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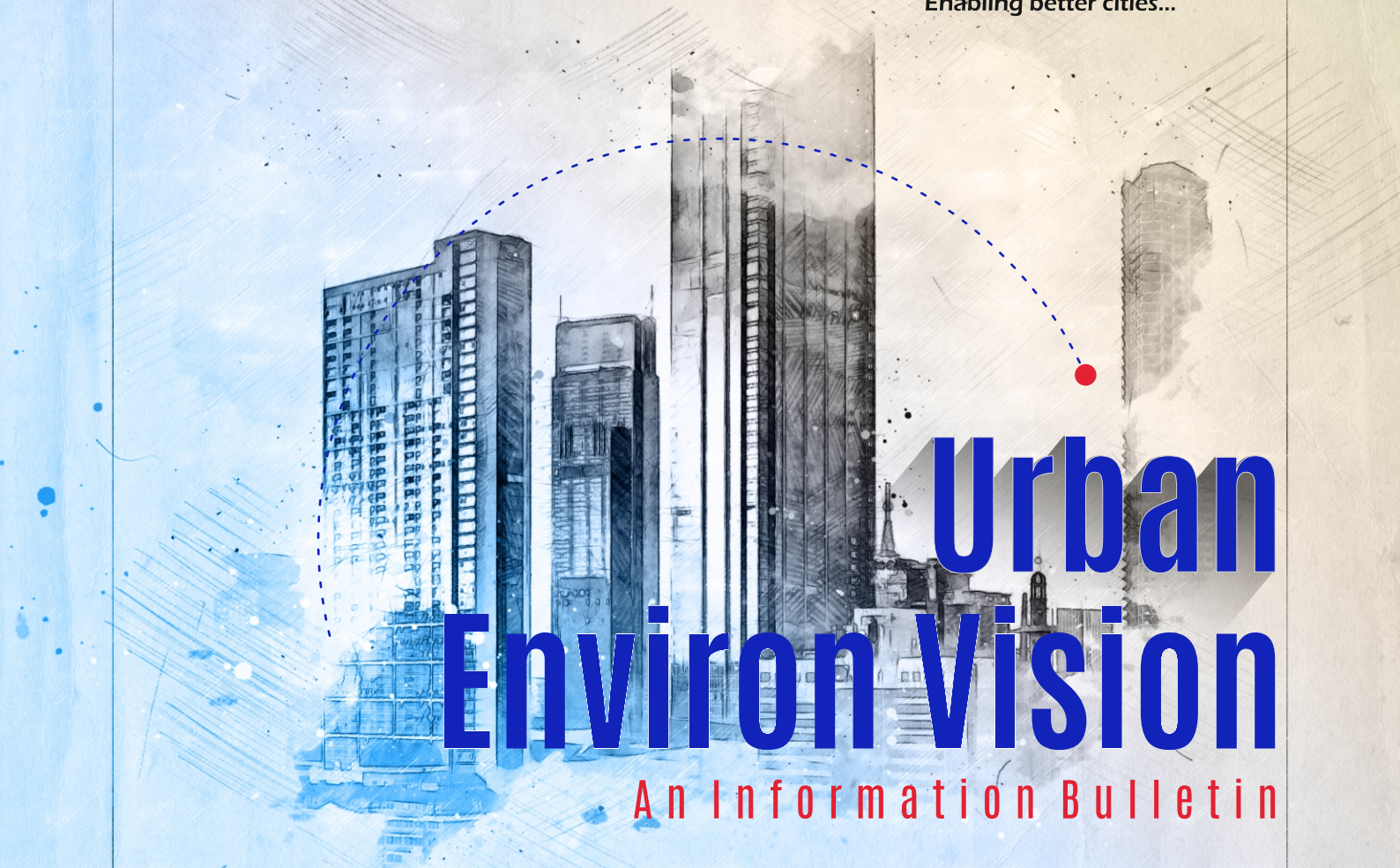
RCUES, Mumbai
Enabling better cities...



Urban Environ Vision

An Information Bulletin

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

Established by the Ministry of Housing and Urban Affairs, Government of India, in the year 1968.

Urban Environ Vision aims to take its readers through the Web-Based / Face to Face training programmes of RCUES, Mumbai while providing encouragement and knowledge to its participants and displays the efforts undertaken by RCUES, Mumbai.

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Section 01

Regional Specialized Web-Based Training Programme on

Swachh Bharat Mission - Urban 2.0

07th - 08th June 2022

Key Highlight

The participants acquired knowledge on inclusive perspective of the first phase of SBM-U and strategic implementation for sustainable SWM and sanitation management through the technical sessions of this web-based training programme.

BACKGROUND

Swachh Bharat Mission - Urban 2.0 [(SBM-U 2.0)] envisages to make all cities 'Garbage Free' and ensure grey and black water (used water) management in all cities other than those covered under AMRUT. The objective is to make all Urban Local Bodies (ULBs) ODF+ and those with a population of less than 1 lakh as ODF++ and, water+ in order to ensure 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 focuses 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 2.0 focuses on garbage free cities and sustainable sanitation. While observing India's journey in Solid Waste Management, it has been observed that as a part of the multi-pronged strategy, along with the launch of SBM-U, SWM Rules 2016, Construction and Demolition (C&D) Waste Rules are made and brought in implementation as also the policies on Plastic Waste Management including reduction in single use plastic, and remediating all legacy dumpsites.

Considering this background, the Regional Centre for Urban and Environmental Studies (RCUES) of the All India Institute of Local Self Government (AIILSG), Mumbai conducted a Regional Specialized Web-Based Training Programme on 'Swachh Bharat Mission - Urban 2.0' on 07th - 08th June 2022. 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 web-based training programme was to understand the role of ULBs in making cities garbage free by addressing the challenges in implementation of SWM and management of wastewater to ensure clean and healthy cities.

PARTICIPATION

In all, 88 participants comprising Chairpersons, Chief Officers, SBM Consultants, Municipal Engineers, City Project Officers, MIS / IT Experts, Labour Officers, Jr. Overseers, Sanitary Inspectors, Sanitary Workers from the states of Maharashtra, Gujarat, Assam, Delhi and Madhya Pradesh attended this web-based training programme.

INTRODUCTION

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

The web-based training programme was initiated with the introduction given by Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai. She welcomed the distinguished trainers and participants and spoke about the RCUES's objectives and functioning. She then explained the objective of this training programme and how the achievements under SBM-U need to be sustained by creating adequate infrastructure facilities, and their implementation needs to be accelerated in a sustainable manner. She said henceforth, SBM-U 2.0 will have a more concerted focus on garbage free cities and sustainable sanitation. She encouraged the participants to keep the synergy with expert subject trainers in understanding the strategic implementation of SBM-U 2.0 through this virtual platform. She further requested the trainers to commence the technical sessions.

TECHNICAL SESSIONS

The first session on 'Swachh Bharat Mission - Urban 2.0' was conducted by Mr. Arvind Kumar Singh, Head (Water & Sanitation), Urban Management Centre (UMC), Ahmedabad, Gujarat. The session initiated by explaining achievements of eradication of open defecation and scientific solid waste management in all statutory towns under the first phase of SBM-U. The sanitation protocols were explained by giving the status ODF and municipal solid waste management in cities. He said that SBM-U 2.0 launched in October 2021, aims to create Garbage Free Cities in India within the next 5 years. The expected outcomes under SBM-U 2.0 such as (a) all ULBs become at least ODF+, (b) ULBs with less than 1 lakh population become at least ODF++, (c) 50% of ULBs with less than 1 lakh population become Water+, and (d) ULBs become certified at least 3-star Garbage Free rating were elucidated.

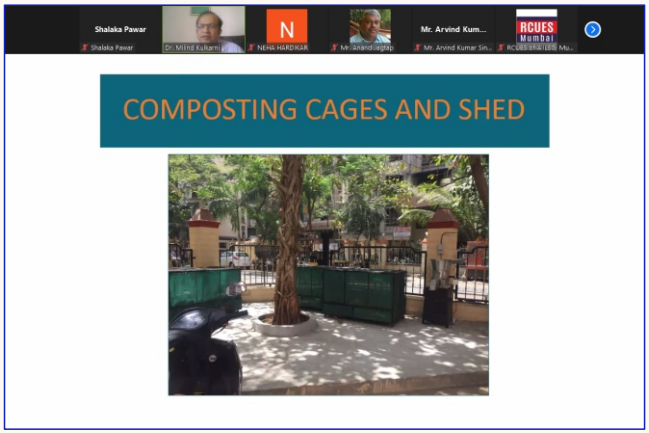
Mr. Arvind Kumar Singh, Head (Water & Sanitation), UMC, Ahmedabad, Gujarat addressing the participants.

In his talk, he focused on Jan Andolan - Citizen's engagement to promote ownership of 'Swachhata' by bringing them to the center stage of the mission, especially women Self-Help Groups (SHGs) to be mobilized for community level facilitation. While explaining the mission strategies he said that the focus in Jan Andolan is given on behavior change. Further he explained funding allocation under SBM-U 2.0, where funds are allocated for project implementation, IEC activities, capacity building and committed liabilities carried over from phase one of SBM-U. He highlighted that funding allocated for Used Water Management is double the funding allocated for Solid Waste Management (SWM). Strengthening of E-learning, adoption of new technologies, start-ups and business models, focus on skill development in sanitation and waste management sector are significant components in capacity building, he added. Besides, robust ICT enabled governance is crucial to enable real-time monitoring of assets. The Mandatory Entry Level conditions were explained by stating about aligning property tax floor rates with market rates with periodic revisions, as recommended by 15th Finance Commission. There is a need to levy and collect user charges for services provided, to recover operational costs, with periodic increase within a period of two years. The Public Financial Management System (PFMS) is adopted by all ULBs to receive funds from SBM-U 2.0, in which all transaction are made through Direct Benefit Transfer (DBT) and/or Expenditure-Advance-Transfer (EAT) modules. He then spoke on sustainable sanitation practices implemented through used water management by explaining its objective and components. He further mentioned about the outcome based Central Funding for PT-CT and Urinal where central funding is received in 2 instalments whereas in the outcome based Central Funding for Used Water Management, it is received in three instalments. While explaining about sustainable solid waste management, he highlighted that Central Government does not provide funds for cost of setting up primary collection & transportation (C&T) systems, including modernization of existing systems, which is one of the components under SBM-U 2.0. He said that Micro Composting Centre is a facility, where wet waste is processed into compost. He later explained the entire process of dry waste processing at Material Recovery Facility (MRF) and the process of safe disposal of non- recyclables and inert waste. He spoke on IT-enabled applications for implementation under SBM-U 2.0.

He also highlighted on evolution of Swachh Survekshan (SS) by stating that out of the four phases of assessment in SS, phase 1 and 2 will be assessed on the basis of service level progress indicators designed for SS 2022. He explained the comparative analysis in marks and indicators of service level progress in SS 2022 and SS 2023. He further elaborated on Star Rating Protocol for Garbage Free Cities (GFC) by explaining Seven Star Rating which is devised to ensure

holistic evaluation across entire SWM Chain. He mentioned about Scoring Matrix under Star Rating Protocol. He explained ULB's approach in making cities 'Garbage Free' by discussing on its various components which include effective source segregation at House Hold (HH) level, decentralization of waste processing, selection of appropriate technology for waste management, capacity building of municipal officials and staff, management of legacy waste and land reclamation, engagement of SHGs and Informal Waste pickers in SWM Value Chain. He concluded his session by encouraging the participants to focus more on Star Rating Protocol for making cities garbage free.

