



City Sanitation Plan for Small Towns in Maharashtra

Review Meeting

April, 2013

**Review Meeting on Approach to Low Cost Sanitation
Planning in Smaller Towns in Maharashtra**

25th April, 2013

**Maharashtra Environmental Engineering Training
and Research Academy, Nasik**

Organised by:

CEPT University

Maharashtra Jeevan Pradhikaran

All India Institute of Local Self-Government

Background

CEPT University and All India Institute of Local Self-Government (AIILSG), in partnership with Water Supply and Sanitation Department (WSSD), Government of Maharashtra and Maharashtra Jeevan Pradhikaran (MJP) under the PAS Project are supporting preparation of City Sanitation Plans (CSPs) for four small towns in Maharashtra – Ambajogai, Hingoli, Sinnar, and Wai. The focus of these CSPs is to assess options for low cost sanitation and decentralised solutions for wastewater management. This was initiated at the meeting with all four cities in Nasik in May 2012. The base assessments were subsequently shared with the city representatives in August 2012.



Over the last eight months, PAS Project teams have carried out baseline assessment across various sub-sectors and held meetings and consultative workshops in all the four towns. The draft CSPs have now been prepared with options for wastewater management and other sanitation proposals across the sanitation value chain. Based on analysis of capital and O&M costs of these options and review of municipal finances, a financing plan has also been prepared to discuss and arrive at financially viable sanitation improvements.

The draft CSPs were shared with representatives from all four cities at the third review meeting held at Maharashtra

Environmental Engineering Training and Research Academy (MEETRA), Nasik on 25th April, 2013. The meeting was attended by Chief Officers and technical staff from sanitation and solid waste departments of four cities. Other participants included representatives from MJP, CEPT, AIILSG and Micro Cloud Computing (MCC) Pvt. Ltd. team which is supporting CEPT in preparing CSPs. The meeting captured feedback from the city representatives and discussed financial status and affordability of various sanitation solutions.

Presentation on City Sanitation Plans

The MCC team members presented a baseline assessment and highlighted the proposals for sanitation improvement for access to toilets, black and grey water conveyance, treatment and reuse options. Sanitation facilities for households, establishments and other public facilities were discussed. The city presentations also highlighted low-cost non-sewered/decentralised options including on-site sanitation with proper maintenance and cleaning for septic tanks and options for fecal sludge treatment. Other factors such as water availability, toilet coverage, existing physical and topographical features, institutional and socio-cultural that have been considered for proposing improvement actions for sanitation were also presented.

Financial assessments of all options were presented for each city. This included both an analysis of capital and O&M expenditure and possible tariff increases necessary to recover O&M costs. Based on assessment of municipal finances, possible options for bearing capital costs, borrowing possibilities were also discussed. CEPT even offered to provide technical support for preparing detailed project report (DPR) for cities that are

interested in taking up low-cost sanitation options.

Sinnar City Sanitation Plan

The MCC team presented a baseline assessment of Sinnar and proposed strategies to reduce open defecation, provide 100 percent household sanitation coverage, wastewater management options related to: a) sewerage options (conventional and settled sewerage) and b) on-site and decentralised sanitation systems (DSS) and c) to improve solid waste management. Financial implications and financing plan of these options were also discussed by the CEPT team.

During discussion, it was highlighted that tariff revisions, grants and capital investments required for DSS are low as compared to conventional sewerage system. It is estimated that Rs. 83 crore will be required for underground sewer proposal as compared to on-site DSS that can be completed at less than 10 percent of this cost. Based on the discussions, the Sinnar representatives suggested that development of a proposal can be taken up to detail out the DSS option in one of the prabhags. They also suggested developing a collection network for Gaothan area. It was agreed that further details of these suggestions will be discussed with Sinnar city representatives.

Wai City Sanitation Plan

The MCC team presented baseline assessment of Wai Municipal Council and proposed strategies to reduce open defecation, provide 100 percent household sanitation coverage, wastewater management options for either a settled sewerage system or on-site DSS and to improve solid waste management. Financial implications and financing plan of these options were also discussed by the CEPT team. Representatives from Wai

indicated that the National River Action Plan (NRAP) scheme of Rs. 16 crore for interceptor sewer and sewage treatment plant (STP) has not yet been sanctioned.

During the discussion, it was highlighted that Wai has a favorable natural topography to implement a settled sewer system at an estimated cost of Rs. 9.4 crore. Based on the financial assessment, Wai would still require an additional grant of about Rs. 5 crore for this option. However, in case it decides to implement on-site sanitation system, it will be possible to implement it using its own resources as the total project cost would only be around Rs. 5 crore and no grants may be needed. It was agreed that it would be useful to explore the development of a decentralised option with a possible settled sewerage, where needed for wastewater management. Further details will need to be worked out.



Hingoli City Sanitation Plan

The MCC team presented baseline assessment of Hingoli and proposed strategies to reduce open defecation, provide 100 percent household sanitation coverage, wastewater management options for either a conventional/settled sewerage system or on-site DSS and to improve solid waste management. Financial implications and financing plan of these options were also discussed by the CEPT team.

