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RCUES, Mumbai Enabling better cities...

# Environ Vision

An Information Bulletin





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

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Urban Environ Vision aims to take its readers through the web based training programmes of RCUES, Mumbai while providing encouragement and knowledge to its participants and displays the efforts undertaken by RCUES, Mumbai.

# Table of

# **Content**

Section

1

Regional Specialized Training Programme on **Solid and Liquid Waste Management in Urban Areas** | Page - 05 04<sup>th</sup> December, 2021, Gandhinagar, Gujarat

2

Regional Webinar on **Social Protection Schemes – Status and Impact** | Page - 13  $7^{\text{th}}$  December, 2021

3

Regional Specialized Training Programme on **Swachh Bharat Mission – Urban (2)** | Page - 18 13<sup>th</sup> -14<sup>th</sup> December, 2021, Ajmer, Rajasthan

# Table of

# **Content**

Section

4

Regional Specialized Web-Based Training Programme on **Swachh Bharat Mission –Urban (2)** | Page - 24 16<sup>th</sup>, 17<sup>th</sup>and 18<sup>th</sup> December, 2021

5

Regional Specialized Web-Based Training Programme on **Financial Reforms at ULB Level** | Page - 31 23<sup>rd</sup> - 24<sup>th</sup> December, 2021

6

Regional Specialized Web-Based Training Programme on **ODF+, ODF++ and Water+ Cities** | Page - 37 28<sup>th</sup> - 29<sup>th</sup> December, 2021

## Regional Specialized Training Programme on

# **SOLID & LIQUID WASTE MANAGEMENT IN URBAN AREAS**

04<sup>th</sup> December, 2021, Gandhinagar, Gujarat

## **Key Highlights**

The key highlights of this training programme were that the participants could acquire the latest updates on solid and liquid waste management measures and know about how to tackle various issues in handling solid and liquid waste at city level.

#### **BACKGROUND**

SBM-U (2) envisions to make all cities Garbage Free and promote grey and black water (used water) management in all cities other than those covered under AMRUT, making all urban local bodies ODF+ and those with a population of less than 1 lakh as ODF++, and Water+, thereby ensuring that no untreated used water is discharged in open to pollute water bodies, thus achieving the vision of safe sanitation in urban areas. The Mission will also focus on source segregation of solid waste, utilizing the principles of 3Rs (reduce, reuse, recycle), scientific processing of all types of municipal solid waste and remediation of legacy dumpsites for effective solid waste management.

The achievements under SBM-Urban need to be sustained in the long run with creation of adequate infrastructure, and its implementation needs to be accelerated manifold. Hence, SBM-U (2) focusses on garbage free cities with sustainable sanitation. While observing India's journey in Solid Waste

Management, it has been observed that the launch of SBM-U, coupled with the promulgation of SWM Rules 2016, Construction and Demolition (C&D) Waste Rules, Plastic Waste Management including reduction in single use plastic, and remediating all legacy dumpsites have made a mark.

Considering this background, Regional Centre for Urban and Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai conducted a Regional Specialized Training Programme on 'Solid and Liquid Waste Management in Urban Areas' on 4<sup>th</sup> December 2021 at Gandhinagar, Gujarat. This training programme was supported by the Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI).

#### **KEY OBJECTIVE**

The key objective of this specialized training programme was to discuss the issues and adopt innovative measures at ULB level to ensure safe and hygienic environment at city level.

PAGE 06 URBAN ENVIRON VISION

#### **PARTICIPATION**



Participants during the training programme.

In all, 85 participants comprising Elected Representatives, Chief Officers, Municipal Engineers, City Project Officers, City Coordinators, Jr. Overseers, Assistant Health Supervisors and Representatives of NGOs from the States of Gujarat and Maharashtra attended this training programme.

#### INTRODUCTION & INAUGURATION

At the outset, Mr. Dinesh Patel, Regional Director, AIILSG, Vadodara, gave the introduction of the dignitaries on the dais. Ms. Hansa Patel, Executive Advisor, AIILSG, Mumbai felicitated the Chief Guest of this training programme Mr. C. R. Kharsan, IAS, Dy. Municipal Commissioner, Ahmedabad Municipal Corporation by offering a flower bouquet and memento to him. Ms. Neha Hardkar, Sr. Research Officer, RCUES of AIILSG, Mumbai welcomed all the dignitaries on the dais, distinguished trainers and the participants. She spoke on the objective of the



Mr. Dinesh Patel, Regional Director, AILLSG, Vadodara addressing the participants.

training programme and the need of Swachh Bharat Mission Urban (SBM-U) (2) and the adoption of innovative measures to ensure safe and hygienic environment at city level. She also mentioned that this training programme was jointly collaborated with IFAT India - a leading environmental technology trade fair that provides a unique platform to key industry players, scientists and innovators from all over the world to come together to provide solutions to resolve the environmental concerns of the hour. She requested the Chief Guest to inaugurate this training programme.

Mr. Kharsan inaugurated the training programme by lighting the tradition lamp in the presence of Ms. Hansa Patel, Dr. Ajit Salvi, Dy. Chief Engineer, Mumbai Sewerage Disposal Project (MSDP), Municipal Corporation of Greater Mumbai (MCGM), Mumbai, Mr. Robin Fernandes, Business Unit Head—Capital Goods, Messe Muenchen India Pvt. Ltd., and Ms. Neha Hardikar.



Mr. C. R. Kharsan, IAS, Dy. Municipal Commissioner, Ahmedabad Municipal Corporation Inaugurated the training Programme. Also seen (from L To R) Mr. Robin Fernandes, Dr. Ajit Salvi, Ms. Hansa Patel & Ms. Neha Hardikar.

Mr. Kharsan in his inaugural address explained the initiatives taken of Solid Liquid Waste (SLW) disposal in Ahmedabad city. He said that SLW disposal is a huge challenge to the municipal administration. He gave emphasis on segregation of waste which makes for easy processing of SLW. He explained several SLW disposal initiatives undertaken in Ahmedabad Municipal Corporation (AMC). One of these initiatives is bio-mining, in which rejected waste is extracted through bio-mining and is used to generate energy in the form of electricity or heat using RDF (Refuse Derived Fuel). Besides, Refuse Derived Construction Material (RDCM) can be reused in the construction of roads. He also added that the organic part of the legacy waste can be composted which can be used for various farming needs. He insisted to apply in implementation of 3 Rs in SLWM (Reduce, Reuse and Recycle) to move towards zero waste in cities. This concept reduces environmental pollution through waste leading to minimize health hazards. He added that AMC has taken another initiative of energy in which 11 MW energy can be generated through 1000 MT mixed waste. AMC has taken permission from Gujarat Pollution Control



Mr. C. R. Kharsan, IAS, Dy. Municipal Commissioner, Ahmedabad Municipal Corporation addressing the participants.

Board (GPCB) for implementing this project. He concluded his inaugural address by encouraging the participants to implement similar projects in their cities for SLWM. He also wished a grand success to this training programme.



Mr. Robin Fernandes, Business Unit Head, Capital Goods, Messe Muenchen India Pvt. Ltd proposed a Vote of Thanks at the end of the inaugural session.

PAGE 08 URBAN ENVIRON VISION

Mr. Robin Fernandes proposed a Vote of Thanks to the Chief Guest and other dignitaries on the dais at the end of the inaugural session.

#### TECHNICAL SESSIONS



Ms. Amee Mori, Project Officer, SBM-Urban Mission Director Office, Ahmedabad, Gujarat addressing the participants.

The first technical session on 'Swachh Bharat Mission – Urban (SBM-U)–(2)' was conducted by Ms. Amee Mori, Project Officer, SBM–Urban Mission Director Office, Ahmedabad, Gujarat. She started her session by mentioning the need of SBM – U (2) and the items which has been added in the phase 2 of SBM -U. She further said that management of liquid waste and water waste management were added in SBM-U (2) and mentioned that Gujarat state in on 4th position in Swachh Survekshan. She further said that awareness creation along with large scale citizen outreach to intensify 'Jan Andolan', and institutionalize 'swachh' behavior is one of the objectives of SBM –U (2). She explained the expected outcomes of SBM –U (2) for furtherance of all cities have to become ODF++ and at least 50% of cities with less than 1 lakh population become Water+. She also said

that all cities at least should achieve 3 star rating under Garbage Free Cities (GFC). She explained the mission strategies in which she highlighted on leveraging healthy competition among cities through annual Swachh Survekshan. She also discussed about digitally enabled monitoring system in implementation of the Mission. Strengthening of E-learning and adoption new technologies through capacity building is essential under this Mission. She also explained mandatory entry level conditions to receive the funds by aligning property tax floor rates with market rates with periodic revisions, as recommended by 15th Finance Commission. She further added that in order to receive the funds from SBM-U (2), all transaction will have to be made through DBT system. Further elucidated that sustainable sanitation and used water management can be achieved through holistic sanitation, with end-to-end solutions (from collection to safe disposal of all effluents from toilets), treatment of wastewater before discharge into water bodies, and maximum reuse of wastewater, eradication of hazardous substances flowing into sewers and septic tanks, and sustaining elimination of manual scavenging. Moreover, she added that components such as desludging equipment, interception and diversion of drains (including last mile connectivity for nearest sewer network) and construction of STP cum FSTPs for wastewater treatment are essential for waste water management. She also explained how sustainable solid waste management can be achieved through setting up of waste processing facilities and sanitary landfill, procuring mechanized sweeping equipment and setting up processing facilities for effective management of Construction and Demolition (C&D) waste, bio-remediation/ capping of all legacy dumpsites in all ULBs. She concluded her session by emphasizing on IEC and behavior change component in effective implementation of SBM-U (2).

The next session on 'Management of Liquid Waste' was conducted by Dr. Ajit Salvi, Dy. Chief Engineer, MSDP, MCGM,



Dr. Ajit Salvi, Dy. Chief Engineer, MSDP, MCGM, Mumbai addressing the participants.