The next session on 'Sustainable Solid Waste Management in Cities under Swachh Bharat Mission - Urban 2.0' was conducted by Dr. Milind Kulkarni, former Professor, Indian Institute of Technology (IIT), Mumbai and Environmental Expert, Mumbai, Maharashtra. He gave emphasis on source segregation of solid waste by using the principles of 3 R's (Reduce, Reuse, and Recycle). He spoke on the current scenario of SBM-U by mentioning that the solid waste dumped to landfills is substantially reduced, by giving the example of Mumbai city where it is reduced from 9500 Mt/day to 6000 Mt/day. He also mentioned about the cities, which have achieved ODF status during the first phase of SBM-U, implementation of door to door waste collection, transportation and centralized waste treatment occurred effectively was also a common feature of these cities. He also highlighted that dry waste recycling increases substantially leading to circular economy and protection of environment. He added that waste pickers received sustainable income source leading to economic betterment. Though a few components are implemented effectively, several challenges persist in source segregation, decentralize composting, dry waste recycling etc. ULBs play a crucial role in effective implementation of SWM service chain. He also highlighted that the elected representatives can play an effective role in promoting segregation at ward level through awareness campaigns, posters and flyers etc., on SWM Rules. These practices need to be converted into statutory rules like MSW Rules in order to have force of law. The segregation of waste at source can be promoted by organizing at source waste segregation competition and awarding the winners.

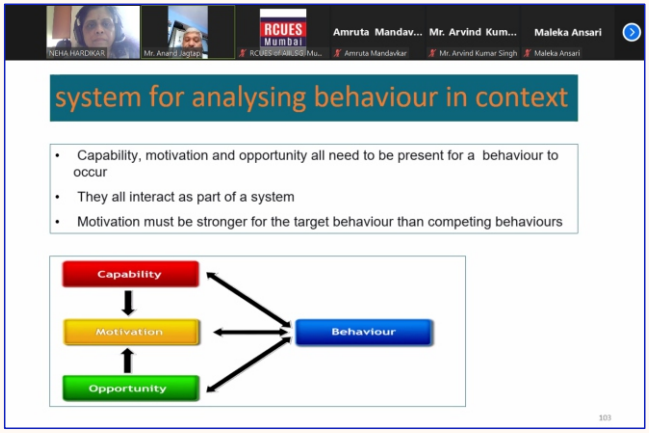


Dr. Milind Kulkarni, former Professor, IIT, Mumbai and Environmental Expert, Mumbai, Maharashtra addressing the participants.

He then discussed the pictures of composting pits, shredders, composting cages and shed, composting tumblers etc. He explained the issues in collection of segregated waste at household levels as housekeeping staff is reluctant to take two or three dustbins at each floor. The Penalty should be levied to households for non-segregation of the waste. He further said that residential societies should be encouraged to make compost of wet waste at household level and linked them to farmers through ULBs as organic farming requires huge amount of composting. He spoke on issues of dry waste and their solutions. He added that composting protocol needs to

be practiced meticulously in order to have good quality of compost as well as to avoid issues like foul smell etc. Hence before deploying housekeeping staff for composting operations they should be properly trained. Training should involve the turning operations, addition leachate absorption material such as saw dust, balancing of Carbon & Nitrogen (C&N), use of personal protection equipment etc. He concluded his session by explaining the significance of three R's in SWM service chain.

The next session on 'Importance of Information Education and Communication (IEC) and Stakeholders' Participation in Implementation of SBM - Urban 2.0' was conducted by Mr. Anand Jagtap, former Officer on Special Duty (OSD), Brihanmumbai Municipal Corporation (BMC) and a Sanitation Expert, Mumbai, Maharashtra. He commenced his session by giving an overview of SBM-U phase-I. He emphasized on importance of IEC by stating that under first phase of SBM-U, Government and private sector spent Rs.35 to 40 billion on the training and dissemination of IEC activities. He said that volunteers need to be engaged with National Urban Livelihood Mission (NULM), National Urban Health Mission (NUHM), ASHA, Anganwadis, SHGs, NGOs, youth/ women's groups, CBOs, Residents Welfare Association (RWAs) etc. He also said that ULBs need to facilitate formal creation and registration of all residential areas into RWAs/ CBOs/ Slum Development Associations or equivalent, to strengthen ULB's last mile connect with every household. ULBs should set up City Sanitation Committees with participation of selected citizen representatives for periodically reviewing and monitoring the efficient functioning of assets created. All SHGs, especially women SHGs to be engaged for ground level/ community level facilitations and interpersonal communication initiatives. He then explained the difference between IEC and Behaviour Change Communication (BCC) by saying that IEC is used for creating awareness at community level whereas BCC is for enabling activities in the community. IEC is a process to develop communication strategies in order to promote positive behavior whereas BCC is a process of providing supportive environment which enables people to initiate and sustain positive behavior. IEC provides information to the people to behave in a particular manner whereas BCC supports people to take an action. He talked on behavior change interventions and their developing strategies.



Mr. Anand Jagtap, former OSD, BMC and a Sanitation Expert, Mumbai, Maharashtra addressing the participants.

He concluded his session by emphasizing on implementation of the components such as capacity, motivation, and opportunity for inducing behaviour change.

On the second day, the session on 'Construction & Demolition (C&D) Waste under SBM - Urban 2.0' was conducted by Dr. Dilip Patel, Professor, Department of Civil Engineering, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat. He commenced his session by emphasizing on

sources of Construction & Demolition (C&D) Waste in Indian cities. He explained the definition of C&D waste as defined by Ministry of Environment, Forest and Climate Change, Government of India (GoI), 2016. He elaborated on various sources of C&D waste generation such as excavation and road work, construction of new buildings, renovation of old buildings, sewer and telephone work etc. He further mentioned that the C&D Waste generation is estimated in Million Tones by several institutions which shows its huge size. The estimates of the Ministry of Environment, Forest & Climate Change were highest in 2016. Similarly, Mumbai and Chennai cities generate highest C&D Waste as per Central Pollution Control Board 2016. He elucidated upon the issues and challenges in management of C&D Waste where emphasis is given on disposal of C&D waste in a secured manner. He then explained the road map of C&D waste management in which time frame for planning and implementation was discussed. He later elaborated on duties and responsibilities of various stakeholders involved in C&D waste management under the 2016 rules. He further elaborated on existing guidelines for C&D Waste Management and also explained its process. He mentioned that cities have employed the reuse of C&D waste in construction globally. Singapore, Denmark and Japan have achieved 98% success in recycling C&D waste as per the provision of IS 383:2016 provision for recycled aggregates. He said that there are issues in recycling of C&D waste. They include lack of appropriately located recycling facilities, absence of appropriate technology, lack of awareness, government support, and of proper standards. He said that cost of disposal of waste from construction industry to landfill has a direct bearing on recycling operations, low dumping costs, heterogeneous quality of recycled materials lack of economic incentives etc. He talked on the present waste handling practices adopted by the construction industry in India at different levels where items recovered during construction/demolition are sold in the market at a discounted rate, the feasibility of recycling is not even considered seriously in most cases. Items that cannot be re-used are used for filling the land, Landfill tax is not imposed by ULBs, and the waste is disposed without segregation and penalty is not imposed on violation of C&D Waste Management Rules 2016.

Dr. Dilip Patel, Professor, Department of Civil Engineering, SVNIT, Surat, Gujarat addressing the participants.

He spoke on challenges in C&D Waste Management such as sorting, handling and transportation of C&D waste, recycling process and its economic viability, current demolition techniques, disposal cost including landfill taxes and limited market awareness etc. He also emphasized on holistic approach towards sanitation by stating that C&D waste composition characterization indicates that C&D waste may comprise different pollutant compositions. These contaminants would have a negative impact on the surrounding environment (e.g., soil, groundwater, and water), directly or indirectly affecting human health. He stated that from an environmental standpoint, recycled products have been claimed to be sustainable at places where natural resources are

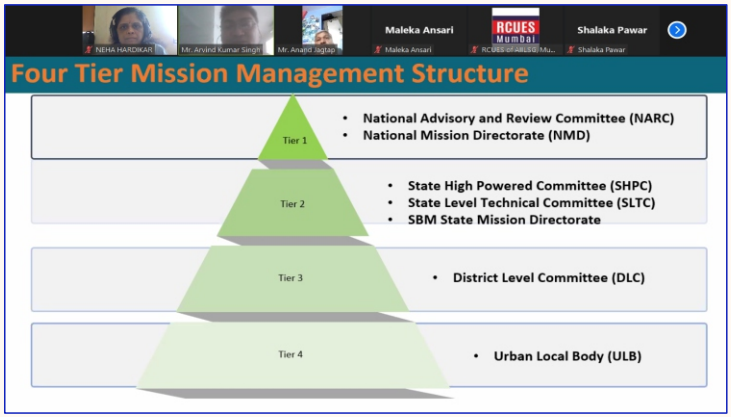
not locally available. He concluded his session by saying that different products can be manufactured using C&D waste instead of dumping at landfills, such as paver blocks, concrete blocks, jali, tiles, kerb stone, park bench, planter, pre-cast compound wall, drain cover etc. by showing pictures of manufactured products.

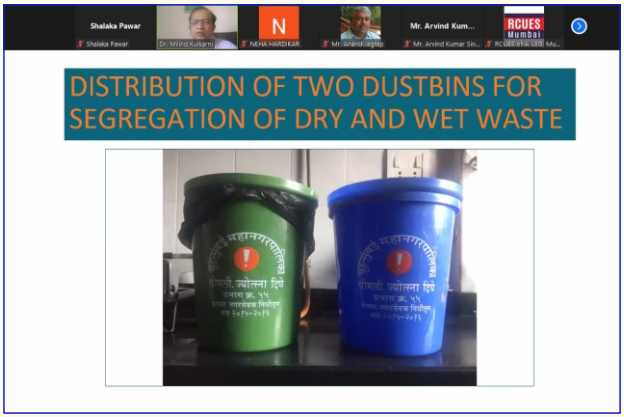
The Question and Answer session was followed after this session. In this session the participants asked questions to the trainers on implementation of C&D waste management in their cities, which were replied. After this session, the feedback was taken from the participants.

SUMMING UP

At the end of the feedback session, the Vote of Thanks was proposed by Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai to the subject trainers and the participants and concluded this web-based training programme.

GLIMPSES OF THE WEB-BASED TRAINING PROGRAMME





Section 02

Regional Specialized Web-Based Training Programme on

Atal Mission for Rejuvenation and Urban Transformation - 2.0

15th - 16th June 2022

Key Highlight

In this web-based training programme the participants gained knowledge pertaining to AMRUT 2.0 towards AatmaNirbhar Bharat which has an aim of making the cities water-secure and providing functional water tap connections to all households.

BACKGROUND

On 1st October, 2021, Government of India launched "Atal Mission for Rejuvenation and Urban Transformation (AMRUT) - 2.0" with the aim to create water-secure cities, providing universal coverage of water in all statutory towns and 100% coverage of sewerage/ septage management in 500 AMRUT cities through circular economy of water as a step towards AtmaNirbhar Bharat for achievement of targets upto 2025-26. A robust technology-based portal for monitoring is planned by adopting projects based on geo-tagged strategy where cities can assess their water source, consumption, future requirements and water losses through a city water balance plan. Pey Jal Survekshan is introduced in order to encourage competition amongst cities for benchmarking urban water services and incentivize mobilization of market finance by mandating implementation of 10% worth of projects in cities with population above ten lakhs, through Public Private Participation. For effective implementation of projects, Information, Education and Communication (IEC) campaign is undertaken to spread awareness among the public about water conservation. In this way, efforts are being made to make ULBs equal partners in planning and implementation of projects. A sound institutional structure is a foundation to successful missions. Hence, capacity building programs and a set of reforms have been included in it. Reforms lead to improvement in service delivery, mobilization of resources and making municipal functioning more transparent and accountable, while capacity building will empower municipal functionaries and lead to timely completion of projects.

