

Bharati Vidyapeeth's
College of Engineering, Lavale, Pune
Department of Civil Engineering

Report on SWM Workshop

In today's world, cities have remained focus of the economic growth. But growth brings along with it some issues and development often sacrifices health, hygiene and environment. By the year 2030, 40% of Indian population would be living in cities. For the sustainable growth of the cities, comprehensive development of physical, institutional, social and economic infrastructure is of utmost importance. With a view to achieve sustainable and inclusive development, the Government of India has launched the Smart City Mission to create a replicable model which can be used by other aspiring cities.

One of the core infrastructure elements in a Smart City is sanitation including Solid Waste Management (SWM). This is the element having spill over impact on other core elements like health and sustainable environment. The local governing bodies in cities have established a system of SWM with a varying degree of success. We have a few success stories but we still have a few challenges. The SWM industries have also evolved and come up with options that could make SWM a financially viable proposition. The Central Government has already prepared draft rules, which has given further thrust to the SWM. It is time to understand and review the prevailing systems, their degree of achievement, problems/ issues associated with the system and the way forward for achieving the stipulations formulated under the Smart City Mission.

At this juncture, it is also important to understand the role of each stakeholder in the whole process. The current workshop aims at bringing representatives of different agencies associated with SWM on one platform to discuss the status, achievements, issues and options to address the issue of SWM in the context of the Smart City Mission.

A 2-day National workshop was organized by the Department of Civil Engineering, College of Engineering, Lavale, Pune during 15-16 January, 2016 on the college campus. Major objectives of the workshop were,

- To understand the concept and challenges of Smart City
- To outline a replicable model for SWM for Indian cities to qualify for the Smart City status
- To understand the role of different stakeholders for efficient, sustainable SWM in Smart Cities

On the first day, the Inaugural Session of the workshop witnessed a huge gathering of eminent personalities from Bharati Vidyapeeth, Government of India, autonomous institution and Fire

and Security Association of India (FSAI). From Bharati Vidyapeeth, Dr. M S Sagre, Joint Secretary was present for the Inauguration. Dr. Rakesh Kapoor, Additional Secretary, Government of Himachal Pradesh was the Chief Guest of the function and Mr. Pankaj Dharkar, National President, FSAI was the Guest-of-Honour. Captain Purvesh Gada, Associate Director, PricewaterhouseCoopers and Dr. A K Sahu, President, National Solid Waste Association of India (NSWAI) were the two Keynote Speakers of the Inaugural Session. Mr. K P Dominic, Executive Board, FSAI and Mr. Anand Joshi, Pune Chapter President, FSAI were also among the dignitaries on dias. In the audience, representatives from FSAI, SWM industries, other engineering colleges and students were present.



The Session began with welcoming all the guests. Then Bharati Vidyapeeth Song was played. Then the dignitaries on the dias were invited to light a lamp to mark the beginning of the session. Dr. S M Shendokar, Principal, BVCoE, Lavale provided a preamble to the event by briefing the gathering about the objectives of the Workshop and also about the FSAI Skill Development Centre for Fire Safety, Security and Automation inaugurated on the same day. He linked both the events to equipping the students of the College for the professional challenges they would have to face when they complete the course and start looking for employment in different professions. After this brief introduction, Dr. Sagre was invited to welcome the Chief Guest and Guest-of-Honour with flowers and felicitate them by presenting a shawl and a memento. Dr. Shendokar welcomed and felicitated Mr. Dominic and Dr. Sahu while Prof. U S Patil, HoD, Department of Civil Engineering did the honours to Captain Gada and Mr. Joshi.

Dr. Sagre then declared the Workshop open. In his Inaugural address, he briefed the audience about how Bharati Vidyapeeth – dream of the founder Dr. Patangrao Kadam – saw the light of the day and developed into a giant family of 73 schools and 67 colleges of higher education in around 50 years' span.



Captain Gada set the tone of the workshop by his Keynote address on Smart city: Concept and Challenges. It was important to understand this, as the deliberations that followed during the two days were based on the challenges mentioned in this talk. The second Keynote address was delivered by Dr. A K Sahu on Solid waste management in India. He described the status and achievements of different ULBs through case studies. Both the addresses set the stage for the Workshop.



Mr. Pankaj Dharkar, Mr. K P Dominic and Mr. Anand Joshi of FSAI also briefly addressed the gathering on need of FSAI Skill Development Centre and objective of setting up of first National Student Chapter at BVCoE, Lavale.



