



Benchmarking of Urban Water Supply and Sanitation: Lessons from Maharashtra and International Experiences

(February 28th – March 1st, 2011, Mumbai)



Executive Summary

Under the Performance Assessment Systems Project, CEPT University and All India Institute of Local Self Governance (AIILSG) facilitated a workshop to share the results and experiences from Round I of performance assessment in Maharashtra. The two day meeting discussed the results of benchmarking exercise in Maharashtra for Round I (2008-09) and use of benchmarking in service improvement. Prof. Enrique Cabrera, Chair of International Water Association (IWA) Task force on Benchmarking and Prof. Helena Alegre, Vice President, IWA shared international experiences on benchmarking for water supply and sanitation sector. The workshop was attended by participants including representatives of the State Government of Maharashtra (GoM), representatives from Municipal Corporations and Class A municipalities, other agencies, civil society representatives and stakeholders dealing with water.

The workshop was declared open by Principal Secretary, Water Supply and Sanitation Department (WSSD), GoM, who reiterated the commitment of State Government towards consistently improving service delivery in UWSS. Findings from round I of data collection highlighted areas, where State is performing well and gaps to be covered in services for water, wastewater, solid waste management and storm water drainage. Results from the Round I of assessment in Maharashtra were shared in detail with State representatives and Urban Local Bodies (ULBs). Various methods for data collection during the State roll out were presented and discussed.

The Chief Secretary, GoM shared the State Government's vision to eliminate open defecation in the next two years. The city managers were also urged to prioritize sanitation, health and education initiatives over beautification projects in their cities. The relevance of above three sectors and its direct impact on Human Development Index (HDI) was highlighted by the Chief Secretary, given the fact that Maharashtra has been performing poorly in open defecation practice. In this light, Chief Secretary, suggested the all the ULBs in Maharashtra to take the benchmarking business seriously and proactively plan for improvement in all four sub sectors.

Experts from IWA elaborated on Sustaining Benchmarking at national/state level discussing the phases and achievements of IWA benchmarking initiatives. Case of Portuguese Benchmarking initiative was shared with participants. The learnings evident from the Portugal case emphasized that performance indicator system is a tool and not a goal in itself. The National and State Governments have a very important role to play in mainstreaming performance assessment culture and this has to be achieved through more incentives and lesser penalties. For a performance assessment system to be effective, regular quality control and auditing are critical. Discussion also focused on concepts of Benchmarking and its usage in context of developing countries. Benchmarking, increasing efficiency through monitoring the performance of sector providers and adopting best practice have become increasingly widespread. It was emphasized that indicators are excellent measurement tool, but only become meaningful when compared to previous performance, previously established objectives and to values from same peers. The three elements critical to success of any benchmarking include right indicator selection, appropriate confidence grading and good implementation.

Mr. Manukumar Srivastava, Principal Secretary (PS), Urban Development Department (UDD), GoM emphasized that for regulation of Urban Water Supply and Sanitation (UWSS) sector, the majority of activities are in the policy domain and the onus would lie upon UDD to set up a similar mechanism for State. It was mentioned that proposal for setting up municipal water regulator in Maharashtra was in consideration and this will work towards appropriate tariff setting and technical support provision. While regulator in this case will not have direct powers for tariff setting, but will help resolve differences between the ULB executive body and elected body and such cases can be referred to regulator. It was emphasised the annual performance assessment needs to be mainstreamed within the ULB functioning and should not remain as a onetime exercise.

The CS and PS, UDD & WSSD, Director of Municipal Administration (DMA) requested ULBs to participate in the statewide service level benchmarking initiative. To ensure accuracy in performance assessment, ULBs should adopt scientific method for data collection and draw long term plans for gradual service improvements. The PS, UDD emphasized on state level support to standardize guidelines for data collection and analysis for annual performance assessment in Maharashtra. It was mentioned that state level Government Resolution (GR) may be issued to adopt Service Level Benchmarking (SLB)/PAS as an annual exercise for all ULBs. It was suggested that data could be submitted by the end of first quarter of every year.

The ULBs were requested to designate an SLB Cell at the city level and depute staff for SLB training organized as part of PAS Project through AILSG. The ULBs also need to operationalize data collection, validation and analysis at their level. This should feed in to realistic performance improvement plans for ULBs. Actions part of this initiative should appropriately be reflected in ULB annual budgets along with the plan to reach desired service levels. The meeting also discussed good practice examples from Malkapur, Pimpri Chinchwad Municipal Corporation and Nashik Municipal Corporation to highlight use of performance indicators for proactive improvement planning by three cities in Maharashtra.

On day two, CEPT PAS team demonstrated the in progress version of PAS web portal. The web portal has been designed as a digital platform to collect, review and share information related to performance assessment for UWSS in Maharashtra. The presenters also demonstrated the online data entry module screens for capturing data. It was discussed that indicator results for all cities will be made available in the public domain for reference and downloading and the data collected for performance assessment will be restricted to respective cities and state administrators. The ULB participants were allowed hands on trial of the web portal.

