ratings, or the 'Swachh Survekshan', as part of the Swachh Bharat Mission. Informed by the SLB-C experience, two features distinguished this round of city sanitation ratings from earlier exercises (i) extensive use of ICTs for data collection by independent observers[5] and results analysis; and (ii) inclusion of citizen feedback as an additional, third part of the assessment process.[6] Following SLB-C's integrated ICT-based approach improved the speed, scale, accuracy, data integrity and transparency of the process. SLB-C also helped inform the Ministry's thinking on the use of citizen feedback and demand-side metrics to assess service levels and facilitate citizen engagement.

Data was collected from 73 cities in a record time of two weeks in January 2016, including field observations and feedback from over 80,000 respondents (at least 1,000 responses per city) using IVRS. The ratings were announced at a national event on February 15, 2016. To demonstrate transparency, the results dashboard and field observations collected for each city (including photographs) were made publicly accessible online (https://gramener.com/swachhbharat/)[7]. The Ministry plans to undertake these city sanitation ratings annually, and expand the scope to cover 500 cities in the next round (2017). The approach has also been extended to the rural sanitation program, with a ratings exercise (Swachh Survekshan - Gramin) conducted in August 2016 covering 75 districts across the country (https://gramener.com/sbm/).

SLB-C has also been integrated into the design of the World Bank-supported Karnataka Urban Water Supply Modernization Project (KUWSMP), to help track service improvements in a more transparent and citizen-centric manner and thereby foster greater stakeholder trust in the project. This is in line with recent World Bank guidelines mandating beneficiary feedback surveys in all projects.

Active participation by sector experts, elected representatives, private sector representatives, service providers and government officials in the national workshop.

---

[5] 110 field assessors collected data from 3,000 locations across the 73 cities. The data were monitored by a 24x7 control room manned by a 20 member team.
[6] The other two sources being data provided by the municipality (self-reporting), and data collected by independent observers sent to the city (field observations). Earlier rounds of city sanitation ratings had relied on field observations and data collected from secondary sources.
[7] Further details on survey process and results available at http://qcin.org/swacch_survekshanp.php

4. Survey Findings

KEY POINTS
- SLB-C surveys provided concrete and relevant data on the status of water and sanitation services
- The data inform the cities in their preparation of proposals for service improvement under national and state urban programs
- The ward-level analysis, along with spatial maps of survey results, used to identify areas with service gaps where improvements are needed

Citizen feedback surveys under the SLB-C project have covered about 35,000 households across eight cities. These provided concrete and relevant data on the status of water and sanitation services, which helped inform the cities in their preparation of proposals for service improvement under various national and state urban programs. The ward-level analysis, along with spatial maps of survey results, has been used to identify localities where improvements are needed. The following sections summarize key findings from these surveys.

4.1 Key Findings of MAPI Surveys in Pilot Phase

Table 7 summarizes the key findings of the pilot phase of SLB-C, in Pimpri Chinchwad, Mehsana and Delhi.

TABLE 7: SURVEY FINDINGS OF MAPI SURVEYS IN PILOT PHASE

OVERALL SCORES: Water supply					
PCMC (2012)		Mehsana (2013)		Delhi Slum (2014) (Nursery basti)	Delhi Slum (2014) (Safeda basti)
ACCESS (% with individual/shared connections)					
83%	SLB 78%	91%	SLB 90%	0%	1%
CONTINUITY (median value of municipal piped sources – hours x days)					
3 x 7	6 x 7	1 x 7	1 x 7	2 x 7	2 x 7
ADEQUACY (% users of municipal piped and non-piped sources reporting adequate supply to meet household requirements)					
QUALITY (% users of municipal piped and non-piped sources reporting no dirty water supply in last 3 months)					
52%	99%	78%	90%	34%	42%
COMPLAINTS (municipal piped and non-piped sources)					
19%	60%	5%	80%	0%	2%
OVERALL SCORES: Sanitation					
TOILET ACCESS (% HHs reporting access to toilets, figure in brackets for individual toilets)					
98% (75%)	90%	90% (86%)	80%	63% (4%)	78% (3%)
ACCESS TO SEWERAGE (% HHs reporting connection to sewer network)					
96%	79%	48%	70%	5%	18%
ALTERNATE DISPOSAL (% HHs reporting disposal of wastewater to onsite facility)					
6%	N.A.	50%	N.A.	17%	2%

Note: As shown in Table 1, SLB and SLB-C performance indicator definitions are the same for access, continuity and complaint redressal, so scores are directly comparable. However, for adequacy and water quality, the definitions are different and, hence, the comparison of values is only indicative; HHs: households.

4.1.1 Survey Findings in Pimpri Chinchwad

- *Overall feedback:* Feedback was favorable on access to household piped water supply (83 percent) and adequacy of supply (84 percent), but relatively poor for quality of water (52 percent), complaint redressal (19 percent) and ease of bill payments (52 percent). Most respondents (53 percent) felt services were the same as the previous year, while about 30 percent felt it was better.

- *Alignment with SLB (reported) data:* Feedback showed alignment on access, adequacy and level of metering, but deviations were observed in case of continuity of supply, water quality, complaint redressal and bill payments.

- *Equity in service delivery:* While overall service levels were largely similar between slum and non-slum areas, further analysis showed some differences. Dependence on piped water from house connections was lower in slum areas (64 percent) compared to other areas (72-79 percent), while dependence on shared connections/ stand posts was greater (see Table 8). Slum areas also reported higher incidence of dirty water supply (55 percent) compared to non-slum areas (47 percent)

– partly attributable to greater dependence on stand posts. Users of stand posts reported higher incidence of dirty water supply (73 percent) compared to users of piped supply from house connections (48 percent), and lower complaint resolution (46 percent, compared to 65 percent). Gaps were also evident in the feedback on continuity. While the vast majority of respondents for the city (92 percent) reported daily water supply, the figure was significantly lower in case of slum areas (79 percent). Wide variations were seen in feedback across water zones. For example, values for duration of supply ranged from over five hours of daily supply (three zones), to four hours of supply twice a week (two zones); for water quality, values ranged from 100 percent (three zones) to almost zero (three zones).

- *Specific feedback:* Only about 15 percent of the respondents had made any complaint about water service in the last year and about 74 percent of these had been lodged through local councilors. Very few respondents were clear about billing frequency. Most (82 percent) paid their bills at the municipal counter but only about 40 percent found its location convenient.

TABLE 8: SURVEY FINDINGS OF PCMC 2012 SLB-C SURVEY

Primary sources of municipal water supply for drinking and other purposes			
	City	**Slum**	**Non-slum**
HH connection %	72-78	64	72-79
Shared connection %	5	23	3-4
Stand post %	2	12	1
Feedback on complaint redressal systems			
Respondents who			
- lodged complaints	15%		
- reported resolution of complaints	65%		
Mode of lodging complaint	Corporator -74%		
	Personal/group visit – 18%		
No. of days to resolve (median)	4		
Feedback on access to toilets			
	City	**Slum**	**Non-slum**
Own toilet %	75	18	80
Shared toilet %	8	4	8
Community toilet %	16	67	10
Open defecation %	2	11	1

Note: HH: household.

PCMC survey process.

The Water Department at PCMC was concerned about the service aspects on which citizens' feedback did not match their own assessment, water quality and complaint redressal. Granular analysis of SLB-C data (at the water zone level) helped them pinpoint areas most affected by poor quality of water supply. The survey also highlighted that, despite the availability of multiple complaint channels (helpline, SMS, helpdesk), citizens preferred to use informal channels (mainly councilors). Recognizing the need to create awareness about and improve the responsiveness of the formal complaint channels, the municipal administration decided to launch a new helpline facility, "SARATHI", which received a good response from the public.

4.1.2 Survey Findings in Mehsana
Water Supply
- *Overall feedback:* Survey feedback was once again relatively favorable on access to household piped water supply (91 percent) and adequacy of supply (78 percent), but relatively poor for water quality (78 percent), continuity (daily, one hour supply), and complaint redressal (5 percent). Most respondents (46 percent) felt services had improved compared to the previous year, while about 23 percent felt it had worsened.

- *Alignment with SLB data:* Citizens' feedback largely matched the city's reported levels of service for access, adequacy and continuity, but significant gaps were evident for water quality and complaint redressal.

- *Equity in service delivery:* Access to household piped water supply in slum areas (77 percent) was significantly lower than in non-slum areas (95 percent). Similarly, the share of respondents indicating adequate water supply was lower in slum areas (69 percent) than non-slum areas (81 percent).

- *Specific feedback:* As with PCMC, only 12 percent respondents reported having lodged a complaint, of which a mere 27 percent reported resolution (and only 5 percent within one day). However, unlike PCMC, over 85 percent of the complaints had been lodged through a formal channel (mainly, the helpdesk). Of those lacking a house connection, 35 percent indicated the main reason for not having a connection was that they were 'not eligible'.

Sanitation
- *Overall feedback:* While the overall score on toilet access was good (86 percent), access to sewerage was low at 48 percent, with about 50 percent of the respondents reporting disposal of wastewater to onsite systems.

- *Alignment with SLB data:* The gaps with reported figures were substantial. While 86 percent of respondents reported access to toilets, the corresponding figure reported by the ULB was just 59 percent. Interestingly, the citizen feedback data more closely approximated the 2011 census figures than the municipality's SLB data.

- *Equity in service delivery:* Sharp inequities were evident in access to toilet facilities. While citizens in slums reported access at only 56 percent, the figure was 95 percent in non-slum areas; one-third of the respondents from slums were resorting to open defecation. Less than half of the toilets in these areas had a water connection (compared to 88 percent in non-slum areas).

- *Specific feedback:* 70 percent of users of municipality-run community toilets found these to be 'never'

TABLE 9: SURVEY FINDINGS IN MEHSANA (2013 SLB-C SURVEY)

Primary sources of municipal water supply for drinking and other purposes			
	City	Slum	Non-slum
HH connection %	86-89	68-73	92-93
Shared connection %	1-2	3-6	-
Stand post %	4	16-18	1
Feedback on complaint redressal systems			
Respondents who			
- lodged complaints	12%		
- reported resolution	27%		
Mode of lodging complaint	Corporator - 7%		
	Helpdesk - 83%		
No. of days to resolve (median)	6		
Feedback on access to toilets			
	City	Slum	Non-slum
Own toilet %	86	55	95
Shared toilet %	1	2	1
Community toilet %	3	10	1
Open defecation %	10	33	3

Note: HH: household.

Survey process at Mehsana 2013.

maintained, compared to 30 percent for toilets managed by private contractors. Despite high dependence on onsite facilities for disposal of wastewater, almost half the respondents reported that these had never been cleaned. Of the rest, cleaning was reported to have been done through informal arrangements such as local private contractors or labor.

The survey findings were presented to the municipal authorities, and helped them identify gaps in coverage and service quality. The information was incorporated in the preparation of a service improvement plan that was under development at the time.

4.1.3 Survey Findings in Delhi (Slum Settlements)

The survey was conducted in two slums in Delhi, and highlighted the service gaps experienced by those living in impermanent and informal settlements.

- *Access to water supply:* There was negligible access to household piped water supply, with 78-86 percent of respondents reporting primary dependence on public stand posts for drinking water. Primary sources for other purposes were stand posts (50-60 percent) and hand pumps (35-44 percent). About 40 percent of respondents reported that the public water point was more than 100

meters away, and entailed a waiting time of more than 15 minutes. The two main reasons given by respondents for not having individual or shared connections were 'lack of eligibility' and 'lack of piped network' in the area.

- *Quality of service*: 40-50 percent of respondents reported that supply timings were rarely predictable and 33 percent found the timings to be inconvenient. Only 34-40 percent respondents reported no incidence of dirty water supply in the previous three months, while 27-33 percent reported more than three such incidents. Over 50 percent of respondents were impacted by scarcity during the dry season, of which about 15-20 percent was forced to shift to non-regular sources to meet their requirements. Only 4-8 percent of respondents had lodged a complaint for water supply problems, mostly through a local NGO or community leaders.

- *Access to sanitation facilities:* 60-75 percent respondents reported dependence on shared or community toilets, while 22-37 percent resorted to open defecation. Of those using community toilets, 40-60 percent reported these to be more than 100 meters from their homes.

The implementing agency (CURE) shared the survey findings with the slum dwellers, through posters and local meetings, which they also used to inform their dialog with Delhi Jal Board on possible service improvement actions. More recently (in 2015), CURE undertook a larger survey using the SLB-C system, covering 3,120 households spread across 34 slums under a United States Agency for International Development (USAID)-funded project to develop a long-term Water, Sanitation and Hygiene (WASH) program for low-income urban settlements in Delhi.

