

Accountability and Incentives for Improving Performance in Urban Water Supply and Sanitation in India

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Abstract

In India, urban water and sanitation services are provided by state government departments or municipal governments. Unlike the water utilities in other Asian countries, where accountability is measured through performance indicators, in India little attention is paid to performance measurements. Of the three forms of accountability – upward, downward and internal – a major focus in India is on upward accountability. However, this is limited to financial accountability and not performance monitoring. For downward accountability, efforts are underway through E-governance, but need further strengthening. The internal accountability processes are weak and need to be enhanced using performance targets at ULG level and its decentralized units. However, for these to work effectively, operational autonomy for water departments or ‘ring-fencing’ their operation from other municipal activities is needed.

Keywords

Performance Indicators, accountability, incentives, urban, local government, India

BACKGROUND AND CONTEXT

Great strides have been made in India in improving access to basic water and sanitation services during the last two decades. India has already achieved its target for the Millennium Development Goals for water supply, with 96% population having access to basic water supply in urban areas in 2008. However, a few anomalies stand out. First, access to improved level of services (house level connections) has actually worsened from 52% in 1990 to 48% in 2008. For sanitation, access to safe basic sanitation continues to stagnate at 54% in 2008 and another 21% had access to only shared facilities. An estimated 18% of urban population resorts to open defecation.¹ While the focus in India is on infrastructure investments, performance on service delivery measures like hours and reliability of supply and financial sustainability is very poor. Indian cities fare far worse than cities in South East Asia and Africa.² Transforming infrastructure creation to delivery of good quality services remains a key issue.

¹ Based on information reported in JMP (2010). Basic services are as defined by the WHO-UNICEF’s Joint Monitoring Program for tracking the MDG targets

² Based on performance reported for 20 utilities in India (ADB and MOUD 2007) and 40 utilities in South East Asia (SEAWUN and ADB 2007).

Service level assessment through key performance indicators has become a standard practice in the water sector in many countries. However, in India very little attention is paid to performance measurement of water services. In this paper we argue that performance measurement of water has not been given due importance in India because of poor incentives to the water utilities and the absence of a strong accountability framework. This is partly due to the fact that in most Indian cities, water and sanitation is the responsibility of a state level agency or is merged with other municipal services. “As staff, financing and accounting functions are common; the absence of transparency and accountability has led to a low level of service” (World Bank, 2006 p.9).

Viewing performance measurement within a framework of accountability and incentives is important in India, as over the past few years, the Government of India (GOI) has embarked on a very ambitious program to fund urban infrastructure in leading urban centres in India. Under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), GOI envisages a total investment of about USD 20 billion during 2005-2012. Till date, nearly 70% of the JNNURM commitment has been for water and sewerage projects. Funding assistance from the GOI is linked to commitment by the recipient state and local governments to a set of time-bound reforms that include improved performance and citizen interactions.

It is in this context that the CEPT University is implementing an action research project for the development of Performance Assessment Systems (PAS) for urban water and sanitation in all local governments in two states (Gujarat and Maharashtra) in India. In both these states, water and sanitation services are provided by municipal governments. For the PAS Project, assessment of accountability and incentive systems is critical to ensure that the performance measurement and monitoring systems are used and are sustainable.

Performance Assessment of Water Utilities

Over the past few years, comparative performance information for urban water utilities in Asia has been supported by the Asian Development Bank (ADB) through the Utility Data Books. Further data books have been developed for the Southeast Asian Water Utilities Network (SEAWUN), India and Philippines. Comparative performance information is also available from Indonesia and Vietnam through their country level water utility associations and through World Bank’s IBNET platform. Based on these performance assessments two key features are discernible:

A comparative assessment of urban water utilities in Asian countries highlights the relatively better performance of utilities in Eastern and South-East Asian sub-regions as compared to water utilities in South Asia that seem to lag behind on a number of key performance indicators. Key findings based on comparative assessment in average performance across regions based on available information as reported in Table 1 and summarized in Figures 1 and Figures 2 include:

Table 1: Comparative Performance of Utilities across Sub-regions in Asia

Performance Indicators	ADB Utility Data Book	SEWUN Utility Data Book
	India - 20 utilities	South East Asia - 40 utilities
Service levels		
Water Coverage (%)	81.20	74.90
Water availability (hours)	4.30	22.90
Consumption/Capita (l/c/d)	123.30	106.50
Production/Population (m3/d/c)	0.24	0.22
Efficiency and financial viability		
Non Revenue Water (%)	31.80	27.80
Connections Metered (%)	24.50	99.40
Revenue Collection Efficiency (%)	99.50	118.10
Accounts receivable (months)	4.90	0.90
Operating Ratio	1.60	0.80
Staff/1,000 Connections (ratio)	7.40	7.20
Tariffs, fees and capital expenditure		
Average Tariff (US \$)	0.12	0.31
New Connection Fee (US \$)	39.60	60.00
Capital Expenditure/Connection (US\$)	39.80	44.40

Sources: ADB (2004) and SEAWUN and ADB (2007).

- Despite comparable service coverage and production of water, Indian utilities perform worse on service levels as measured by hours and level of supply. Average duration of supply is 4.3 hours during which more water is supplied than in South-East Asian utilities.
- Utilities in South Asia have lower metering levels which makes it difficult to have accurate assessment of water losses. Some pilot assessments and water audits done in India suggest very high levels of losses at over 50%.³ In general, there is less emphasis in these utilities on assessing and reducing physical leakages as well as non-revenue water (NRW).
- Average tariffs and connection fees in South Asian utilities are considerably lower and combined with inefficiencies noted above, this results in poor operating ratio. Most utilities do not recover their operating costs and thus lack financial viability. This is despite the fact that the average revenue collection performance is nearly 100%.

³ The PAS project's pilot results in a few cities in Gujarat and Maharashtra suggest that NRW ranges between 30 to 75 percent. Often, cities that had assumed NRW levels of 30-35 percent without any proper measurements found their NRW level to be almost doubled after PAS studies. Measurement of water production and water consumption has remained key issues in Indian cities.

Figure 1: Comparative Performance in Sub-regions in Asia – Service Levels

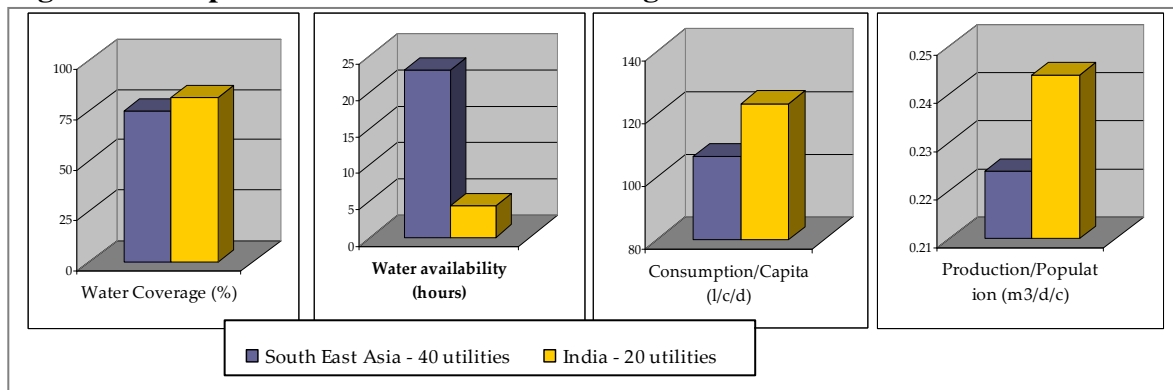
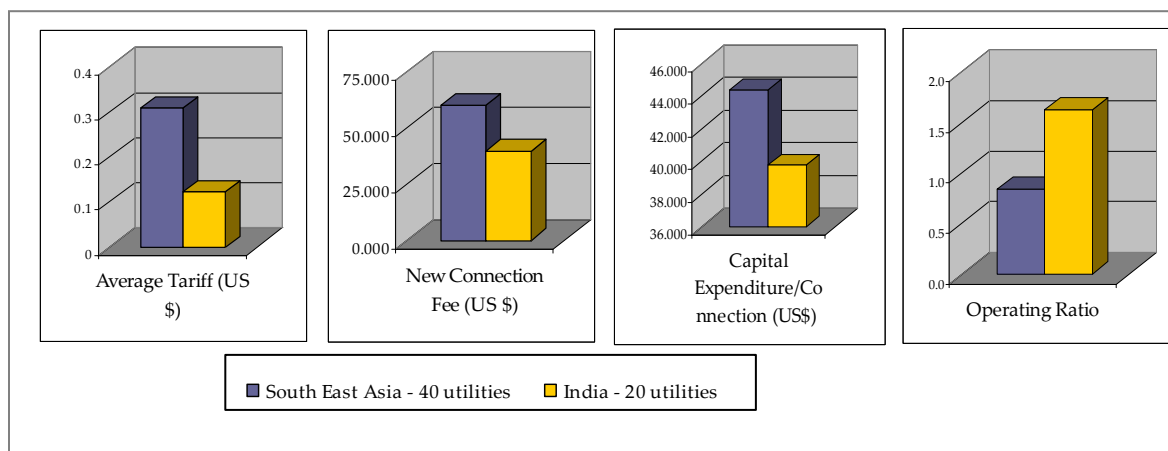