Presentations were also made on tools for Decision Support System (DSS) tool for the State Government to set indicative targets for each ULB. The DSS will support the State Government to identify feasible targets based on an assessment of current status across all ULBs and assessing funding implications of these targets. The presentation by CEPT suggested a framework to capture the required service target levels.

Other presentations also included “Approach for Performance Improvement Planning”. A Performance Improvement Plan (PIP) framework for decision makers will help ULBs to assess their current performance in water and sanitation services. It will help them to identify sequential activities that can improve the performance and parallel to this identify actions that improve the quality of data available. Based on the choice of actions, the model will help review the impact that the selected actions can make and accordingly, assess municipal finances to check which actions can be afforded by the ULB. Such a framework helps them plan for additional resources and combine various actions in an implementation plan to improve performance.

The CEPT team presented framework to estimate the extent of open defecation for cities, given that Open Defecation Free (ODF) cities is a major goal in Maharashtra. The framework has been designed to include estimated population susceptible to open defecation and cost of providing safe sanitation to them. This would help in developing master plans to provide public toilets and introducing necessary schemes for individual toilets.

Mr. Rajeev Jadhav summed up the discussions during the two days. He deliberated on the possible approach to be adopted by the State Government to achieve SLB benchmarks. He mentioned that there are not any directives available either from Centre or from GoM. The choice will have to be made between sector wise approach or indicator wise approach. The State may decide to target one sector instead of trying to target all the indicators for each city. Once the approach is decided, one needs to weigh options on low cost options or larger PIP improvements that need substantial capital improvements. While it may not be possible to improve all the indicators simultaneously, hence a rationale approach has to consider available finances and prioritize sectors for improvements.

The ULBs were requested to take advantage of the workshops and other opportunities provided through such platforms to seriously consider SLB exercise. After realistic analysis of their existing situation, the ULBs should come forward with robust improvement plans and resources required to achieve improved targets. Accordingly, appropriate allocations should also be made by ULBs in their respective budgets through their own revenue sources. For the additional amounts, ULBs need to think through in terms of mobilizing these resources through loans, applying for grants under state/central programmes and other means of innovative financing. The ULB managers need to adopt a paradigm shift in their thinking processes and attempt to compete with the “best in the class”. There should be some level of consistency in terms of reporting processes and the ULBs should think it from the perspective of achieving self-sufficiency and sustainability in each of the four sectors.

**Workshop on Benchmarking of Urban Water Supply and Sanitation: Lessons from
Maharashtra and International Experiences**
(Mumbai, February 28 – March 1, 2011)

Background:

CEPT University is currently implementing an action research project on Performance Assessment System for urban water and sanitation in Gujarat and Maharashtra supported by Bill and Melinda Gates Foundation. The Project has developed a set of performance indicators to assess performances in UWSS for all 400 cities and towns of the two states and has set up a dedicated web portal to host this information on water and sanitation services available in each urban area. As a part of this project, AIILSG has completed the first round of data collection and analysis of performance measurement for all 248 Urban Local Bodies (ULBs) in Maharashtra, and will carry out similar exercise for the next three years in partnership with the State Government. UWSS profiles have been generated for all 248 ULBs in Maharashtra. The first round of performance indicators provides a basis for meeting the conditions of the Thirteenth Finance Commission in setting targets for each ULBs.

All the information on performance indicators, ULB WSS profiles, comparative analysis as well as good practice documentation has been uploaded on this web platform. Detailed comparative analysis is not possible at the state level and with peers within and across the class sizes. To share the results and experiences from Round I in Maharashtra, the Project facilitated a state level workshop with following objectives:

- Discussion of the results of benchmarking exercise in Maharashtra for Round I (2008-09) under PAS Project
- Benchmarking and its use in improved services
- International experiences and lessons for Maharashtra

The workshop was organized in partnership with International Water Association (IWA), a global network of over 10,000 water professionals. IWA takes lead in developing major guidelines and toolkits for the water sector and has published guidelines on benchmarking of water utilities. The IWA has been supportive of the PAS Project and has agreed to promote benchmarking activities in emerging economies. The workshop was attended by participants including representatives of the State Government of Maharashtra, representatives from Municipal Corporations and Class A municipalities, other agencies, civil society representatives and stakeholders dealing with water. Prof. Enrique Cabrera, Chair of IWA Taskforce on Benchmarking and Prof. Helena Alegre, Vice President, IWA were the international resource persons for the workshop.

Day 1:

Welcome and Introduction to the Workshop:

Mrs. Malini Shankar, Principal Secretary, WSSD, GoM welcomed the participants and introduced the objectives of two day workshop. She made a short presentation that highlighted per capita water availability and surface water quality trends for Indian cities. The per capita availability was discussed in comparison with norms relevant to metropolitan cities and other cities with and without sewer network. The opening presentation set the tone for decreasing per capita water availability against increasing urban population and issues lingering with respect to surface water quality trends. It referred to appropriate emphasis on management of urban water resources and reinforcing service delivery parameters for urban local bodies.