4.2 Key Findings of MAPI Surveys in Scaled-up Demonstration

Under the scaled-up demonstration phase, MAPI surveys were implemented between December 2014 and April 2015 in five cities (Jabalpur, Varanasi, Raebareli, Ajmer and Jhunjhunu) spread across three states. Over 28,000 households were surveyed.

The profile of respondents varied across the five cities (see Table 10). The share of respondent households with below the poverty line (BPL) status was highest in Jabalpur at 31 percent, while it was 4-12 percent in the remaining cities. Similarly, the share of respondents from slum areas was highest for Jabalpur (48 percent), while it was 18-26 percent in Ajmer, Varanasi and Raebareli; the figure was much smaller in Jhunjhunu (4 percent). Over 90 percent of respondents in all cities lived in pucca houses, except Jabalpur where the figure was much lower (73 percent). Most of the respondents across the five cities (42-51 percent) were 30-49 years old. The share of female respondents was lower than male in all cities, ranging from a high of 45 percent in Jabalpur to 28-30 percent in Jhunjhunu, Raebareli and Varanasi.

TABLE 10: SAMPLE PROFILE DETAILS

	Jabalpur	Varanasi	Raebareli	Ajmer	Jhunjhunu
No. of respondents (HHs)	6,693	9,330	3,134	5,500	3,823
HHs from slum areas	48%	22%	26%	18%	4%
Female respondents	45%	32%	23%	38%	28%
Economic profile	APL- 22%	90%	82%	91%	91%
	BPL- 31%	4%	8%	7%	7%
	No card- 47%	6%	8%	2%	2%
Type of dwelling	Pucca- 73%	99%	96%	99%	97%
	Kuccha- 26%	1%	4%	1%	3%
	Flat- 1%	-	-	-	-

Note: APL: above the poverty line; HHs: households.

4.2.1 Survey Findings for Water Supply in Scaled-up Demonstration
The key survey findings across the five cities are listed in Table 11.

TABLE 11: SURVEY FINDINGS IN THE FIVE CITIES IN THE SCALED-UP DEMONSTRATION – WATER SUPPLY

	Jabalpur	Varanasi	Raebareli	Ajmer	Jhunjhunu
OVERALL SCORES					
City level SLB-C Score	59.4	57.3	58.3	71	71.8
Slum SLB-C	54.0	50.2	56.3	69.3	11.8*
Non-slum SLB-C	64.9	59.1	59.0	71.4	72.5
ACCESS (% with individual/shared connections)					
City level SLB	68	69	44	82	75
City level SLB-C	**55.5**	**64.3**	**37.2**	**96.8**	**84.5**
Slum SLB-C	44.8	46.6	32.8	92.4	1.5 *
Non-slum SLB-C	65.3	69.4	38.7	97.7	87.5
CONTINUITY (median value of municipal piped sources; hours x days)					
City level SLB	2 x 7	10 x 7	3 x 7	0.75 x 7	0.5 x 7
City level SLB-C	**2 x 7**	**4.5 x 7**	**4 x 7**	**1 x 4**	**0.4 x 7**
Slum SLB-C	2 x 7	4.5 x 7	4 x 7	1 x 4	0.3 x 4
Non-slum SLB-C	2 x 7	5 x 7	4 x 7	1 x 4	0.4 x 7
ADEQUACY (% users of municipal piped and non-piped sources reporting adequate supply to meet household requirements)					
City level SLB	135 lpcd	275 lpcd	121 lpcd	100 lpcd	70 lpcd
City level SLB-C	**77**	**82**	**94.8**	**81**	**58.5**
Slum SLB-C	70.4	79	93.8	80.3	28*
Non-slum SLB-C	84	82.7	95.3	81.2	58.6
QUALITY (% users of municipal piped and non-piped sources reporting no dirty water supply in last 3 months)					
City level SLB	98	96	96	78	60
City level SLB-C	**55.4**	**26.8**	**58.3**	**79.6**	**93.7**
Slum SLB-C	51.5	23.7	51.5	77.8	92.9*
Non-slum SLB-C	59.5	27.6	61.6	80	93.7
COMPLAINT REDRESSAL (municipal piped and non-piped sources)					
City level SLB	80	95	96	82	82
City level SLB-C	**6.8**	**1.5**	**1**	**6.6**	**2**
Slum SLB-C	5.4	2.6	2.2	12.4	0*
Non-slum SLB-C	8.8	1.2	0	4.9	2

* These findings are not considered salient since the number of slum households covered in the Jhunjhunu survey was very small, due to a small share of slum households in the city; lpcd: liters per capita per day.

Overall feedback
- The overall score for cities from Rajasthan was marginally higher compared to the other cities, primarily due to high performance on the access indicator, which offset the relatively poor performance on continuity;
- Overall performance for water supply was largely similar between slum and non-slum areas for Ajmer and Raebareli, but more differentiated in Jabalpur and Varanasi. In the latter case, this was attributable to significant inequities in access levels and, to a lesser extent, in scores for adequacy and water quality;
- The performance levels reported by cities (SLB scores) were roughly in alignment with citizen feedback (SLB-C scores) on most indicators, with the exception of quality and complaint redressal, where the gaps are substantial;

- Most respondents (63-85 percent) in all cities felt that the services had remained the same as in the previous year; 25-30 percent respondents in Ajmer, Jabalpur and Raebareli felt that services were better than in the previous year. Not much difference was observed in these responses between slum and non-slum areas; and

- In terms of priority areas of service delivery, water quality scored highest (80-99 percent) in Varanasi, Raebareli and Jabalpur, while pressure and adequacy were rated high in Ajmer and Jhunjhunu.

More detailed observations on each of the service aspects are provided below.

Access: The key findings are listed below and tabulated in Table 12.

- Respondents reporting access to water supply through household connections ranged from a high of 85-97 percent in Ajmer and Jhunjhunu to 37% in Raebareli;

- Feedback data showed access levels to be higher than reported (SLB) data for cities from Rajasthan, while it was the reverse for the other cities;

- Dependence on other municipal sources as a primary source of water was low: 29 percent for stand posts in

Jabalpur, 25 percent for hand pumps in Raebareli, and negligible in remaining cities;

- Eleven percent to 50 percent of respondents across the five cities reported primary dependence on private covered sources (mainly bore wells) for drinking or other purposes, the figure being highest in Raebareli (50 percent) and Varanasi (34 percent). The spatial maps for Jabalpur and Varanasi show greater dependence on private covered sources in the peripheral areas of the city;

- Roughly half the respondents reported incidence of water scarcity in the summer months, with the figure being as high as 67 percent in Ajmer and as low as 5 percent in Raebareli. During scarcity, respondents reported high dependence on private covered sources and government hand pumps; and

- Amongst those accessing municipal piped sources outside the house (for example, stand posts) or non-piped sources (for example, tankers), over half the respondents indicated willingness to take household connections. The figures ranged from 50-67 percent (the exception being Jhunjhunu, where the figure was 100 percent). The willingness to take household connections was greater in case of slum respondents (for example, in Ajmer, 75 percent slum areas versus 43 percent for non-slum areas).

TABLE 12: ACCESS TO WATER SUPPLY: SLB-C SURVEY FINDINGS IN FIVE SCALE-UP CITIES

	Primary source of water supply for drinking purposes				
Type of Source	Jabalpur	Varanasi	Raebareli	Ajmer	Jhunjhunu
Municipal	HHC: 55%	HHC: 59%	HHC: 25%	HHC: 97%	HHC: 66%
	Stand post: 29%	Hand pump: 5%	Hand pump: 25%		
Non-municipal	14% (11%)*	34% (29%)*	50% (50%)*	2%	33% (11%)*
	Primary source of water supply for other purposes				
Type of source	Jabalpur	Varanasi	Raebareli	Ajmer	Jhunjhunu
Municipal	HHC: 42%	HHC: 61%	HHC: 37%	HHC: 94%	HHC: 84%
	Stand post: 25%		Hand pump: 15%		
Non-municipal	27% (23%)*	32% (28%)*	48% (47%)*	4%	16% (10%)*

*(Private covered source figure in brackets).
Note: HHC: Household Piped Connection.

Continuity

- Feedback indicated daily water supply in all cities except Ajmer, where citizens reported four days of supply per week. On days when water is supplied, hours of supply varied from 0.4 to 1 in Jhunjhunu and Ajmer, to as much as four to five hours in Raebareli and Varanasi;

- Comparisons with SLB data show some variations – most significantly in Ajmer (four days versus seven days as per SLB data), and in Varanasi (4.5 hours versus 10 hours as per SLB data);

- The responses for duration of supply differed between slum and non-slum areas by a modest 7-8 percentage points except in Raebareli, where the difference was more marked – about 20 points. Variance exists across

different parts of the cities, as observed from the geographic spread of responses. Spatial maps (see Figure 8) reveal a clustering in the responses for days and hours of supply, suggesting inequities in the distribution of supply across the city, which is also reflected in ward level scores; and

- In all cities, respondents reported high levels (85-97 percent) of predictability and convenience in the timing of supply. In Varanasi, the score for predictability was lower (84 percent) than for convenience of timing (91 percent), while it was the reverse in the case of Ajmer (97 percent and 86 percent, respectively).

The survey findings for continuity are illustrated in Figure 8.

FIGURE 8: CONTINUITY OF WATER SUPPLY: SLB-C SURVEY FINDINGS ACROSS THE FIVE SCALE-UP CITIES
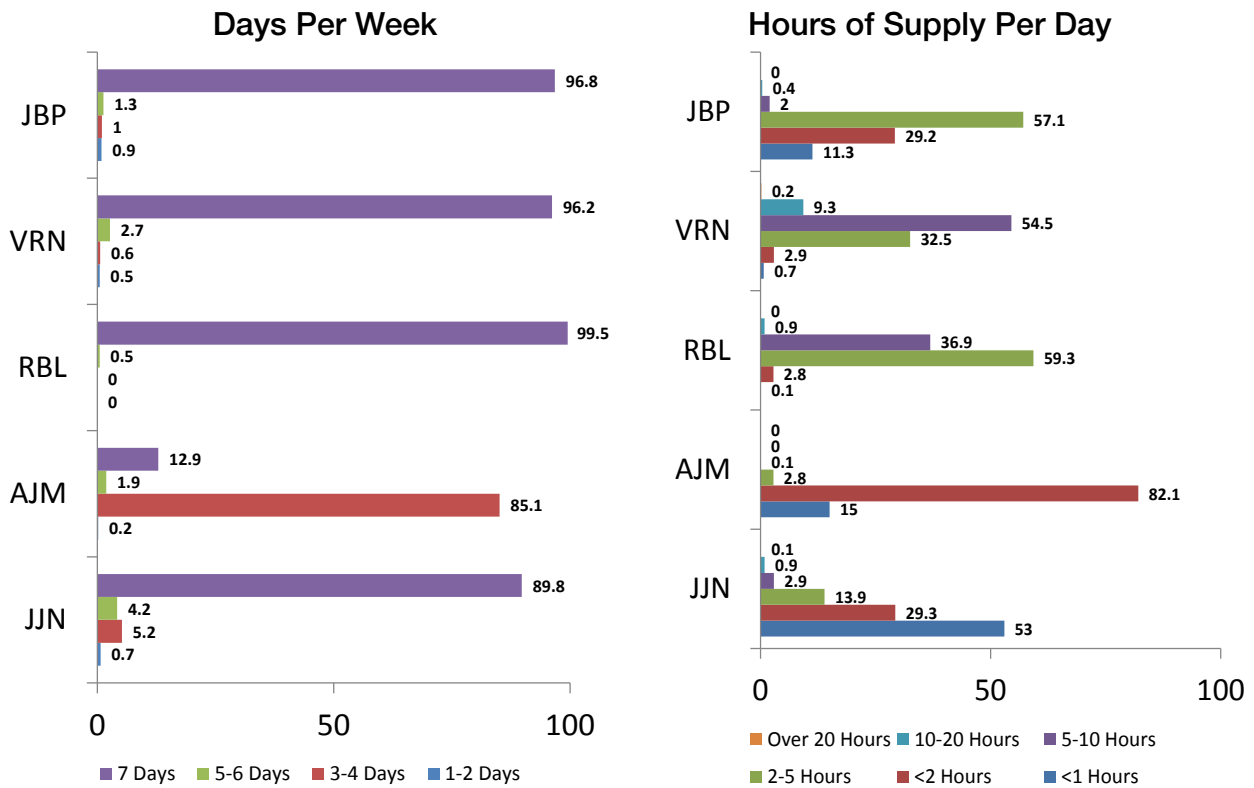
Note: JBP: Jabalpur, VRN: Varansi, RBL: Raebareli, AJM: Ajmer, JJN: Jhunjhunu.