Considering this background, the Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai organized a Regional Specialized

Web Based Training Programme on 'Atal Mission for Rejuvenation and Urban Transformation - 2.0' on 15th - 16th June 2022. This training programme was supported by the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

KEY OBJECTIVE

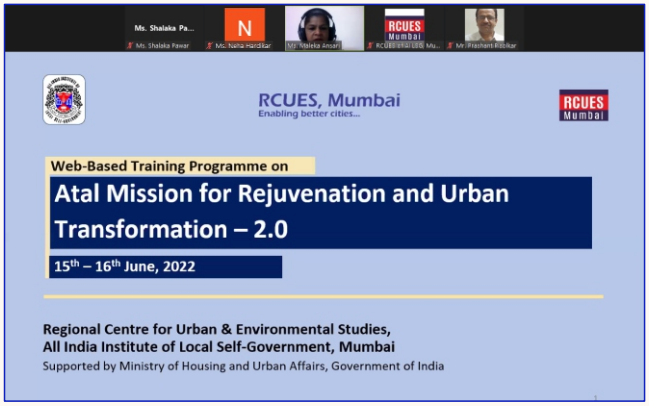
The key objective of this web-based training programme was to discuss the role of Urban Local Bodies (ULBs) in making the cities AtmaNirbhar and water-secure under AMRUT - 2.0.

PARTICIPATION

In all, 51 participants comprising of Chairmen and Vice Chairmen of the Committees of Municipalities Chief Officers, Executive Officers, Municipal Engineers, City Nodal Officers, Urban Infrastructure Experts, Sr. Chemists, Project Officers, Community Organizers, Sanitary Inspectors, Sanitation Workers, Outreach & Multi-Purpose Health Workers, Health Volunteers from the states of Maharashtra, Gujarat, Rajasthan, Goa, Assam and Tripura attended this training programme.

INTRODUCTION

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. While elaborating about the mission she stated that AMRUT was one of the missions introduced in 2015 with an aim to improve quality of life mainly for the poor and the disadvantaged by providing basic services including water supply, sewerage, urban transport and encouraging to develop green spaces and parks. She added that after completion of the first phase, AMRUT 2.0 is designed to make all cities water-secure and to upgrade financial health of ULBs and ease of living for citizens. Further she informed the participants that this training programme is designed to discuss the provisions of AMRUT phase 2.0. She highlighted the efforts of RCUES, Mumbai to provide guidance and direction to the officers & functionaries working on implementation of AMRUT through this training platform.

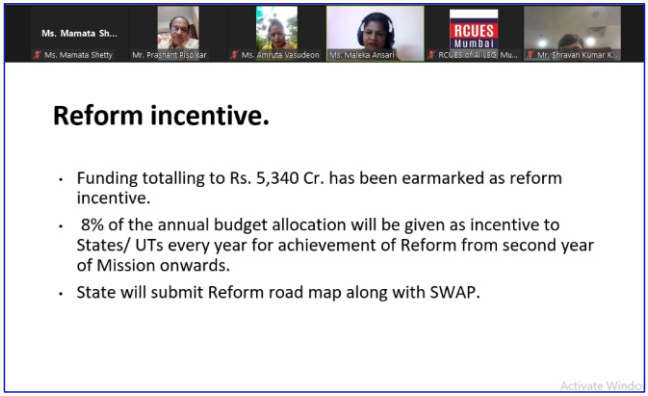


Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai addressing the participants.

TECHNICAL SESSIONS

Mr. P. C. Pisolkar, Senior Consultant, AIILSG, Mumbai delivered a session on 'Overview of AMRUT & AMRUT – 2.0'. He commenced the session on Performance of AMRUT Phase - I by highlighting Mission Components & Thrust Areas. He stated that AMRUT 2.0 is the continuation of the mission launched

in June 2015 in order to ensure that every household has access to a tap with the assured supply of water and a sewerage connection. He briefly discussed the objectives of the mission which aims mainly to address water needs, rejuvenate water bodies, better manage aquifers and reuse treated wastewater. He also discussed the provisions of implementation of projects targeting to increase coverage of sewerage and septage management in AMRUT cities. Further he said that recycling and reuse of treated wastewater is expected to cater to 20% of total water needs of the cities and 40% of industrial demand. Further he explained that under this phase of the mission, natural resources' sustainability through protecting fresh water bodies from pollution is aimed at. He informed that Pey Jal Survekshan is expected to be conducted in cities to ensure equitable distribution of water, reuse of wastewater and mapping of water bodies through implementing technological based portal management.



Mr. P. C. Pisolkar, Senior Consultant, AIILSG, Mumbai addressing the participants.

Mr. Pisolkar also briefly discussed State Water Action Plans (SWAPs) & City Water Action Plans (CWAPs). He said that CWAPs evaluate the proposed projects by the ULB's on the priority sectors of water supply; sewerage/ septage management; rejuvenation of water bodies including green spaces & parks.

In the next session, Mr. Shravan Kumar Kota, Research Officer, South Asian Institute for Advanced Research and Development (SAIARD), Guwahati, Assam conducted the session on 'Strategies adopted for making AtmaNirbhar Bharat under AMRUT - 2.0'. He stated that AtmaNirbhar Bharat Programme is launched by the Prime Minister in May 2020 with an economic stimulus package - worth Rs. 20 lakh crores aimed towards achieving self-reliance. He stated that the mission mainly focuses on the importance of promoting local products. He explained the pillars of self-reliant India mainly focusing on utilization of power demand and supply. He highlighted that the objective of the package was to focus on land, labour, liquidity and laws.

Mr. Shravan Kumar Kota, Research Officer, SAIARD, Guwahati, Assam addressing the participants.

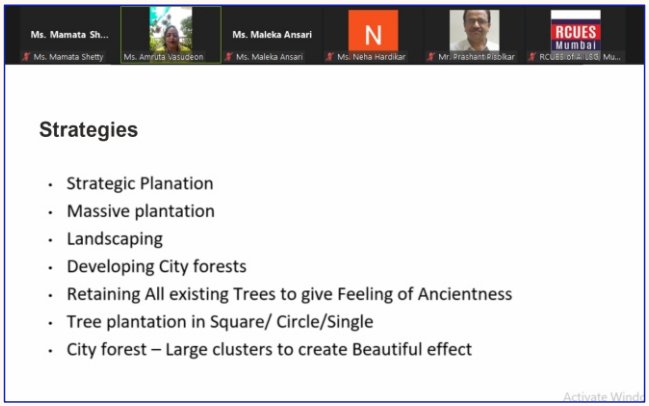
Further, he added that it also aims towards cutting down import dependence by focusing on substitution while improving safety

compliance and quality of goods to gain global market share. The Mission focuses on the importance of promoting local products.

While concluding his session, he focused on industrial pollution toxicity by mentioning about the Namami Gange project implemented under the Ministry for Ganga Rejuvenation covering 11 states. He briefly discussed about the Ganga conservation project.

Ms. Amruta Vasudevan, Executive Committee Member, Gardens Club & Nature Conservation, Kolhapur, Maharashtra conducted the session on 'Encouraging to develop Green Spaces & Parks under AMRUT - 2.0' by highlighting two major aspects i.e. efforts to increase the amenity value of cities & developing greenery and open spaces & parks. She commenced the session with a definition of green spaces by stating that the land is partly or completely covered with grass, trees, shrubs or other vegetation by nature. She said that parks and green spaces play a very important role in human life and have their benefits mainly to upgrade soil erosion, improve air quality and promote biodiversity. Further she pointed that trees and greeneries are rapidly being destroyed due to massive construction in urban areas. She stated that this component of AMRUT provides an opportunity for developing parks and green spaces in the neighbourhoods with financial assistance. Further she briefly discussed the benefits of green spaces and said that ULBs can implement a special drive to spread ecological awareness among city dwellers to promote and maintain parks and green spaces with the help of CBOs, NGOs, and peoples' participation.

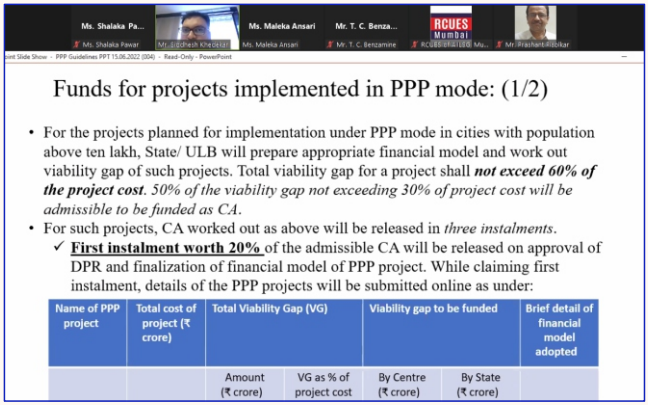
She drew attention of the participants by showing a video on greenery can be developed from our own kitchen, terrace and veranda cluster and at various open spaces at city level. She said that plants and green spaces connect us with nature and bring communities together, reducing stress and traffic pollution. Further she added that plants and green spaces provide protection and enrich the surroundings and motivating recreation as well as attracting tourists.



Ms. Amruta Vasudevan, Executive Committee Member, Gardens Club & Nature Conservation, Kolhapur, Maharashtra addressing the participants.

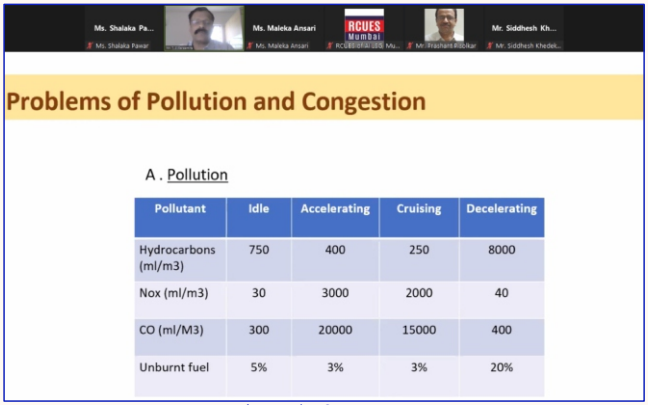
On the second day, the session on 'Promoting Public Private Partnership (PPP)' was conducted by Mr. Siddhesh Khedekar, Manager, KPMG & Managing Consultant, Urban Development, Government of Maharashtra (GoM). Initially, he gave a brief background of AMRUT phase 1 and further spoke on PPP model introduced under AMRUT - 2.0 and the related provisions by stating that major projects including water supply, tertiary treatment plant with end to end reuse of waste water, selling treated water to industries and other users on the basis of Annuity/Hybrid Annuity/BOT model. etc. can be implemented by adopting the PPP model in million plus cities by utilizing the financial assistance. Further he informed that 10% of the fund of the total project cost of the city water action plans allocation can be incurred through PPP. He explained

about the implementation of technology based projects mentioned in AMRUT - 2.0 including SCADA, Solar Power, Solar Energy production can be channelized by ULBs by collaborating with new entrepreneurs. He also spoke on reform agenda introduced for strengthening urban local bodies and water security of the cities by highlighting major reforms including rejuvenation of water bodies, rain water harvesting, reducing Non-Revenue Water (NRW), meeting 40% industrial water demand through recycled used water, dual piping system for bulk users through building bye-laws, unlocking value & improving land use efficiency through proper master planning, improving credit rating & accessing market finance, including issuance of municipal bonds and implementation of online building permission system. He talked on the funding pattern of AMRUT for developing projects under PPP by stating that 30% central and 30% state assistance is admissible and remaining 40% financial assistance is supposed to be released through PPP. He ended his session with a brief discussion on remarkable results achieved by cities by adopting PPP in waste management.



Mr. Siddhesh Khedekar, Manager, KPMG & Managing Consultant, Urban Development, Government of Maharashtra (GoM) addressing the participants.

