



City Sanitation Plan for Small Towns in Maharashtra

Review Meeting

August, 2012

**Review Meeting on Approach to Sanitation Plan in Smaller
Towns in Maharashtra**

30th August, 2012

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

Organised by:

CEPT University

Maharashtra Jeevan Pradhikaran

All India Institute of Local Self-Government

Introduction

A review meeting for the preparation of City Sanitation Plans (CSPs) focusing on non-sewered options for Wastewater Disposal was held on 30th August, 2012 at Maharashtra Environmental Engineering



Training and Research Academy (MEETRA), Nashik. This review meeting was in furtherance to the initial meetings held on 13th April, 2012, when six municipal councils (Ambejogai, Hingoli, Sinnar, Wai, Beed and Wardha) were selected for CSP preparation under PAS Project in association with Maharashtra Jeevan Pradhikaran (MJP) and on 8th May, 2012, when the selected cities presented their initial diagnostics. In these meetings, experts from MJP, CEPT University, Ahmedabad, All India Institute of Local Self-Government (AIILSG), Mumbai and IIT, Bombay discussed with the cities various non-sewered options for waste water disposal and its advantages. At the same time, timeframe for various activities for the CSP preparation was also discussed with the cities.

In continuation to that, a full day meeting was held on 30th August 2012 to share the baseline assessment of present sanitation scenario and improvement options with the respective cities.

The gathering was acknowledged with a warm welcome by Mr. Prashant Kulkarni, Deputy Engineer, MJP, and then by Mr.

Gajbhiye, MJP who briefed the overall status of the said CSPs so far. He reiterated the purpose of selection of these cities and the importance of focus on non-sewered options for them. He also emphasised on the CSPs of Municipal Corporations in the State prepared by AIILSG, Mumbai and their current status. In his introductory speech, he spoke about the activities undertaken over the last three months to come up with citywise situation analysis and appropriate solutions for them. He opened the session by introducing the agenda in brief and handed it over to the team for making presentations on various CSPs. Before the presentations, Dr. Dinesh Mehta, Professor Emeritus, CEPT University congratulated the CSP teams for the timely completion of activities so far. He also emphasised on the six months deadline for the completion of six CSPs and submission to Water Supply and Sanitation Department, Government of Maharashtra.

Main Highlights

The review session started with a presentation on draft CSP for the city of Wai, made by Mr. Saurabh Agashe, Micro Cloud Computing (MCC) Pvt. Ltd. MCC is



the consulting agency supporting in development of the CSPs. The diagnostics covered key areas of the sanitation sector in

the city such as household and community level sanitation, grey and black water management, storm water drainage and solid waste management. The team from MCC had taken the topography of Wai and its proximity to River Krishna into consideration while preparing the CSP. To reduce open defecation, it was recommended that the O&M of the community toilets be outsourced to an external agency. Based on a survey, it was found that the users are willing to pay up to Rs. 30 per month. For grey and black water conveyance, small bore sewerage and treatment through moving bed biofilm reactor (MBBR) technology was recommended. All recommendations were categorised into short term, medium term and long term actions.



The presentation was followed by discussions within sector experts and urban local bodies (ULBs). All positive and negative aspects of recommended options and 'willingness to pay' on paper and in actual were discussed. Officials from Wai Municipal Council (WMC) appreciated the recommendations made. They expressed their views on prospects of implementing suggested options and the need of extended surveys for the same. They also mentioned that efforts towards privatisation have been made and the O&M of five toilet blocks have been already outsourced. The major challenge faced is the collection of imposed fees/charges, which needs to be addressed. WMC officials said that they would prefer an integrated approach than having actions

categorised into short term, medium term and long term.

The draft CSP of Sinnar was presented next. The diagnostics were discussed during the initial part of the presentation. Further discussions took place on quality of wastewater and the samples taken from various locations such as drainage outlet, river, open drains, septic tanks etc. as very



high Biological Oxygen Demand (BOD) and Chemical oxygen demand (COD) levels were observed across all samples. The reasons for this were estimated by the experts by expressing possibility of having very low water level and thus high concentration of organic matter. During the presentation, it was also pointed out that the coverage of individual toilets in slums is extremely low. The Chief Officer (CO), Sinnar Municipal Council (SMC) responded by saying that the legal status of land is an issue. He also said that though an Integrated Housing and Slum Development Programme (IHSDP) scheme was proposed, people were not ready to shift as they wanted to be given larger houses. For wastewater management options for conveyance and treatment, it was recommended that a Decentralised Wastewater Treatment System (DEWATS) unit be set up on pilot basis. Then eventually DEWATS treatment units will be set up zone wise. The CO, SMC concluded by saying that the major challenge faced is shortage of staff. He also said that Sinnar

had become a land hotspot. Increasing demand has made land very expensive, thus providing land for setting up several DEWATS units will be a challenge. He requested the teams to illustrate to the staff of SMC, the peer sites where the proposed technology was already functional.