Mumbai. He started his session by mentioning current status of Liquid Waste Management (LWM) in cities and the challenges faced by ULBs in LWM. He explained the effects of increased urbanization and increasing need for water to meet the domestic requirements, due to which wastewater discharge in the receiving water bodies deteriorating its quality. He stated the current status of Waste Water Management (WWM) in Indian ULBs as mentioned in the CPCB Report (2021). He added that the existing treatment capacity of sewage generated in Indian cities is just 30 % of present sewage generation. He gave the status of Sewerage Treatment Plants (STPs) by mentioning that in all 1093 STPs are operational, 102 are non-operational, 274 are under construction and 162 STPs are proposed for construction. He expressed concerned that sewage generation from urban centers is estimated as 72368 MLD, out of which only 12197 MLD is treated with the norms prescribed by the SPCBs / PCCs. He further highlighted that 33 million people are affected by water borne diseases due to contaminated water. He added that if waste water is not treated properly contaminates the river's clean water. He said that contamination of water creates dirty surrounding, breeding of flies, mosquitoes, vectors etc. are the implications of poor sanitation. He then emphasized that waste water is a resource (in terms of water, nutrients for agricultural use and energy) whose effective management is essential for future water security. He further presented the overview of Mumbai city by adding that Operation and Maintenance (O & M) of existing STPs is a neglected field. Nearly 39% plants are not conforming to the general standards prescribed by the Environmental (Protection) Rules for discharging of such water into water streams. He also highlighted the challenges such as proper maintenance of tertiary treatment facilities, needed provision of distribution network, working out tariff for fresh water & recycled water, creating public awareness, restriction on reuse of recycled water and assurance of quality of recycled water in and implementation of recycle & reuse policy. He also explained the model of Bandra Waste Water Treatment Facility (WwTF) by depicting pictures showing make over facilities by developing 60% green cover, developing as a knowledge centre, auditorium, library, interconnecting sky walks, fountains and murals etc. at WWTF. He concluded his session by saying that recycled wastewater is a sustainable source of water & sludge and is untapped source of nutrients, energy etc., hence needs to be used strategically.

The next session on 'Plastic Waste Management' was conducted by Ms. Madhavi Lohiya, Project Officer, SBM – Urban Mission Director Office, Ahmedabad, Gujarat. She started her session by speaking on the present scenario of plastic waste in the country. She mentioned 9 reasons to refuse single use of plastic as this use immensely impacts on environment and citizen's health. She gave alternative solutions to single use plastic by depicting pictures. She then discussed challenges in plastic waste management by saying that widespread littering of plastic waste is continued on road-side, railways tracks, open areas, open drains, river banks, sea-shores, beaches, public

PAGE 10 URBAN ENVIRON VISION



Ms. Madhavi Lohiya, Project Officer, SBM – Urban Mission Director Office, Ahmedabad, Gujarat addressing the participants.

places like Bus-station/Bus-stops, open market etc. She added that non-availability of segregated plastic waste is the major issue due to which plastic waste disposal technologies are not much successful in India which itself is another major issue. Besides, majority of the Municipal Authorities don't have proper system for collection, segregation and disposal of plastic waste. Therefore, segregated plastic waste is not available to be used in disposal technologies. She further explained that some of the technologies like co-processing of plastic waste are limited to the States where cement kilns having clinker facilities are located. In other States, the transportation of plastic waste to the cement kilns having clinker facilities becomes a costly affair. She later discussed on policy and regulatory framework by explaining Plastic Waste Management rules notified in 2016 and Plastic Waste Management Amendment Rules, 2021(notified on 12/08/2021 By the Ministry of Environment, Forest and Climate Change). She highlighted upon the Plastic Waste Bye-laws and mentioned that municipal authorities are required to implement plastic waste byelaws covering major four components as: (a) Ban on single use plastics, (b) Ban on plastics <50 micron, (c) Ban on burning of plastic and (d) Defining fine and penalties. On bringing the bye-laws in force, the ULBs should submit monthly report so as update records of the implementation status. She concluded her session by showing pictures of products made from recycled plastic and IEC activities in plastic waste management.



Mr. Mahesh Pandya, Director, Paryavaran Mitra, Ahmedabad addressing the participants.

After the above session, similar session was conducted by Mr. Mahesh Pandya, Director, Paryavaran Mitra, Ahmedabad by focusing on impact of plastic waste on environment. He started his session by explaining the impact of plastic waste on environment. He explained that burning of plastic results in formation of flame retardants called Halogens. These harmful chemicals are known to cause severe health problems like cancer, endometriosis, neurological damage, endocrine disruption, birth defects and growth disorders in children. He further said that as stated by Centre for Science and Environment's (CSE), plastic waste is India and in the world is the most formidable environmental challenge. He explained the magnitude of the plastic waste problem by saying that India

generates 9.46 million tones of plastic waste annually which amounts to 26,000 tons of waste per day and 40 per cent of it remains uncollected. He added that there is a constant increase in plastics waste generation. One of the major reasons for this is that 50% of plastic is discarded as waste after single use. This also adds to increase in the carbon footprint. He gave emphasis on increasing demand of Single Use Plastic (SUP) by stating that the COVID-19 pandemic has led to an increased demand for single-use plastics. He also mentioned that pandemic epicenters in particular, struggle to process the waste as all the used PPEs and packaging materials are not handled or recycled. This mismanaged plastic waste (MMPW) is then discharged into the environment, and a portion reaches to the ocean.

He explained the way forward in plastic waste management by mentioning provisions of the rules and regulations and how Government of Gujarat is implementing it. After the Government of India's recent notification of the Plastic Waste Management (Amendment) Rules, 2021, the Gujarat Government has started the banning of single-use plastics and is taking action against manufacturers of single-use plastics and those of plastics less than 75 microns thick. He concluded his session by stating that the city administration has to provide economic incentives to encourage the uptake of eco-friendly alternatives that do not cause more harm and promote the adoption of a 'Circular Economy' where the aim is to maximize value and eliminate waste by improving the design of materials, products and business models by reusing old products to reduce the impact of hazardous plastic waste on the environment.

The last session on 'Good Initiatives in Solid Waste Management-Case of Ahmedabad' was conducted by Dr. Harshadray Solanki, Director, (SWM), Ahmedabad Municipal Corporation, Gujarat. He started his session by mentioning the efforts taken to make Ahmedabad as Mega Cleanest City across



Dr. Harshadray Solanki, Director, (SWM), Ahmedabad Municipal Corporation, Gujarat addressing the participants.

the country. He said that Ahmedabad City has been awarded as Cleanest Mega city in India and has achieved ODF++ status & 3 star rating in Garbage Free Cities (GFC). Further he spoke about the door to door waste collection system operational in Ahmedabad city. He added that approximately 15.33 lakhs residential units, 5.59 lakhs commercial units have been covered in this waste collection system and that the entire operations of waste collection system are monitored through GPS system. He said that more than 165 closed body vehicles are deployed for waste collection from the nuisance spots from August 2019. The collected waste through this system is transported to nearby Refuse Transfer Stations (RTS). Talking about Swachh Survekshan he said that more than 6000 pairs of blue and green small litter bins are installed at commercial roads and public places for collection of dry and wet waste separately and segregated waste is collected through the installed bins on the road. He also mentioned that AMC has constructed at least one Refuse Transfer Station (RTS) with capacity of 300 - 350 TPD in all Seven Zones. Currently 8 RTS are operational in 7 zones. Each Transfer Station has 2 to 3

PAGE 12 URBAN ENVIRON VISION

Stationary Compactors, 9 Large Hook Loader Vehicles and 11 Large Containers with capacity to carry 12 to 15 MT waste. These RTS were constructed by AMC and given on 0 & M basis for 5 years to various agencies and AMC is paying them on per ton basis with 5% yearly increase. He also added that these transfer stations help AMC to save on transportation cost, reduce pollution and ease traffic congestion and make for effective & speedily collection of waste. He concluded his session by mentioning the challenges addressed by AMC during clean city program.

After this session the Question and Answer session was conducted. The participants raised questions on management

of liquid waste. Some of the participants raised the queries on construction of STPS/ FSTPs in their cities. Dr. Salvi addressed these queries by giving a sustainable solution to liquid waste management.

#### **SUMMING UP**

After technical sessions and Question and Answer sessions, Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai concluded this training programme by proposing a Vote of Thanks to the Chief Guests, distinguished trainers and the participants.

#### **GLIMPSES OF THE TRAINING PROGRAMME**













## Regional Specialized Webinar on

## SOCIAL PROTECTION SCHEMES – STATUS AND IMPACT

7<sup>th</sup> December, 2021

#### BACKGROUND

Social protection schemes are important tools aimed at alleviating poverty and narrow down inequality. Their objective is to help individuals and their families from falling or tide over poverty. They also contribute to economic growth by raising labor productivity and enhancing social stability. Social protection plays a critical role in realizing human right of social protection for all, reducing poverty and inequality in society, and supporting inclusive growth by boosting human capital and productivity, supporting domestic demand and facilitating structural transformation of national economies. Over a few past years, social protection has gained a greater recognition on the global and national development policy agendas not only as a fundamental human right but also as an effective way to tackle poverty and vulnerability. This focus has been largely influenced by overwhelming evidence that social protection schemes can deliver real results in terms of poverty reduction and progress towards improving job quality.

Comprehensive social protection systems comprise several components, including social assistance, insurance cover, developmental mechanisms that simultaneously protect and promote livelihoods, and transformative measures that promote social inclusion and social justice.

As per new International Labour Organization (ILO) report, despite the unprecedented worldwide expansion of social protection measures during the COVID-19 crisis, more than 4 billion people around the world remain entirely unprotected. It inter alia, brought to light that the pandemic response was uneven and insufficient, resulting in deepening the gap between

countries with high and low income levels and failing to afford the much-needed social protection that all human beings deserve. The social protection includes access to healthcare and income security, particularly in relation to old age, unemployment, sickness, disability, work injury, maternity or loss of a main income earner, as well as for families with children.