Figure 2: Comparative Performance in Sub-regions in Asia Related to Finance

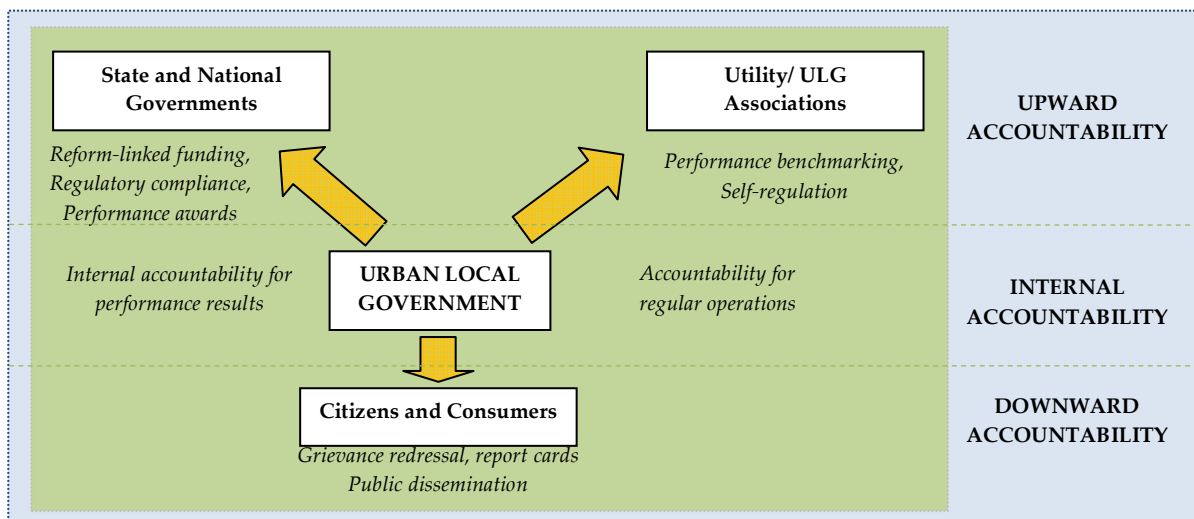


Utilities in India are in a low level equilibrium trap where the poor services by the water utility results in low tariff recovery and resultant lack of financial viability makes it difficult to improve service levels. This is largely a consequence of the institutional arrangement for water supply in India. When a government department or a municipal government is involved in delivery of water it is characterised by, “ineffective and misdirected policies, coupled with the monopolistic nature of the sector...Policy makers pursue multiple unaligned objectives, often leaning toward the attainment of the short-term political interests. Failure to discipline utilities to perform may appease the short-term interest of the political constituency, but will ultimately deprive the same of better and more efficient services” (Baietti et. al. 2006, p.1).