JABALPUR: FREQUENCY OF SUPPLY – HOURS OF SUPPLY PER DAY (PIPED SOURCES)
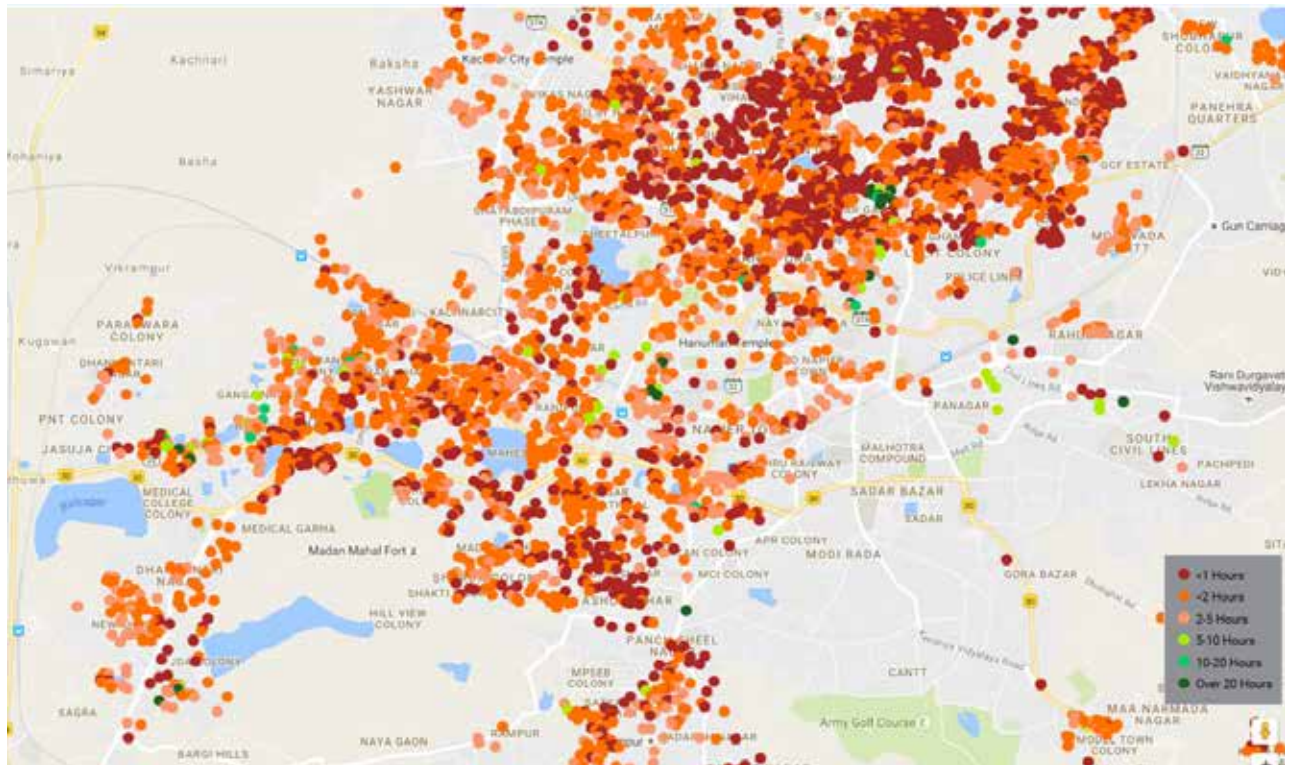
AJMER: FREQUENCY OF SUPPLY – DAYS PER WEEK (PIPED SOURCES)
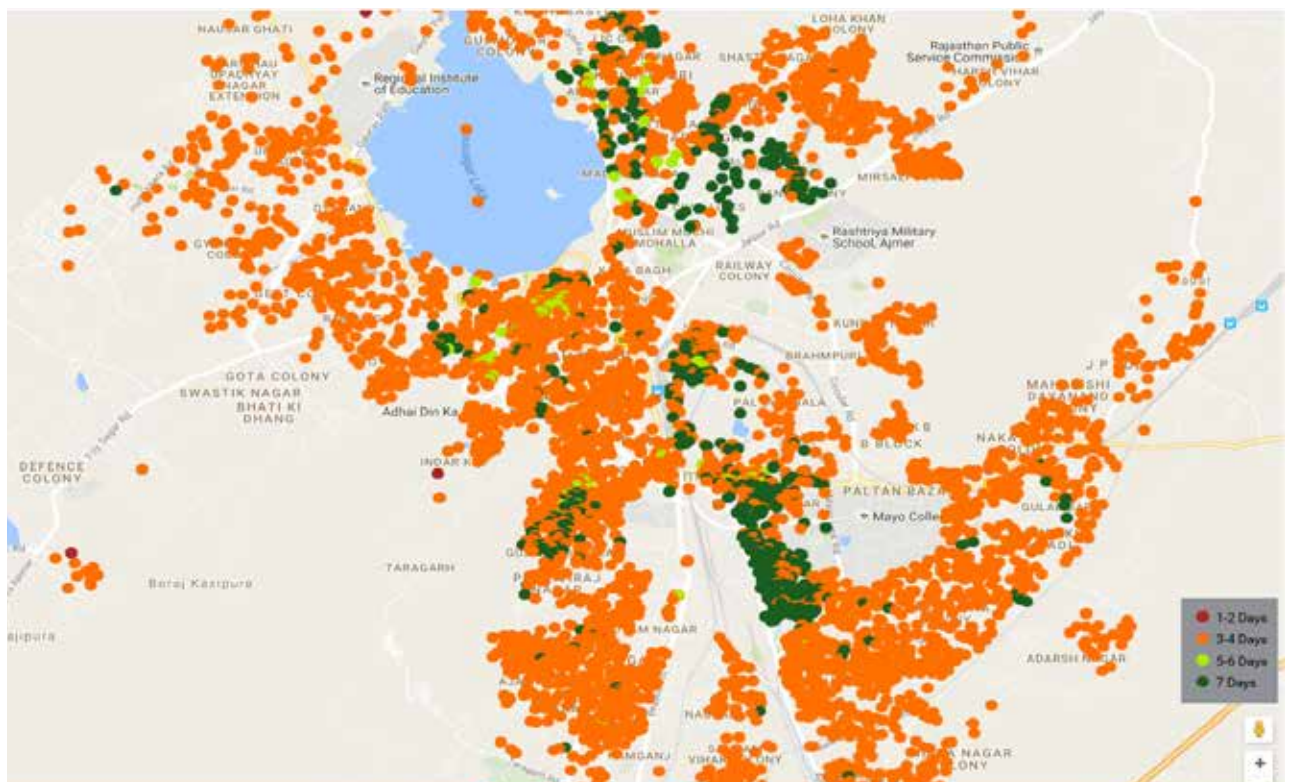
Adequacy

- Overall about 80 percent of respondents reported adequate supply of water from municipal sources – the outliers being Raebareli (95%) and Jhunjhunu (56 percent). The high score in Raebareli could be attributed to the relatively low share of the population reporting dependence on municipal sources for water. The low score in Jhunjhunu is mirrored in the low quantity of water supplied to the city (70 liters per capita per day (lcpd));

- While feedback on adequacy is similar for Varanasi and Ajmer (81-82 percent), and the quantity of water supplied (as per SLB data) differs widely (275 lpcd for Varanasi and 100 lpcd for Ajmer). This indicates the high level of inefficiencies (water losses) and inequities prevalent in the distribution system of Varanasi;

- There was more variance in adequacy levels across user groups in Jabalpur – between slum (70 percent) and non-slum (84 percent) areas, and also across users accessing different sources of water (64 percent for outside piped sources versus 85 percent for household piped connections); and

- Ward-level scores showed considerable variation, ranging from 14-100 percent in Jhunjhunu, 35-98 percent in Jabalpur, and 60-98 percent in Ajmer.

Water quality

- Overall feedback for quality of water supplied from municipal sources was poor in most cities. Only 27 percent of respondents in Varanasi reported no dirty water supply in the preceding three months. The figures for Jabalpur and Raebareli were 55 percent and 58 percent, respectively, as against 80 percent for Ajmer and 94 percent for Jhunjhunu;

- The above was in marked contrast to performance reported by cities. The cities with the worst feedback (Varanasi, Raebareli and Jabalpur) reported 96-98 percent compliance with water quality standards. In contrast, the cities with comparatively better feedback reported lower levels of compliance (79 percent for Ajmer and 60 percent for Jhunjhunu). The variance between reported performance and citizen feedback was comparatively lower for the cities from Rajasthan than for the other cities;

- The percentage of respondents reporting regular dirty water supply (more than three times, or always) was as high as 48 percent in Varanasi and 22 percent in Jabalpur; and

- Variance across slum and non-slum areas was not marked, but was more evident when comparing across users of different sources of water. In Jabalpur and Ajmer, frequent incidence of dirty water supply (more than three times, or always) was reportedly less for household piped connection than other sources; however, it was higher than other sources in Varanasi and Raebareli.

Table 13 summarizes the incidence of dirty water supply in the preceding three months across the five cities.

Complaint redressal

- Overall the share of respondents lodging complaints was low in all five cities, ranging from 5 percent in Raebareli to a maximum of 13 percent in Varanasi; the percentage being 5-7 percent for the remaining three cities;

- Of those lodging complaints, only about a third of respondents reported resolution; the figure was just 17 percent for Varanasi, but higher at 47 percent for Raebareli. One of the factors contributing to this was the nature of the complaint – for example, broken hand pumps (the most common complaint in Raebareli) can be more easily addressed than water quality complaints (most common in Varanasi). Rates of resolution varied

TABLE 13: INCIDENCE OF DIRTY WATER SUPPLY IN THE PRECEDING THREE MONTHS: SLB-C SURVEY FINDINGS ACROSS THE FIVE SCALE-UP CITIES

	Jabalpur	Varanasi	Raebareli	Ajmer	Jhunjhunu
Never	56%	27.1%	62.6%	79.8%	93.7%
Less than three times	23.2%	25.7%	29.3%	14%	5.1%
More than three times	15.5%	36.1%	16.5%	4%	1.1%
Always	6.3%	12.3%	2.3%	2.5%	-%

between slum and non-slum areas, with no clear trend evident;

- The two main types of complaint were irregular water supply and water quality (with the exception of Raebareli, where breakdown of hand pumps was the most common complaint). An overwhelming share of complaints (81 percent) in Varanasi was about poor water quality, which mirrors the aforementioned low score on the water quality parameter (see Table 14);

- In cities where services are delivered by the municipal corporation, a substantial share of complaints were lodged through the municipal councilor (70 percent in Jabalpur, 38-39 percent in Varanasi and Raebareli), compared to the cities where services are provided by the state department (Ajmer 10 percent, Jhunjhunu 3 percent). Other preferred modes of complaint were personal or group visits to the municipal/department office, which accounted for 82-88 percent complaints lodged in Ajmer and Jhunjhunu, and about 60 percent in Raebareli and Varanasi. The use of helplines, SMS or online channels for lodging complaints was negligible in all cities;

- The preferred mode of lodging complaints varied between respondents from slum and non-slum areas. In cities served by the municipal body, the preference for channeling complaints through the municipal councilor was even greater for respondents from slum areas (80 percent in Jabalpur versus 60 percent for respondents from non-slum areas; in Raebareli, 60 percent versus 23 percent); and

- The reported time taken to respond to complaints varied as follows:

  1. 40 percent in Ajmer reported that responses took over seven days;

  2. 37 percent in Jabalpur and 47 percent in Jhunjhunu reported a response within two or three days;

  3. 50 percent in Raebareli reported a response in between four and seven days; and

  4. 63 percent in Varanasi reported a response between two and seven days.

Table 14 summarizes the key findings in respect to complaint redressal across the five scale-up cities.