With an aim to put across the role of ULBs and other stakeholders in successful implementation of Social Protection Schemes and assessing its impact at community level, a Regional Specialised Webinar was conducted on 'Social Protection Schemes – Status and Impact' on 7<sup>th</sup> December 2021. This Webinar was supported by the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

This Webinar witnessed 25 participants comprising State Mission Managers SM & ID NULM, Community Organizers, Hygiene Officers, Sr. Research Officers, Research Associates, Programme Coordinators, and City Coordinators from Maharashtra and Rajasthan states.

At the outset Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai spoke on the background of the Webinar saying that this Webinar aims to discuss the role of ULBs and other stakeholders for effective implementation of social protection schemes and assessing their impact at community level.

The first presentation on 'Status of Social Protection Schemes in Cities' was made by Ms. Archana N, Training and Capacity Building Officer, Social Protection in Catalyst Management Services, Swasti, Mumbai. She started her presentation by

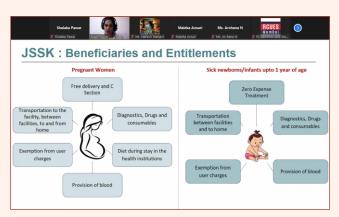
PAGE 14 URBAN ENVIRON VISION



Ms. Archana N, Training and Capacity Building Officer, Social Protection in Catalyst Management Services, Swasti, Mumbai addressing the participants.

saying how social protection schemes can be facilitated for the beneficiaries so that they avail of the benefits of the schemes. She explained that there is a need to take capacity awareness programmes as awareness of social protection schemes is very less. She added that after devastating experience of COVID 19, normal life has resumed. In this new of life, citizens should get right minimum wages, proper health care facilities and benefits of social protection schemes. She spoke about the significance of intervention which is needed in prevention, promotion and protection (3Ps) and in implementation of social protection schemes in order to transform lives of the vulnerable and weaker sections of the society. She explained social protection strategy laid down to facilitate awareness and access to the social protection schemes. She further emphasized that access to entitlements for social protection schemes can be facilitated through awareness generation and ability of the beneficiaries. She also explained how to access the social protection schemes in order to avail the benefit of it. She concluded her presentation by focusing on prioritization of social protection schemes through help desk.

The next presentation on 'Social Protection Schemes in Health Sector' was conducted by Ms. Avani Mulye, Research Associate,

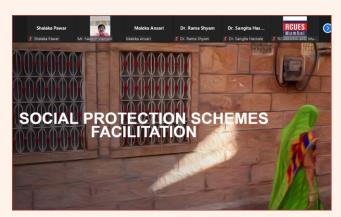


Ms. Avani Mulye, Research Associate, AILLSG, Mumbai addressing the participants.

AIILSG, Mumbai. She started her presentation by giving an overview of National Urban Health Mission (NUHM). She continued saying that implementation of NUHM strengthens primary health care delivery system in urban areas and provides equitable and quality primary health care services to the urban population with focus on slum dwellers and vulnerable population. She elucidated the status of urban health care facilities under NUHM by explaining urban health care delivery model and availability of primary health care facilities in Mumbai till 2019. She then explained about Janani Suraksha Yojana (JSY), which aims at reducing overall maternal mortality ratio and infant mortality rate, and increases institutional deliveries in BPL families. She added that National Maternity Benefit Scheme was modified into JSY in order to integrate cash assistance with the provision of better diet for pregnant women from BPL families. She explained that in JSY, 24/7 delivery services are available at Public Health Centres (PHC) to provide basic obstetric care and First Referral Units (FRUs) in order to provide the emergency obstetric care. She further mentioned the impact of COVID -19 on JSY by saying that 18% drop was observed in Institutional deliveries between March to November 2020 compared to the same period in 2019. She later explained Janani Shisu Suraksha Karyakram (JSSK) in which

the emphasis is given on entitlements and elimination out of pocket expenses for both pregnant women and sick neonates. She then discussed Pradhan Mantri Matru Vandan Yoiana (PMMVY), which provides partial compensation for the wage loss in terms of cash incentives for the first living child and improving health seeking behavior. She described the registration process and documents required under PMMVY. She highlighted the issues pertaining to assess the scheme as women do not reveal pregnancies on account of lack of awareness and cultural practices, unavailability of documents like Aadhar/bank account etc., all of which delay the process. The condition is that the birth has to be in a government hospital; if it happens at a private hospital the beneficiary is ineligible for 3rd installment. She further discussed Pradhan Mantri Jan Aarogya Yojana (PMJAY), which aims to improve access to quality healthcare at affordable prices and to improve coverage of the scheme and strengthen the health insurance ecosystem. She highlighted the benefits of the scheme where priority is given to girl child, women and senior citizens. Free treatment is available at Government and empaneled private hospitals. She also added that cashless and paperless access is available across the country. At the end, she explained Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY) which provides free quality critical care to vulnerable groups and completely cashless secondary and tertiary healthcare with insurance cover. The MJPJAY is supported by Government of Maharashtra. She concluded her session by saying that PMJAY and MJPJAY needs integration for effective implementation.

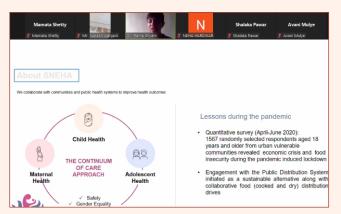
The next presentation on 'Social Protection Schemes in Food Sector' was conducted by Mr. Naresh Wanjari, Dy. Controller of Rationing (Establishment), Mumbai. He started his presentation by giving emphasis on food security. He mentioned that under the National Food Security Act, beneficiary families get 3 kg of wheat, 2 kg rice, and 1 kg course grain per person for Rs.3, Rs.2, and Rs.1 respectively, while Antodaya card holders are provided 35 kg of food grains. He



Mr. Naresh Wanjari, Dy. Controller of Rationing (Establishment), Mumbai addressing the participants.

then explained that under the Public Distribution System (PDS), States were required to formulate and implement right arrangements for the identification of eligible beneficiaries for the delivery of foodgrains, and for grain distribution in a transparent and accountable manner by Fair Price Shop (FPS). He also spoke that during the pandemic, Government of India (GoI) has announced the Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY), under which providing 5 kg of rice or wheat and 1 kg of pulses is given to eligible beneficiaries free of cost, in addition to the regular entitlement of quota of foodgrains. He added that this scheme was initially meant to be implemented from April to June 2020 but was later extended till November 2020. In April 2021, as the second wave of infections spread, the Gol again announced 5 kg of free foodgrains per person per month till November 2021. He then explained Grievance Redressal Mechanism is developed at District level under National Food Security Act (NFSA). District Grievance Redresser Officer (DGRO) has been appointed for expeditious and effective redressal of grievances of the aggrieved persons in matters relating to distribution of entitled foodgrains or meals and to enforce the entitlements under this Act. He concluded his presentation by saying that food security is imperative facet of social protection schemes.

PAGE 16 URBAN ENVIRON VISION



Dr. Rama Shyam, Pogramme Director, SNEHA, Mumbai addressing the participants.

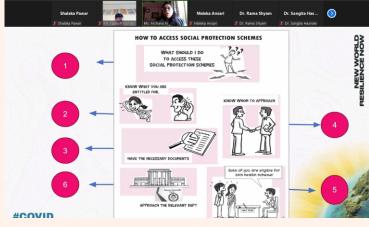
The last presentation on 'Good Initiatives in Implementing Social Protection Schemes' was made by Dr. Rama Shvam. Pogramme Director, SNEHA, Mumbai. She started her presentation by giving significance to collaborative efforts to enhance citizens' access to social protection. She mentioned that some of the NGOs have made collaborative efforts with communities and public health systems to improve overall health outcomes. She explained that the quantitative survey conducted during pandemic and extended lockdown revealed economic crisis and food insecurity. Hence, engagement with the Public Distribution System was initiated as a sustainable alternative along with collaborative food (cooked and dry) distribution drives. She then explained how intervention is made through collecting information, establishing contacts, building database of PDS card holders & non card holders, and liaising between government officials, PDS shops, community & NGOs and ensuring entitlements through complaint redressal system. She showed the results achieved, by saying that total 399 PDS shops were mapped, 50,715 families received information on PDS, 1,376 community volunteers trained through 172 trainings, 80 families received new ration cards, 3,000 families with no cards were helped to access free food grains under emergency PDS schemes, 13,113 people accessed

special COVID-19 schemes related to PDS, improved functioning of PDS shops reported by the communities etc. She spoke on key learning though the initiatives started during pandemic by mentioning the need to tweak existing interventions to respond to emergent community needs, need to address food insecurity as the basis for health intervention. She also talked about the need for an inter-sectoral approach to bridge the gap between government welfare policies and their implementation. She concluded her presentation by highlighting the need for efforts to generate mass awareness on social protection schemes and to facilitate their access and uptake by vulnerable communities.

Ms. Maleka Ansari concluded the Webinar by summarizing the gist of the presentations made by the distinguished speakers by stating efforts taken to implement social protection schemes to help urban poor at community level during pandemic/post pandemic. She also extended thanks to the distinguished speakers and the participants.

#### **GLIMPSES OF THE WEBINAR**





Ms. Archana N





Shalaka Pawar

institutional delivery 25% or less

PAGE 18 URBAN ENVIRON VISION

## Regional Specialized Training Programme on

# **SWACHH BHARAT MISSION - URBAN (2)**

13<sup>th</sup> - 14<sup>th</sup> December, 2021, Ajmer, Rajasthan

## Key Highlight

The key highlight of this specialized training programme was that the participants gained knowledge pertaining waste water treatment and moving cities to wards Water+ under SBM – U (2) by visiting to Khanpura STP at Ajmer, Rajasthan.