The commitment of Government of Maharashtra towards consistently improving service delivery in UWSS was reiterated. Example of ongoing efforts under Maharashtra Sujal-Nirmal



Abhiyan (MSNA) was quoted to imply comprehensive urban reform agenda. Under the MSNA, State Government gives sufficient financial help to the ULB which are ready to improve the urban water supply schemes and urban sanitation following prescribed approach. Parameters for improvement in the reform include the information on intra-city distribution of services, quality of water, non-revenue water, costs of service provision, service level and functionality of metering etc.

Prof. Dinesh Mehta from CEPT gave a brief background about PAS Project and activities till date. Prof. Mehta referred to very limited sources for assessing performance for UWSS in India, an example being one produced by WHO/UNICEF Joint Monitoring Programme (JMP) - the official United Nations mechanism tasked with monitoring progress towards the Millennium Development Goal (MDG) relating to drinking-water and sanitation. He emphasized that PAS Project is first time attempt to undertake performance measurement in all four sectors of UWSS for all ULBs in Gujarat and Maharashtra. The benchmarking framework under PAS has been dovetailed with the SLB framework of MoUD to bring in consistency for selected indicators and way of deriving them. The first round of data collection thus completed in Maharashtra will help the State review the current performance levels and draw up a vision for its performance targets in the years to come.

The better performing areas with respect to State of Maharashtra were highlighted, especially the higher average litres per capita per day (lpcd) available across State (100 lpcd) and adherence to the benchmark of 135 lpcd for all Municipal Corporations in the State. The efforts to include metering on a large scale in Maharashtra, with almost 58 cities having some level of consumer metering in the cities is also appreciable. On the sectors that need improvements, it was highlighted that only 11 percent of slums dwellers have individual toilets in the State and only 24 percent have individual water supply connections. Policy and physical barriers related

to universalizing access to UWSS in Maharashtra were also touched upon. References were made to recent MoUD exercise for sanitation rating where the State ULBs are faring poorly.



In terms of the next steps within the Project, it was mentioned that ULBs are in the process of sharing targets with DMAs and PAS Project will provide the necessary support to review how realistic the targets are against the existing ground realities and performance parameters. It was stated that data for performance assessment will be housed within GoM and an online portal has been developed, which will help the State to capture, review and use the data for setting targets and inducing stepwise performance improvement measures.

Mr. Ratnakar Gaikwad, Chief Secretary, GoM shared the State Government's vision to eliminate open defecation in the next two years. Case of Mumbai Metropolitan Region (MMR) was shared to demonstrate through committed and focussed drives, it was possible to provide toilets in cities and eliminate instances of open defecation. The city managers were also urged to prioritize sanitation, health and education initiatives over beautification projects in their cities. The relevance of above three sectors and its direct impact on Human Development Index (HDI) was highlighted by the CS given the fact that Maharashtra has been performing poorly in open defecation practice. The neglect of UWSS will also have a direct bearing on HDI for the State.

In this light, it was suggested the all the ULBs in Maharashtra take the benchmarking business seriously and proactively plan for improvement in all four sub sectors. The cities should come upfront and declare minimum service levels to be achieved in the coming year as directed by the 13th Finance Commission recommendations to enable access to performance grants. The State has been working on several opportunities for making funds available to ULBs for improving services. Some of the serious efforts are being attempted through Maharashtra Urban Infrastructure Development Company Limited (MUIINFRA) to leverage funds from external donors for lending to ULBs.



Dr. (Prof) Sneha Palnitkar from AIILSG presented results from the Round I of assessment in Maharashtra. The State Government support through the offices of Urban Development Department (UDD) and Directorate of Municipal Administration (DMA) provided the necessary support to AIILSG for organizing initial exposure workshop meetings with all ULBs, followed by the data workshops either AIILSG's Mumbai office or in case of Pune Division, workshops at district headquarters. ULBs came to these workshops with all the needed information.



The ULB representatives also brought the necessary back up documentation as suggested in the checklist guidelines. AILSG teams, backed by senior sector resource persons, assisted ULBs to enter the data in the EXCEL checklist. The completed checklist was also shared back with the ULB representatives. The checklists were later verified through two filters: PAS team reviewing all data, and assessment by sector resource persons. Follow up phone calls were required in case of many cities. While this approach had greater ownership

of data by ULBs, the PAC members suggested that it would be useful to back up this data collection by field visits to sample ULBs. The presentation also highlighted sector and class wise results for key performance indicators across ULBs in Maharashtra. Key highlights include:

- Coverage of individual connections of water supply in Maharashtra is 52%, which is less vis-à-vis 78% of water supply network coverage in terms of area. About 11% ULBs have more than 75% of coverage of connections in the ULB. However, only 2 % have more than 75% of coverage of WS connections in slums.
- 23% of ULBs (58 cities out of 248) practice metering of WS connections.
- 49 ULBs report that they do not have slum settlements within their municipal limits.
- 49% ULBs do not receive daily water supply.
- Coverage of toilets at HH level in Maharashtra is 56%. Sanitation scenario in terms of access to toilet improves when community toilets are also taken into consideration. Then coverage of toilets at state level becomes 74%.
- Out of the 31 ULBs in Maharashtra which have partial underground network, only 19 ULBs have secondary treatment capacity

The presentation also highlighted efforts to mainstream PAS at the state level through links with state level UWSS programmes: Sujal Nirmal Maharashtra Abhiyan (SNMA) and the Sant Gadge Baba Abhiyan (SGBA) and possible support to the UDD for preparing a current status report for the 13th Finance Commission. Activities for Round II were also highlighted in the presentation.