The last session on 'Rejuvenation of Urban Transport System' was conducted by Mr. T. C. Benjamin, IAS (Retd.), former Principal Secretary, Urban Development, Government of Maharashtra (GoM). He began his session by mentioning rejuvenation of urban transportation as an important and key component in the context of urban development, for which not only ULBs or state transport departments are responsible but it's a responsibility of every citizen to overcome the challenges faced due to congestion of traffic. He briefly discussed National Urban Transport Policy, 2006 by highlighting its related provisions including promoting public transport and emphasized on promoting the same. He spoke on problems of pollution and congestion in which he said that homogeneous traffic increases speed of movement and decreases congestion. He also pointed out that the cities across India have heterogeneous traffic that increases the congestion. He added that the solution for heterogeneous traffic can be facilitated under the AMRUT. Further he mentioned that 60% of the population uses public transport, 15% are pedestrians and the remaining are private vehicle owners.



Mr. T. C. Benjamin, IAS (Retd.), former Principal Secretary, Urban Development, Government of Maharashtra (GoM) addressing the participants.

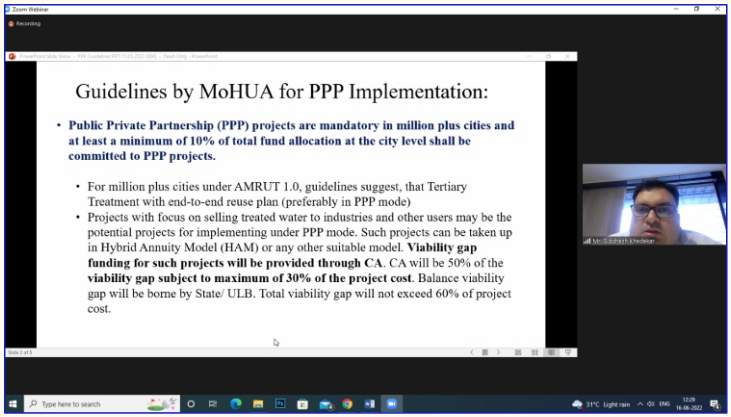
He stressed on facilitation of citizen friendly footpaths and their maintenance for pedestrians. He cited example of roads in which systematic planning was managed by New York City, USA. He suggested the ULBs to adopt segregation of traffic through bypasses and elevated roads. Segregation by type of traffic is done by categorizing cycle tracks, pedestrian ways, elevated footways and expressways. He briefly discussed bus rapid transport, cycle track, street parking including basement, street parking no shop frontage streets.

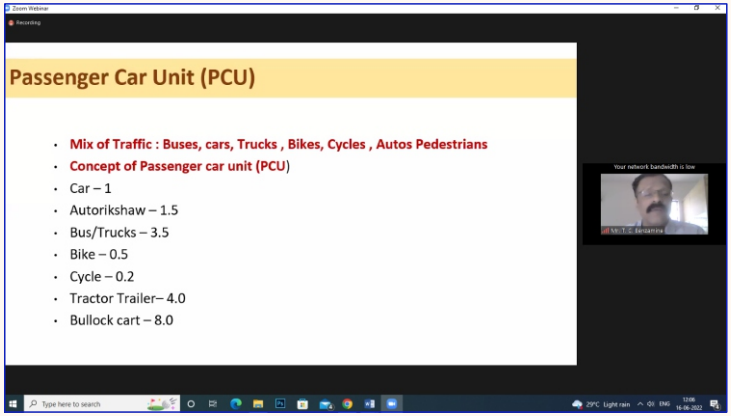
He concluded his session by explaining truck terminals introduced in AMRUT - 2.0 to reduce urban transport related traffic problems to some extent.

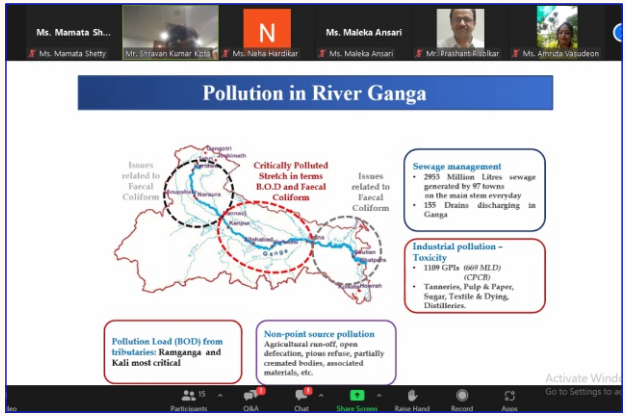
SUMMING UP

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

GLIMPSES OF THE WEB-BASED TRAINING PROGRAMME







Section 03

Regional Specialized Web-Based Training Programme on

Jal Jeevan Mission - Urban

23rd - 24th June 2022

Key Highlight

The participants got acquainted with the technology options available to conserve water through wastewater treatment, water audit and rain water harvesting though technical sessions. They received knowledge of the technologies which they can adapt in their cities effectively.

BACKGROUND

Jal Jeevan Mission (Urban) is a step towards AatmaNirbhar Bharat with the aim of making the cities 'water secure' and providing functional water tap connections to all households. This will be achieved through circular economy of water by effecting water source conservation, rejuvenation of water bodies and wells, recycle/reuse of treated used water and rainwater harvesting by involving community at large. This Mission will be run as people's program i.e. Jan Aandolan. The Mission also targets to provide 100% sewage/ septage management in 500 AMRUT cities. The Mission has a reform agenda focused towards financial sustainability and water security of Urban Local Bodies (ULBs). Meeting 20% of water demand through recycled water, reducing non-revenue water to less than 20% and rejuvenation of water bodies are major water related reforms with focus on strengthening of ULBs and water security of the cities. Information, Education and Communication (IEC) campaign is proposed to spread awareness among masses about conservation of water. Pey Jal Survekshan will be conducted in cities to ascertain status of equitable distribution of water, reuse of wastewater and mapping of water bodies with respect to quantity and quality of water through a challenge process.

City Water Balance Plans (CWBPs) will comprise details of water sources including water bodies, water treatment and distribution infrastructure, area-wise water coverage, status of NRW and sewerage network including STPs etc. Baseline data on household water tap and sewer / septage connections in the cities will be compiled and gaps in service delivery will be worked out at ULB level.

Considering this background, the Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai conducted a Regional Specialized

Web-Based Training Programme on 'Jal Jeevan Mission - Urban' on 23rd - 24th June 2022. This training programme was supported by the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

KEY OBJECTIVE

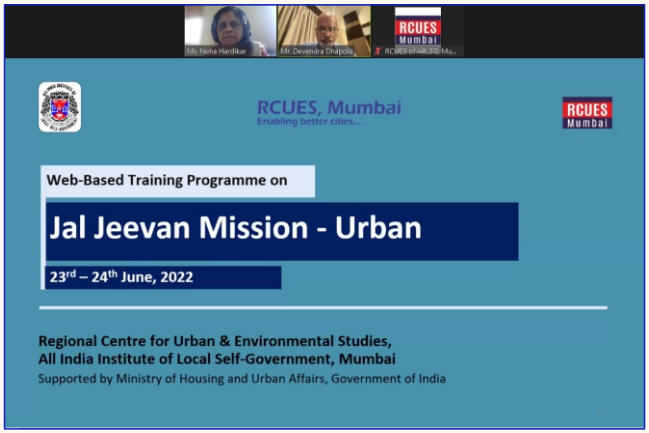
The key objective of this web-based training programme was to encourage ULBs to assess estimated gap in household tap connections and sewer connections to ensure equal distribution of water at city level.

PARTICIPATION

In all, 53 participants comprising Chief Officers, Municipal Engineers, Municipal Finance Experts, Nodal Officers, Assistant Nodal Officers, Urban Planners, Monitoring & Evaluation Specialist, Urban Infrastructure Experts, MIS/ IT Experts Consultants, Centre In-charge, City Coordinators, from the States of Maharashtra, Gujarat, Assam and Tripura attended this web-based training programme.

INTRODUCTION

Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai initiated this training programme. She welcomed trainers and participants and gave the introduction of the RCUES. This was followed by speaking on the significance of assessing the estimated gap in household tap connections and sewer connections to ensure equal distribution of water at city level and how ULB's can play a critical role in implementing this mission to ascertain equitable distribution of water, reuse of wastewater and mapping of water bodies. She requested the trainers to initiate their technical sessions.

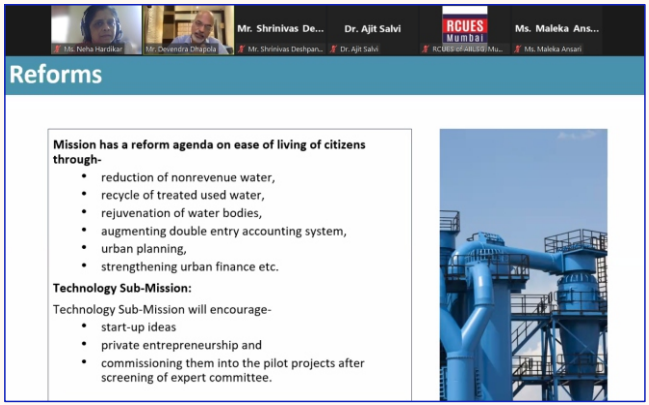


Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai addressing the participants.

TECHNICAL SESSIONS

The first session on 'Overview of Jal Jeevan Mission - Urban' was conducted by Mr. Devendra Dhapola, WASH Expert, New Delhi. The session focused on making cities water secure through Jal Jeevan Mission under AMRUT - 2.0. The need for water conservation through rain water harvesting, rejuvenation of water bodies, desalination of sea water and treatment of wastewater was discussed to holistically address issues of water crunches in urban cities. He mentioned that earlier, AMRUT was launched as a first focused National Water Mission in 2015 for 500 cities to facilitate ease of living to citizens. The phase I of AMRUT aimed to provide universal coverage of water supply by providing 1.39 crores household tap connections. Likewise, coverage of sewer / septage connections were planned to increase from 31% to 62% by providing 1.45 crores

connections. So far, 1.12 crores tap connections and 87 lakh sewer connections have been provided. Sewage treatment plants of capacity 1,800 MLD have been created; out of this 907 MLD is being reused. The first phase of AMRUT has made good contribution towards improving quality of life.



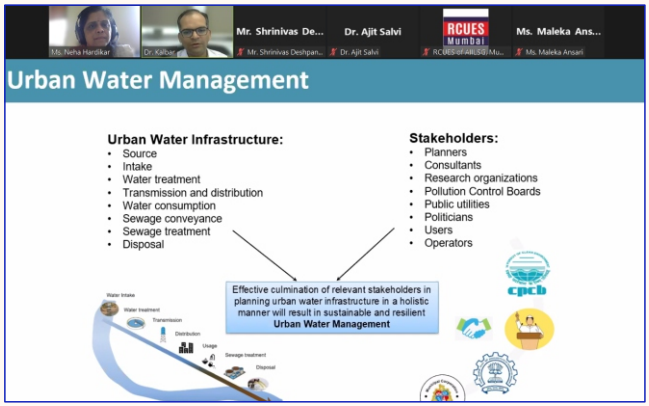
Mr. Devendra Dhapola, WASH Expert, New Delhi addressing the participants.

He further spoke about the need for launch of AMRUT - 2.0 which is to meet SDG 6 and make all cities water secure. AMRUT - 2.0 is a step towards Aatma Nirbhar Bharat with aim of making the cities 'water secure' and providing functional water tap connections to all households. He spoke on Jan Aandolan ensuring community participation. Women SHGs will be involved in water demand management, water quality testing and water infrastructure operations. The Mission will co-opt women and youth for concurrent feedbacks about its progress and efforts will be made to train women to test water quality in all the cities, he added. Furthermore, Mission has a reform agenda focused on financial sustainability and water security of ULBs, where components of meeting 20% of water demand through recycled water, reducing non-revenue water (NRW) to less than20% and rejuvenation of water bodies were highlighted.