#### **BACKGROUND**

SBM-U (2) inter alia, focuses on making all the cities 'Garbage Free' and ensure grey and black water (used water) management in all of them other than those covered under AMRUT, making all urban local bodies ODF+ and those with a population of less than 1 lakh as ODF++, and Water+, thereby ensuring that no untreated used water is discharged in open to pollute water bodies, thus achieving the vision of safe sanitation in urban areas. The Mission also focusses on source segregation of solid waste, utilizing the principles of 3Rs (reduce, reuse, recycle), scientific processing of all types of municipal solid waste and remediation of legacy dumpsites for effective solid waste management. The achievements under SBM Urban need to be sustained in the long run with creation of adequate infrastructure, and their implementation needs to be accelerated manifold. Hence, SBM-U (2) also focuses on garbage free cities, sustainable sanitation. While observing India's journey in Solid Waste Management, it has been observed that the launch of SBM-U, along with the implementation of SWM Rules 2016, Construction and Demolition (C&D) Waste Rules, Plastic Waste Management including reduction in single use plastic, and remediating all legacy dumpsites form a concerted set of actions to achieve the goal.

Considering this background, the Regional Centre for Urban and Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai conducted a Regional Specialized Training Programme on 'Swachh Bharat Mission-Urban (2)' on 13<sup>th</sup> - 14<sup>th</sup> December 2021 at Ajmer, Rajasthan. This training programme was supported by the Ministry of Housing and Urban Affairs (MoHUA), Government of India (Gol).

#### **KEY OBJECTIVE**

The key objective of this training programme was to understand the role of ULBs in making cities garbage free and addressing the challenges in implementation SWM to ensure clean and healthy cities.

#### **PARTICIPATION**

In all, 38 participants comprising Elected Representatives, Chairman ALF & CLF, Members ALF & CLF, District Managers



Participants during the training programme

and Research Officers from the state of Rajasthan attended this specialized training programme.

#### INTRODUCTION AND INAUGURATION



Ms. Bruj Lata Hada, Hon'ble Mayor of Ajmer, Rajasthan inaugurating the training programme by lighting the lamp.

This Regional Specialized Training Programme was started by Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai. She welcomed the dignitaries on the dais, distinguished trainers and the participants. She explained the

aim of this training programme by mentioning why the need of SBM –U (2) arose and she further mentioned that ULBs have to play a significant role in making Garbage Free Cities (GFC), which is one of the key objectives of SBM –Urban (2). She requested Hon'ble Mayor of Ajmer to inaugurate this training programme.

Ms. Bruj Lata Hada, Hon'ble Mayor, Ajmer Municipal Corporation (AMC), Rajasthan inaugurated this specialized training programme by lighting the lamp. In her inaugural session, she said that AMC will put in best of efforts in making Ajmer city Garbage Free during the second phase of SBM–U. She also discussed issues and challenges tackled during the implementation of first phase of SBM –Urban. She added that Ajmer, being a pilgrimage city, the quantum of waste generation is more. Hence, SWM workers are overburdened in disposal system. AMC has tried to streamline this issue in the first phase of SBM –Urban. She concluded her session by wishing a grand success to this training programme.

#### TECHNICAL SESSIONS



Mr. Girish Bhardwaj, former Health & Hygiene Officer, Department of Education, Government of Rajasthan addressing the participants.

The first technical session on 'Overview of SBM & SBM – Urban (2)' was conducted by Mr. Girish Bhardwaj, former Health & Hygiene Officer, Department of Education, Government of

PAGE 20 URBAN ENVIRON VISION

Rajasthan. He started his session by focusing on key components of the MSWM service chain, overview of ODF+, ODF++ & Water + cities under SBM - U (2). He explained that SBM-U had three major objectives such as (i) achieving 100% Open Defecation Free (ODF) status, (ii) ensuring 100% scientific solid waste management, and (iii) behavior change through 'Jan Andolan', by 2nd October 2019. He added that the solid waste generated currently will be 3 times more by 2030 in the country. The only option is to reduce the garbage at source and implement 3Rs (Reduce, Reuse and Recycle) Reducing garbage at the source will help in a garbage-free city as this is the only option to reduce fast-growing solid waste. He further explained that the second phase of SBM-U (2) Mission is launched with a view to transform the country into a truly swacch country through making all cities 'Garbage Free'. He said that the country had become ODF in 2019, on the basis of third party verification, and it will now move towards ODF+ and ODF++. He highlighted that the effective implementation of this mission leads to urban transformation by improve quality of life and make for ease of living of urban populations and bringing about major changes in the ecosystem. He concluded his session by giving emphasis on tackling loopholes in implementation of the first phase of SBM-U in order to overcome them in the second phase thus, achieving urban transformation.

The next session on 'Making Cities Garbage Free' was conducted by Mr. Anilkumar Jain, former Additional Chief Engineer, Public Health Engineering Department (PHED) Government of Rajasthan. He started his session by focusing on effective implementation of SBM –U (2). He discussed the significance of segregation at source and highlighted on recycling of waste and need for exploring market for it as an important aspect in SWM chain. He explained that processing technologies needs to be adopted on the basis of quantity of waste. In this context, he mentioned that most of the cities across the country have adopted new and expensive technologies to dispose the waste by keeping in mind their environmental and social implications. He further added that there is an urgent need to build a more stringent integrated and



Mr. Anilkumar Jain, former Additional Chief Engineer, Public Health Engineering Department (PHED) Government of Rajasthan addressing the participants.

strategic waste prevention framework to effectively address waste-related issues. He further said that preliminary research in understanding strengths and weaknesses of ULBs is mandatory in effective implementation of waste management. Such a system can be evolved with the participation of various stakeholders to achieve financial sustainability, socioeconomic and environmental goals in waste management sector. He concluded his session by emphasizing on significance of citizen engagement in implementation of waste management at ULB level.

The next session on 'Convergence of SBM-U with NULM- Good Initiatives' was conducted by Mr. Bhanwar Khan, State Mission Manager, SM & ID, National Urban Livelihood Mission (NULM), Jaipur, Rajasthan. He started his session by stating that Government of Rajasthan (GoR) has implemented waste management through the 5R4 approach including reduce, reuse, recycle, recover and remove, by emphasizing on collection, segregation, improving data and analytics, minimizing environmental impacts, creating market for recyclable products and aiming towards sustainable development. He cited examples of convergence of SBM –U and NULM missions at community level in order to generate the



Mr. Bhanwar Khan, State Mission Manager, SM & ID, National Urban Livelihood Mission (NULM), Jaipur, Rajasthan addressing the participants.

livelihood opportunities in Rajasthan State. SHGs were engaged in convergence activities to improve their welfare. He concluded his session by showing pictures of convergence of missions in SWM and sanitation, which can be replicated in other cities.

On the second day, the session on 'Liquid Waste and Faecal Sludge Management' was conducted by Dr. Ajit Salvi, Dy. Chief Engineer, MSDP, MCGM, Mumbai. He started his session by giving current status of Liquid Waste Management (LWM) in cities and challenges faced by ULBs in LWM. He explained the effects of increased urbanization and increasing need for water to meet the domestic requirements due to which wastewater discharge in the receiving waters bodies quality is deteriorating. He spoke on the current status of Waste Water Management (WWM) in Indian ULBs as mentioned in the CPCB Report (2021). He further said that LWM technologies are expensive and requires high Operation and Maintenance (0 &M) costs. He added that conventional technologies are not appropriate in coastal areas, the areas with high water tables, flood-prone areas, etc. Moreover, such waste has an economical value, if recycled and reused in systematic way. He then explained how domestic wastewater and human excreta are converted into organic manure, biogas, electricity, etc. He



Dr. Ajit Salvi, Dy. Chief Engineer, MSDP, MCGM, Mumbai addressing the participants.

spoke about uses of organic manure in agriculture and biogas in cooking. Moreover, the wastewater can be treated and reused directly for irrigation, fishing/aquaculture as well as domestic flushing.

Dr. Salvi also conducted a session on 'Public-Private Partnership (PPP) in Waste Management'. He started his session by highlighting the challenges in waste management due to increased urbanization. He said that India being a country with diversified culture, multiple religious groups, and traditions, SWM becomes complex issue in the country. He added that environmental pollution, the spread of diseases, land occupation are some of the major issues impacting on waste management. He then emphasized on Public Private Partnership (PPP) framework in MSWM. PPP goes hand in hand instead of standalone private sector involvement in waste management. He cited the examples of PPP in collection, disposal and monitoring MIS in effective implementation of waste management in cities. ULBs also play a substantial role in waste management through PPP.

#### SITE VISIT

The site visit was conducted on the first day after the lunch at Khanpura Sewerage Treatment Plant (STP) at Ajmer,

PAGE 22 URBAN ENVIRON VISION



Participants during the site visit at Khanpura STP, Ajmer.

Rajasthan. Dr. Priyanka Khanna, Chief Manager and Mr. Yogesh Kumar, Chief Operator of this STP Plant explained the entire process of STP to the participants. Dr. Khanna welcomed participants and explained the wastewater treatment process. She added that the plant capacity is 20 MLD. The waste water generating from Ajmer city is treated in this plant. She concluded by saying that the treated water is used for non-potable activities such as gardening, car washing etc.

#### **GROUP EXERCISE**

The group exercise was conducted by dividing the participants into 4 groups. Each group was given a sector such as schools and colleges, hospitals, communities and ULBs and were asked to decide a Plan of Action for implementing SMB-Urban (2). Each group developed and presented their ideas and approach through the Plan of Action. The group who was given the sector of school explained that they will implement SBM –U (2) through school children by making them Swachhata Doot. They also mentioned that schools will generate awareness regarding cleanliness among the families of school children. The group who made presentation of hospitals, highlighted need for budgetary provision to be made for any unforeseen pandemic



Participants engaged in group exercise.

occurrence in future, in implementation of SBM U (2). Third group developed action plan on convergence of missions for effective implementation of SBM -U (2). The last group being a role player as ULB, envisaged on inclusive strategic planning in implementation of SBM - U (2). The group presentation came out with some innovative and varied ideas, through multiple stakeholders in implementation of second phase of SBM - U mission.