Prof. Helena Alegre, Vice President, IWA made a presentation on Sustaining Benchmarking at national/state level discussing the phases and achievements of IWA benchmarking initiatives. She presented the case of Portuguese Benchmarking initiative in detail that started with a major political commitment since 1993. Clear institutional responsibilities were defined and a new regulatory framework was designed. In the presentation, the improvement in indicator values was emphasized. The re-organization of the water services is not yet complete in the country, but a very significant evolution has been achieved since 93. The shift in emphasis from asset creation to asset management was also highlighted in the Portugal case study.



In case of Portugal, there was a request from municipalities for introducing the regulator. For municipal services, the regulator does not have a role in tariff setting. For private connections, the regulator monitors compliance with existing contract conditions. For new contractors, the regulator has a role to advise on appropriate tariff settings. For bulk services, the tariffs are revised every year and the regulator has a higher role and authority to intervene. The presentation highlighted that

first generation of Public Private Partnership (PPP) contracts were poorly drafted for Portugal and tariffs were directly negotiated between municipality and private contractor. Hence, there was always a room for negotiation between rules as they were being set up.

The learnings evident from the Portugal case emphasized that Performance indicator system is a tool and not a goal in itself. The national and state governments have a very important role to play in mainstreaming performance assessment culture and this has to be achieved through more incentives and lesser penalties. For a performance assessment system to be effective, regular quality control and auditing are critical.

Mr. Manukumar Srivastava, Principal Secretary, UDD, GoM commented that Portugal regulatory framework is very relevant for Maharashtra as well. Most of the activities are in the policy domain and the onus would lie upon UDD to set up a similar mechanism for State. It was mentioned that proposal for setting up municipal water regulator in Maharashtra was in consideration and this will work towards appropriate tariff setting and technical support provision. While regulator in this case will not have direct powers for tariff setting, but will help resolve differences between the ULB executive body and elected body and such cases can be referred to regulator. It was emphasised the annual performance assessment needs to be mainstreamed within the ULB functioning and should not remain as a onetime exercise. The State is also considering efforts for ring fencing UWSS budgets to estimate the subsidies applied to the services. It was emphasized the ULBs have dedicated project funds that are meant for capital expenditure and other funds for day to day O & M. ULBs in Maharashtra have a provision to levy special benefit taxes and charges to be able to repay infrastructure loans and create dedicated internal fund for future O & M. The GoM has also issued a detailed guideline on tariff setting by ULBs. This can be referred to review their finances. Any change in existing tariff to enable meeting the O & M costs for ULBs is possible through passing necessary General Resolution in the ULB Standing committee.



He requested the ULBs to participate in the statewide service level benchmarking initiative. To ensure accuracy in performance assessment, ULBs should adopt scientific method for data

collection and draw long term plans for gradual service improvements. Currently, in the State, only Mumbai has “Perspective plan for service improvements”. Mr. Srivastava requested the ULB participants to develop comprehensive long term improvement plans and estimate capital and O & M requirements in the plan. This, accordingly, needs to be incorporated in to annual budgets of ULBs across the State. In accordance with CS’s emphasis on Open Defecation (OD) Free cities, he emphasised the budgets for OD free cities also need to appropriately reflect in the annual budgets of ULBs. Finally, the PS, UDD mentioned about the thinking towards creating sinking funds for ULBs as the local bodies do not fare better in debt obligations. Creating sinking funds can help realise easier debt repayments.

Mrs. Malini Shankar, Principal Secretary, WSSD, GoM commented that in Indian context the data validation has to go beyond desk validation and needs to be verified on ground. The ULBs need to revisit their performance data and self validate the targets in relation to existing realities.

Prof Enrique Cabrera, Chair, IWA Task force on Benchmarking made a presentation on concepts of Benchmarking and its usage in context of developing countries. Benchmarking, increasing efficiency through monitoring the performance of sector providers and adopting best practice have become increasingly widespread. Mr. Enrique Cabrera’s presentation gave an



overview of the benchmarking concepts and their use in the water industry. He illustrated activities being undertaken by specialist group on “Benchmarking and Performance Assessment” of IWA. He emphasized that indicators are excellent measurement tool, but only become meaningful when compared to previous performance, previously established objectives and to values from same peers. He added that three elements critical to success of any benchmarking include right indicator selection, appropriate confidence

grading and good implementation. The presentation highlighted the example of Uganda, where key performance indicators were regulated and built into the contracts, which also mentioned explicit performance targets. The payments made to the contractor were based on achievement of targets at city level.

