

Vol - 12 No. 7 July, 2017

RCUES, Mumbai
Enabling better cities...

Urban Environ Vision

An Information Bulletin



Regional Centre for Urban & Environmental Studies
All India Institute of Local Self-Government, Mumbai

Established in the year 1968, is fully supported by Ministry of Housing and Urban Affairs, Government of India




President, AIILSG, India
Mr. Ranjit Chavan

Director General, AIILSG, &
Editor in-Chief
Mr. Ashish Deosthali

Director, RCUES, AIILSG, &
Editor
Ms. Utkarsha Kavadi

The Contents

- Section 01** Regional Specialised Training Programme on Solid Waste Management with a focus on 100 % Segregation of Solid Waste, Panaji, Goa
 - Section 02** Handbook of Urban Statistics 2016
 - Section 03** Testimonials
- 



Urban Environ Vision aims to take its readers through the journey of RCUES, Mumbai while providing encouragement and inspiration. It offers a platform to display the efforts undertaken by RCUES, Mumbai and showcase its achievements.

Regional Specialised Training Programme on Solid Waste Management with a focus on 100% Segregation of Solid Waste

4th & 5th July, 2017, Panaji, Goa

The key highlight of the programme was site visit, in which the participants were acquainted with the processing, reducing, reusing, recycling of solid waste followed at Saligaon SWM project.

Introduction

The Swachh Bharat Mission (SBM) emanated from the vision of the Government articulated in the address of the Hon'ble Prime Minister to the Joint Session of Parliament on 9th June 2014, in which he inter alia said: "We must not tolerate the indignity of homes without toilets and public spaces littered with garbage. For ensuring hygiene, waste management and sanitation across the nation, a "Swachh Bharat Mission" will be launched. This will be our tribute to Mahatma Gandhi on his 150th birth anniversary to be celebrated in the year 2019". With this background SBM was launched on 2nd October, 2014. It is being implemented by the Ministry of Urban Development in urban areas across the nation.

Municipal Solid Waste Management (MSWM) is an important component of this mission. It forms the crucial service for

maintaining the quality of life of people in the urban areas for ensuring better standard of health, sanitation and clean environment. Huge quantity of waste generated daily in the country poses dangers to public health and environment. It is required to be collected, managed and disposed off in a scientific way. MSWM in the country has emerged as a systematic solution to the problem, not only because of environmental and aesthetic concerns but also because of sheer quantities generated every day which makes it imperative to manage and dispose of the same in a systematic way. According to the Central Pollution Control Board, 144,165 TPD of MSW was generated in India during 2013-14. Of the total waste generated, approximately 115,742 TPD (80%) of MSW was collected and only 32,871 TPD (22.8%) was treated. SBM is designed to address the issues linked with this situation.

Solid Waste Management Rules, 2016 form a legal framework for all municipal bodies to effectively manage urban solid waste in the city. It is mandatory for waste generators to store segregated waste at source for municipal bodies to collect such a waste in a segregated manner directly from the households and transport it to designated places for appropriate treatment and processing. Major focus of SWM Rule 2016 is on segregation at source and zero garbage concept.

It is essential for municipal bodies to adopt more systematic approach towards planning and management of solid waste, and develop capacities of their staff / officials towards effective and efficient solid waste management system.



Mrs. Maleka Ansari, Research Officer, RCUES of AILSG, Mumbai coordinating introductory session

A Regional Specialized Training Programme on 'Solid Waste Management with a 100% focus on Segregation of Solid Waste' was organized on 4th & 5th July, 2017 at Panaji (Goa). This programme was fully supported by Ministry of Housing and Urban Affairs, Government of India.

The training programme started with the introduction given by Mrs. Maleka Ansari, Research Officer, RCUES of AILSG, Mumbai. She welcomed the dignitaries and participants and gave introduction of the contents of the specialized training programme. She also briefed the participants about the activities of the RCUES relating to capacity building of ULBs through training, urban policy research and providing technical advisory services to ULBs.