#### **SUMMING UP**

After the group exercise, certificates were awarded to the participants, and feedback was taken. Ms. Maleka Ansari, Sr. Research officer, RCUES, AIILSG, Mumbai concluded the training programme by proposing a Vote of Thanks to the distinguished trainers and the participants.

## **GLIMPSES OF THE TRAINING PROGRAMME**









PAGE 24 URBAN ENVIRON VISION

## Regional Specialized Web-Based Training Programme on

# **SWACHH BHARAT MISSION-URBAN (2)**

16<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup> December, 2021

## Key Highlight

The key highlight of the series of these web-based training programmes was that the SWM workers gained knowledge pertaining to their welfare activities including health and financial planning.

#### **BACKGROUND**

SBM-U (2) envisions many goals including (i) to make all cities 'Garbage Free' (ii) ensure grey and black water (used water) management in all cities. other than those covered under AMRUT, making all urban local bodies ODF+ and those with a population of less than 1 lakh as ODF++, and Water+, thereby ensuring that no untreated used water is discharged in open to pollute water bodies, thus achieving the vision of safe sanitation in urban areas. The Mission also focusses on source segregation of solid waste and wet waste, utilizing the principles of 3Rs (reduce, reuse, recycle), scientific processing of all types of municipal solid waste and remediation of legacy dumpsites for effective solid waste management. The achievements under SBM Urban need to be sustained in the long run with creation of adequate infrastructure, and their implementation needs to be accelerated manifold. Hence, SBM-U (2) is focused on garbage free cities and sustainable sanitation. While observing India's journey in Solid Waste Management, it is seen that the launch of SBM-U, was done along with the promulgation of SWM Rules 2016, Construction and Demolition (C&D) Waste Rules, Plastic Waste Management including reduction in single use plastic, and remediating all legacy dumpsites. SWM workers play a crucial role in waste management. They tackle a lot of challenges at work place which need to be addressed by ULBs.

Considering this background, and special request from SWM Department of Municipal Corporation of Greater Mumbai (MCGM), Regional Centre for Urban and Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai conducted a series of Regional Specialized Web-Based Training Programmes on 'Swachh Bharat Mission - Urban (2)' on 16<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup> December 2021. These training programmes were supported by the Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI).

#### **KEY OBJECTIVE**

The key objective of these web-based training programmes was to understand the role of ULBs in making cities garbage free and

addressing the challenges in implementation SWM to ensure clean and healthy cities.

#### **PARTICIPATION**

In all, 2580 participants comprising Assistant Health Engineers, Health Supervisors and Solid Waste Management (SWM) Workers, from 24 municipal wards of MCGM, Mumbai from the state of Maharashtra participated in these training programmes. The following table indicates the programmewise particulars of the participants who attended the training programme.

Sr.	Date of the Web-Based	No. of participants
No.	Training Programme	
1	16th December 2021	885
2	17 <sup>th</sup> December 2021	922
3	18th December 2021	773
	Total	2580

#### INTRODUCTION



Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai addressing the participants.

Ms. Maleka Ansari, Sr. Research Officer, RCUES, AILLSG, Mumbai welcomed the distinguished trainers and the participants. Subsequently, she spoke about the aim of taking

the series of training programmes for SWM workers and expressed gratitude towards SWM Department of MCGM, Mumbai for extending support in conducting these training programmes.



Ms. Neha Hardikar, Sr. Research Officer, RCUES, AILLSG, Mumbai addressing the participants.

In the third web-based training programme of the series, Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai welcomed the subject experts and the participants. She explained the participants that this platform has provided the right opportunity to gain the knowledge on keeping their healthy wellbeing, financial planning for their family security etc. She concluded her address by highlighting that these programmes will certainly lend a hand to make a change in their lives. She further requested the subject experts to start the technical sessions.

Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai and Ms. Maleka Ansari, Sr. Research Officer, RCUES of AIILSG, Mumbai jointly coordinated this series of web-based training programmes.

The session on 'Swachh Bharat Mission-Urban (2)' was conducted by Mr. Girish Bhardwaj, former Health & Hygiene Officer, Department of Education, Government of Rajasthan. He

PAGE 26 URBAN ENVIRON VISION

#### **TECHNICAL SESSIONS**



Mr. Girish Bhardwaj, former Health & Hygiene Officer, Department of Education, Government of Rajasthan addressing the participants.

commenced his session by giving overview of Swachh Bharat Mission-Urban, (SBM-U). He explained that SBM-U had three major objectives such as achieving 100% Open Defecation Free (ODF) status, ensuring 100% scientific Solid Waste Management (SWM), and bringing about behavior change through 'Jan Andolan', by 2nd October 2019. He then explained achievements in implementation of SBM-U by mentioning that country was declared 100% ODF in 2019. He also added that, all urban areas of 35 States/ UTs have become ODF (except 1 ULB of West Bengal), i.e. 4,371 ULBs (out of 4,372) have become ODF. In all these cities 66.86 lakh Individual Household Toilets. and 6.40 lakh seats of Community/ Public toilets (CT/PT) have been constructed. He also mentioned that 2.5 lakh collection vehicles are used for door-to-door garbage collection. The waste processing capacity increased to nearly 1 lakh TPD (70%), compared to the earlier processing capacity of 26,000 TPD of waste (18%). He further spoke on the need of SBM-U (2). He elucidated upon the assessment study of SBM which was undertaken in 2018 by National Sample Survey Office (NSSO), which showed that 98% of these newly toilets are being used in

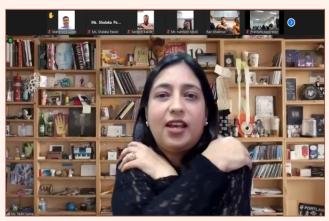
urban areas. He further added that, NITI Aayog also has evaluated SBM-U, by giving recommendations in the report dated 18th January 2021. The NITI Aayog report speaks about the need of SBM-U (2) by mentioning the need of continued investment in IHHLs and CT/PTs, focusing on entire sanitation value chain for inclusive sanitation. This also includes collection, containment, treatment, disposal and recycling of faecal waste and waste water, budgetary support needed for of legacy dumpsites, managing different types of solid wastes (including plastic, C&D and sanitary waste) and to sustain the achievements under SBM Urban in the long run with creation of adequate infrastructure, and that their implementation needs to be accelerated manifold. He further explained that, the second phase of SBM-U (2) mission is launched with an aim to transform the country into a truly swachh (clean) country through making all cities 'Garbage Free'. He said that the country had been declared ODF in 2019, on the basis of third party verification, and it will now move towards ODF+ and ODF++. He highlighted that the effective implementation of this mission leads to urban transformation by improving the quality of life and ease of living of urban populations and bringing about major changes in the ecosystem. He concluded his session by stating that the SBM-U has an MIS portal which will be capturing ground-level data to monitor the extent to which the guiding principles are being taken forward in practice for effective implementation of SBM-U (2) in cities.

The next session on 'Safety and Precaution - Solid Waste Management' was conducted by Mr. Subhash Dalvi, Officer on Special Duty (SWM) and Chief Nodal Officer, Swachh Mumbai Prabhodhan Abhiyan (SMPA), MCGM, Mumbai. Beginning his session, he spoke about the crucial role played by SWM workers, front-line workers such as doctors, medical staff and sanitation workers during COVID times. He stated that SWM workers from 24 municipal wards were continuously working braving the high risks during and post-COVID. He further added that during and post-COVID, concerned municipal officials of



Mr. Subhash Dalvi, Officer on Special Duty (SWM) and Chief Nodal Officer, Swachh Mumbai Prabhodhan Abhiyan (SMPA), MCGM, Mumbai addressing the participants.

MCGM, Mumbai conducted frequent meetings and decided a line of action to impede COVID crisis. He concluded his session by encouraging the participants to get their COVID vaccination done for their safety, if they have not taken as yet.



Ms. Nidhi Sarna, Director, Edtech Company, Mumbai addressing the participants.

The next session on 'Health and Hygiene of SWM Workers' was conducted by Ms. Nidhi Sarna, Director, Edtech Company, Mumbai. She started her session by welcoming all the.

participants and extending gratitude towards the RCUES of AIILSG, Mumbai for conducting such motivating training programmes. She said that SWM workers are key contributor in SBM –U in making cities clean and healthy. She encouraged the SWM workers to take care of their own health by doing daily exercises including breathing exercises to maintain their individual health. She made the participating workers acquainted in doing such exercises by showing practical to them. She also explained the importance of hygiene to be maintained in order to keep the surrounding hygienic, healthy and livable. She concluded the session by showing high risks because of unhygienic environment that leads to unhealthy life

The same session was taken by Dr. Ajit Salvi, Dy. Chief Engineer, MSDP, MCGM, Mumbai, in the third training programme of the series, by giving emphasis on health issues and how SWM workers need to address these issues to keep their health in good condition.



Dr. Ajit Salvi, Dy. Chief Engineer, MSDP, MCGM, Mumbai addressing the participants.

The next session on 'Safety, Security and Welfare of SWM Workers' was conducted by Dr. Ajit Salvi, Dy. Chief Engineer, MSDP, MCGM, Mumbai. He began his session by focusing on individual perspective of SWM workers in terms of health and safety. He highlighted reasons of accidents of SWM workers at

PAGE 28 URBAN ENVIRON VISION

work place. He stated that accidents occur due to negligence and having casual approach towards work, unsafe conditions of work, absence of safety measures at work place, etc. He added that accidents at work place can be avoided by conducting regular safety drills, imparting knowledge of handling safety gears, avoiding shortcuts at work place and by giving training the SWM workers. Further he spoke about absenteeism of SWM workers and their impact on their work. He mentioned that the reasons behind absenteeism at work place could be health issues, financial problems and family issues, etc. He further stated that good healthy life style is of utmost importance for a happy life and further added that according to the World Health Organization (WHO), individual with good physical, mental and social health can work effectively at work place. He elucidated that healthy diets, positive thoughts, regular exercises, proper sleep, time management, financial planning, stress management and management of time after retirement are important facets to live a happy life. He encouraged the SWM workers to focus on these aspects and concluded his session by mentioning measures to be taken by SWM workers.