He then emphasized the significance of IEC in which Behaviour Change Communication (BCC) is envisaged as a key strategy for spreading awareness on conservation of water and enhancing water use efficiency among the citizens. It was stated that Public Private Partnership (PPP) projects are mandatory in million plus cities and at least a minimum of 10% of total fund allocation at the city level shall be committed to PPP projects. He discussed about fund allocation and stated that the total indicative outlay for AMRUT - 2.0 is Rs.2,77,000 crores including central share of Rs.76,760 crores for five years from 2021-26. The session was concluded by highlighting on need for effective implementation of the mission in order to procure water conservation through various strategies to make cities water secured.

The next session on 'Advanced Urban Water Management' was conducted by Dr. Pradip Kalbar, Associate Professor, Centre for Urban Science and Engineering (CUSE), Indian Institute of Technology (IIT), Mumbai. The session focused on effective culmination of relevant stakeholders in planning urban water infrastructure in a holistic manner to achieve sustainable and resilient urban water management. Dr. Kalbar discussed the challenges and probable solutions in urban water management by elaborating on the challenges in water supply treatment and transmission and how these challenges would be addressed. Mentioning its challenges he said that the fund allocations by the Government are based on present population, treatment plants are largely centralized, shrinking budgets for public infrastructures, massive cross-basin water transfer to meet water demands of urban areas and leakages are some of the challenges. Furthermore, there are challenges in wastewater collection, treatment and disposal. He mentioned that there is a tendency of cities to dispose of

wastewater in the downstream end on account of the facts that incentives for recycling are lacking, centralized systems remain idle for initial years, and energy intensive treatment systems depend on petrol / diesel consumption.



Dr. Pradip Kalbar, Associate Professor, CUSE, IIT, Mumbai addressing the participants.

He spoke on sustainability and resilience in urban water management. Discussing the technology criteria he said that criteria should be environmentally viable by reducing GHG emissions, economically affordable, socially acceptable, governing awareness and technically replicable to achieve sustainable urban water management. He further spoke on significance of resilience in urban water management. Citizens' future is driven by climate change making cities water stressed. In urban development, city resilience provides insights into managing chronic stresses or sudden shocks that threaten widespread disruption or collapse of physical or social systems. The water system and stakeholder's ability should be resilient to persist, transform and adapt under any water-related shocks and stresses. The criteria such as adaptability, flexibility and robustness are necessary to make the water system resilient in cities.

Commenting on the present status of water supply in Indian cities he said that most of the water supply schemes are designed to supply water 24x7 continuously to the consumer, though at present, water supply in most of the Indian cities and towns is intermittent. He added while explaining current status of 24X7 water supply dream that the current reality is ignored while promising programmes and missions for 24X7 water supply to cities. The funds are indiscriminately used towards the expansion of the network without an assured source of water supply. Many cities have attempted a direct conversion to 24x7 water by appointing operators/service providers. No thought is given to consumer psychology, their current consumption, mode of the draw, and overall network behaviour.

Dr. Kalbar emphasized on importance of multiple outlets in water system and explained their benefits which enable sub zoning in water system and peak factor dampening in the distribution reduces additional cost of outlets. Concluding the session he mentioned that the appropriate selection of technology and availability of resources are crucial for achieving sustainability and replication in urban water management.

The next session on 'Water Conservation through Waste Water Management' was conducted by Dr. Ajit Salvi, Dy. Chief Engineer (Sewerage Operations), Brihanmumbai Municipal Corporation (BMC), Mumbai. The session was focused on wastewater management through recycling and reuse to conserve water bodies in cities. Initially Dr. Salvi highlighted the basic facts about water scenario by saying that Earth is a Blue Planet as 70% of Earth is covered with water. Yet only 2.5% of World's water is fresh. By 2025, 48 countries covering 2.8 billion population will be water stressed countries. Roughly 50% average annual rainfall precipitation is received in just 15

days, which is being not used effectively. Furthermore, India is considered as well endowed with water resources with 1000 mm average annual rainfall every year.

He spoke on wastewater and its impact on health and environment. The discharge of wastewater into water bodies causes water borne diseases like cholera, typhoid, diarrhea and hepatitis A & E which have adverse effect human health. Explaining the consequences of water borne diseases he said that around 33 million Indian citizens are affected by water borne diseases annually. Besides, 1.5 million children die of diarrhea. Poor sanitation is the cause of contamination of water resulting into breeding of flies, mosquitoes, vectors and murky surrounding.

Dr. Ajit Salvi, Dy. Chief Engineer (SO), BMC, Mumbai addressing the participants.

He discussed the impact of increased urbanization by referring to the CPCB Report (2021). The increased urbanization has led to the increasing need for water to meet the domestic requirements. Wastewater discharge in the water bodies is also deteriorating its quality due to increased urbanization.

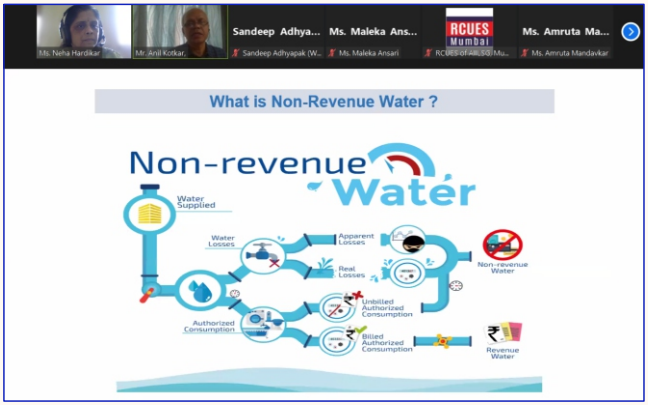
Further, Dr. Salvi explained current scenario of Waste Water Management in Indian cities by stating installed waste water treatment capacity in Metropolitan, Class I and Class II cities. India being an economy in transition from developing to developed country, is confronting challenges such as lack of infrastructure and increasing urban population, which escalates water scarcity and sewage load. He further said that in wastewater management, wastewater is a resource as well as a challenge. This challenge can be addressed through paradigm shift from Waste Management to Resource Recovery.

He further discussed various aspects of wastewater management and stated that diverse management approaches are required considering the type of area, the size and density of the population, level of economic development, technical capacity and system of governance in place. The wastewater management is done through centralized and decentralized system as treated wastewater is considered a reliable source of water. He elucidated the significance of recycled and reuse of wastewater by mentioned various challenges in implementation of recycle & reuse policy. The challenges include maintenance of tertiary treatment facilities, provision and maintenance of distribution network, tariff for fresh and recycled water, public awareness, restriction on reuse of recycled water, assurance of quality of recycled water etc. The session was concluded by stating that recycled wastewater is a sustainable source of water conservation in order to reduce the impact of water stressed cities on environment.

On the second day, the session on 'Water Audit – An Approach to Water Conservation' was conducted by Mr. Anil Kotkar, Executive

Engineer (Meters) Revenue, BMC, Mumbai. He commenced his session by focusing on significance of measuring non-revenue water (NRW) in water audit. As per Central Water Commission (CWC), water audit is an effective management tool for minimizing losses, optimizing various uses and thus enabling considerable conservation of water in irrigation, domestic and industrial sectors. The NRW is the real or apparent water loss which remains un-accounted for in the water supply system. It is estimated that about 45 Million cubic meters of water is lost in developing countries on regular basis. It is also estimated that physical water losses are about 32 billion cubic meter per year out of which 50% of this is lost in developing countries. Considering the losses, there is an emerging need to control NRW. The Government of India (GoI) has made mandatory to retain NRW up to 20% through Service Level Benchmarks (SLBs). Besides, Maharashtra Water Resource Regulatory Authority (MWRRA) has cut down this benchmark to 15% and charges bulk water purchases at double the rate beyond 15% NRW. The increase in NRW amounts to huge financial losses in water utility and because of which new consumers cannot be accommodated to cater water services.

He further stated that apparent losses of water occur as meters are not installed scientifically. Commonly found faults include- valves found very near to meter, meters found non-operational in case of multiple connections, meter readings are not visible as battery gets exhausted in case of electronic meters. There is a predominant need to develop action plan to control real and apparent losses. This action plan to include controlling real and apparent losses at different levels through conducting leakage detection & repairs programme, renewal of service connections, replacement / rehabilitation of old water mains, controlling overflows, regularizing unauthorized connections, checking for metering inaccuracies, ensuring all connections come into customer database, water conservation through awareness programmes, and timely billing and revenue collection.



Mr. Anil Kotkar, Executive Engineer (Meters) Revenue, BMC, Mumbai addressing the participants.

He further explained the benefits in NRW reduction. After the substantial reduction in NRW, ULBs acquired knowledge on water utility and its management. It has been observed that it improves the SLB indicator and reduces O & M and capital expenditure. There are numerous challenges observed in NRW reduction programme as implementation of NRW reduction plan is not simple. All verticals in the water utility are required to work in close coordination. It requires managerial and engineering skills. NRW reduction strategy should be based on cost benefit assessment of the various activities and made on the basis of reliable water balance. It has been observed that reducing commercial losses is almost always cost effective with faster payback. Reduction of physical losses through leakage control can be expensive, requiring significant technical know-how, and has to be carried out extensively and continuously to bring results. Water utility essentially seeks to

achieve an economic balance between the costs of leakage control and the accrued benefits. The session was concluded by stating the significance of NRW monitoring and water distribution improvement being a good water source.

The next session on 'Solarization of Urban Water Supply for Optimization of Energy Charges' was conducted by Mr. Shrinivas Deshpande, Retd. Joint Director (Engineering), Ground Water Surveys and Development Agency, Water Supply & Sanitation Department (WSSD), Government of Maharashtra. The session laid down the prominence of solar energy in water supply system.

He explained the status of urban water supply energy bills, which are found to be very high. Generally raw water is pumped from a nearby dam/river/lake. This requires very high H.P pumps, which run mostly 20 to 24 hours for pumping raw water to Water Treatment Plants (WTP). Therefore, the energy bill of raw water pumping is very high. ULBs bear huge portion of the budget to pay energy bills of water supplies. Thus, Solarization of urban water supply schemes can optimize energy bills, as India is endowed with vast solar energy potential. It receives 4 -7 kWh per sq. m. per day in many parts of the country. Solar photovoltaic power can effectively be harnessed providing huge scalability in India. He described month wise solar radiation in India.

He explained the proposed 3 MWp floating solar power plant at Ratnagiri, Maharashtra and stated that area required for the 3 MWp solar power plant is 30000 sq. m. (175 X 175 m.). This plant can be installed at Sheel Minar Irrigation Dam as the area required is not available near pumping station. This solar plant will also save evaporation losses. He added that another solar power plant of 210 KWp is proposed at Sawli. This ground based Solar Power System can be installed in the premises of Water Treatment Plant (WTP). These solar power plants will save energy bills and many houses will benefit from generation of solar energy.

He explained the concept of 'solar tree' which he described as a metal structure resembling a tree that has solar panels fitted on the branches. The solar panels connected through metal branches produce solar power. This solar tree has 35 panels each with a capacity of 330 watt. He also explained Grid connected Photovoltaic (PV) system, which is an electricity generating solar PV power system that is connected to the utility grid. This comprises of solar panels, one or several inverters, a power conditioning unit and grid connection equipment.

Mr. Shrinivas Deshpande, Retd. Joint Director (Engineering), Ground Water Surveys and Development Agency, WSSD, Government of Maharashtra addressing the participants.