Key Objective

The key objective of this training programme was to expedite the process of achieving goals of effective solid waste management with a focus on 100% segregation of waste at source, as mandated by the SWM Rules, 2016.

Participation

The training programme was attended by 68 municipal elected representatives and officials of concerned departments from the urban local bodies of Maharashtra, Gujarat & Goa.



Mr. Rajendra Nimbalkar, IAS, Municipal Commissioner, Ulhasnagar Municipal Corporation inaugurating programme by lighting lamp of light.

Inauguration

The Specialised Training Programme was inaugurated by Mr. Rajendra Nimbalkar, IAS, Municipal Commissioner, Ulhasnagar Municipal Corporation in the presence of Mr. Ranchhodbhai Dalwai, President, Halwad Municipal Council, District Morbi, Gujarat, by lightening the traditional lamp of light. In his inaugural address, Mr. Nimbalkar spoke about various schemes of the Ministry of Housing & Urban Affairs, Government of India and financial support provided by it to the Mission. He also focused on the aim of the training to give



Mr. Rajendra Nimbalkar, IAS, Municipal Commissioner, Ulhasnagar Municipal Corporation addressing the participants.

better understanding of SBM and its strategy which is helpful for developing a city level framework for effective implementation of Swachh Bharat Mission.



Mr. Ranchhodbhai Dalwai, President, Halwad Municipal Council delivering keynote address to the participants.

Mr. Ranchhodbhai Dalwai, in his speech elaborated on the Government policies & implementation of effective solid waste management with a focus on 100% segregation at household level. He appreciated the SWM Rules, 2016 which focus on segregation of solid waste. He advised participants to accept the mandate posed by the SWM Rules, 2016 about 100% segregation and its further implementation related to recycle, reuse and reduce of solid waste

Technical Sessions

Ms. Poornima Gupta, SWM Expert, Mumbai delivered her lecture on 'Overview of Solid Waste Management' & 'Swachh Bharat Mission, SWM Rules, 2016 & Legal Framework for SWM with a focus on segregation of solid waste'. She stated that according to the definition, "solid waste" is any unwanted or discarded material from residential commercial, industrial, mining and agricultural activities that may cause environmental problems. Further she elaborated on the



Ms. Poornima Gupta, SWM Expert, Mumbai delivering lecture in Panaji, Goa training programme on 4th July, 2017.

types of waste in the form of municipal, bio-medical, industrial, agricultural, hazardous & e-waste. She also discussed the sources and management of the different types of waste.

Ms. Gupta also focused on the management of solid waste which includes generation, storage, collection, processing, recycling, recovery, transport & disposal. It is efficiently dealing with waste from its origin to final disposal.

In her next session, she explained differences between MSW (Management & Handling) Rules, 2000 and the Solid Waste Management Rules, 2016 and how the latter is an improved version of the rules because of the experience gained in the implementation of the former. She pointed out that emphasis on segregation of waste is the key feature of SWM Rules, 2016.

Mr. Debartha Banarjee, Director, Sampurna Earth, Mumbai made a presentation on 'Segregation and Recycling Technologies' & 'Role of waste pickers and their value addition in segregation processes'. Main theme of his presentation was movement towards zero waste cities. He explained different



Mr. Debartha Banerjee, Director, Sampurna Earth, Mumbai sharing his experiences on SWM Technologies towards zero garbage.

technologies of segregation and recycling of solid waste including aerobic composting - turning spoil into soil, composting solutions- household level, community level- drum based, community level- composting pits, mechanized composting, composting machine with curing systems, vermi-composting with earthworms-mulching and earth worm composting. Mr. Banerjee also presented a success case study developed by their private limited company Sampurn (e) arth Environment Solution in Rajkot Municipal Corporation of Gujarat State. He gave the detailed description of the project with a project capacity- 5000 kg/day, technology used through Bhaba Atomic Research Center, Nisargruna Technology 2 stage digestion process feed material- cow dung and hotel waste and market waste. Total capital expenditure was Rs.1 crore. Project payback period would be 1.5 years. He said that the Municipal Corporation would be saving Rs. 70 lakhs (35 lakhs in transportation, 20 lakhs in electricity and 15 lakhs through compost).