TABLE 14: COMPLAINT REDRESSAL FOR WATER SUPPLY SERVICES: SLB-C SURVEY FINDINGS ACROSS THE FIVE SCALE-UP CITIES

Lodging and resolution of complaints across five cities
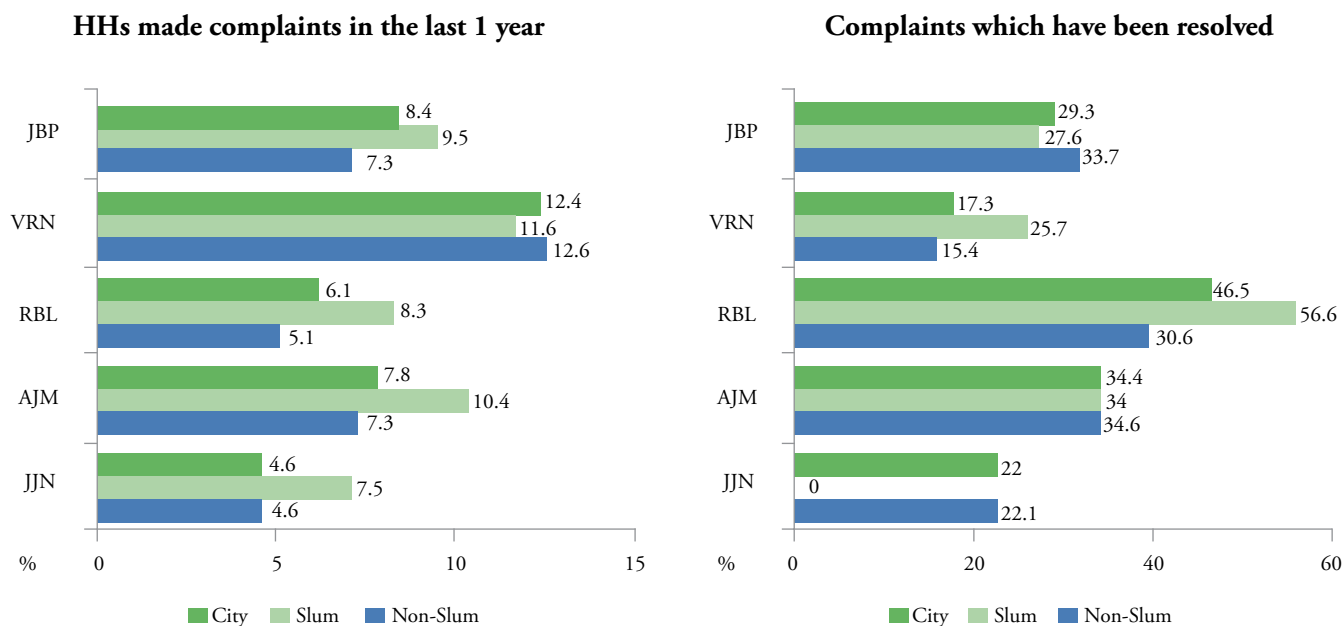
Note: JBP: Jabalpur, VRN: Varansi, RBL: Raebareli, AJM: Ajmer, JJN: Jhunjhunu.

Most common complaints across the five cities

	Jabalpur	Varanasi	Raebareli	Ajmer	Jhunjhunu
Irregular water supply	71.3%	44%	12.9%	46.7%	85.3%
Poor quality of water	25.2%	81%	30.7%	19.1%	11.3%
Breakdown of hand pump	-	-	50.5%		
False meter reading	-	0.4%	-	3.3%	-
Billing errors	1%	5.5%	-	19.6%	0.7%
Others	23.3%	9.6%	18.8%	24.1%	9.3%

Spatial representation of type of complaints lodged in Varanasi
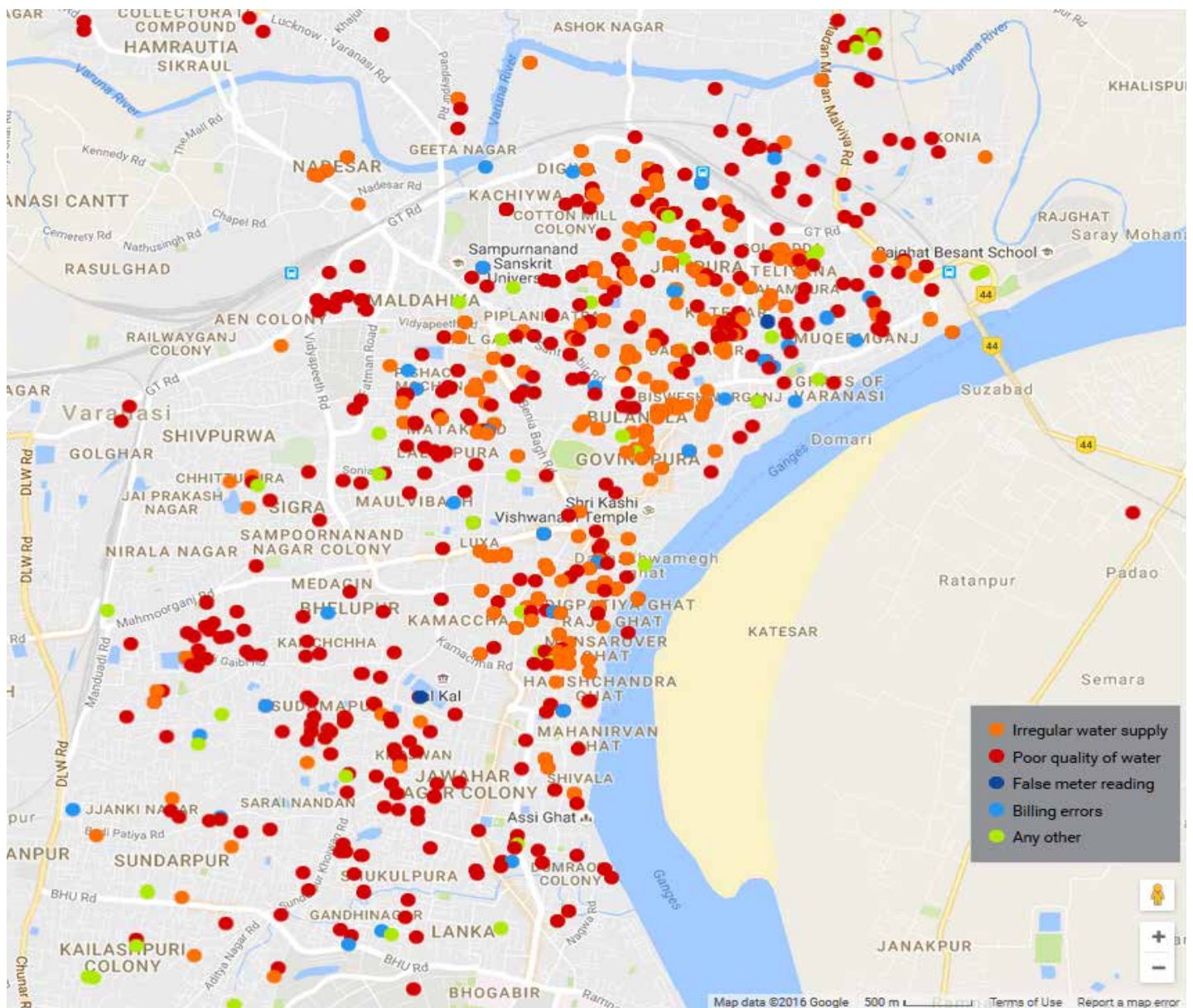
Bill payments

- Billing is on a fixed charge basis in all cities except Ajmer, where 82 percent respondents reported availability of meters but only 52 percent of them reported the meters to be functional;

- The frequency of billing was reported to be once in two months for Ajmer and Jhunjhunu, while it was annual in the other cities;

- The mode of bill payment varied across the cities. In Jabalpur and Varanasi, 93-96 percent of respondents paid their bills at municipal/department counters, in Raebareli 56 percent paid through municipal agents, while in Ajmer and Jhunjhunu 58-61 percent of respondents paid through the e-Mitra kiosk. Payment through online channels was negligible; and

- Over 90 percent of respondents found the location of designated counters to be convenient for payment of bills; there was marginal scope for improvement in Raebareli and Ajmer. Counter timings were reported to be convenient by almost all (over 95 percent) respondents.

Satisfaction and comparison with previous year

- In all five cities, 90 percent or more respondents felt that, compared to the previous year, services had remained unchanged (60-80 percent) or improved (20-30 percent). Not much variation was evident between slum and non-slum respondents;

- Adequacy of supply featured among the top three priorities for citizens in all five cities. More respondents from slum areas than non-slum areas prioritized adequacy. Water quality was the highest priority in Varanasi, Raebareli and Jabalpur; other important parameters were adequacy and pressure of supply; and

- Eighty to 90 percent of respondents were either 'fully' or 'partially' satisfied with water supply services, with the exception of Jhunjhunu, where the figure was lower (67 percent). The share of 'fully satisfied' respondents was lowest in Varanasi (27 percent). In all cities, this figure was lower for respondents in slum areas compared to non-slum areas.

The findings are summarized in Table 15.

TABLE 15: SATISFACTION WITH WATER SUPPLY SERVICES: SLB-C SURVEY FINDINGS ACROSS THE FIVE SCALE-UP CITIES

Comparison of water supply services with previous year across five cities					
	Jabalpur	**Varanasi**	**Raebareli**	**Ajmer**	**Jhunjhunu**
Better than before	28%	20%	25%	31%	14%
Same as before	63%	67%	73%	57%	85%
Worse than before	7%	10%	1%	8%	1%
Priorities related to water supply services as expressed by citizens					

TOP 4 PRIORITIES RELATED TO WATER SUPPLY
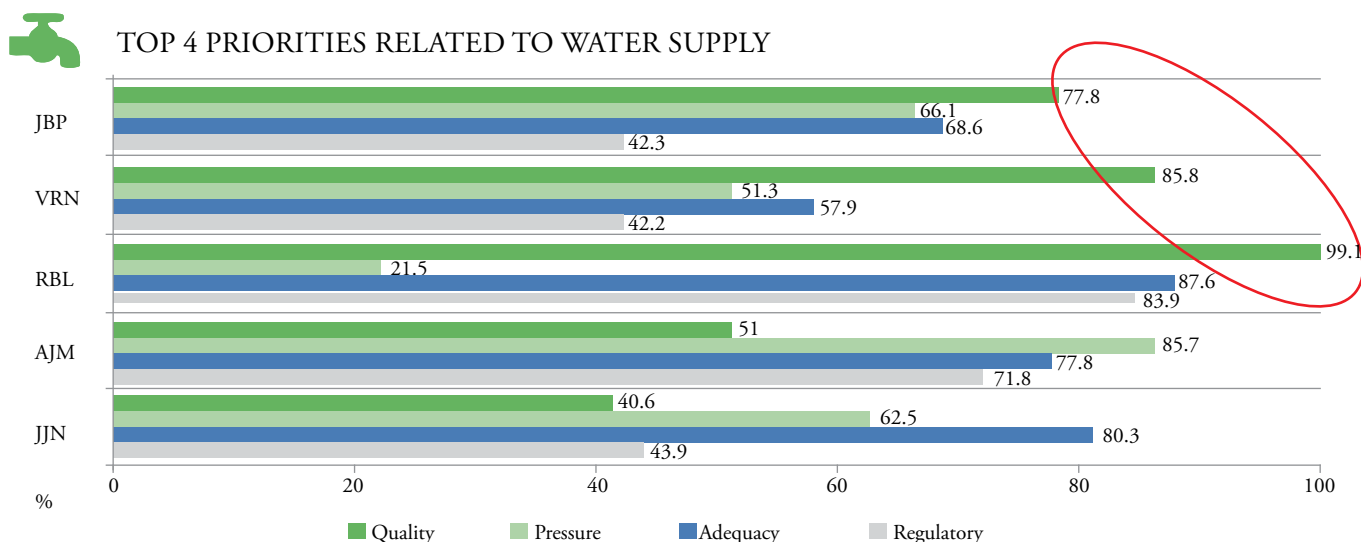
Note: JBP: Jabalpur, VRN: Varansi, RBL: Raebareli, AJM: Ajmer, JJN: Jhunjhunu.

4.2.2 Survey Findings for Sanitation in the Scaled-up Demonstration

The key survey findings across the five cities are listed in Table 16.