Accountability and Incentives in Urban Water and Sanitation Sector in India

Accountability systems are important in maintaining efficient and equitable services as well as provide incentives for municipalities in their service delivery. For urban local governments these include systems for upward, downward and internal accountability as illustrated below in Figure 3:

Figure 3: Accountability and Incentives for Performance Improvement in WATSAN Sector



Upward Accountability. Upward accountability is of two types: mandatory accountability generally to higher levels of government (e.g. state and/or national governments), or where relevant to a regulator; and voluntary accountability to the peer group, such as associations of Urban Local Governments (ULGs) which are often engaged in benchmarking across their members. In terms of the ‘mandatory’ requirements, ULGs are routinely required to furnish financial information and are subject to financial audits by higher levels of governments. This form of accountability is often limited to financial accountability and not related to performance. Performance linked grants is often discussed in India, but not practiced. The PAS framework developed by CEPT University provides a basis for ULGs and state government to have an online and real time data to meet its upward accountability requirements. A key to performance linked funding is the availability of good, reliable and trusted information that is regularly updated. While e-governance is practiced in many Indian cities, it has not resulted in improved management information systems.

A key ‘incentive’ for the ULG and state government to use benchmarking will be to systematize performance monitoring and introduce performance linked grants. In India, new investments in urban water and sanitation are being made through funding under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), a 20-billion USD program of the Government of India (GoI). To address the issues of service delivery, several reform measures are mandated under the JNNURM. The JNNURM has introduced a new layer of upward accountability for both state and local governments through its reform agenda. Although JNNURM is not a performance linked grant, cities are required to report on the progress of reforms to become eligible to receive further tranche of funding.

A key constraint, however, relates to the poor state of information in ULGs that makes it difficult for ULGs and the GoI to measure and to track progress on implementation of reforms. A recent Government of India initiative to develop Standardized Service level Benchmarks (SSLB) for key services is a step in the right direction, but it is currently implemented on a pilot basis in a few cities across the country. Another positive aspect is the recognition of SSLB by the Thirteenth Finance Commission for performance-based grants to ULGs. This requires state-wide application of this

approach. Lessons from the PAS Project of CEPT University in Gujarat and Maharashtra will be useful for this.⁴

Performance linked contracts have been advocated for Indian utilities. Baietti et al. (2006), provides cases studies of well-functioning utilities from around the globe. One of the key characteristics of these utilities was that they all had well-defined targets for key performance indicators, including total revenue, water production, drinking water quality, customer service, financial performance, water consumption, new connections, and contribution to the owner's budget. Most utilities had a reward system for staff and managers to achieve targets. The performance targets are usually incorporated into performance contracts that utilities sign with their public owners. However, these utilities face several constraints related to lack of autonomy in tariff revisions, staff recruitment and retrenchment, procurement. As a consequence the performance contracts have resulted in good exchange of information with limited impact on the achievement of performance targets in utilities that lack autonomy (Baietti et al 2006, p.14). For the effective working of performance contracts, autonomy of service providers on staff recruitment and remuneration policies, as well as capacity support for efficiency improvements are essential.

A different set of incentives for ULGs in India have been through awards and recognition at the state and national level. In the state of Maharashtra, cities are encouraged to 'compete' for awards related to sanitation. Cities are judged on the basis of the efforts made to improve service levels. The awards have small monetary component, but the recognition that it provides to cities among its peers and among its residents serves as a good incentive for ULGs. The GoI has introduced National Water Awards scheme in a similar vein to encourage cities to comply with reforms. However, these awards are not directly linked to performance improvements.