Mr. Kamalesh Modi, Chief Advisor, Modi Insurance & Investments, Mumbai addressing the participants.

The last session on 'Financial Planning for SWM Workers' was conducted by Mr. Kamalesh Modi, Chief Advisor, Modi

Insurance & Investments, Mumbai. He commenced his session by explaining the significance of financial savings. He further explained how financial planning is essential to live peaceful life. He explained in detail LIC schemes which give 15 % returns at the time of maturity. He concluded his session by saying that the financial planning is dependent on the approach of the individual to live safe and secured life.

In the third web-based training programme of the series, the same session was conducted by Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai. She commenced her session by explaining the significance of planning for future security of themselves and their family. She gave emphasis on money savings to be divided into secured savings like postal savings, fixed deposits, and investments in LIC etc. She further added that every SWM worker should at least put 30 % of their total earnings into saving schemes before spending on the life necessities. She said that every SWM worker has family responsibility like illness of their old parents, education and marriage of their children and their own future life. She added that if the workers start investing from early stages of their job, they will get a substantial amount at the time of their need. She concluded the session by mentioning the difference between secured investments and risk investments like mutual funds and shares and encouraged the workers to save in the secured financial schemes.

#### **SUMMING UP**

After the technical sessions, Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai concluded these training programmes by proposing a Vote of Thanks to the expert trainers and the participants.

PAGE 29 **URBAN ENVIRON VISION** 

#### **GLIMPSES OF THE SERIES OF WEB BASED TRAINING PROGRAMMES**







#### Water +

#### Water + Protocol

- Ensuring that no untreated wastewater is discharged into the open environment thereby enabling sustainability of the sanitation value chain...
- A city can be declared as Water Plus provided:--
- All wastewater released from households, commercial establishments etc. is treated to a satisfactory level before releasing the treated wastewater to the environment.
- This is in line with the Government's focus on water conservation and reuse under the Jal Shakti Abhiyan and also aligns with the Sustainable Development Goals on clean water and sanitation.



#### Achievements of SBM-U

- · Country declared 100% ODF in 2019.
- All Urban areas of 35 States/ UTs have become ODF (except 1 ULB of West Bengal), i.e. 4,371 ULBs (out of 4,372) have become ODF.
- · Constructed of 66.86 lakh Individual Household Toilets and 6.40 lakh seats of Community/ Public toilets (CT/PT).
- Door to door garbage collection through 2.5 lakh collection vehicles .
- · Municipal Solid Waste (MSW)treatment capacity was 26,000 TPD of waste(18%).
- presently, waste processing capacity stands at nearly 1 lakh TPD (70%).
- World's largest sanitation campaign







PAGE 30 URBAN ENVIRON VISION

Active participation of solid waste management workers from 24 wards of Municipal Corporation of Greater Mumbai (MCGM) in the series of city-specific web-based training programmes on 'Swachh Bharat Mission - Urban (2)' was conducted on 16<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup> December 2021 with support from Solid Waste Management (SWM) Department of MCGM, Mumbai











## Regional Specialized Web-Based Training Programme on

# FINANCIAL REFORMS AT ULB LEVEL

23<sup>rd</sup> - 24<sup>th</sup> December, 2021

## Key Highlight

The key highlight of this web-based training programme was that the participants were updated on the strategies to increase the revenue of the ULBs so that better effective service delivery could be made and more infrastructure facilities are provided in their respective cities.

#### **BACKGROUND**

The impact of the pandemic on the economy and on the fiscal positions of the Central and State Governments is huge but not totally assessed. The magnitude of impact of pandemic on different sectors varies; none of the sectors is spared of its repercussions. The pandemic has put India's urban public health systems under stress, both infrastructural and economically. The unprecedented expenses incurred on health service delivery to tackle the COVID pandemic have restrained in the need to put property tax reforms on the fast track. Property tax remains the only major revenue source in the municipal portfolio as it contributes about 60 percent to municipal tax revenue in India. In addition, the part of municipal finance resources meant for the activities necessary to fight the pandemic on the local level have also been put under pressure. Urban Local Bodies (ULBs) in India raise finances through a variety of sources. ULBs generate their own revenues from property tax, stamp duty, entertainment tax and other local cess, get grants from the State and Central governments, take loans from banks and other institutions as well as by raising municipal bonds, generate revenues from sundry sources such as rents from entities that use public premises, unclaimed security deposits etc. Due to ongoing social distancing measures in place and local level restrictions at many places, supply chains are not yet fully restored, which affects recovery process. Given the adverse impact on municipal finance revenue generation amidst the Covid-19 outbreak, it is imperative for the ULBs to urgently rethink the fiscal policy measures.

Considering this, Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai conducted Regional Specialised Web-Based Training Programme on 'Financial Reforms at ULB Level' on 23<sup>rd</sup> - 24<sup>th</sup> December 2021. This training programme was supported by the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

PAGE 32 URBAN ENVIRON VISION

#### **KEY OBJECTIVE**

The key objective of this training programme was to discuss the strategies by Urban Local Bodies (ULBs) to enhance the finances to ensure effective service delivery and developing infrastructure facilities at city level.

#### **PARTICIPATION**

In all, 12 participants comprising Dy. Municipal Commissioners, Chief Officers, Accounts Officers, City Project Officers, City Coordinators, STP Plant Managers, Account Taxation Officers, Assistant Internal Auditors, Recovery Officers from Maharashtra, Gujarat, Goa, Rajasthan and Assam participated in this web-based training programme.

#### INTRODUCTION

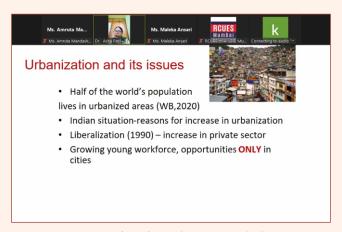


Ms. Maleka Ansari, Sr. Research Officer, RCUES, AILLSG, Mumbai addressing the participants.

Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai started the web-based training programme by welcoming the distinguished trainers and the participants. She explained the objective of this web-based training programme

by elucidating the importance of revenue generation in order to strengthen the service delivery and infrastructure facilities at UI Blevel.

#### **TECHNICAL SESSIONS**



Dr. Asha Patil, Director (Retd.) & Professor, Dept. of Lifelong Learning & Extension (LLE), SNDT Women's University, Mumbai addressing the participants.

The first session on 'Overview of Indian Economy' was conducted by Dr. Asha Patil, Director (Retd.) & Professor, Dept. of Lifelong Learning & Extension (LLE), SNDT Women's University, Mumbai. She commenced her session by speaking on Indian Economy. She stated that India's economic recovery through International Monetary Fund (IMF) projects is robust in the current financial year (an expected GDP growth of 9.5% in 2021-22). She added that with more than 80% of global GDP generated in cities, urbanization can contribute to sustainable growth, if managed well, by increasing productivity, allowing innovation and new ideas to emerge. She focused on urbanization challenges by stating that half of the world's population lives in urban areas (WB, 2020) as work

opportunities are more in cities for younger generation and other factors. She further elucidated that migration from rural to urban areas and parallel processes of growth of per-urban areas, merger of smaller towns to form larger urban areas are the main reasons of increased urbanization. This urbanization has to be sustained by inclusive planning that provides affordable housing, well connected transport systems, continuous water supply, modern sewage treatment and good solid waste management system. She explained the need for reforms by saying that reforms play an important role in ULBs by systematizing and overcoming procedural restrains in urban governance. Urban reforms assist in improving ULBs transparency, accountability, financial status, and credit worthiness and can provide the necessary platform for private investments in urban infrastructure.

She discussed the sources of revenue generation of ULBs. They primarily include property taxes, water tariffs, and revenue from business licenses, shop rents, and advertisement taxes. She added that state grants and loans from state governments and market borrowings are also sources for revenue generation to ULBs. She further said that municipal revenue base can be strengthened through several innovations such as improved billing and collection, rationalization of service charges, simplification of the tax assessment system, computerization of records, improved accounting system, financial management systems, intensive communication with public and outsourcing. She also added that municipal resource mobilization process requires the strong commitment and unwavering support of elected members, as well as administrators. Furthermore, she explained that market-based funds (Municipal bonds), land-based sources and Public Private Partnerships (PPP) are ways to increase the financial status of ULBs. She concluded her session by discussing issues relating to implementing financial reforms and impact of COVID -19 and extended lockdown on various stakeholders.

	<b>Maleka Ansari</b> Maleka Ansari	Mr. Kishor		RCUES Mumbai LES of ALLSG Mu			
Basis of Horizontal Distribution:							
Weights Allotted to Criteria for Grants to ULBs							
Criteria and Relative Weights for Determining Inter-Se Shares of States:							
Criteria	ΧI	XII	XIII	XIV	XV		
1. Proportion of Urban Population	40 (1991)	40 (2001)	50 (2001)	90 (2011)	90 (2011)		
2. Proportion of Urban Geographical area	10	10	10	10	10		
3. Distance from highest per capita sectoral income (non primary)	20	20	20	-			
4. Index of decentralisation	20	-	-	-			
5. Index of deprivation	-	10	-	-			
6. Index of devolution	-	-	15	-			
7. Revenue effort	10	20	-	-			

Dr. Sanjay Phad, Assistant Professor, Department of Economics, SNDT Women's University, Mumbai addressing the participants.