The Chief Guest of the function Dr. Rakesh Kapoor, drawing from the speech/ addresses given by the earlier speakers said that for creating Smart Cities, not just Smart Ideas but Smart Actions are required at every level of the society.



The session ended with a vote of thanks by Prof. U S Patil.

First Technical Session started post-lunch on 15th. This session was devoted to understanding the status, achievements and challenges of Solid Waste Management. The first talk was to be delivered by Mr. Suresh Jagtap, Joint Municipal Commissioner and OSD (SWM) of Pune Municipal Corporation but he could not remain present due to some last moment development at PMC. However, Dr. Ketaki Ghatge, Nodal Officer, Swachhh Bharat Mission at PMC delivered the talk on “PMC’s efforts to handle city’s solid waste”. Her talk was followed by that of Dr. Rakesh Kapoor’s very informative talk on “Sustainable plastic waste management in Himachal Pradesh – policy to implementation”. Dr. Kapoor laced his talk with anecdotes and examples which made it very interesting and the students in the audience thoroughly enjoyed the talk. He emphasized that the will and determination of HP government to tackle the issue of plastic waste needs to be replicated in other states, too. The last lecture of the session was delivered by Dr. Harshvardhan Modak, Expert on SWM and free-lance consultant. He chalked out the challenges and issues related to SWM, as without understanding them, the solutions would remain evasive. He said that it was not possible to handle MSW without making source segregation compulsory.





Two Technical Sessions were planned on second day. Both the sessions were dedicated to technologies and approaches available for efficient SWM in a sustainable manner. The second technical session began with a talk by a young speaker – Mr. Saurabh Shah, VP, Excel Industries Ltd. Mr. Shah presented a very lively talk on one of Excel’s approach to handle organic domestic waste at source – Mobitrash – a mobile van to convert organic waste to compost. The service would be made available at one’s doorstep, at stipulated time, 24x7 at very nominal charge. There was lot of interest in the audience which led to many questions. The talk was very interactive.



Second talk was by Dr. Ashok More, Head of the Department at JSPM’s College of Engineering, Bavdhan. He talked about a 3-stage concept developed by them for handling organic and recyclable solid waste, which they have already tried out at small scale and wish to implement at larger scale. Then Dr. Ketaki Ghatge informed the audience about how biomedical waste generated in the city is handled by PMC. Biomedical waste could be dangerous and needs special mechanism to handle; hence, it was important to understand it when the approaches to manage solid waste were discussed. Next speaker talked about a very different subject related to SWM. It was about the combined efforts of the Municipal Corporation, Society, People’s Institutions and Corporates to address the issue of MSWM. The talk was delivered by Mr. Manohar Chaudhary of Janwani. Janwani – Social initiative of Mahratta Chamber of Commerce, Industries and Agriculture – has worked with citizens on the ‘Zero Garbage Ward’ model alongwith PMC with the support of a few corporate houses. This talk was an eye-opener for MSWM.



The third technical session started with the talk by Lt. Col. Suresh Rege (Retd.), Executive Director of Mailhem Ikos Environment Pvt. Ltd. He emphasized on source segregation of waste and presented an integrated approach to handle all the solid waste generated in a city, where in the organic part could be used for biogas generation/ composting, the recyclables would be recycled and reused and the combustibles would go for RDF production. Drawing from this emphasis on source segregation, Dr. Medha Tadpatrikar, Director, Rudra Environmental Solution Limited talked about how segregated plastic waste can be used for producing polyfuel. She talked about the reactors developed by them to convert plastics into liquid fuel.



The last talk was by another young speaker Mr. Harshad Barde, Legal Consultant of Kagad Kach Patra Kashtakari Panchayat and SWaCH. He presented another interesting model to deal with the SWM – creating cooperative society of ragpickers who would collect source-segregated waste from designated area. This would provide a win-win situation for all the stakeholders. For residents, the waste would be collected from their doorstep at a nominal charge; for municipal corporation, segregated waste would get collected in a particular locality and for ragpickers, it would be a source of fixed regular income and other legal protection due to cooperative society formation.



Valedictory function was the last lap in the 2-day event. For valedictory function, Mr. Suchet Waikar from FSDO – Federation of Skill Development Organization – was invited. Dr. S M Shendokar introduced and felicitated Mr. Waikar. A Poster Competition for school and college students was organized alongwith the workshop to understand the vision of young minds for a Smart City and SWM. Mr. Waikar gave away the prizes and certificates to the winners and participants of the poster competition. Then he addressed the gathering about the importance of skill development in view of the PM Narendra Modi’s vision of Make in India. The workshop ended with a Vote of Thanks by Ms. Himali Mehta.