He also mentioned about Sigma-benchmarking and performance indicators software for drinking water and wastewater utilities. The software is based on the IWA system of performance indicators and its Lite version is the official software for such system. Sigma makes the definition of a performance indicators system and the management of results an easy task. Sigma guides the user through the process of selecting and implementing a system of indicators for the utility. Sigma Lite was officially released in July 2000, as part International Water Association Press (IWAP) Manual of Best Practice and “Performance Indicators” for Water Supply services.

Mr. Manukumar Srivastava, Principal Secretary, UDD, GoM summed up the session key points. He emphasized on state level support to standardize guidelines for data collection and analysis for annual performance assessment in Maharashtra. He mentioned State level GR may be issued to adopt SLB/PAS as an annual exercise for all ULBs. It was suggested that data could be submitted by the end of first quarter of every year. He requested the ULBs to designate an SLB cell at the city level and depute staff for SLB training organized as part of PAS Project through AIILSG. The ULBs also need to operationalize data collection, validation and analysis at their level. This should feed in to realistic performance improvement plans for ULBs. Actions part of this initiative should appropriately be reflected in ULB annual budgets along with the plan to reach desired service levels.

In the post lunch sessions, good practice examples from Malkapur, Pimpri Chinchwad Municipal Corporation and Nashik Municipal Corporation were presented to highlight use of performance indicators for proactive improvement planning by three cities in Maharashtra.

Malkapur 24x7 Water Supply: Malkapur is a city 400 kms south of Mumbai located on National Highway 4 near the town of Karad. It represented a model project for 24X7 water supply, where water is supplied round the clock to population of 35,000 people. The town faced a real crunch when population increased from 5976 in 1991 to 22392 in 2001. The pressure on existing supply system forced ULB and Maharashtra Jeevan Pradhikaran (MJP) to think in terms of new project for augmenting source that can supply water round the clock. Intensive awareness campaigns to convince panchayat and households to go for 100 percent metering included emphasis on merits of metering and advantages of 24 hours supply.



Detailed household survey and network design with water gems helped establish an authentic database to implement ambitious project. The new network has been designed with specific thrust on volumetric billing, reduction of Non Revenue Water (NRW) and Unaccounted For Water (UFW). The target is to reduce UFW from 35-40 percent to 5 percent (planned to be monitored by water audit). 10 percent of cost for project was mobilized in terms of citizen contribution through convincing the stakeholders in form of citizen contribution. The significant outcomes relate to convenience of round the clock water supply, reduction in energy bills of ULB as well as citizens, improved and efficiency system with more consumer satisfaction and lesser complaints. It has now been possible to get data for regular online water audit and constant pressure monitoring and regulating system performance.

Nashik Municipal Corporation SLB Data Improvement at Local Level: Nashik has been supported under PAS Project for service level benchmarking initiative being promoted by Ministry of Urban Development (MoUD). The city was hand held for performance assessment in year 2008-09. Based on assessment of performance in four sectors, the city arrived at priority areas for information system improvements and priority areas for performance improvement. A

proposal was submitted to MoUD and a grant of Rs. 103.59 lakhs has been approved by GoI for household surveys and complaint redressal system for city. The presentation shared sequential steps for performance assessment and use of indicators for prioritizing improvement planning.

Based on review of reliability grades, the city identified Information System Improvement Plan (ISIP) measures required to improve reliability grades. The city has formed an SLB cell for regular updating of records and data and set targets for improvement in information system at least up to grade B for all indicators in three years. Accordingly, some of items being pursued for improving reliability include comprehensive household survey, which will help improve reliability across coverage related indicators in all three sectors, per capita supply, extent of metering , NRW, continuity and quality related indicator. The city has also initiated water quality tests information and data collection according to Central Public Health and Environmental Engineering Organisation (CPHEEO) manual. Centralized database of tests is maintained and independent audit of water quality is proposed. Bulk flow meters have been installed at various strategic points to measure the water flow. Quantification of water supplied to public stand posts and other utilities is also being pursued.

Pimpri Chinchwad Municipal Corporation SLB project overview: PCMC was also hand held by PAS Project as a part of 28 pilot cities on SLBs initiated by MoUD in 2009. The city compiled



first draft of SLB performance in late 2009 as part of this effort with assistance of state and central experts. It was realized that overall data reliability was relatively low given existing information and systems. The city was able to arrive at updated reliability levels ensuring linkages between SLB improvement targets and departmental budgets for 2011-12. Efforts related to building ownership on SLB initiative were also critical amongst Head of Departments (HODs) and key staff in

each department. Some of short term steps taken by PCMC to improve data quality included:

- Training – To ensure in-depth understanding amongst staff of what exactly each SLB indicator meant.
- Internal Validation – Appointed coordinator to review and challenge data submitted by each department.
- New Data Logs - Introduced new logs in certain areas to track data more accurately (e.g. complaints received via sms).
- External Validation – Conducted household level survey (3,000 households – approx 1% of total) to gather data first hand from citizens about service delivery performance and issues. The data is also validated through an NGO, ‘Janwani’ to confirm service levels with citizens. The proposals from citizens also get translated in to department budgets to represent citizen priorities.