He then talked on Net Metering. It is a mechanism that allows domestic or commercial users who generate their own electricity using solar panels or photovoltaic systems to export their surplus energy back to the grid. Net Metering is applicable for a solar power system of less than 1 MW. Furthermore, net billing is applicable for a solar power system of more than 1 MW.

The benefits of net metering were discussed. It reduces electricity bills, encourages customers to move towards renewable energy, preserves natural energy resources, installation of expensive battery storage system is not needed etc.

The funding pattern under JJM - U was explained. He said that funding under JJM –U is available under appropriate financial heads, if necessary DPRs are prepared and submitted to the respective governments. All DPRs for solarization are found to be cost-effective. It is observed that the capital cost of Solar Power plants installed for Urban Water Supply can be recovered within 5 to 6 years and Life cycle of solar power plants is 25 years. The session was concluded by depicting the pictures of solar power plant commissioned at Vishakhapatnam and Tripura.

The last session on 'Rain Water Harvesting and Ground Water Management' was conducted by Mr. Sandeep Adhyapak, Chairman & Managing Director, Water Filed Technologies Pvt. Ltd., Thane. The session highlighted on inevitability of Rain Water Harvesting (RWH) in cities during rainy season as rain as water is an elixir of life. Mr. Adhyapak said that emergent urbanization has raised the demand of water radically. Indiscriminate use of water in Industry is causing depletion in ground water table everywhere across the country. The National Action Plan on Climate Change (NAPCC) describes the features of National Water Mission. National Water Mission is designed to ensure integrated water resource management helping to conserve water, minimize wastage and ensure more equitable distribution, both across and within states. It will seek to ensure that a considerable share of the water needs of urban areas are met through recycling of wastewater, and ensuring that the water requirements of coastal cities with inadequate alternative sources of water are met through adoption of new and appropriate technologies such as low temperature desalination technologies that allow for the use of ocean water. He added that the rain being a prime source of the water on the earth, RWH proves to be the most effective and sustainable solutions to manage the water needs independently throughout the year.

Mr. Sandeep Adhyapak, Chairman & Managing Director, Water Filed Technologies Pvt. Ltd., Thane addressing the participants.

The importance of RWH was discussed by saying that it is imperative to make conscious efforts to collect, store and utilize the rainwater in order to meet water requirements for domestic, industrial and agricultural purposes. RWH fulfills increasing demand for water, augments groundwater storage and arrests decline of water levels, improves the quality of groundwater, reduces the soil erosion, reduces the runoff which blocks storm drains, and avoids flooding of roads etc.

He then explained current water scenario at national level. Over the last few decades, India has witnessed a rapid increase in the urban population and pointed out that 50% of the population in India will be living in urban centers by the year

2050. The emergent population invariably exerts tremendous pressure on the existing natural resources. An effective water management system is designed to fulfill secondary water demands by collecting rainwater and keeping groundwater sources sustainable. He described that RWH, the primary filtration is sufficient to use rain water for secondary purpose and add to groundwater recharge. In Surface Run-off RWH method, rainwater is collected from large surface areas by using storm water channels. In this method, primary and secondary filtration is required to use rain water for secondary purpose and add to groundwater recharge. He further elucidated the components of RWH. They are collection, channelization, primary filtration, storage, distribution, secondary filtration and recharging.

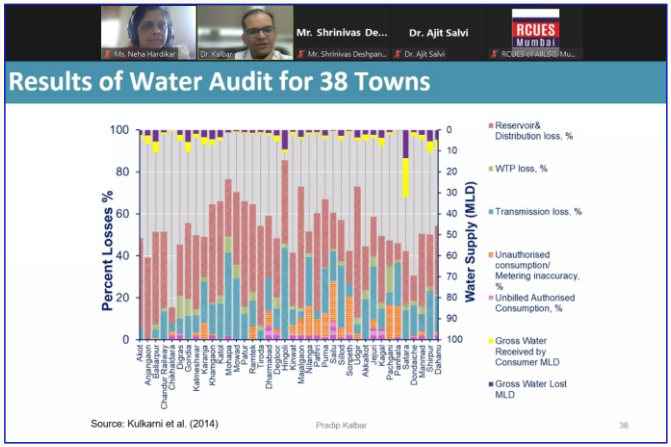
RWH is highly beneficial as it has low maintenance cost and improves ground water levels and quality. RWH is environmental a friendly tool which mitigates the effects of drought. It is also one of the flood control measures which reduces runoff and soil erosion. RWH is effectively reducing water and electricity bills.

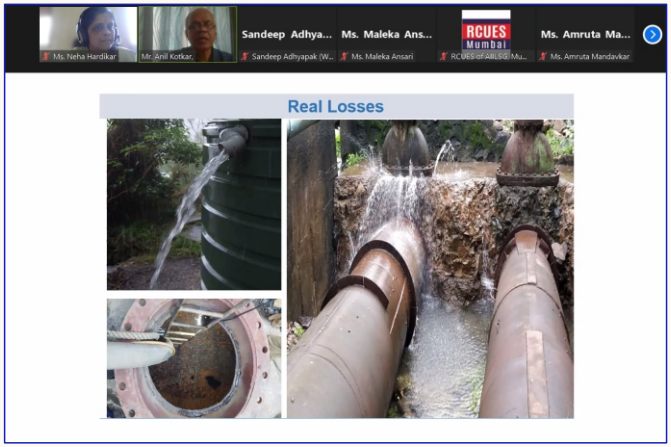
He spoke on legal provisions in RWH across the country by explaining legislations of New Delhi, Kerala, Gujarat, Maharashtra, Rajasthan and Madhya Pradesh where RWH is made mandatory to erect new buildings. As per the Urban Development Notice issued on 10 March 2005, Government has decided to take effective measures for collection of rainwater from rooftops, paved / unpaved surfaces, etc. and to use it either for recharging ground water or storing it in storage tanks. For pursuing this, it has been decided that henceforth no building permissions be granted unless provision is made for RWH scheme. It is therefore, necessary to include RWH scheme provision in the development control rules and for that purpose, direction to all the planning authorities, development authorities / special planning authorities (excluding BMC) are given under section 37 of the Act. All planning authorities / development authorities are required to initiate necessary modification proposal under section 37 of the Maharashtra Regional and Town Planning Act, 1996. As for the existing development control regulations it is necessary to incorporate special provisions for installation of RWH schemes and submit the same to government for approval. He ended the session by depicting pictures of RWH system set up at various places in order to explain its implementation process.

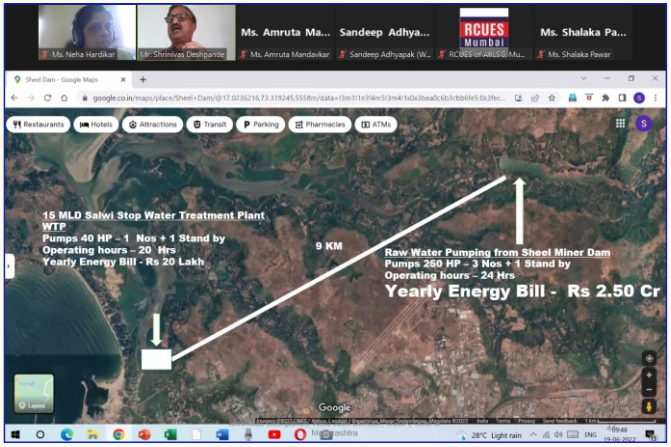
SUMMING UP

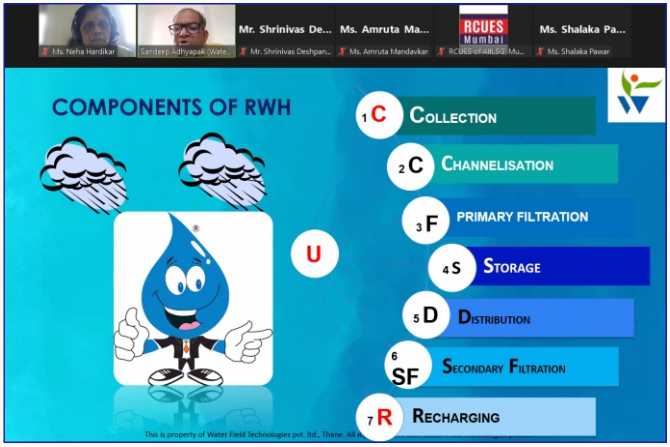
This web-based training programme was concluded by Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai by proposing a Vote of Thanks to the subject trainers/experts and the participants after the feedback session.

GLIMPSES OF THE WEB-BASED TRAINING PROGRAMME









Section 04

Regional Specialized Web-Based Training Programme on

National Urban Livelihood Mission (NULM)

29th - 30th June 2022

Key Highlight

In this web-based training programme, the participants were acquainted and updated on the needed measures to address the challenges in implementation of NULM Mission. The participants can replicate the practices of the success stories in their cities for effective implementation of NULM for promoting sustainable livelihood opportunities.

BACKGROUND

National Urban Livelihood Mission (NULM) was launched by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), Government of India (GoI) in 2013. The mission focuses on organizing urban poor in their strong grassroots level institutions, creating opportunities for skill development leading to market-based employment and helping them to set up self-employment ventures by availing of easy access to credit. The COVID-19 outbreak affected all the segments of the population and has been particularly detrimental to members of social groups in the most vulnerable situations. It continues to affect vulnerable communities including street venders, homeless population. Under the Mission, provision is made to provide shelter equipped with essential services to the urban homeless in a phased manner. In addition, the implementation of NULM also addresses livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security and skills for accessing emerging market opportunities. Supporting urban local bodies (ULBs) and other stakeholders is necessary for achieving appreciable and sustainable improvement through effective implementation and development of mission mode strategies of NULM.

Considering this background, the Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai organized a Regional Specialized Web Based Training Programme on 'National Urban Livelihood Mission from 29th - 30th June 2022. This training programme was supported by the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

KEY OBJECTIVE

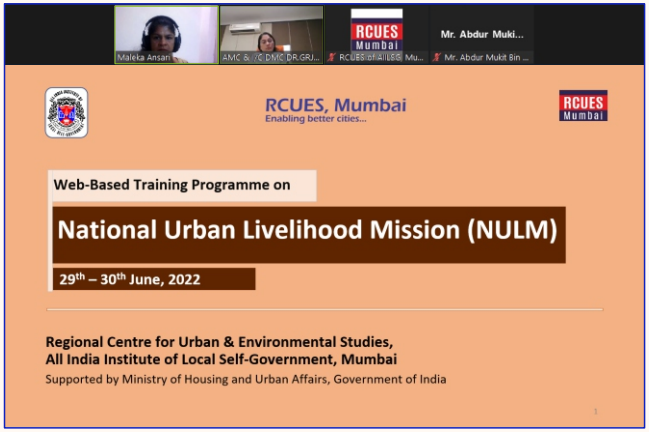
The key objective of this web-based training programme was to encourage the ULBs and other stakeholders in effective implementation of NULM for sustainable livelihood opportunities.

PARTICIPATION

In all, 80 participants comprising City Mission Managers, City Project Managers, Assistant Project Officers, Community Organizers, Representatives of NGOs, Representatives of Self-Help Groups (SHGs) and concerned Officials of NULM Department from the States of Maharashtra, Gujarat, Rajasthan, Assam and Tripura attended this training programme.

INTRODUCTION

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 started the introductory session by stating that DAY-NULM is a Government of India's flagship program to address the incidence of poverty among the urban poor. She added that NULM was launched on 23rd September, 2013 by replacing the then existing Swarna Jayanti Shahari Rozgar Yojana (SJSRY). The Mission strives to reduce poverty and vulnerability of the urban poor households by enabling them access to gainful self-employment and skilled wage employment opportunities, resulting in an appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots level institutions of the poor.