He also highlighted an environmentally sustainable solution adopted by their organization by generating employment, engaging with informal sector of waste-pickers and scrap-dealers from different suburbs of Mumbai city and reduced expenditure by Municipal Corporations and the Government.



Mr. Nitin Walke, Municipal Councillor, Malwan Municipal Council, Maharashtra sharing his views on SWM.

Mr. Nitin Walke, Municipal Councillor, Malwan Municipal Council of Maharashtra State gave a presentation on Zero Garbage City. He described all the efforts taken in their city to make it a *zero garbage city* including segregation of organic and inorganic waste. Organic material was used in the biogas plant which helped the council in eliminating its transportation cost of the solid waste at the landfill. Materials like plastics and glass were sold as scrap by the segregation team which again helped to increase in their daily revenue.



Mrs. Deepali Naik, Chief Officer, Mormugao Municipal Council sharing her views on SWM project implemented in their city.

Mrs. Deepali Naik, Chief Officer, Mormugao, Municipal Council of Goa State, presented on the theme 'Community Participation in SWM-focus on segregation.' She said that their main aim was to make Vasco a clean city. She shared her personal experience during the implementation of SWM

in her city. She stated that the main constraint was the reluctance of the citizens to change their old practices, which was causing mismanagement of solid waste and non-implementation of successful segregation at household level. It was enlightening to hear her as to how they focused on motivating the public and created awareness for community participation in waste management.



Mr. Dipak Ahir, Sanitation Chairman, Anjar Municipality, Kachchh, Gujarat sharing about SWM activities by Anjar city

Mr. Dipak Ahir, Sanitation Chairman, Anjar Municipality, Kachchh of Gujarat State gave a presentation on 'Solid Waste Management Covering 100% Segregation at HH level'. He stated that Anjar municipality started waste collection in segregated form six months ago. He narrated their experience of project implementation saying that the biggest obstacle in implementation of the SWM Rules, 2016 was the lack of segregation as the bulk of solid wastes used to be collected in mixed form. He said that as focus of MSW Rules, 2016 is waste segregation, the city administration focused on its implementation with a time frame, which showed good results.

Mr. Mario Moraes, former Chairperson, Goa State Urban Development Agency, Panaji gave presentation on 'Solid Waste Management methods of achieving segregation in the city'. He spoke about how their city achieved segregation of municipal solid waste by encouraging school & college students through IEC techniques and getting their participation through various means, including banners, posters, conducting drawing competitions, demonstrations,



Mr. Mario Moraes, former Chairperson, Goa, State Urban Development Agency, Panaji, Goa sharing about SWM work completed by their city.

street plays, etc. He stressed on public awareness and advancements in source separation techniques. He stated that source separation increased recycling efficiency and improved performance of waste treatment units due to good quality of segregated waste and lesser amount of mixed obstacles.



Mr. Bharat Danger, Hon'ble Mayor, Vadodara Municipal Corporation, Gujarat presenting on SWM activities completed by Vadodara city.

The presentation of Mr. Bharat Danger, Hon'ble Mayor, Vadodara Municipal Corporation of Gujarat State was on Community Participation in City Sanitation Programme. He stated that solid waste management practices have been

improving in recent years averagely in every city, but on account of rapid increase in quantity of solid waste, the pace of minimizing it needs to be accelerated. He further said that it was the right time to encourage technology based entrepreneurship to achieve effective solid waste management. NGOs should be involved in various components of waste management including public awareness. Public involvement in management of solid waste was of significant importance. He remarked that urban local bodies must care for and protect the dignity of citizens by implementing best practices and citizens must cooperate in implementing these practices.