In the coming years, the city plans to do quarterly review of progress versus targets. Realistic targets are being arrived based on updated baseline through survey and adhere to plans laid down in the city budget. The sample household survey will continue as ongoing exercise that will be conducted twice a year with increased sample size. In longer term, the city will also look at automating more of the data to make SLB performance easier to monitor.

Day 2:

- **Reforms in Water Sector in Maharashtra - Sanjay Dahasahastra, Water Supply & Sanitation Specialist, World Bank**

Dr. Sanjay V Dahasahasra, presented a case study on 'Reforms in Water Sector in Maharashtra'. He elaborated in detail about various reforms under different phases of MSNA. He demonstrated the case of Amravati Municipal Corporation. Under Sujal Nirman Abhiyan, Amaravati Corporation decided to convert existing water supply scheme into continuous water supply to the city. The exercise involved procurement of "Quick Bird" Satellite image of city, base map preparation and population forecast. Entire city was divided into 16 operation zone and the capacities of existing Elevated Storage Reservoir (ESR) were verified for peak hours' demand for an estimated population of the year 2011. The zones that did not have inadequate infrastructure were rearranged as per demand. Water Gems software was used to build the hydraulic model of entire pipeline network from source to the distribution network up to consumer premises by the staff of the Division & Circle office Amravati. Each zone was checked thoroughly by simulating the condition for 24x7 water supply. Parallel to this property survey was completed on the basis of base map prepared. After studying hydraulic model, the zone was divided into three District Metered Areas (DMAs). Pressure Gauges are also installed; data thus obtained will be utilized for calibration of the hydraulic model. Hourly reading of all meters was recorded, as well as readings of domestic meters are recorded by Change Management Unit (CMU) periodically. The process was carried out to reduce NRW up to 15 percent target.

The presentation helped highlight efforts being undertaken for 24X7 water supply in select ULBs of Maharashtra and the reform package being promoted under MSNA. The participating ULBs had several discussions on source sustainability for ensuring 24X7 water supply, investments required by cities and grants available from the State for promoting 24X7, which were clarified by speaker and DMA representatives.

- **Web portal and online data modules for PAS/SLB – CEPT University**

CEPT PAS team demonstrated the in progress version of PAS web portal. The web portal has been designed as a digital platform to collect, review and share information related to performance assessment for UWSS in Maharashtra. The presentation iterated that first round of data collected for UWSS sector for 2008-09 has already been fed in to the portal and second round of data collection is under progress for 2009-10 and 2010-11. In the second round a few percent of ULBs will use online data entry modules to do self assessment via web portal. The presenters also demonstrated the online data entry module screens for capturing data as prescribed by the MoUD along with additional information for services in slums and non-sewered cities. It was discussed that indicator results for all cities will be made available in the public domain for reference and downloading and the data collected for performance assessment will be restricted to respective cities and state administrators.

Differential access to details based on user types was also explained to the ULB participants. In the current form, the access to basic data for each city will be limited. The ULB and state administrator(s) and final SLB-type results will be open to all after due validation by the States. Language choices in Marathi have also been made available to users. The portal enables standard state and ULB reports as well as query-based comparative reports. During the first day, the ULB participants were allowed hands on trial for the web portal and were demonstrated effective use of the tool for the ULB staff, elected representatives and other stakeholders to arrive at priority investment areas.

The resources section under portal also hosts various documents, reports and presentations produced by the project. These documents provide an overview of the Project and issues concerned with urban water and sanitation sector. This section has been designed with an aim to disseminate information on the PAS Project and build a strong case for performance assessment in urban water and sanitation sector.

- **Service level target assessment for ULBs as per Thirteenth Finance Commission – CEPT University**

The 13th Central Finance Commission (CFC), which submitted its report in 2010 has recommended specific grants for urban local bodies. As per these grants, ULBs in Maharashtra are likely to receive about Rs 3178 crore over 2010-11 to 2014-15. To fulfill the conditions of notifying targets for service levels for the next fiscal year, two activities related to setting of targets for all indicators will be needed: one at the state government level to set feasible targets and related fund allocations, and second at ULB level to assess state suggested targets and set their own revised targets as needed.

The presentation by CEPT on service level target assessment for ULBs demonstrated progress on developing a Decision Support System (DSS) tool for the State Government to set indicative targets for each ULB. The DSS will support the State Government to identify feasible targets based on an assessment of current status across all ULBs and assessing funding implications of

these targets. The presentation suggested a framework to capture the required service target levels. Advocating Thirteenth Finance Commission (TFC) recommendations, a participatory process between state and ULB is suggested to arrive at feasible and realistic targets to capture inspirations of both tier governments. The state level target setting model has been customized to capture the local context. eg. monitoring reform agenda laid by Maharashtra via. Sujal and Nirmal Abhiyan. The interventions in model are based on categorization of ULBs in three groups as low, medium and good performing ULBs for each Key Performance Indicator (KPI). The input for model is in terms of improvement suggested for each of these categories. Based on these suggested improvement levels, estimation of capital expenditure is evaluated at state level.