Downward Accountability. Downward accountability refers to a ULG's response to the residents or customers in terms of services provided. Such accountability is often articulated through an effective consumer grievance redressal system and through a transparent sharing of information. In many Indian states, the ULGs are required to have a citizen charter that lists the obligations of the ULG towards citizens and also identifies response time in addressing citizen grievances. While the consumer grievance system exists in many ULGs, its effective functioning has been a major issue. In most cases, citizens have to personally visit the ULG office to lodge a complaint. However, in a few cities, there are attempts to evolve a system of citizen interaction through call centres and toll-free numbers and SMS services. These systems record all the complaints received and track them till they are redressed. E-governance practiced in many ULGs allows citizen grievances to be recorded and tracked. However, it is seen that detailed analysis of nature of complaints and response time is not undertaken. There are no conscious efforts to analyse complaints in future planning and staff appraisals. Further strengthening is needed to improve the interaction with citizens and to promote use of analysis of consumer feedback in service planning. With self-assessment of property taxes, residents in many cities can compute their own taxes and pay them on-line. These initiatives have helped in improving citizen interaction.

Information sharing with citizens by ULGs is, in general, very weak. Performance indicators of services, when available, are rarely shared with citizens and civil society organisations. E-governance

⁴ Under the PAS Project statewide performance assessment system is being developed for all 400 cities in Gujarat and Maharashtra through a 5-year action research project. http://spcept.ac.in/pas_project.aspx?pg=pas&sub=pas

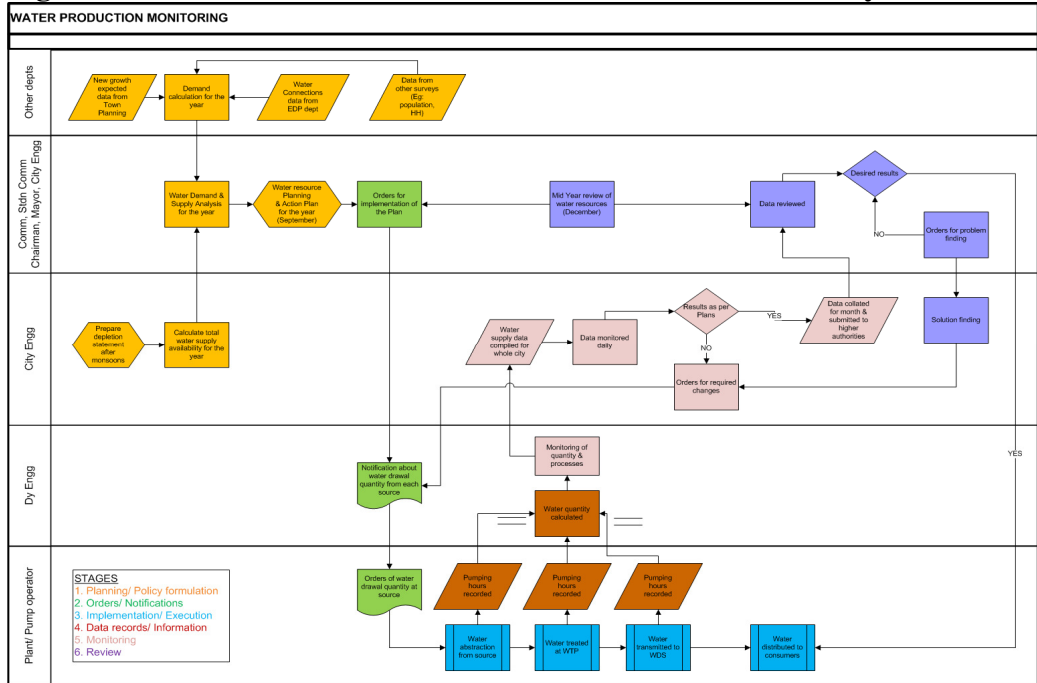
(i.e. use of web sites, and internet) for citizen interaction is often limited to payment of taxes. Procurement decisions are still not open and transparent. It was for these reasons that one of the JNNURM reform agenda is on promoting downward accountability of ULGs to its residents. It requires state governments to enact a public disclosure law and provide information on a range of financial transactions to citizens. It also requires states to promote community participation through ward committees and 'area sabha' to be constituted under a community participation law. Despite the fact that these reforms are mandatory, many states have not yet constituted such laws. A few states that have complied with these requirements have enacted the laws but have made little effort to implement them. Citizens have to take recourse to the "Right to Information" act, a national legislation that empowers citizen to obtain information from public entities.