Field Visit

A Field Visit was organized on 5th July, 2017 at Saligaon SWM plant, developed and operated by Hindustan Waste Treatment Private Limited (HWTPL) which has a capacity of 100 tonnes per day. Mr. Ganesh Kandaswamy, General Manager (Design and Engineering) briefed the participants and explained the salient features of the plant which are as under:

The facility generates four MW of electricity which was used to power the plant. Saligaon SWM plant was based on the mechanical biological treatment (MBT) process. The facility was fully automated, except the manual sorting station where workers segregate dry waste into 12 different categories, including plastic, glass, metal, etc. Bales were made of each of these categories of waste for subsequent sale to vendors. The plant also generated compost, sale of which would begin shortly. Water was also being recycled at the facility's effluent treatment plant and used for gardening and non-drinking purposes. Proper segregation, recovery of recyclables and use of biomethanation technology had been able to produce enough and more electricity to power the entire plant's operations, the plant, which requires 100 tonnes of waste per day to function at optimum levels, was currently receiving just a little over 70 tonnes from the surrounding villages.

The concluding session was addressed by Mr. Bharat Danger, Hon'ble Mayor, Vadodara Municipal Corporation, Gujarat. On behalf of the RCUES of AILSG, Mumbai, Mrs. Maleka Ansari presented him a copy of the autobiography of Dr. Abdul Kalam, former President of India, as token of love and gratitude and expressed thanks for addressing to the participants.

The training programme ended with the Vote of Thanks by Mrs. Maleka Ansari, RCUES of AILSG, Mumbai.

Glimpses of the programme



Handbook of Urban Statistics 2016

We are living in an age of economics and statistics. Governments, planners, policy makers, administrators, managers, companies, institutions and organizations, academicians and student, all need statistics relating to their sector or concern. The whole progress made by a country is expressed in just a percentage of GDP. This is the power of statistics. Urbanization in India has become an important and irreversible process, and an important determinant of national economic growth and poverty reduction. With urbanization playing such a huge role in the nation's progress, need for a single source of authentic statistics is fulfilled with the publication of Handbook of Urban Statistics 2016 by the Government of India, Ministry of Urban Development. The Introduction of the Handbook acknowledges that “at present, data on various aspects of urbanization is brought out by different agencies and there is no compendium of statistics on urban development. It is imperative to have concrete and reliable datasets to help formulate appropriate policies. However, non-availability of authentic and reliable data in an easily accessible manner has often been one of the important constraints to informed policy making and also for the researchers studying diverse aspects of urban development in India. A need was, therefore, felt for a compilation of data related to urban sector, which would also facilitate comparisons across various countries and across States within India.”

The Handbook also contains the following:

- ⊙ Directory of Urban Centres (Municipalities and other local authorities) in India with population (2011). with latest population figures, which occupy 137 pages of the Handbook in Annexure 1.
- ⊙ Urban Reforms ushered in through JNNURM.
- ⊙ Concise write-ups on three flagship schemes namely, Swatchh Bharat Mission, Smart City Mission and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT).

The Handbook of Urban Statistics, 2016 is definitely a valuable document for the planners, policy makers, real estate sector, administrators and researchers and students of urbanization. The Ministry of Urban Development has done a commendable job by bringing out this Handbook.

Handbook of Urban Statistics 2016

The Compendium contains the following chapters:

Chapter No.	Topic	No. of Tables and graphs
1	Urban Demography	15 tables and 12 graphs
2	Socio-economic indicators of Urban India	7 tables and 6 graphs with data taken from the Census India (2011)
3	Urban Employment	19 tables and 9 graphs
4	Public Expenditure on Urban Development	8 tables and 5 graphs
5	Urban Transportation	13 tables and 6 graphs
6	Urban Sanitation	5 tables and 4 graphs
7	Urban Housing	9 tables and 7 graphs



Testimonials

Mr. Nitin Walke, Municipal Councillor, Malwan Municipal Council, Maharashtra

"Thank you very much for organizing these two days training programme on SWM, specially focused on segregation because segregation process in whole SWM is very difficult task to change the habits of common people about the garbage storage at household level."