At ULB level, detail analysis of existing service level is conducted through comprehensive performance improvement planning framework. This evaluates action areas required to improve performance not only in terms of capital investment, but also process improvements, policy changes, information improvement systems etc. The model facilitates alignment with current municipal finances of ULB to evolve at feasible action plan for ULB. It is thus envisaged that these simulation models would facilitate state and ULB to arrive at their service level targets based on long term planning.

- **Performance Improvement Plan Framework – A case of Nandurbar – Presentation by CRISIL Advisory Services**

CRISIL Advisory Services (CAS) has been retained under the PAS Project to develop a framework for Performance Improvement Planning at the ULB level. CRISIL made a presentation on Approach for Performance Improvement Planning that is being developed to arrive at capital investment areas and series of process improvement changes at the ULB level to improve performance on key performance areas in water and waste water sectors. It was emphasized that generic framework for PIP will help prioritize process and low cost improvements over capital investments. The framework results tested in selected cities will be available for other cities as a tool /manual for step wise performance improvement planning. The presentation gave an assessment of performance indicators for Nandurbar and identified a series of policy changes, process improvements and capital investment areas for the city.

It was discussed that a framework for decision makers in ULBs to assess their current performance in water and sanitation services. It will help them to identify sequential activities that can improve the performance and parallel to this identify actions that improve the quality of data available. Based on the choice of actions, the model will help review the impact that the selected actions can make and accordingly assess municipal finances to check which actions can be afforded by the ULB. Such a framework helps them plan for additional resources and combine various actions in an implementation plan to improve performance.

The PIP framework as demonstrated is a MS Excel based model, with a dashboard of indicators showing baseline performance and impact of changes. It helps the user choose a list of possible actions and switched to activate individual actions and calibrate the form of the actions. A working table generated as a result of choosing the action will show the effect of each

individual action in terms of change in indicator value and projected financials of the ULB. It will also generate a statement to show the need for additional financial resources.

- **Model for Open Defecation – Presentation and Interactive exercise by CEPT University**

CEPT team presented framework to estimate the extent of open defecation for cities, given that Open Defecation Free (ODF) cities is a major goal in Maharashtra. The framework has been designed to include estimated population susceptible to open defecation and cost of providing safe sanitation to them. This would help in developing master plans to provision public toilets and introducing necessary schemes for individual toilets.

The presentation highlighted approach towards OD free cities and laid down sequential steps in terms of diagnostic phase and implementation actions. The diagnostic steps have been detailed out so that the location aspect could be included to identify locations, where the toilets need to be constructed. The framework which is designed as a simple excel tool would also help the ULBs themselves to assess the likely open defecation in their cities. Based on the choice of individual or community toilets to be constructed by the city, the model helps estimate capital investment to make city OD free. It also has a provision to calculate city wide survey and awareness building costs to facilitate realistic cost estimate by city managers.

- **Improving measurement and monitoring at local level – Mr. Rajeev Jadhav, Commissioner & Director, DMA, Government of Maharashtra**

Mr. Rajeev Jadhav summed up the discussions during the two days. He mentioned about JnNURM and Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) initiated in 2005, wherein focus was more on larger reforms like property tax. It had ignored service and efficiency issues in UWSS and challenges staring Indian cities related to open defecation. Further distribution of UWSS in three departments in Maharashtra created operational challenges with respect to implementation of projects and reform measures. He reiterated that Maharashtra is already undertaking several reforms in UWSS sector. The State intends to collate these targets as given by the ULB and gazette it to share with MoUD as one of the formalities to access performance grants for Maharashtra out of the total 9 reform measures.

Approach for SLB exercise in the State:

Mr. Jadhav further deliberated on the possible approach to be adopted by the State Government to achieve SLB benchmarks. He mentioned that there are not any directives available either from Centre or from GoM. The choice will have to be made between sector wise approach or indicator wise approach. The State may decide to target one sector instead of trying to target all the indicators for each city. Once the approach is decided, one needs to weight options on low cost options or larger PIP improvements that need substantial capital improvements. While it may not be possible to improve all the indicators simultaneously, hence a rationale approach has to consider available finances and prioritize sectors for improvements. He also requested the ULB managers to treat this exercise as part of their basic duty as stated in the municipalities

act and nothing different from their day to day activities of delivering urban services. He emphasized that it is high time that the ULBs should go through the SLB exercise. While AILSG under PAS Project has helped to collate all data, this can be used by the State to interpret UWSS situation. There is no dearth of technical support for ULBs; this can be facilitated to the State to help ULBs develop robust information systems. However, for acting on this, the State/ ULBs have to realistically access available resources (financial and technical) and prioritize improvement areas.