The next session on 'Role of Central & State Governments in Amending Financial Reforms at ULB Level' was conducted by Dr. Sanjay Phad, Assistant Professor, Department of Economics, SNDT Women's University, Mumbai. He commenced his session by explaining budgetary provisions for ULBs and need of financial reforms to encourage development projects at ULB level. He spoke on decentralization initiative of India with reference to 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment Act (CAA). After constitutional amendments, it has become mandatory for the Finance Commissions to allocate funds and make recommendations as to strengthen the functioning of Urban Local Bodies (ULBs). These grants are supplementary source of finance. Fact is that total revenue need further support to strengthen the functioning of ULBs. In view of these challenges, he recommended that the percent share of ULB grants in total Finance Commission transfer's PAGE 34 URBAN ENVIRON VISION

which was 2.3 per cent in the Eleventh Finance Commission was increased to 5.05 per cent in the Thirteenth Finance Commission and 6.41 per cent in the recommendations of Fourteenth Finance Commission. Hence, this share must be increased up to minimum 15 per cent. For this purpose 6 per cent of divisible pool of Central taxes as general basic grants and 2 per cent as performance grants may be granted to ULBs. He also suggested that it should be ensured that the State Governments are transferring the local body grants promptly and efficiently to the local Government level as per the recommendations of Finance Commission of India and State Finance Commissions. He then stated that urbanization and economic growth are interlinked as cities provide economies of agglomeration. Currently, cities accommodate 377 million i.e. 31% of India's current population and contribute 63% of the GDP and are expected to accommodate 800 million in 2050. Hence, the provisioning of adequate infrastructure requires huge finances.

The urban local finances in India indicate that most of the ULBs need betterment in mobilization of resources and financial autonomy. The resource base of ULBs typically consists of their own sources, state grants, loans from state governments, and market borrowing. He said that ULBs in India have a minimal revenue base and largely dependent on Central and State grants, which constrained the ability of ULBs to invest adequately in capital expenditure like creating infrastructure and thereby, improving quality of life in the city. Central Finance Commissions have also recommended for financial strengthening of ULBs from time to time. He added that no grants will be released to local bodies of a state after March 2024 if any State does not constitute State Finance Commission and act upon its recommendations by then. He

concluded his session by mentioning that financial selfsufficiency of the ULBs is the need of the hour. This can be achieved through encouraging municipal bonds, reviewing of property tax system to make periodical revisions, improve efficiency and transparency in collection and mobilization of resources.



Dr. Kishor Kadam, Head of the Department of Economics, SNDT College, Mumbai addressing the participants.

The next session on 'Strategies to Encourage Digitalization at ULB Level' was conducted by Dr. Kishor Kadam, Head of the Department of Economics, SNDT College, Mumbai. He started his session by explaining the need and importance of digitization in improving efficiency and productivity in service delivery. He added that, digital transformation has played a crucial role in modernizing public services, increasing the effectiveness of services, reflected through a broad range of trends and developments. He explained strategic elements and several effective tools like web portal, apps, video calling and Citizen Service Centre (CSC) of digital transformation. These platforms are instrumental in offering aviation services, pension, foreign trade, digital courts, travel and expense

monitoring, and month-end dashboard, automation of tax and revenue management processes for direct and indirect vices, registration of properties land, shops, etc. He cited examples of the positive impact of these digital platform on various fields as education, healthcare, and social care and protection cases etc. He concluded his session by explaining importance of digitization at ULB level to bring about efficiency in service delivery and ways of doing things.

	ta Mandavk Mr. Ravi Duggal	M	CUES umbai
nds	n Mullibai 5 C	ILD Health I III	anding
Table 3: BM	C's Health Expendit	ure Trends 1960-61 to	2013-14 (in I
Year	Health Expenditure	Total BMC Expenditure	Percent Health
1960-61	5.46	15.84	34.45
1970-71	16.85	53,52	31.48
1980-81	50.98	187.29	27.22
1985-86	93.19	360.63	25.84
1990-91	187.63	760.85	24.66
1995-96	294.48	1913.37	15.39
2000-01	467.81	3175.14	14.73
2005-06	660.6	4902.91	13.47
2010-11	1156.77	12666.66	9.13
2014-15	1840.34	24210	7.6
			8.56

Mr. Ravi Duggal, Expert, Public Health, Mumbai addressing the participants.

On the second day, the session on 'Health Financing at ULB Level' was conducted by Mr. Ravi Duggal, Expert, Public Health, Mumbai. He started his session by elaborating on economy of ULBs, which have become weak institutions over time because of inadequate revenue generation. He added that inadequate revenue generation leads to dependency on state government resources because of which these bodies have weak autonomy that affects decision making powers at ULB level. He focused on health financing where he presented an overview of health financing. Like the decline of the fiscal status of ULBs over the years, even healthcare spending of ULBs was adversely

affected. He mentioned that ULBs provide all levels of health care at many levels including the levels of community health workers to urban health centres, dispensaries and hospitals teaching medical colleges attached hospitals. He further deliberated upon the issues of urban health financing such as inadequate resources for primary care and tertiary hospitals which handle a large proportion of primary care, lack of a referral system, and deficits of human resource which highlight the need to restructure resource use etc.

He also spoke on 'Financial Reforms for ULBs to Provide Sustainable Solutions to Development Projects', where he mentioned about inadequate resources for primary care and its adverse impact. He mentioned that Public health resource use suffers from allocative inefficiencies due to lack of referral system. He added that the system need to re-orient resource use. He highlighted that the pandemic exposed the weaknesses and vulnerability of the public health system and governance. He further spoke on the sustainable solutions to post pandemic crisis by strengthening primary care services, creating a referral system for secondary and tertiary care, creating innovative financing and payment mechanisms. In conclusion, he explained the strategy for restructuring and reorienting financial reforms where he highlighted upon cost based allocation of budgets for each level of care.

#### **SUMMING UP**

At the end of the sessions, the feedback was taken from the participants, followed by Vote of Thanks by Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai to the distinguished trainers and the participants.

PAGE 36 URBAN ENVIRON VISION

#### **GLIMPSES OF THE WEB BASED TRAINING PROGRAMME**



#### Ways to Increase Financial Status of ULB

- Market-based funds (Municipal bonds)
- · Land-based sources and
- · Public Private Partnerships (PPP)



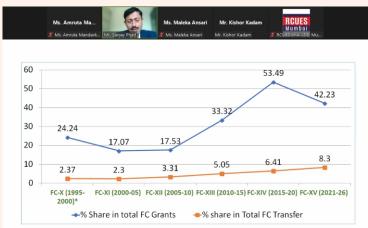






#### **Urban Health Infrastructure and Financing Issues**

- Resources are not a constraint infact there is excess in urban areas, especially Mumbai
- · Public health resource use suffers from allocative inefficiencies
- · Inadequate resources for primary care
- Tertiary hospitals handle a large proportion of primary care which is wasting limited resources
- · Lack of a referral system
- Human Resource Deficits
- · Need to restructure resource use
- COVID Context
  - · The issues above created chaos and instilled fear during the pandemic
  - The pandemic exposed the weaknesses and vulnerability of the public health system and governance







- Reforms play an important role in ULB in systematizing and overcoming procedural glitches in urban governance.
- Urban reforms assist in improving ULBs transparency, accountability, financial status, and credit worthiness and
- Can provide the necessary platform for private investments in urban infrastructure.

## Regional Specialized Web-Based Training Programme on

# ODF+, ODF++ AND WATER+ CITIES

28<sup>th</sup> - 29<sup>th</sup> December, 2021

### Key Highlight

The key highlight of this web-based training programme was that the participants got well acquainted in respect of new measures to make the city Water+ by various ways of recycling waste water at city level.

#### **BACKGROUND**

As Swachh Bharat Mission has progressed notably, it is imperative that progress attained in achieving our objectives be sustained financially and in an environmentally friendly manner. Cities are now working towards sustainability of sanitation status, by ensuring that no untreated wastewater is discharged into the openly. Under Phase 1 of the Swachh Bharat Mission (U), 99 per cent of the cities became ODF, as the Union Ministry of Housing and Urban Affairs (MoHUA) had declared in December 2019. Under the phase I of the Mission, about 65.81 lakh individual household toilets had been constructed against the targeted 59 lakh and 5.89 lakh seats of community / public toilets were constructed against the target of 5.08 lakh seats. But sustaining and maintaining the toilets built under the flagship Mission is important. Hence, ODF+ and ODF++ were launched in August 2018 to further scale up and sustain the work undertaken by the cities after achieving the ODF status under Phase I of the Swachh Bharat Mission - Urban (SBM-Urban).

Despite the fact that work on three protocols under the next phase of i.e. Swachh Bharat Mission (Urban-2) - ODF+, ODF++ and Water+ are to be completed by 2024, the ground situation has to be improved with the assigned timeline. A city can be declared as Water+ city, provided all wastewater released from households, commercial establishments etc. is treated to a satisfactory level before releasing the treated wastewater into the designated water bodies. The Water+ protocol aims to provide a guideline for cities and towns in order to ensure that no untreated wastewater is released into the water places, thereby enabling sustainability of the sanitation value chain.

Considering this, a Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai conducted a Regional Specialised Webbased Training Programme on 'ODF+, ODF++ and Water+ Cities' on 28<sup>th</sup>- 29<sup>th</sup> December 2021. This training programme was supported by the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

PAGE 38 URBAN ENVIRON VISION

#### **KEY OBJECTIVE**

The key objective of this web-based training programme was to assess the gap between protocols under SBM -II with the ground reality and encourage ULBs to ensuring ODF+, ODF++ and Water+cities progress in cities.

#### **PARTICIPATION**

In all, 36 participants comprising Mayors, Chief Officers, Municipal Engineers, Assistant Health Officers, MIS and IT Experts, City Project Officers, City Coordinators, Consultants, Sanitary Inspectors, Community Organisers, and concerned Officials from the States of Maharashtra, Goa, Gujarat, Rajasthan and Assam attended this training programme.

#### INTRODUCTION



Ms. Maleka Ansari, Sr. Research Officer, RCUES, AILLSG, Mumbai addressing the participants.

The web-based training was commenced by Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai by welcoming the distinguished trainers and the participants. She explained the objectives of the training programme and said that the participants will be acquainted with the protocols of ODF+, ODF++ and Water+ under second phase of Swachh Bharat Mission –Urban. She further added that cities can achieve ODF+, ODF++ and water+ status after assessing the gap between ground reality and the protocols. She ensured that this training programme will certainly help in successful implementation of SBM –U (2).