Mr. Bharatbhai Rawal, Municipal Councillor, Gadhadra Municipal Council, Gujarat

"We all are aware about the importance of managing MSW, it is highly appreciable that RCUES of AILSG, Mumbai has organized this training programme, through which we cleared our ideas about segregation technologies. I feel very much satisfied by expressing my thought with other ULBs representatives."

Mrs. Sheru Shirodkar, Addl. Director, Directorate of Municipal Administration, Panaji, Goa

"The technical aspects of the training were excellent, we got an opportunity of interaction with representatives of different ULBs, different levels of expertise."

RCUES, Mumbai Advisory Committee

Mrs. Manisha Mhaikar, IAS

Ex-Officio Chairperson
Principal Secretary,
Urban Development Department,
Government of Maharashtra, Mumbai

Mr. Sanjay Kumar, IAS

Member
Joint Secretary (DAY – NULM),
Ministry of Housing & Urban Affairs,
Government of India, Nirman Bhavan, New Delhi

Mr. Mukesh Puri, IAS

Member
Principal Secretary,
Urban Development & Urban Housing Department,
Government of Gujarat, Gandhinagar, Gujarat.

Mr. Mukesh Sharma, IAS

Member
Addl. Chief Secretary, Urban Development &
Housing Department, Government of Rajasthan,
Jaipur, Rajasthan.

Mr. Sudhir Mahajan, IAS

Member
Secretary,
Urban Development Department, Government of Goa,
Porvorim, Bardez, Goa.

Mr. Sanjib Kumar Gohain Baruah, IAS

Member
Secretary,
Urban Development Department,
Government of Assam, Guwahati, Assam.

Mr. Lok Ranjan, IAS

Member
Principal Secretary,
Urban Development Department,
Government of Tripura, Agartala, Tripura.

Dr. T. Chatterjee, IAS (Retired)

Member
Director,
Indian Institute of Public Administration,
Indraprastha Estate, New Delhi.

Dr. (Mrs.) Sudha Mohan

Member
Professor & Head,
Department of Civics & Politics,
University of Mumbai, Vidyanagari, Mumbai.

Mr. Ashish Deosthali

Member
Director-General,
All India Institute of Local Self-Government,
Mumbai.

Ms. Utkarsha Kavadi

Member-Secretary
Director,
Regional Centre for Urban & Environmental Studies,
All India Institute of Local Self-Government,
Mumbai.

Established in the year 1968, is fully supported by Ministry of Housing and Urban Affairs, Government of India

Printed by All India Institute of Local Self-Government,
at Copytronics, Bandra (East) - 400 051.

Disclaimer

The views expressed in the articles, briefs and news in this publication are those of the respective authors and researchers. They do not depict, in any way, the views and policies of the RCUES, AILSG, Mumbai and Ministry of Housing and Urban Affairs, Government of India.



<https://twitter.com/RCUESMumbai>



<https://www.linkedin.com/in/rcues-mumbai-583598132>



<https://www.facebook.com/people/Rcues-Mumbai/100014211401064>

**Regional Centre for Urban and Environmental Studies
All India Institute of Local Self Government, Mumbai**

M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
Bandra Kurla Complex, Opp. Govt. Colony Bldg. No. 326,
Near Uttar Bhartiya Sangh, TPS Road No. 12,
Bandra (E), Mumbai – 400051.

Tel. No. : (022) 26571713 / 14 / 61805600

Email.: rcuesdirector@gmail.com ; rcuestraining@gmail.com

Website: www.aiilsg.org/rcues