TABLE 16: SURVEY FINDINGS IN THE FIVE SCALED-UP DEMONSTRATION CITIES – SANITATION

OVERALL SCORES					
	Jabalpur	**Varanasi**	**Raebareli**	**Ajmer**	**Jhunjhunu**
City level SLB-C Score	94.1	97.7	82.3	96.2	95
Slum SLB-C	89.7	93.4	55.4	85.9	0.7*
Non-slum SLB-C	98.1	98.9	91.9	98.3	98.5
ACCESS TO TOILETS (% reporting access to individual, shared or community toilets)					
City level SLB	71	82	74	93	65
City level SLB-C	**94.1**	**97.7**	**82.3**	**96.2**	**95**
Slum SLB-C	89.7	93.4	55.4	85.9	0.7
Non-slum SLB-C	98.1	98.9	91.9	98.3	98.5
TOILET USAGE (% reporting usage of toilets by all family members)					
City level SLB	-	-	-	-	-
City level SLB-C	**99.6**	**99.5**	**99.6**	**99.7**	**99.3**
Slum SLB-C	99.4	98.7	98	98.7	100
Non-slum SLB-C	99.7	99.8	100	99.9	99.3
ACCESS TO SEWERAGE (% with connections to municipal sewerage)					
City level SLB	-	81	49	0.55	0.70
City level SLB-C	**1.7**	**81.9**	**48.5**	**1**	**0.70**
Slum SLB-C	0.5	64.6	16.8	0.6	0.70
Non-slum SLB-C	2.8	86.9	59.7	1.1	0.70
ALTERNATE DISPOSAL**(% reporting wastewater disposal to onsite systems)					
City level SLB-C	**84.3**	**12.1**	**34.3**	**78.8**	**98.6**
Slum SLB-C	77.7	23.5	66.4	78.7	-
Non-slum SLB-C	89.5	9.1	32.3	78.9	98.6

*Sample size for slum households is very small   **Not used for calculating overall score

- In sanitation, the overall scores for all cities are in a similar range (94-98 percent) except for Raebareli (82 percent), where the lower score is primarily due to lower levels of access to toilets;

- Overall sanitation scores for slum and non-slum areas show divergence in Raebareli and Ajmer, primarily due to differences in toilet access. In Raebareli, the gap is widened by variance in access to sewerage between slum (65 percent) and non-slum (87 percent) areas;[8] and

- The performance levels reported by cities (SLB scores) show wide variation from citizen feedback (SLB-C scores) on toilet access,[9] but they are almost identical for access to sewerage (SLB data are not available for Jabalpur). The level of toilet access reported by cities is lower than indicated by citizen feedback.

More detailed feedback is provided below on specific service aspects.

---

[8] Jhunjhunu has not been considered in this analysis since the number of slum households in the city is very small, and hence so is the corresponding sample size.

[9] There is no SLB indicator for toilet usage.

Access to toilets

- Toilets at home are the most common type of toilet facility accessed by respondents (82-95 percent). Less than 2 percent of respondents report use of shared or community toilets (the figure is slightly higher for Jabalpur, at 4 percent);

- In Raebareli, 18 percent of respondents report lack of access to any kind of toilet; the figure is higher (45 percent) for respondents in slum areas. In other words, nearly half the respondents in slum areas of Raebareli have no access to a toilet facility. In other cities, 10-15 percent of slum respondents reported no access to toilet facilities;

- The main source of water in toilets is tap water inside the toilet, with the figure ranging from 41 percent for Jabalpur to 88 percent in Ajmer. A sizeable share of respondents also carry water by hand: 39 percent in Jabalpur, 35 percent in Varanasi and 21 percent in Jhunjhunu;

- Community toilets in Jabalpur are mostly (51 percent) managed by the Municipal Corporation, and are also mostly free of charge (86 percent). Feedback on maintenance is poor, with 59 percent users of community toilets indicating that these toilets are rarely or never maintained; and

- Of those not having access to a toilet, the main reason given for not having a toilet at home was that it was too expensive (50 percent in Varanasi to 84 percent in Raebareli; the figures were higher for slum areas). Other reasons included insufficient space (all cities except Raebareli) and inadequate water supply (all cities except Jhunjhunu).

The findings are summarized in Table 17.

TABLE 17: ACCESS TO TOILET: SLB-C SURVEY FINDINGS ACROSS THE FIVE SCALE-UP CITIES

	Feedback on access to toilets									
	Jabalpur		Varanasi		Raebareli		Ajmer		Jhunjhunu	
	City	Slum	City	Slum	City	Slum	City	Slum	City	Slum
Own toilet at home	90%	84%	96%	92%	82%	55%	95%	85%	95%	1%
Shared toilet	3%	3%	1%	0.5%	0.4%	0.5%	1%	1%	0.3%	-
Community toilet	1%	2%	0.4%	0.4%	0.2%	0.1%	0%	0%	0%	-
No toilet facility	6%	10%	2%	7%	18%	45%	4%	14%	5%	-

JABALPUR – TOILET ACCESS (LOWER ACCESS IN EASTERN SIDE OF CITY)
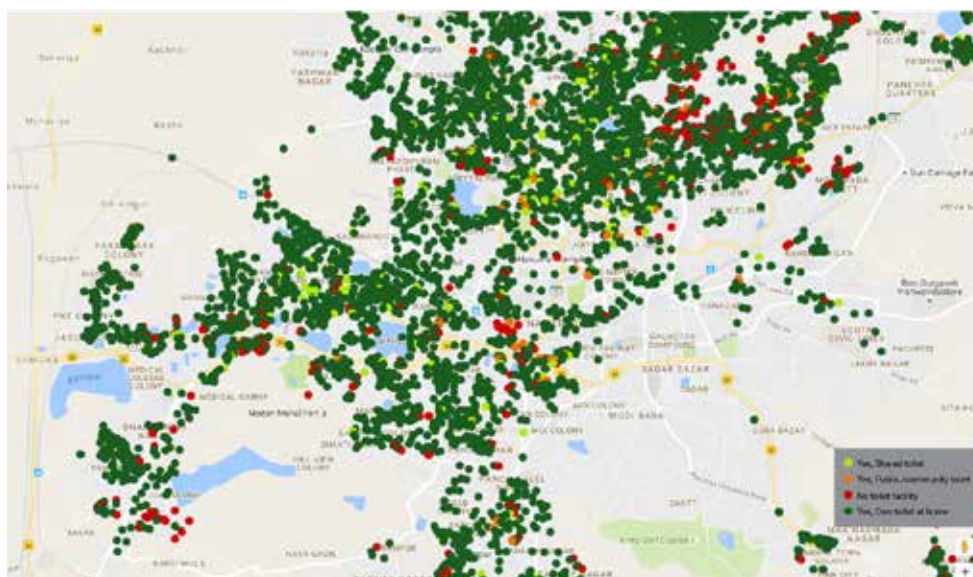
RAE BARELI – TOILET ACCESS (POCKETS LACKING ACCESS IN NORTH AND EAST OF CITY)
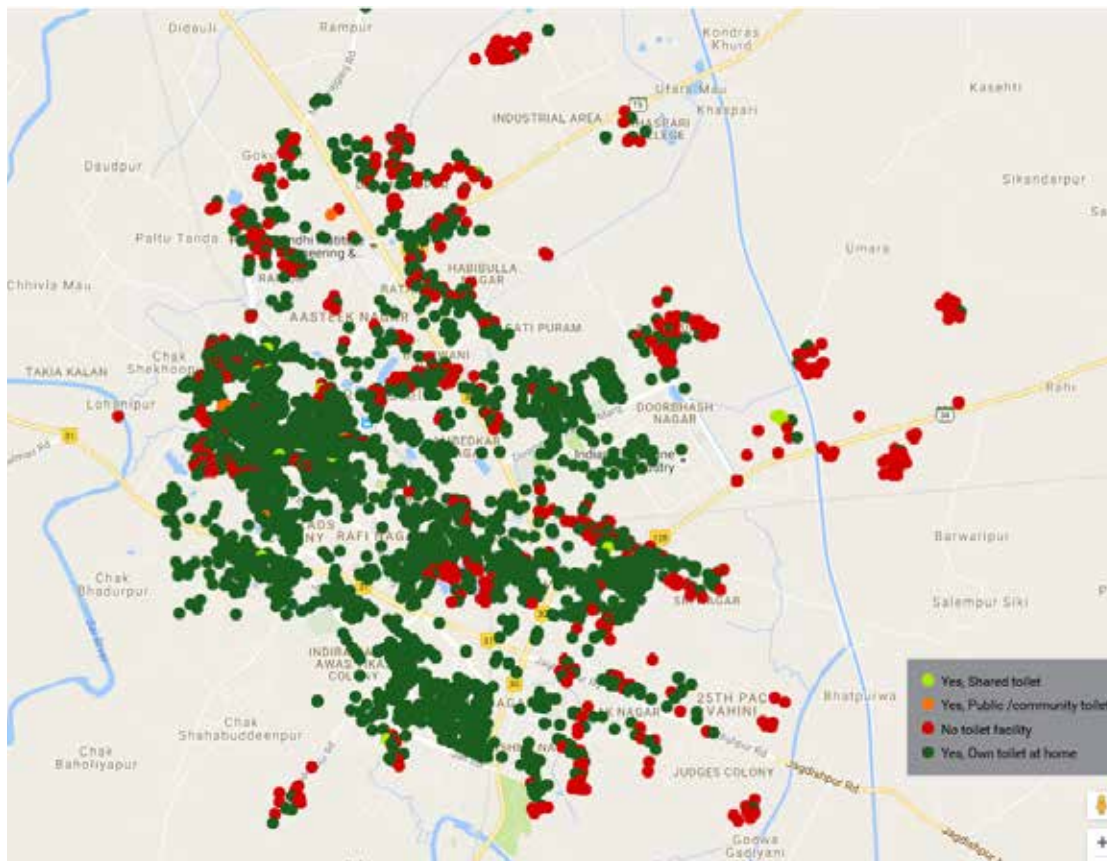
Toilet usage

- Almost all respondents (over 99 percent) with access to toilets report that all family members use them. Among the few exceptions, it is mainly adult males or young boys who are reported not to use toilets; and

- Reasons for not using toilets range from lack of water supply to inadequate provision for disposal of wastewater, lack of ventilation or fear that the toilet facility will fill up (onsite systems).

Access to sewerage

- Citizens report lack of access to sewerage infrastructure in all cities except Varanasi (82 percent) and Raebareli (49 percent). The figures are almost identical to SLB data reported by the cities;

- In Varanasi and Raebareli, slum areas report lower levels of access to sewerage compared to non-slum areas (65 percent and 87 percent, respectively, in Varanasi; 17 percent and 60 percent in Raebareli). Spatial maps also show that sewerage infrastructure is lacking mostly in the peripheral areas of cities; and

- Among those not connected, 24 percent of respondents in Ajmer and 33 percent in Varanasi report that a sewer facility is available near their house. This shows ready potential for improved wastewater collection in the city, without much need for additional investment.

FIGURE 9: HOUSEHOLDS CONNECTED TO SEWER

Varanasi
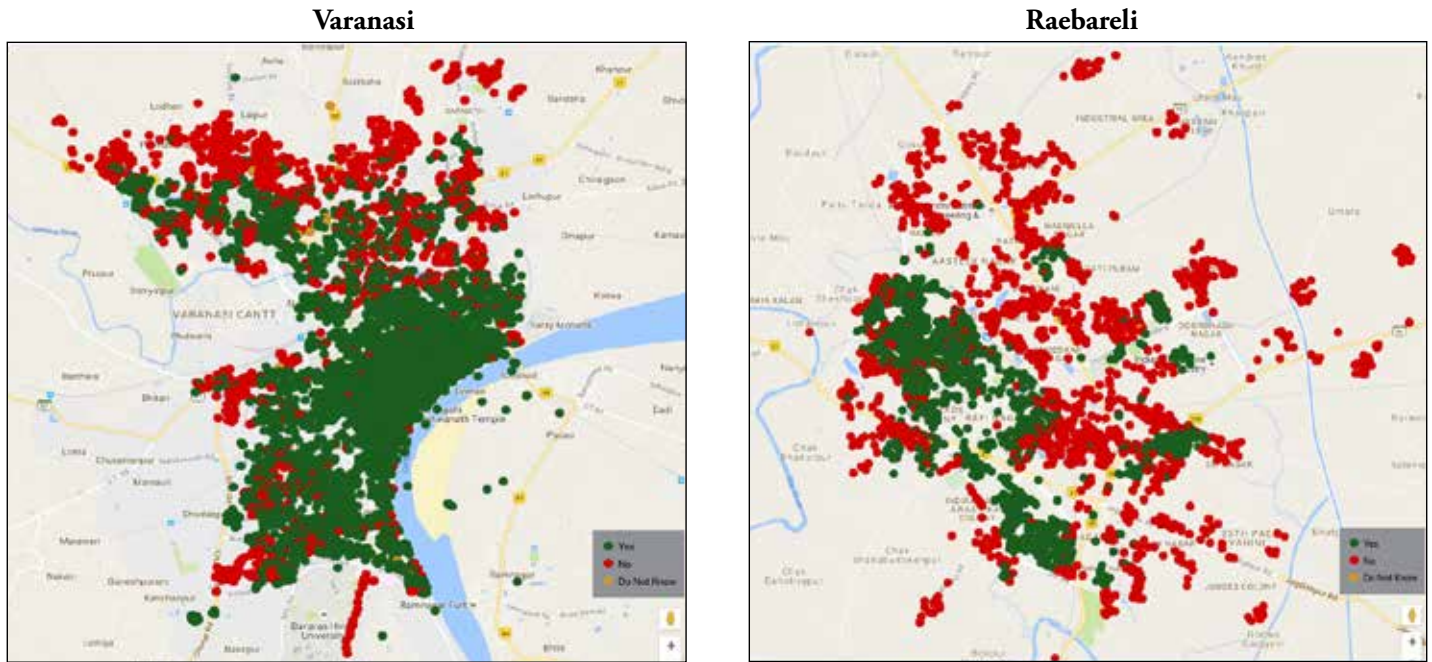
Raebareli

Alternate disposal

- Disposal of wastewater from toilets through alternate (onsite) systems is high in cities lacking sewerage infrastructure (78-94 percent), and substantial even in Raebareli (48 percent);

- In Jabalpur and Ajmer, 14-18 percent of respondents report disposal into open drains, while in Varanasi and Raebareli 4-8 percent dispose into soak pits;

- Despite the extensive dependence on onsite systems, most respondents have never got their pits or septic tanks

cleaned (30 percent in Ajmer, 55 percent in Jabalpur and Raebareli, and 86 percent in Jhunjhunu), or are not aware whether any cleaning had been done (24-33 percent of respondents in Ajmer and Jabalpur); and

- Of those getting their tanks/pits cleaned, municipality services are used most often in Ajmer, Jabalpur and Raebareli, followed by use of local labor. Ninety percent either report frequency of cleaning to be less often than once in two years, or are not aware of how frequently cleaning is done.