The other overall comments on the presentations by the team and experts were noted as follows:

1. ULBs should pass and follow their own set of bye-laws for water supply and sanitation as it would help them levy taxes and. (Mrs. J. Chekkala, AIILSG, Mumbai).
2. Option of individual toilets, group toilets and/or combined individual toilets need to be explored wherever land is not a major issue. (Dr. Meera Mehta, CEPT and Mr. K. V. Dinesh, Sanitation Expert).
3. Willingness to pay for community toilets may remain on paper and when the charges are levied in actual, it may not work completely. [Mr. R. B. Biniwale, National Environmental Engineering Research Institute (NEERI)].
4. Technologies should be selected that are financially affordable and sustainable for ULBs. (Mr. R. B. Biniwale, NEERI)
5. For heritage cities and cities with increasing demand for land, land availability for setting up decentralised sewage treatment plants needs to be taken into consideration. (Through discussion).
6. All open drains need to be covered on the immediate priority. (Mr. R. B. Biniwale, NEERI).
7. Taking into consideration, ULBs' capacity to implement and monitor technology based options for disposal of waste, less complicated options need to be selected. (Dr. Dinesh Mehta, CEPT)
8. Whether quantity of wastewater is sufficient for recycling also need to be thought. (Mr. R. B. Biniwale, NEERI). To improve access to toilets, on immediate priority, frequency of maintenance of community toilets needs to be increased. (Through discussion).
9. Workshops and Information, Education and Communication (IEC) activities to make citizens aware of the importance of cleaning septic tanks at least once in two years. (Chief Officer, Sinnar Municipal Council).
10. Involvement of self help groups in improving access to services should be explored further. (Dr. Meera Mehta, CEPT).
11. Period for all short and long term activities should be specified to have concrete plan in place. (Mr. R. B. Biniwale, NEERI).
12. Staff in ULBs needs to be strengthened compatible to the additional area and services in the city. (Mr. Saurabh Agashe, MCC).
13. One ward/selected area in the city can be taken up on pilot basis for setting up of the DEWATS unit. (Dr. Meera Mehta, CEPT).

In the post lunch session of the review meeting, the technologies by IIT, Bombay and NEERI were presented.

Mr. Chandrashekar, from Vision Earthcare Pvt. Ltd., IIT, Bombay presented a short

documentary on the conceptualisation, initiation, development and demonstration of a wastewater treatment technology. He then made a presentation to give details of various aspects of the technology i.e. its quality, scalability, flexibility and ease of implementation and operation. When asked about the limit of BOD and COD levels that can be treated by the plant, Mr. Chandrashekar said there were no limits and the plants can be designed accordingly.



The next presentation was made by Mr. R. B. Biniwale, NEERI. He

presented on the Phytorid Wastewater Treatment of NEERI. The technology involves the construction of a wetland exclusively designed for the treatment of municipal, urban, agricultural and industrial wastewater. The system is based on the specific plants such as Elephant Grass, Cattails, Reeds, Cannas pp., Yellow Flag Iris normally found in natural wetlands with filtration and treatment capability. The technology can be constructed in series and parallel modules/cells depending on the land availability and quantity of wastewater to be treated. He explained the technology has various advantages such as no power requirement, low capital cost compared with standard sewage/effluent treatment systems, simple construction and low maintenance. Mr. Biniwale gave an illustration of several locations where the technology was operational. Commenting on the draft CSP for Wai, Biniwale said that if NEERI's technology is adopted, setting

up of a 6 MLD plant at a single location would not be required. He also insisted that visits of cities to the sites where this technology is adopted should be arranged so that city officials can get a first hand understanding of the technology.

MCC then presented the draft CSP for Ambejogai. The initial diagnostics gave insight into the prevailing household level sanitation facilities as well as lack of sanitation facility in slums at individual level. Absence of a conveyance system other than open drains and lack of any treatment facility were also discussed. The proposed sets of actions were categorised into short term, midterm and long term actions. They included promotion of household sanitation through IEC



campaigns, rehabilitation of all other community blocks, initiation of schemes for individual toilets in slum areas and developing an underground sewer system for conveyance and waste stabilisation ponds for treatment of wastewater.

The combined draft CSP of Beed and Wardha was the last presentation made by AIILSG, Mumbai. Diagnostics based on service level benchmarking (SLB) indicators along with the present scenario of sanitation was presented. The presentation concluded with a proposed scheme on underground drainage scheme under Urban Infrastructure Development Scheme

for Small and Medium Towns (UIDSSMT) with four larger zones with four major centralised sewage treatment plants along the river.

The meeting was concluded with remarks by Mrs. J. Chekkala, AIILSG, Mumbai, requesting cities to continue their co-operation with the teams from CEPT, AIILSG and MCC.

Way Forward

In context to the way forward, Mr. Saurabh Agashe, MCC informed that in the next stage, the team would visit the cities as per officials' convenience and present the draft CSPs to all stakeholders. The team will further work closely with the cities to finalise their CSPs within specified time frame. Finally, Mr. Prashant Kulkarni, MJP congratulated the teams for their efforts and said that they were on track with the timeline for preparing the CSPs, thus concluding the meeting.

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.