In this context, the baseline being generated on UWSS in the State will help provide a realistic assessment of the funding requirements for sector improvement and achievement of benchmarks. Thus the ULBs were requested to be more supportive of annual performance assessment exercise being pursued by CEPT & AILSG in Maharashtra. He suggested that ULBs should put together their teams to revisit their SLB benchmarks and agree on existing baseline. This will help arrive at realistic targets on where and how the cities intend to improve their targets and achieve SLB benchmarks. It was mentioned that cities are the best agencies to authenticate their targets and prepare and financial and technical improvement plan for achieving stepwise improvements to reach service level benchmarks.

Support through ongoing projects at State level:

- Mr. Jadhav also mentioned about resources flowing through various state and central level programmes at the ULB level. He explicitly talked about Maharashtra Sujal Nirmal Abhiyaan and Nagaro Utthan Programme. He mentioned about Rs. 650 crores that have been made available to the State for implementation of both JnNURM and UIDSSMT schemes/projects. He mentioned about 160 ongoing schemes, out of which 125 are relate to UWSS.
- In addition to this the GoM has also allocated about Rs. 100 crores for state wide E-governance programme for the State after thorough testing of the Kalyan Dombivli Municipal Corporation (KDMC) model. This will be implemented in all ULBs across the state irrespective of their class or size.
- Double entry accounting system has also been introduced through a state wide approach. 41 CA firms have been recruited by the State Government to handhold the ULBs to implement double entry accounting across the State. Appropriate hardware and Tally software has been provided to the ULBs.
- The GoM has also allocated Rs. 9 crores to Maharashtra Remote Sensing Applications Centre (MRSAC) Nagpur to procure satellite digitized images, which can be used for all sorts of improvement planning by the ULBs.
- He also mentioned the ongoing City Sanitation Plan(CSP) programme, where CSPs for 23 municipal corporations have been prepared and the ULBs should make use of this information and plans for prioritizing their improvements.
- The other priority at the DMA level is in terms of developing sanitary landfill sites. The strategy also entails emphasizing segregation at HH level so that sites for organic and inorganic waste can be appropriately developed.

- The State is also thinking in terms of waste recycling systems and energy plants from waste. Sewerage is another priority at the state level. Efforts need to be made to ensure that for non-sewered cities, each HH is connected to a septic tank.
- Efforts are also underway to plan and implement pilot 24x7 schemes through Public Private Partnership (PPP) basis.

Expectations for urban local bodies to materialize state wise performance assessment and monitoring:

Mr. Jadhav requested the ULBs to take advantage of the workshops and other opportunities provided through such platforms to seriously consider SLB exercise. After realistic analysis of their existing situation, the ULBs should come forward with robust improvement plans and resources required to achieve improved targets. Accordingly, appropriate allocations should also be made by ULBs in their respective budgets through their own revenue sources. For the additional amounts, ULB needs to think through in terms of mobilizing these resources through loans, applying for grants under state/central programmes and other means of innovative financing. He emphasized the need for setting and sharing realistic targets in terms of commitments under the existing Right To Information “RTI” Act. The ULBs are answerable to the citizens and need to transparently disclose and report on the targets for UWSS.

The ULB managers need to adopt a paradigm shift in their thinking processes and attempt to compete with the “best in the class”. The challenge lies in terms of how fast and effectively can the ULBs achieve the service level targets. Quantification of improvements is also essential through a transparent system that depicts the improvements achieved in an unbiased fashion. He mentioned to think in terms of how such a system can be incentivized. Can it be related to the performance reports of ULB chief officers? He urged that there should be some level of consistency in terms of reporting processes and the ULBs should think it from the perspective of achieving self sufficiency and sustainability in each of the four sectors.

State’s vision for ODF free cities

He emphasized the State’s goal in terms of creating ODF cities. The efforts are being coordinated directly by the office of Chief Secretary. The need for an authentic survey was emphasized to arrive at adequate and appropriate information base. Mr. Jadhav mentioned various grants available under MSNA, Integrated Low Cost Sanitation Scheme (ILCS) and other GoI programmes for construction of toilets. He urged the ULBs to be sensitive towards ODF cities and submit proposals to DMA for implementing plans for ODF free cities. Mr. Jadhav urged the ULBs to start collecting data for ODF plans. The DMA is expected to shortly announce ODF schemes for B & A class councils in April.

Expectations from CEPT/AIILSG

- DMA also urged CEPT team to lay down basic principles for data collection for performance assessment exercise. The manual for data collections should be like a guide to ULBs who want to do self assessment without compromising on the data quality.
- DMA required CEPT team to come up with list of Do's and Don'ts for ULBs. Solutions that are low cost need to be prioritized first. Adequate efforts should also go in exploring business process re engineering to look at possible improvements through process restructuring.
- It was also requested to think on possibility of decision support system for ULBs. The advantages of such a system are to help the ULBs with prioritization of actions at their end given the limited resources available for carrying out range of improvement actions.

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