It was discussed during the presentation that a sewerage proposal of Rs. 74 crore has been submitted to the Government of India under Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT). It was pointed out that about 85 percent of the ongoing water supply project is completed. Once this project is commissioned, water will be supplied at the rate of 135 lpcd.



Based on topographical analysis, it was highlighted that Decentralised Wastewater Treatment System (DEWATS) can be a feasible option. For on-site sanitation or DEWATS, the city officials felt that a pilot project can be considered for Prabhag 1 of the city, where there are around 2,200 households with a population of 10,000. This Prabhag 1 is located in north of the city.

Ambajogai City Sanitation Plan

The MCC team presented baseline assessment of Ambajogai and proposed strategies to reduce open defecation, provide 100 percent household sanitation coverage, wastewater management options for either a sewerage system (conventional/settled or on-site DSS) and to improve solid waste management. Financial implications and financing plan of these options were also discussed by the CEPT team.

It was discussed during the presentation that underground sewerage system is sanctioned under UIDSSMT for Cluster/Zone 2 (which covers major population) of the city and the city is also working towards achieving open defecation free status. For Clusters/Zones 1, 3, 4, suitable conveyance and DEWATS system can be considered as these areas have different topography and less population as compared to Zone 2.

Beed City Sanitation Plan

The city officials from Beed reported status of their city sanitation plan which is being prepared with support from AIILSG. It was discussed that the underground sewerage system is proposed under UIDSSMT. The proposal was resubmitted with new areas and boundary and it has been recently sanctioned. However, some low density areas did not get technical sanction in the proposal. Based on the discussions, the city officials felt that these areas can be considered for on-site sanitation system. The city officials also informed that they have recently completed construction of 715 toilets under Maharashtra Sujal Nirmal Abhiyan (MSNA) which will reduce the open defecation in the city from 9 percent as per Census 2011 to 6 percent.



Next Steps

The overall discussions suggested the need to focus on aspects related to developing appropriate wastewater

management strategy. The financial projections suggest large grant requirements for capital funding of conventional underground sewerage systems. More importantly, the financial analysis also showed the burden these will place on the ULB finances both to meet their share of capital expenditure and to meet the O&M expenditure over the life of the project. In most cases, this will also require considerable tariff increases. On the other hand, it was pointed out that the decentralised wastewater management options identified for all the four cities are likely to be more cost effective and can be managed through ULB own finances effectively.



A second priority across all the cities was the need to focus on making their cities open defecation free. Further work would need to focus on improving the functioning of community toilets in most cities as well as exploring greater access to individual toilets in different parts of the city including both slum and non-slum areas. For this, access to credit as well as innovative designs to address issues related to lack of space for a toilet in many households will need to be addressed.

As a follow up to the meeting, it was agreed that all participating ULBs will review draft City Sanitation Plans and Financing Plan. Each city will revert with their respective comments or suggestions to MJP, CEPT and MCC team within two weeks (by 11th May 11 2013).

The CEPT team iterated its commitment to provide further technical support to cities that are willing to try and test decentralised solutions and for making cities open defecation free. For this purpose, it was suggested to discuss this in the respective Municipal Councils and revert to MJP and CEPT with a go-ahead from the Councils.

As agreed in the meeting, the next steps identified were:

1. Each city representative to get back to CEPT/MCC with their comments on the draft report by 11th May, 2013. Based on this, CEPT/MCC team to finalise the report for submission to the Government of Maharashtra.
2. Each city to discuss in a council meeting and decide on an area/prabag for detailed assessment of decentralised sanitation options by 31st May, 2013.
3. CEPT team to initiate detailed work in each city from June 2013.

The MJP, AIILSG and CEPT representatives thanked the participants for their active participation and concluded the meeting. The city representatives were encouraged to come forward with their suggestions on next steps towards implementing sustainable and affordable solutions for sanitation improvements in their respective cities.

The Performance Assessment System (PAS) Project

The 'Performance Assessment System – PAS' is a five-year action research project, initiated by the CEPT University, Ahmedabad, with funding from the Bill and Melinda Gates Foundation. It supports development of appropriate tools and methods to measure, monitor and improve delivery of urban water and sanitation services in the states of Gujarat and Maharashtra. The PAS Project comprises three components of performance measurement, monitoring and improvement.

The PAS Project is supporting the development of City Sanitation Plans (CSP) to achieve open defecation free status for four small cities in Maharashtra, which are Wai, Hingoli, Ambajogai and Sinnar. These cities were selected by the Water Supply and Sanitation Department, Government of Maharashtra, and Maharashtra Jeevan Pradhikaran (MJP). A framework for city-wide assessment using the full value chain for urban sanitation has been developed, which is being used in developing these CSPs. Initial workshops were organised by the MJP with officials of these cities to discuss the CSP approach. Draft plans for these cities are ready and will be discussed with city officials.