Internal Accountability. "Internal accountability looks at how management and staff are held accountable for effectiveness (the degree to which the utility realizes its goals) and efficiency (the cost effectiveness of resources used to produce its water services)." (Baietti et al. 2006, p.15). It is generally seen that autonomous entities have better internal accountability structures and mechanisms than municipal governments. Such accountability measures include some performance results for the ULG (for example full cost recovery or access for the poor) or simply accountability in regular operations that are defined by internal processes and job descriptions of various staff dealing with water and sanitation.

"Indicators highlighting internal accountability in a utility include responsiveness of the chief executive to the board; whether performance targets are well defined and provide incentives, sanctions, or both; whether staff are subject to annual performance evaluations; whether they are also subject to incentives for achieving performance targets; and whether staff are trained to perform well" (Baietti et al. 2006, p.15). In India, the ULG do have internal processes of accountability, where the Chief Executive is accountable to the state government, and all staff members are subject to annual performance evaluations. However, generally in Indian ULGs, internal accountability is limited to financial management and project management. While such information is routinely tracked, absence of performance targets for each unit renders internal accountability mechanisms ineffective.

The PAS Project intends to make a difference by exploring the inclusion of some key performance indicators related to water (e.g. cost reduction in supply, quality of water, access to poor) in internal processes. It has begun this by mapping key internal processes within ULGs. At present, the internal operation and maintenance processes of water services are not mapped and therefore, it is often not possible to identify critical areas for improvements. Through the PAS project, a few key processes at local level have been mapped. For example, see Figure 4 for a process mapping chart on water production monitoring in a city in Gujarat. It took considerable studies by the PAS project team to draw up such process charts for key areas of operations. These studies revealed that as part of routine daily operation, large amount of information is collected in the field, but not analysed. Thus, internal accountability processes based on performance do not exist and there are no incentives for better performance or disincentives for poor performance.

Figure 4: Process Chart for Water Production in an Indian City



Using such process charts, it was possible to identify key stages of decision making where some target setting and monitoring would be possible (i.e. at the level of wards and zones in terms of operating hours, quality and complaint redressal). It was also possible to identify some key information that is not collected at present (for example information on water pressure). Future reforms in the internal accountability processes would help improve performance. It would be necessary link incentives (and disincentives) – without which there will not be real commitment to meet reform conditions and then sustaining them over time.

CONCLUSIONS

In conclusion, we offer three major observations from our work.

- a. Urban water supply and sanitation has remained a municipal service in India and is subjected to strong upward accountability. As local governments in India are largely dependent on the state governments (and often the national governments) for operational support and grants for capital projects, they are subjected to rigorous financial accountability. However, there is no monitoring of performance of ULGs by higher levels of governments. Under the JNNURM reforms and through the SSLB Initiative, an initial attempt at monitoring performance has emerged. However, it would be necessary to establish a string monitoring system at the state level to ensure that information on performance indicators is collected and updated on a regular basis. A key incentive for ULGs to develop such a system would be to introduce performance based grants as recommended by the Thirteenth Finance Commission in India.
- b. Downward accountability in Indian ULGs has been initiated but still remains weak. Citizen charters, though mandatory have remained on paper. A few ULBs have evolved consumer grievance redressal systems but the information from consumer grievances is not analysed to

improve accountability. Key information on procurement decisions and budget decisions are often not shared with citizens despite public disclosure laws. Public participation in ULG decision is extremely low. The introduction of E-governance does provide a base for increased dissemination of information and makes the ULGs more open and transparent.

- c. The weakest link in the accountability framework is the internal accountability and lack of clear incentives for ULB staff for delivery of improved WSS services. While internal processes are well identified, absence of performance targets at key units makes internal accountability difficult. The experience of improved performance of autonomous water utilities in Uganda, Senegal, Cambodia, Burkina Faso etc. suggests that it is possible to develop key performance targets for various units within the utility. Monitoring of these targets and linking them to incentives have helped these utilities to improve overall service levels. Indian ULGs have a lot to learn from these global experiences.

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