FIGURE 10: SLB-C FINDINGS ON ALTERNATE DISPOSAL ACROSS THE FIVE CITIES

HHS using septic tank soak pit & pit toilets as alternate sewerage disposal

City	Non-slum	Slum	City
JBP	18.9	77.7	84.3
VRN	9.1	25.5	12.1
RBL	32.3	66.4	38.4
AJM	79.9	78.7	78.8
JJN	98.6	100	98.6
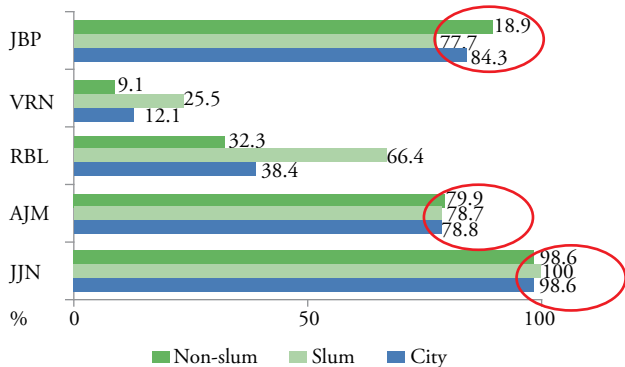
Disposal of waste water from toilets to open drain

City	Non-slum	Slum	City
JBP	6.5	20.5	14
VRN	1.9	6.5	2.9
RBL	2.1	3.5	2.5
AJM	18.8	19.5	18.5
JJN	2.2	0	2.2

Legend: ■ Non-slum ■ Slum ■ City
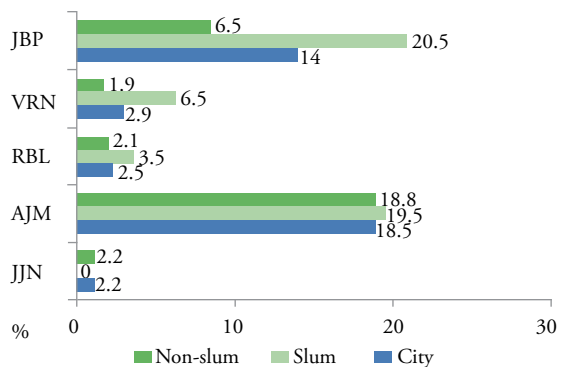
Note: JBP: Jabalpur, VRN: Varansi, RBL: Raebareli, AJM: Ajmer, JJN: Jhunjhunu; HHs: households.

4.3 Key Findings of CATI Survey and SMS Polls

4.3.1 Telephone Survey in Pimpri Chinchwad

As a follow up to the MAPI household survey in 2012, a telephone survey was was conducted in PCMC in 2014. The findings showed a trend towards improvement in water and sanitation services on some attributes, and a slight decline in others. Responses were stratified across six administrative zones (as against 47 water zones in the 2012 survey), as telephone numbers obtained from PCMC were mapped to administrative zones rather than water zones.

The survey found that **access to water** through household piped connections had increased from 83 percent to 94 percent, most likely due to PCMC's campaign to provide new connections between 2012 and 2014. Regularity of receiving bills and ease of payment were considerably enhanced owing to provision of Citizen Facilitation Centers in all zones and initiatives such as SARATHI. However, the phone survey showed a slight dip in the score for adequacy of water supplied, which could be attributed to the severe water shortage faced by PCMC in the summer of 2014.

Feedback for **quality of water** showed some improvement but remained poor (59 percent), emerging as a continued area of concern for PCMC. Similarly, performance on

complaint resolution continued to be low (12 percent). A significant shift was that only 28 percent of respondents had lodged their complaint through the councilor (as against 74 percent in 2012), with a larger share (60 percent) routing their complaints directly to the zonal/city engineer.

Considerable variance was evident in performance across zones. Analysis showed that zones C and B needed most attention in terms of water quality, while zones C and E needed to improve the duration of water supply. Select survey findings are provided in Figure 11.

On the whole, 63 percent of respondents reported better service delivery compared to the year before, and about 96 percent expressed willingness to provide feedback in the future.

At the request of PCMC, the survey included a question on whether the respondent wanted 24x7 water supply, for which a project was under development. Feedback showed that opinion was almost equally divided between those for and against it. Reasons given by those who were 'not interested' in 24x7 (see Figure 11) included wastage of water. This highlighted the need for better communication of the advantages of continuous water supply.

FIGURE 11: CATI SURVEY FINDINGS ON CONTINUITY OF WATER SUPPLY AS REPORTED BY PCMC CITIZENS
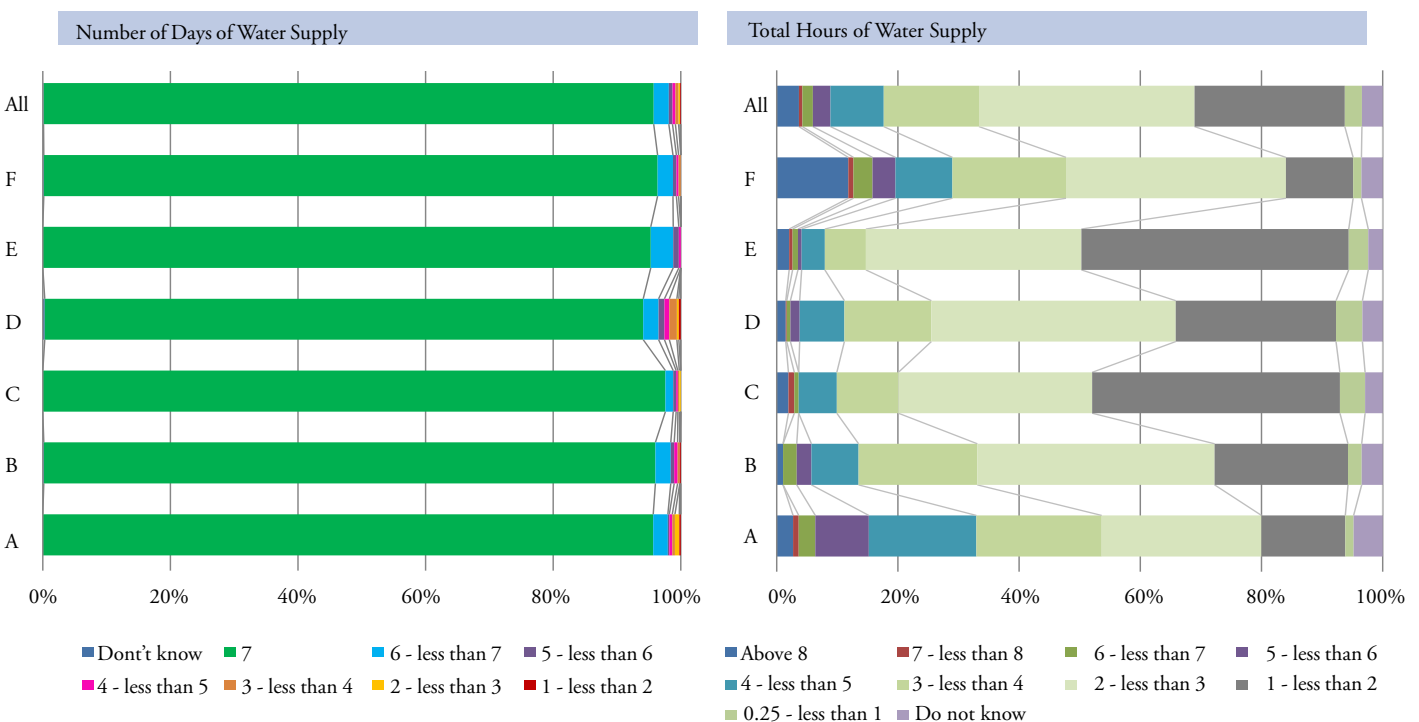
Reasons for not wanting 24x7 water supply

People will waste water

Just give 1 hour water with full pressure

People will waste water if they get it for 24 hours

Getting sufficient water from PCMC 27x7 not needed

Bill badh jayega   Daily 2-3 hours of water supply will be sufficient

Existing water supply is sufficient

No need of 24x7 water supply

4.3.2 SMS Poll Findings in Pimpri Chinchwad

The design of the SMS polls conducted in 2015 was informed by the findings from the 2014 telephone survey. The polls found the highest incidence of dirty water supply was in Zone F (13 out of a total of 57 incidents reported). Overall, there was mixed feedback on adequacy of water supply, with Zones D and F reporting lower rates. More than 68 percent of the consumers who participated in the survey were satisfied with the timing of water supply. Consumers from Zone C reported the lowest complaint resolution rates. Zone F consumers reported some inconvenience related to the location of bill collection centers, while a high share of responses from Zone E indicated that bills were not received on time. The open-ended questions received a poor response rate (five out of 1,200). Trend questions with a rotating panel of respondents received consistent responses, whereas the response rate to a poll repeated over time with a fixed set of respondents declined with each successive poll.

KEY POINTS
- Project implementation experience demonstrated the applicability of the SLB-C approach across diverse institutional environments and scales of implementation
- The involvement of local functionaries in the preparatory process helped better planning of the survey, and greater ownership at the dissemination stage

5.1 Implementation Experience

Outcomes

- The feedback surveys were seen to provide concrete and relevant data on the status of water supply and sanitation services which helped inform cities in preparation of their plans and proposals for funding under various urban programs such as AMRUT, Smart Cities and Swachh Bharat;

- The credibility of the process and acceptance of the findings were enhanced by provision of granular feedback at the ward level, spatial maps and access to detailed survey records with GPS and time-stamping. This also helped generate more interest among councilors, highlighted service inequities, provided actionable information and enabled prioritization of interventions;

- The demand-side metrics provided a reality check for the SLB data reported by cities. While they validated the performance reporting on some metrics (for example, coverage, continuity), they also highlighted a few significant gaps between reported performance and actual service experience (for example, water quality, complaints); and

- Government to citizen communication was activated through SMS messages sent at different stages of the survey – "thank you" messages on collection of feedback, introductory messages for CATI and SMS surveys, and dissemination of web links to summary survey findings.

Program design

- The *alignment of SLB-C with the SLB program* helped in two ways. Firstly, it secured the involvement of the MoUD in the rollout of the program. Secondly, use of SLB terminology helped create greater receptivity to

engage in the exercise among municipal functionaries, and greater use of the data in plans;

- The project implementation experience demonstrated the applicability of the SLB-C approach across *diverse institutional environments and scales of implementation*, from city level to local community;

- The use of an *integrated and modular ICT platform* with built-in questionnaires, survey management functionalities and data analytics enabled implementation across multiple cities within a short timeframe, with a limited number of technical experts. Once the platform is available, the incremental cost for each survey is limited to acquisition of mobile devices, survey planning, training, field work for data collection and survey monitoring, and dissemination of findings. Time and costs associated with data input, analysis, and report preparation are eliminated;

- Field work was conducted by *locally recruited manpower* (for example, students from local colleges, institutes), which helped to improve the optics of the exercise. It was seen as an assessment by the city's own residents rather than outsiders, making the councilors and functionaries more receptive to the survey findings. It also demonstrated local capacity to replicate such ICT-based exercises in future; and

- The *multiple channels for collecting feedback were found to be complementary*. MAPI household surveys provided detailed feedback on services and helped to create a profiled database of respondent contact numbers; CATI surveys provided a quicker (but less robust) means of doing follow-up tracking on service aspects; and SMS polling helped to track specific areas of concern. The experience in PCMC showed that municipalities could

use a mix of mechanisms to obtain feedback. The low share of complaints lodged through formal channels such as helplines, SMS and online feedback also showed that these mechanisms need to be accompanied by proactive feedback collection to obtain a more complete picture of citizen experience and facilitate engagement.