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

Further she discussed the component of providing shelters equipped with essential services to the urban homeless in a phased manner. In addition, the program also addresses livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security, and skills to the urban street vendors for accessing emerging market opportunities. The Employment through Skill Training & Placement (EST & P) Component under DAY-NULM is designed to provide skills to the unskilled urban poor as well as to upgrade their existing skills. The programme will provide for skill training of the urban poor to enable them setting up self-employment ventures.

TECHNICAL SESSIONS

Mr. Rohidas Dorkulkar, Deputy Commissioner, DAY-NULM, Directorate of Municipal Administration, Government of Maharashtra delivered a session on 'Overview of NULM and its

Effective Implementation in Maharashtra State'. He commenced the session with a brief revision of the components of NULM and its related provisions implemented in various cities of Maharashtra state. He stressed on the livelihood component of the mission by stating that the key aim of the mission is to generate livelihood opportunities through self and skilled wage employment for urban economically weaker sections and vulnerable groups through building strong grassroots level institutions. He discussed the issues and challenges faced by functionaries of various towns of Maharashtra state in implementing NULM particularly the livelihood components including disbursement of loan on account of poor response from banks, COVID-19 and its negative impact on the activities under EST & P, negative effects on regular repayment of SHG loan and irregular monthly saving of SHG.

Mr. Rohidas Dorkulkar, Deputy Commissioner, DAY – NULM, Directorate of Municipal Administration, Government of Maharashtra, Mumbai addressing the participants.

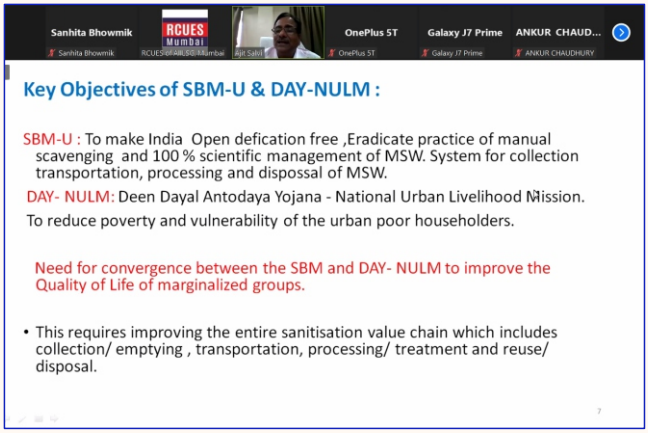
Further he spoke on the post pandemic approach implemented for smooth operation of the other components of the mission including SVANidhi se Samruddhi scheme for street vendors, PM SVANidhi scheme for street vendors and Pradhan Mantri Formalization of Micro food processing Enterprises (PMFME) scheme run for SHGs to provide capital subsidy to those who are running food based micro enterprises etc. Further, special projects to address livelihood issues of most vulnerable sections like physically-challenged, rag pickers, domestic workers, rickshaw pullers, sanitation workers and other such vulnerable groups were discussed by citing case studies of selected towns of Maharashtra State.

At the end of the session, he expressed his gratitude to the Government of India for introducing such a welfare mission for strengthening the grassroot of vulnerable strata of the society.

Dr. Ajit Salvi, Dy. Chief Engineer (Sewerage Operations), Brihanmumbai Municipal Corporation (BMC), Mumbai discussed the component of 'Convergence of Swachh Bharat Mission (SBM) and NULM for Sustainable Livelihood Opportunity'. He talked on sanitation problems of the cities and stated that among all sanitation related work, urban waste and its management is one of the complex problems faced in almost all the Indian cities. He stated that maintaining sanitation management including waste water, solid waste and other sanitation related activities are the prime responsibility of concerned ULBs and ULBs are making efforts to discharge the responsibility satisfactorily. He said that sanitation is important as a key component of SBM which was introduced by the Government of India in October, 2014 and revised phase (2) of SBM in October, 2022.

He said that DAY-NULM, lays emphasis on empowering marginalized groups through convergence between SBM (U) and NULM. In his presentation he further said that convergence

is essential to strengthen and sustain community engagement platforms for ULBs in India in order to deliver sanitation services, and enhance opportunities for employment and enterprise development in the sanitation sector. Considering its importance, BMC provided livelihood measures by enhancing sanitation and waste management based livelihood opportunities through financial inclusion. He also mentioned that livelihood opportunities are created in decentralized solid waste management based on segregation at source, by setting up dry waste/ resource segregation centers which help in creating livelihood opportunities through service contracts by ULBs, as basic cleaning services provided by SHGs on behalf of ULB.



Dr. Ajit Salvi, Dy. Chief Engineer (SO), BMC, Mumbai addressing the participants.

He briefly explained how SHGs were involved in effective implementation of these projects for successful convergence of SBM - faecal sludge and septage management (FSSM), desludging of on-site sanitation system by SHG members, enhancing sanitation and waste management based livelihood opportunities through financial inclusion, As also livelihood opportunities are generated in decentralized solid waste management based on segregation at source, setting up dry waste/ resource segregation centers, livelihood opportunities through service contracts by ULB, basic cleaning services provided by SHGs on behalf of ULBs. He concluded the session by stating that convergence of SBM-U and NULM is a good source for generating livelihood opportunities for the urban poor.

On the second day, Mr. Man Mohan Sharma, State Mission Manager, Social Mobilization and Institution Development (SMID), NULM, Rajasthan shared his experience on 'Implementation of Good Practices under NULM' with special focus on 'Status of Street Vendors under NULM'. He commenced his session with a brief introduction of all five components of NULM implemented in Rajasthan State including issues and challenges faced by the cities.

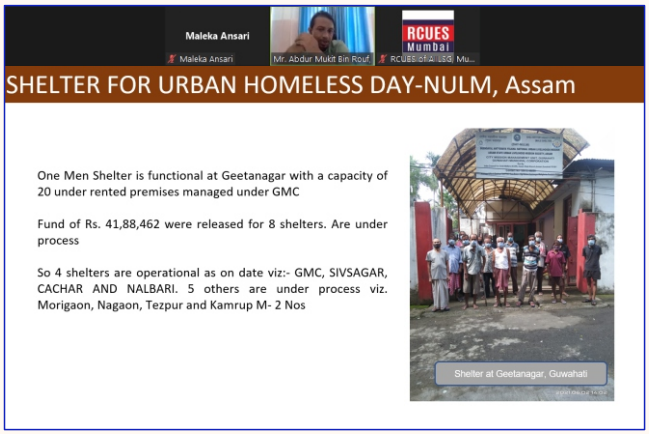
Mr. Man Mohan Sharma, State Mission Manager, SMID NULM, Rajasthan addressing the participants.

He explained the role of Area Level Federation (ALF) and City Level Federation (CLF) and stated that social mobilization and institutional development is the central objective of the

mission. While elaborating on City Livelihood Centres (CLC), he informed the participants that totally 20 CLC were formed in various cities of the State in which Jaipur CLC is declared as model CLC having Rs. 6 crores annual turnover. Further he added that 8 other states of the country adopted it as a model CLC for operation and maintenance of CLC in their States. Further in his session he laid emphasis on the component of shelter for urban homeless by adding that total 222 shelters are operating well out of 255 shelter homes in Rajasthan State.

He presented an overview of street vendor's component by mentioning that though NULM can be regarded as a boon to the street vendors but its efficacy depends on how efficiently and honestly the ULBs and the organizations which are chosen for carrying out the survey and issuing identity cards to street vendors under the implementation of NULM. He also explained the work completed by various cities by completion of vendor's survey, identified vending zones, distributing identity cards etc. He spoke about how NULM officials helped street vendors to avail benefit of loan through PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi). At the end, he quoted several good initiatives undertaken across the State for livelihood generation through SHGs with support from ULBs and other stakeholders during the pandemic.

In the next session, Mr. Abdur Mukit Bin Rouf, State Project Manager (S&SI) and PM SVANidhi, Assam State Urban Livelihoods Mission Society (ASULMS), discussed 'Generating New Livelihood Opportunities through Implementing Innovative and Special Projects at Local Level'. He briefly explained strategies for livelihoods and financial inclusion implemented by various cities of Assam State. He began his session by mentioning that the DAY-NULM is a mission implemented by MoHUA, which aims to reduce poverty and vulnerability of the urban poor households which is in coherence with Sustainable Development Goal 1.1. Further he stated that women empowerment is expected through creating various income generating activities, promoting skills and financial inclusion. He added that the mobilization of urban poor households to form their own institutions is an important investment for an effective and sustainable poverty reduction Programme.



Mr. Abdur Mukit Bin Rouf, State Project Manager (S & SI) and PM SVANidhi, Assam State Urban Livelihoods Mission Society (ASULMS) addressing the participants.

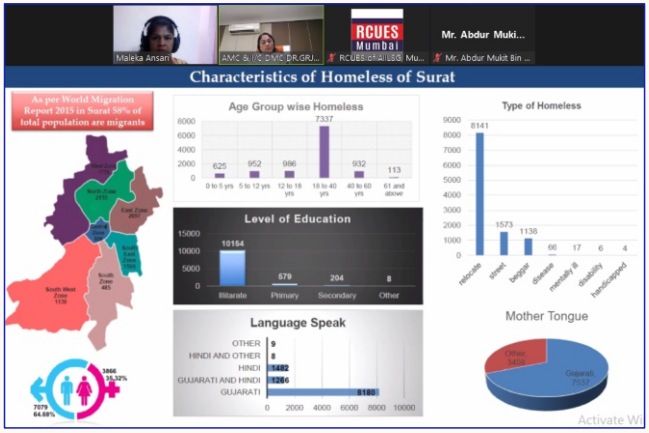
He highlighted that DAY-NULM was implemented in the State of Assam from the year 2015-16 with a coverage of 25 district headquarters towns, and in the present situation the mission is actively implemented in 97 cities including Guwahati city. He cited several best practices under NULM components. Further he informed that the Interest subvention is paid through PAISA Portal for both SEP-I & G and SHG Bank Linkage. While elaborating about the loans disbursement for encouraging micro enterprises he said that Assam state is positioned 1st rank in hilly and north east by crossing the target ratio. He added

that the ALF of Assam State under NULM were awarded the Swachhata Excellence Award by MoHUA, Government of India in 2016 -17 and 2018-19.

While concluding the session, he discussed the activities conducted during pandemic by including mask making projects. Besides, 492 SHGs distributed essential commodities among 28,255 most vulnerable families in different towns and 10,000 face shields have been produced and sold by SHGs across Assam state.

The last session on 'Implementation of Good Practices under NULM' with special focus on 'Shelter Schemes Implemented for Homeless' was conducted by Dr. Gayatri Jariwala, Asst. Municipal Commissioner, Surat Municipal Corporation (SMC), Gujarat. She commenced the session with a brief introduction of the city by describing it as the fastest growing urban centre with flourishing diamond and textile markets and fastest growing construction industries. She also briefed about the migrated labourers from surrounding areas and other cities in search of livelihoods staying in vulnerable conditions in absence of proper shelter and lack of basic necessities of life, especially those living on the street i.e., homeless persons.

Further she said that at the initial stage, a survey of the homeless was completed under NULM in 2019 in which 10000 homeless persons were identified. According to a survey, 7000 homeless were identified in the age group of 18 to 40 years. With the help of NGOs and CSR fund's SMC implemented a shelter project under NULM for urban homeless in the name of Apna Ghar or Rain Basera providing all basic necessities including temporary / night shelter, food facilities and medical assistance. Beside this, recreation, Wi-Fi and CCTV surveillance facilities were also arranged for the homeless. She talked about rescue operations, night team monitoring in the city to identify homeless people and added that various need based skill trainings are continuously organized for the homeless with a provision of loan to start micro enterprises after completion of skill training.