#### **TECHNICAL SESSIONS**

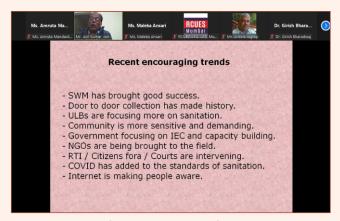


Mr. Girish Bhardwaj, former Health Hygiene officer, Department of Education, Government of Rajasthan addressing the participants.

The first session on 'Status of ODF + and ODF ++ under SBM – U (Phase-I)' was conducted by Mr. Girish Bhardwaj, former Health & Hygiene Officer, Department of Education, Government of Rajasthan. He commenced his session by giving an overview of Swachh Bharat Mission-Urban, (SBM-U) and explained that SBM-U had three major objectives such as achieving 100% Open Defecation Free (ODF) status, ensuring 100% scientific Solid Waste Management (SWM), and bringing about behaviour change through 'Jan Andolan', by 2nd October 2019. He then explained achievements in implementation of SBM-U by mentioning that country was declared 100% ODF in 2019. He

also added that all urban areas of 35 States/ UTs have become ODF (except 1 ULB of West Bengal), i.e. 4,371 ULBs (out of 4,372) have become ODF. In all of these cities 66.86 lakh Individual Household Toilets and 6.40 lakh seats of Community/ Public toilets (CT/PT) have been constructed. He further spoke on the need of SBM-U (2). He elucidated upon the assessment study of SBM which was undertaken in 2018 by National Sample Survey Office (NSSO), which showed that 98% of these newly toilets are being used in urban areas. He further added that NITI Aayog also has evaluated SBM-U, and made recommendations in the report dated 18th January 2021. The NITI Aayog report speaks about the need of SBM-U (2) by mentioning the need of continued investment in IHHLs and CT/PTs, focusing on entire sanitation value chain for inclusive sanitation. He further explained that the second phase of SBM-U (2) mission is launched with an aim move towards ODF+ and ODF++ through third party verification. He highlighted that the effective implementation of this mission leads to urban transformation by improving the quality of life and ease of living of urban populations and bringing about major changes in the ecosystem. He concluded his session by stating that the SBM-U has an MIS portal which captures ground-level data to monitor the extent to which the guiding principles are being followed in practice for effective implementation of SBM-U(2) in the cities.

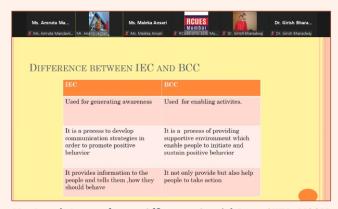
The next session on 'Role of ULBs in ensuring Safe and Hygienic Sanitary Conditions' was conducted by Mr. Anilkumar Jain, former Additional Chief Engineer, Public Health Engineering Department (PHED), Jaipur, Rajasthan. He started his session by emphasizing on behavioral change in sanitation practices and generating awareness about sanitation and health. He explained the current status of sanitation in Indian Cities by saying that overall status of sanitation calls for more to be



Mr. Anilkumar Jain, former Additional Chief Engineer, Public Health Engineering Department (PHED), Jaipur, Rajasthan addressing the participants.

done. He added that sewerage system is still at initial stages leading to poor sanitation. He further spoke on role of ULBs in ensuring safe and hygienic sanitary conditions by mentioning that cities are engines of economic growth. He added that top 10 cities contribute about 9% of the country's GDP. Urban services like water supply, sanitation, solid waste and other infrastructure become very critical to drive this growth and sustain productivity. He said that the Sustainable Development Goals (SDGs) 6 and 11 also emphasize the importance of urban sanitation and SWM services. He further spoke on encouraging trends in sanitation as ULBs are focusing more on sanitation and communities are more sensitive and demanding, as well as Government is focusing on IEC and capacity building in sanitation. He explained bottlenecks at ULB level. He further elucidated that ULBs do not have professionally trained senior and junior staff and ULBs functions in traditional ways. Furthermore, inadequate financial resources lead to reduced man and machine deployment, inadequate connect and communication with the community, absence of use of IT/ PAGE 40 URBAN ENVIRON VISION

SCADA/new technology, inadequate awareness in all stakeholders, and inadequate enforcement of rules are some of the challenges need to give focus at ULB level in ensure safe hygiene. He gave a few recommendations in terms of way forward. He said that recycle/reuse of treated sewerage is essential to make cities water+. Besides, he suggested to create buyers group, who will use treated wastewater for agriculture and other purposes. He strongly suggested to use social media/ FM Radio/newspapers for regular IEC and installation of hoardings for social messages. He also recommended Rain Water Harvesting (RWH) for ground water recharge. He concluded his session by advising the NGOs and train personnel of NGOs for social mobilization and encourage innovation at ULB level for ensuring safe sanitation.



Mr. Anand Jagtap, former Officer on Special Duty, SWM, MCGM, Mumbai addressing the participants.

The next session on 'Information, Education and Communication (IEC) and Public Awareness' was conducted by Mr. Anand Jagtap, former Officer on Special Duty, SWM, MCGM, Mumbai. He started his session by highlighting the global facts relating to the World Toilet Day (19th November 2021) by mentioning that globally at least 2 billion people use a drinking

water source contaminated with feces. Every day, over 700 children under five years die from diarrheoa linked to unsafe water and sanitation and poor hygiene. He then explained the common hitches observed in construction of toilets such as non-availability of water near the toilet, inadequate ventilation and poor illumination etc. He gave emphasis on IEC component by saying that under SBM phase I, about Rs.35 to 40 billion have been spent by the government as well as private sectors on IEC activities for development in this field. He spoke on the key words used such as waste segregation at source, plastic waste management, grey water management, bio-degradable waste management, faecal sludge management, retrofitting, menstrual waste management and hygiene promotion in IEC promotion in making cities ODF+. He explained the difference between IEC and Behavior Change Communication (BCC). He said that IEC is used for generating awareness whereas BCC is for enabling the target group towards the desired activities. He further said that IEC is a process to develop communication strategies in order to promote positive behavior, whereas BCC provides supportive environment which enables people to initiate and sustain positive behavior. He concluded his session by mentioning the significance of IEC and citizen awareness in sanitation.

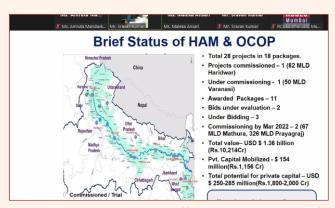
On the second day, the session on 'Efforts taken in making City Water+ — Case of Navi Mumbai Municipal Corporation (NMMC)' was conducted by Mr. Babasaheb Rajale, Dy. Municipal Commissioner, NMMC, Navi Mumbai. He started his session by speaking how NMMC has achieved Water+ tag and sanitation journey under SBM-U. He explained the efforts taken in sanitation under Swachh Survekshan 2021. While explaining journey of sanitation, he said that NMMC was declared the first ODF city in 2017 under SBM —U, and declared as ODF++ in 2018



Mr. Babasaheb Rajale, Dy. Municipal Commissioner, NMMC, Navi Mumbai addressing the participants.

and Water+ city in Maharashtra. He further stated that NMMC is a well planned city with 100 % sewerage network, which covers 99% population of the city through underground drainage system. He further added that NMMC has constructed 7 Sewerage Treatment Plants (STPs), which has a capacity of covering 30 lakhs population. Currently NMMC has 15 lakhs population including floating population. This indicates the huge coverage capacity of STPs. He highlighted that 30 % of the recycledwater is used for multiple purposes like gardening, cleaning roads, dividers etc. in order to keep the city green and clean. He said that NMMC has signed a Memorandum of Understanding (MoU) with the Maharashtra Industrial Development Corporation (MIDC) to supply recycled water from its tertiary plants to the industrial groups in Vashi, Koparkhairane and Airoli areas of MIDC area. He also explained Centralized Monitoring System of CT/PT. He concluded his session by depicting the pictures of water bodies to show how they are maintained by zero discharge of waste water in water hodies.

The last session on 'Protocols of Water+ Cities under SBM –U (2)' was conducted by Mr. Sravan Kumar Kota, Research Officer,



Mr. Sravan Kumar Kota, Research Officer, South Asian Institute for Advanced Research and Development (SAIARD)addressing the participants.

South Asian Institute for Advanced Research and Development (SAIARD). He started his session by stating how water bodies can be protected by sending the treated effluent into the water bodies instead of discharging in other drains/water bodies. STPs are constructed in conventional way to meet the desired National Green Tribunal (NGT) norms, which ultimately decrease the water pressure on ground & water bodies. He said that reuse of treated water will increase the accountability of the implementing authorities. He added that non-conventional treatment has limited usage such as gardening, irrigation, and ground water recharge etc. The water treated with the conventional method can be used for power plants, industrial reuse, non-potable uses in commercial complex and malls, railways cleaning, etc. He explained IEC and Behaviour Change Component (BCC) through citizen engagement. Public awareness has to be developed through campaigns for water conservation and water reuse. He concluded his session by explaining the need for Hybrid Annuity Model (HAM) as a PPP between government organization and private sectors in waste water treatment.

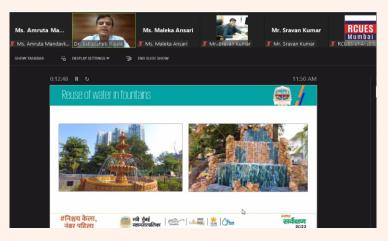
PAGE 42 URBAN ENVIRON VISION

#### **SUMMING UP**

After feedback session, this training programme was concluded by Ms. Maleka Ansari, Sr. Research Officer, RCUES of AIILSG, Mumbai by proposing a Vote of Thanks to the distinguished trainers and the participants.

#### **GLIMPSES OF THE WEB BASED TRAINING PROGRAMME**









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