Stakeholder engagement and response

- Implementation of SLB-C in all cities was undertaken in *close coordination with local functionaries*. Their involvement in the preparatory process helped better planning of the survey, and greater ownership at the dissemination stage. Dissemination activities in all cities involved participation of the municipal mayor, commissioner and head of the service department. Municipality logos were used on the SLB-C online dashboard, and several municipal websites provided links to the SLB-C online dashboard;

- The *extent of engagement of local functionaries* varied across the cities at different stages of implementation. Some of the *influencing factors* which supported higher levels of responsiveness were the extent to which the city was responsible for service delivery; the technical and financial capacity of the service-providing unit; whether service improvements were being planned; and the extent of cohesion in the local polity;

- As part of the implementation approach, councilors were involved only at the dissemination stage. There were differing views on the *need to involve councilors from the preparation stage* onwards. The case in favor is that they are closely linked to citizens on issues related to service delivery; the case against is that it could bring undue pressure on the survey implementation process; and

- Even while the feedback surveys captured the citizens' perspective and provided useful information to improve the dialog on service delivery, there were limits to the extent of citizen engagement facilitated through this process. *More sustained support is required to capacitate local citizen groups and functionaries* to engage in a meaningful dialog on service delivery and enable citizen participation in decision making.

> In summary, the Technical Assistance (TA) achieved its stated objectives with respect to providing a systematic means to capture citizen feedback,

which could serve as a reality check on reported data; enabling granular analysis of service levels, which highlighted inequities within the city; and helping to inform planning processes. These features made it more possible to hold providers accountable for delivery of service outcomes, and enabled integration of SLB-C in the national urban program and the World Bank project. However, the TA achieved limited success in facilitating citizen dialog on service delivery, which was seen to require more sustained engagement for capacitating and generating awareness among citizen groups, local functionaries, and other stakeholders, especially in cities with weak service providers lacking in customer orientation. Moreover, delivering service improvements on a sustained basis will require other enabling conditions such as role clarity, rationalized incentives, technical capacity, financial resources for improvements and citizen-oriented local leadership.

5.2 Survey Findings on Service Levels

- *(Overall)* Feedback for water supply tended to be better on access levels but poorer on service quality aspects. Poor water quality emerged as an important area of concern for citizens in most cities. This also resulted in high dependence on alternate sources of water (for example, private bore wells), even in cities otherwise having adequate water supply (for example, Varanasi, Jabalpur). Other areas of priority were adequacy and regularity of supply. Toilet access was reasonable in most cities except Raebareli, but sewerage was lacking in all except two cities (Varanasi and Raebareli), where coverage was also poor.

- *(Alignment between SLB and SLB-C)* There appeared to be greater alignment in supply- and demand-side data for infrastructure-based metrics (for example, household connections, toilet access, sewerage access, metering). Significant gaps were observed in metrics linked to service quality (for example, water quality, complaint redressal and adequacy). This resonates with the sector's accountability context, which emphasizes infrastructure creation (requiring coverage data to be reported for preparation of projects and plans) over service delivery.

- *(Alignment between SLB and SLB-C)* For water supply access, performance as reported by the SLBs

was lower than corresponding SLB-C metrics for the two cities from Rajasthan, while the reverse was true for the other cities. On water quality, the reported performance was more aligned with citizen feedback for cities from Rajasthan than other cities, where the gaps were substantial. Given that, in Rajasthan, water supply services are provided by a state department (rather than city departments, as in other cities),[10] it would useful to explore if these institutional arrangements could have a bearing on data quality or degree of conservatism in reporting. Similarly, it would be useful to analyze why reported data on toilet access is lower than feedback data in all cities, and whether there are any incentives for cities to under-report on these.

- **(Equity)** Granular analysis revealed service inequities between slum and non-slum areas, mainly on infrastructure aspects (for example, house connections, toilet access, sewerage access), primarily due to eligibility constraints. Inequities in quality of services (for example, adequacy, water quality) were typically attributable to the type of source being accessed (for example, public stand post users reporting higher incidence of dirty water supply). Significant inequities were evident at the ward level, with peripheral areas characterized by poorer service levels. Service inequities could therefore be seen as a corollary to broader systematic issues such as informal status of land ownership and poor quality of urban planning.

- **(Complaints redressal)** The share of respondents lodging complaints was low (5-15 percent), of which typically a third reported resolution. This could be a reflection of the perceived (and, possibly, actual) inefficacy of complaint redressal mechanisms.[11] In cities where service delivery was a municipal responsibility (for example, Pimpri Chinchwad, Jabalpur), citizens preferred channeling their complaints through councilors (more so for residents in slum areas). Conversely, most citizens in cities served by state departments (for example, Ajmer and Jhunjhunu) lodged their complaints directly with the helpdesk. In general, in the cities surveyed, respondents preferred a face-to-face interaction, with negligible use of helplines, SMS or online facilities – a preference also mirrored in modes of bill payment. Citizens' preferred channel of complaint reveals their perception of which set of functionaries are most likely to be effective in creating pressures to improve service levels.

- **(Sanitation)** Feedback data revealed that, despite citizens reporting high levels of access to toilets, a sizeable share in the slum areas of several cities practiced open defecation (for example, Raebareli, Mehsana). In the absence of sewerage, there is significant wastewater disposal into onsite facilities, which the feedback indicated are not being cleaned regularly. The spatial maps help to highlight the sanitation hotspots in the city for prioritization of interventions.

- **(Satisfaction)** Despite service levels being relatively poor, 80-90 percent of respondents were partially or fully satisfied with services (though the figures were lower for slum areas in all cities). Also, about 90 percent of respondents felt that services were the same or better than the previous year. Given the apparent low expectations on service delivery, there may be limits to the extent of civic mobilization is possible for service improvement. A mitigating factor is that, in several cities, especially where service delivery is a municipal responsibility, councilors were sensitive to the feedback on "services compared to the previous year". Such political pressure points could be leveraged for improving services.

---

[10] In the cities from Uttar Pradesh (Varanasi and Raebareli), the capex function is performed by a state utility, while operation and maintenance is the municipality's responsibility.

[11] This also resonates with the findings from the World Bank's 2014 Review "Grievance Redress Mechanisms – On Paper and in Practice" – as referenced in the "Strategic Framework for Mainstreaming Citizen Engagement in World Bank Group Operations" 2014, Box 4.4 page 45.

6. Recommendations for Design of Citizen Feedback Interventions

KEY POINTS
- Aligning demand-side metrics with supply-side indicators makes it easier to activate both upward and downward pressures of accountability
- ICTs should be leveraged not just for speed and efficiency, but also for enhanced data integrity, transparency and impact

Experience of the SLB-C initiative suggests some recommendations for the future design of citizen feedback programs.

- **Aligning demand-side metrics with supply-side indicators makes it easier to activate both upward and downward pressures of accountability.** Using a framework of demand-side metrics and analytics that are similar to supply-side (reported) data makes it easier to integrate feedback data into plans and decision-making processes (see Figure 12). This helps government or funding agencies to strengthen monitoring of service providers and track service outcomes under various projects/programs (for example, as envisaged for KUWSMP). Detailed analysis of these metrics also helps to improve accountability by reducing the information asymmetry between the provider and the overseeing agencies, such as the state urban department,

city administrators or municipal councilors.[12] This is especially relevant in environments where data quality is weak or information is not readily accessible.

Simultaneously, provision of performance metrics in a disaggregated form (for example, ward level) provides citizens with service delivery data they can relate to. With appropriate dissemination, this could be used to generate bottom-up pressure on service providers through political representatives, CSOs or media. When providers and consumers share a common vocabulary of service metrics, they can engage more effectively in dialog on service delivery. Given these advantages, as an extension of the World Bank's work on performance reporting and indicators, it could be useful to develop a more exhaustive list of demand-side metrics that could help capture service levels through such feedback processes.

FIGURE 12: SLB-C INFLUENCES TOP-DOWN AND BOTTOM-UP ACCOUNTABILITY
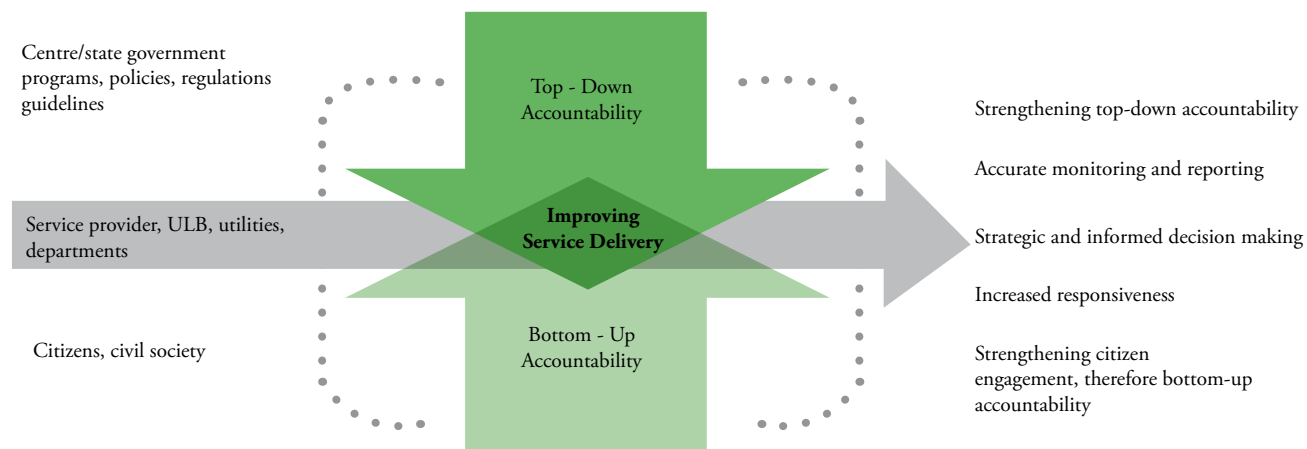
[12] Where operationalized, regulatory agencies could perform the oversight functions and use such surveys to improve monitoring and accountability of providers.

- **Feedback surveys designed for replicability and implementation at scale could help to address capacity constraints that often hinder localized interventions.** Most local bodies lack the capacity to undertake citizen engagement activities and feedback surveys. There is also limited availability of technical experts to design and oversee such surveys. Any tool for undertaking such initiatives should therefore address the "how to" question and design for implementation at scale. Attributes which enable this include:

  o A template-based approach for design and implementation (for example, question bank, default questionnaire, sampling methodology – all embedded in an ICT-based solution);

  o Provision for remote monitoring of surveys at multiple locations, to maximize use of limited technical experts for survey monitoring, review and analysis;

  o Modular design to address different geographic scales (for example, city, ward, locality) and different service areas (for example, water supply, sanitation); and

  o Provision for implementation through partners (for example, an online platform hosted by a nodal agency and used by multiple agencies to conduct surveys and disseminate results).

These features were fully utilised by MoUD in the implementation of the Swachh Survekshan survey across 73 cities. Potential for scaling up is greatest when the online platform is hosted by a nodal agency which can provide advisory and analytical inputs to help various other implementing agencies use the system's functionalities to conduct surveys. This role could potentially be performed by any entity with the requisite credibility and technical expertise, such as a monitoring unit in the government, a regulatory agency, a research institution or CSO. Such an approach could also be considered in World Bank operations where platforms such as SLB-C could be used to streamline implementation of feedback surveys on service delivery.[13]

Where replication of the platform is not feasible, other ICT options could be considered to implement such feedback surveys, such as open source data collection tools (Civil Society Organizations Open Data Kit) integrated with data analytics products (Civil Society Organizations Tableau) configured for default survey analysis.