Dr. Gayatri Jariwala, Asst. Municipal Commissioner, Surat Municipal Corporation, Gujarat addressing the participants.

She further added that the purpose behind the implementation of shelter for urban homeless was rehabilitation of urban poor, making them self-sufficient and connecting them with various schemes. She explained the Samvedana-Khushiyono Pitaro project, implemented in the shelter homes which aims to help underprivileged homeless children and others in enjoying festivals in shelter homes. Under this project, SMC has set up 115 collection centres at various places across the city to collect clothes, toys, sweets and other food items from citizens. She added about other activities organized in shelter homes including old age cataract operation, COVID vaccination and precaution dose, birthday celebrations of city dwellers, school admissions, making Aadhar card

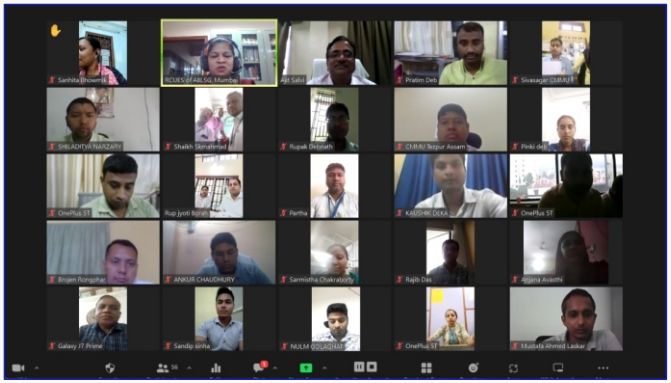
for them, etc. TATA trust, UNICEF-WASH collaborated with SMC to organize welfare activities for urban homeless.

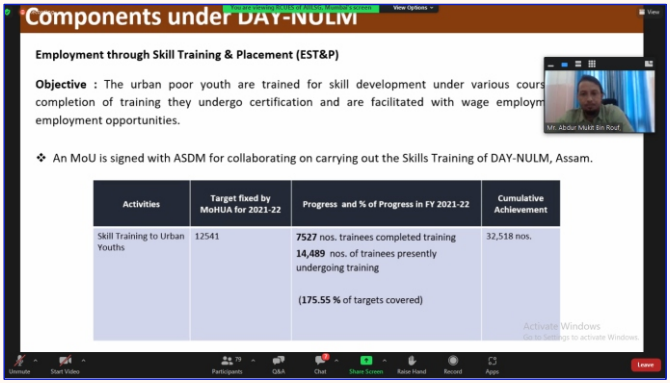
She concluded her session by saying that SMC is making efforts to arrange a CSR fund to run the shelter if NULM closes down after some period of time.

SUMMING UP

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

GLIMPSES OF THE WEB-BASED TRAINING PROGRAMME





Section 05

Celebration of World Environment Week 2022

World Environment Day is observed globally every year on the 5th of June to collectively raise awareness on the alarming situation of depleting basic but key resources like water, food and degrading air quality. Besides, this day is a call for positive action to combat the effects of terrestrial pollution, global warming and climate change. This deteriorating condition of the natural resources and environment is a result of unsustainable lifestyle choices and lackadaisical behavior. To keep a check on these deteriorating conditions, it is critical to promote and raise awareness on the importance of preservation of our natural environment. With this aim, Maharashtra Urban WASH-ES Coalition at Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self-Government (AIILSG), Mumbai through its initiatives, engages state and local governments, community stakeholders, educators, students and various development sector specialists to promote sustainable WASH practices and prevent the dumping of plastic, non-biodegradable wastes, sewage and septage into the environment.

As we are well aware, there is only one Earth, and we ought to protect it! With this global agenda, the World Environment Day was observed globally on June 5, 2022; to advocate for climate change & environmental sustainability, avert multiple crises that are plaguing the planet and as a reminder that human life is in possession of "Only one Earth", whilst re-emphasizing that as of now, we are using the equivalent of 1.6 Earths to maintain our current way of life. The global advocacy, campaigning, and sloganeering to observe the day, is in-fact an urgent call for transformative action to reset balance and work collectively towards sustainable development. This year marked the 50th anniversary of the first UN conference on Human Environment, the Stockholm conference, which was first held in 1972. As year 2022 serves as a historic milestone, there is a dire need for ambitious planning to preserve our natural resources and recalibrate all our present interventions.

To advance the above agenda in Maharashtra, UNICEF Maharashtra collaborated with the Department of Environment and Climate Change (DoECC),Government of Maharashtra, NSS Maharashtra, Department of Higher & Technical Education, Government of Maharashtra and Maharashtra Urban WASH-ES Coalition at RCUES of AIILSG, Mumbai, to conduct various campaigns and programmes across the State in major Universities. Students and volunteers from these esteemed universities participated actively in these initiatives to celebrate the World Environment Week effectively and in a meaningful manner.

Action & Advocacy beyond 2030: Youth Participation and Engagement through a holistic approach

The aim of the campaign was largely to engage young advocates, hear their voices on matters of climate change & environmental policies as well as partner with youth clubs and organizations, who are actively & rigorously working towards

mitigating the effects of climate change through small scale interventions. The youngest stakeholder group was engaged in the campaign, to empower these agents of change, build their capacities, support them to execute their innovative solutions for mitigating the climate crisis and to create a platform for interface between government authorities and the youth. It is key to involve youth in the process of government policy making, participating in interventions as well as adapting measures on ground to address the environmental challenges. It is necessary to impart awareness and a sense of environmental stewardship amongst the youth of today and the future generations to warrant that the advocacy continues beyond 2030.

On the 5th of June, to mark the world environment day celebration, Abhyuday, IIT Bombay conducted the Powai Lake, Mumbai, Cleanup and Awareness Drive. The drive saw tremendous participation from the students, faculty and staff of IIT Bombay as well as inhabitants of the neighborhood with a volunteer base of 300+ volunteers.

A week long campaign with the youth- 7th June-13th June 2022

UNICEF Maharashtra, the Department of Technical & Higher Education, Government of Maharashtra, NSS Maharashtra and Majhi Vasundhara Abhiyaan, Department of Environment and Climate Change, Government of Maharashtra were involved in the process of implementation and were the key drivers of this campaign.

Powai lake clean up by students by of IIT Bombay.

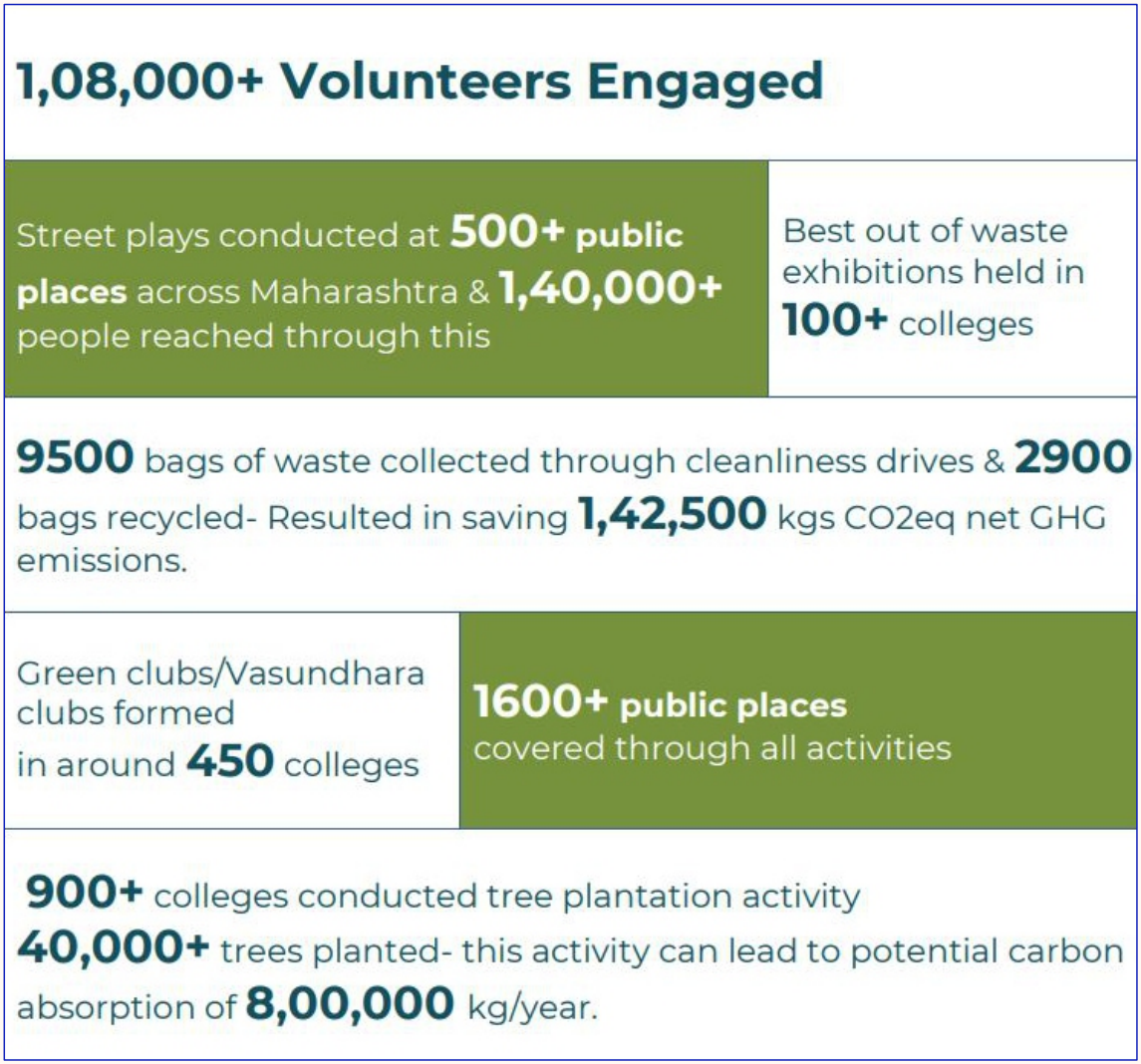
Their proactive approach and incessant support have led to the successful execution of this campaign all throughout Maharashtra. The NSS Maharashtra Unit mobilized over 4,25,000 students across 3,000 colleges of Maharashtra, through a strong support amongst its network of volunteers for conducting programmes and activities viz-formation of Green clubs/Vasundhara clubs, cleanliness drives in peripheral areas, plastic collection drives at Heritage sites, tree plantations etc. with the objective of reducing GHG, and reducing carbon & water footprint burden.

The campaign was organized by the above-mentioned organizations and departments with the objective of spreading environmental awareness, effectively imparting climate change education and building advocacy on issues of climate change and environmental sustainability. Honorable Ex-Minister of Department of Technical & Higher Education, Mr. Uday Samant, flagged off the campaign and graciously encouraged the students to take up the cause of reversing the environmental damage by changing the trend, with over a 1,000 NSS students in Worli, Mumbai.

The critical components of the environment under the Majhi Vasundhara Abhiyaan, were a backbone of this initiative. The thematic areas identified under this programme were thoroughly followed through during the campaign. The NSS units carried out clean-up operations at educational institutions, heritage sites, wells, river basins, lakes, caves, historical sites, government hospitals, public places, bus depots, railway stations, etc. in their localities. They participated in street plays and public awareness

Honorable dignitaries from GoM, Brihanmumbai Municipal Corporation (BMC) & UNICEF Maharashtra address the students.

programmes throughout the week. The theme was "Keeping Villages and Cities Clean, Environmental Care, Solid Waste Management, Planting Trees, Plastic Free India, etc." based on the themes of "Climate Change" and "Sanitation". All colleges & Institutions had been asked to set up "Green Clubs" through which various programmes will be organized throughout the year by promoting activities like tree planting. Through these campaigns and interventions, the following impact numbers have been achieved:



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