- **ICTs should be leveraged not just for speed and efficiency, but also for enhanced data integrity, transparency and impact.** As well as enabling implementation at scale, integrated workflow-based ICT systems can improve the integrity of data collection processes and demonstrate transparency to decision-makers and stakeholders. ICT functionalities can also help deliver greater impact from the survey findings. This is made possible in the following ways:

  o Better quality control through built-in checks, flags and real-time monitoring reports;

  o Greater transparency and data integrity, as all the data collected is readily accessible – including rejected records, enumerator details, time stamps, geo-coordinates and photo images;

  o More current and relevant findings, as results are available immediately after a survey – in contrast to traditional methods, which often take five to seven months from survey to report, by which time findings could have become dated;

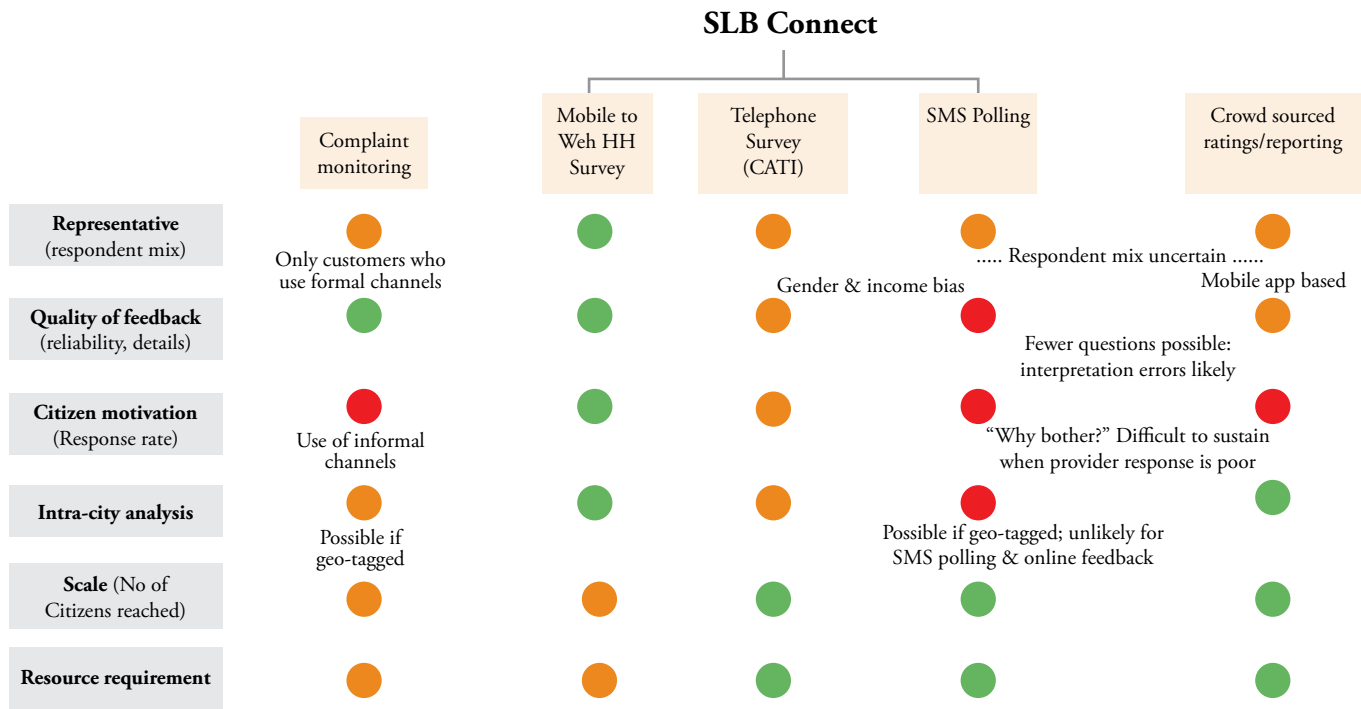**FIGURE 13:** COMPARISON OF TRADITIONAL SURVEY PRACTICES TO SLB-C

---
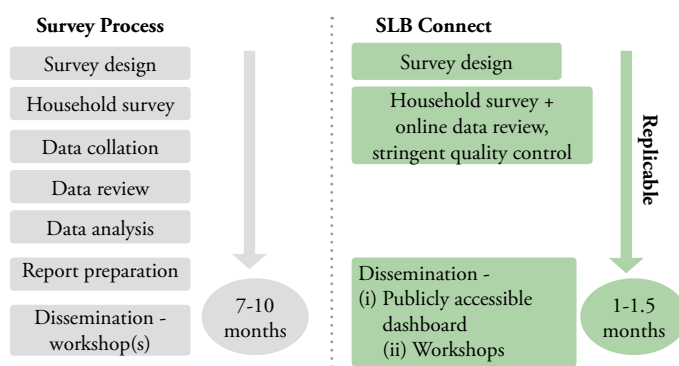
13 If the platform is based on open source software and available for replication, incremental system-related costs would be low (limited to installation and hosting services). These additional costs would be offset by the gains in speed, reliability and transparency of the survey process.

o   *Granular analysis,* in the form of spatial maps and analysis stratified across user categories/locations provides *more actionable information* by helping to identify hotspots and interventions required. It also makes the data more credible to decision makers to address service gaps and inefficiencies (for example, maps showing water quality hotspots could help to identify leaks); and

o   Survey findings can be rapidly and widely disseminated through online dashboards, sending bulk SMS messages with survey highlights or web links to results, or updates on social media websites. This could be accompanied by traditional dissemination methods such as workshops, flyers and coverage in local media.

- **The various modes of feedback such as MAPI surveys, telephone surveys, SMS polls, IVRS systems, need to be used in a complementary manner.** Often these are viewed as interchangeable modes for obtaining feedback. However, given their relative advantages and disadvantages (see Figure 14), it is more appropriate to consider a mix of mechanisms for a feedback program, depending on the context and objective of the program.[14] For instance, while MAPI surveys are more resource intensive, their dependence on citizen motivation is low, making them suitable for 'low equilibrium' contexts where incentives for self-reporting are low.[15] MAPI surveys are inclusive, reaching all groups and overcoming challenges posed by the digital divide. Feedback modes such as SMS polls and crowd-sourced feedback are easier to implement and less resource intensive, but also less detailed, inclusive and representative. A possible approach could be to *use MAPI surveys in poor service delivery contexts, or at the start of a project, to periodically capture detailed feedback, and other channels for real-time follow up on specific aspects.* Where service delivery arrangements are more mature, and digital access is widespread, feedback could be tracked using just the lighter modes. Conversely, in contexts with poor service quality and low capacity in particular, there will continue to be a need for face-to-face interactions such

FIGURE 14: COMPARISON OF FEEDBACK TOOLS

SLB Connect

	Complaint monitoring	Mobile to Web HH Survey	Telephone Survey (CATI)	SMS Polling	Crowd sourced ratings/reporting
Representative (respondent mix)	🟠 Only customers who use formal channels	🟢	🟠 Gender & income bias	🟠 ..... Respondent mix uncertain	🟠 Mobile app based
Quality of feedback (reliability, details)	🟢	🟢	🟠	🔴	🟠 Fewer questions possible: interpretation errors likely
Citizen motivation (Response rate)	🔴 Use of informal channels	🟢	🟠	🔴 "Why bother?" Difficult to sustain when provider response is poor	🔴
Intra-city analysis	🟠 Possible if geo-tagged	🟢	🟠	🔴 Possible if geo-tagged; unlikely for SMS polling & online feedback	🟢
Scale (No of Citizens reached)	🟠	🟠	🟢	🟢	🟢
Resource requirement	🟠	🟠	🟢	🟢	🟢

Note: HH: household.

[14] Could also include mechanisms such as focused group discussions, panels, touchpoint audits. The aim here is not to describe the entire menu of feedback mechanisms but to highlight their complementarity.

[15] Low equilibrium is where the service provider has low capacity, poor customer orientation and low credibility, leading to customers having a low expectation of improvement/response, and giving them weak motivation or incentive to provide feedback.

as community-level meetings and town halls to ensure inclusive and meaningful engagement.

- **Clarifying how citizen feedback is expected to improve services could help to decide the extent and nature of civic mobilization and stakeholder engagement required.** Citizen feedback could be leveraged in many ways to improve service delivery, such as mobilizing public opinion and generating pressure on service providers to deliver improved services; informing providers of service gaps and customer perception issues; improving design of projects/plans under development; or strengthening the tracking of service outcomes under programs, especially where reported data lack reliability. Not all of these require civic mobilization and extensive stakeholder engagement.

Even where accountability pressures need to be strengthened, the means to do this may vary depending on the institutional context for service delivery. For instance, where service delivery is a municipal responsibility, pressure would be relatively localized, at the city level; where service delivery is more centralized, higher levels of government (for example, state or national) would need to be invoked to generate pressure for improved services. Also, where customers have low expectations of service delivery, there could be limits to how much it is possible to use civic mobilization to create pressure on service providers. In such situations, local councilors (who often act as intermediaries for problem resolution) could play a role in generating accountability pressure. Local officials also need to be engaged in implementation of feedback processes, to get their buy in and improve their response to the feedback data.

When planning a citizen feedback initiative it is necessary to undertake a clear assessment of the context and develop a holistic strategy for how the feedback will be leveraged to deliver maximum impact on service levels.

7. Way Forward

KEY POINTS
- Further strengthening and institutionalization of systematic citizen feedback processes is required
- Government of India and development partners can help mainstream processes in projects and programs through capacity building, use of technology solutions and advocacy efforts

Decision makers at various levels have found SLB-C to be a useful way of obtaining detailed insight into the on-the-ground reality of service delivery, including identification of service gaps and inequities within a city. It is seen to offer an approach for scaled-up implementation of feedback surveys that can help to inform planning and program monitoring processes. The SLB-C online platform has been integrated into the city sanitation ratings done for the GoI's Swachh Bharat Mission, and has been included in the project implementation processes of other development partners (CEPT and CURE). SLB-C has been integrated under the social accountability component of the World Bank-supported KUWSMP project in Karnataka, and is seen to offer an effective way to implement the World Bank's recent guidelines on inclusion of citizen feedback mechanisms in projects.

Further strengthening and institutionalization of systematic citizen feedback processes is required to improve tracking of service outcomes and foster more demand-responsive service improvement planning. Accompanying interventions are also required to rationalize institutional arrangements and improve incentives for delivery of service outcomes. With a growing emphasis on transparency and citizen-centric service delivery, the role of feedback and engagement processes is set to increase. Emerging ICT innovations will offer new opportunities for making these processes more intelligent, inclusive and efficient.

The GoI could facilitate adoption of these processes by:

- Providing guidance, capacity building and advisory support to interested states/cities;

- Hosting or making available ICT-based solutions for use by interested state and local governments;[16]

- Strengthening incentives for adoption by integrating these processes in government programs;[17] and

- Developing orientation modules for citizen groups and political representatives on different feedback mechanisms, how to interpret demand side data/metrics, and use them for advocacy efforts on service improvements.

Several of these roles are envisaged in the scope of the proposed National Performance Monitoring Cell (NPMC), which could undertake these activities when it is operationalized. Additional support efforts could include training and capacity building of civil society actors and networks that could facilitate the interaction between citizens and service providers.

Institutions such as the World Bank can play an important role in encouraging clients to adopt these interventions in their operations and decision making, and supporting their implementation. The recent World Bank directive mandating inclusion of beneficiary feedback processes

---

[16] These could include ready-to-use cloud sourced solutions, multi-channel interfaces for ongoing feedback, and integration across multiple service areas for convenience of citizens. Adoption would depend on the extent of ICT penetration in the environment, institutional structures and providers' service orientation.

[17] To begin with, incentives could be for adoption of regular feedback mechanisms by local governments/service providers and their use in planning/review processes. Later these incentives could be linked to the feedback on service quality (that is, rewards for good performers and/or penalties for poor performers).

in projects can give further impetus. To make feedback processes more impactful, they should not be limited to self-reporting options such as helplines, SMS or online feedback, but also include mechanisms to collect feedback proactively. Feedback should encompass tracking of service delivery under a project, and not be limited to project implementation processes. Efforts also need to be made to identify factors that inhibit citizens' use of formal grievance redressal mechanisms, and initiate interventions to make these more accessible and responsive. It would be useful to consolidate learnings from World Bank experiences such as Maji Voice (Kenya), Vozelectrica (Dominican Republic), Citizen Feedback Monitoring Program (Pakistan), SLB-C (India) and other emerging initiatives to help inform future interventions and make them more effective. To prevent duplication of effort and facilitate adoption, it would also be useful to explore a virtual platform where these initiatives can be hosted for ready access by teams or clients in different countries. Such knowledge-sharing efforts could reduce the cost of implementing citizen engagement interventions and help to obtain buy-in from clients.

Notes