

# ANNUAL REPORT

Training and Capacity Building



## About RCUES, Mumbai

The Regional Centre for Urban & Environmental Studies (RCUES) at All India Institute of Local Self-Government (AIILSG), Mumbai was established by the Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI) to undertake urban policy research, technical advisory services and strengthening work capabilities of municipal officials and elected members from the States of Goa, Gujarat, Maharashtra, Rajasthan and UT's of Diu, Daman, Dadra & Nagar Haveli and Lakshadweep in the Western Region and States of Assam and Tripura in the North East Region. The Principal Secretary, Urban Development Department of Government of Maharashtra (GoM) is the ex-officio Chairman of the Advisory Committee of the RCUES, Mumbai, which is constituted by the MoHUA, GoI.

The RCUES was recognized by MoHUA, GoI as a National Training Institute (NTI) to undertake capacity building of project functionary, municipal officials, and municipal elected members under the earlier urban poverty alleviation programme-UBSP. The RCUES was also recognized as a Nodal Resource Centre on SJSRY (NRCS) and Nodal Resource Centre (NRC) for RAY by Ministry of Housing and Urban Poverty Alleviation, Government of India.

AIILSG, Mumbai houses the Solid Waste Management (SWM) Cell backed by the GoM for capacity building of municipal bodies and provide technical advisory services to ULBs in the State. Ministry of Urban Employment and Poverty Alleviation (MoUE&PA), GoI and UNDP have set up the 'National Resource Centre on Urban Poverty' (NRCUP), which is anchored by RCUES at AIILSG, Mumbai.

AIILSG, Mumbai in partnership with CEPT University, Ahmedabad funded by the Bill and Melinda Gates Foundation has conducted more than 200 workshops with urban local bodies (ULBs) in Maharashtra for mainstreaming SLBs at ULB level. AIILSG is now supporting implementation of Swachh Bharat Mission in urban areas of Maharashtra. The Change Management Unit (CMU) and the State SLB Cell of Maharashtra were established at AIILSG, Mumbai in 2010 by Water Supply & Sanitation Department (WSSD), Government of Maharashtra.

In 2010, RCUES, Mumbai was entrusted the work of preparation of City Sanitation Plans for 19 Municipal Corporations and 15 Class "A" Municipal Councils in Maharashtra by GoM which was supported by the MoHUA, GoI. Also, Waste Management & Research Centre was established at AIILSG, Mumbai in 2011, by WSSD, GoM.

In 2013, AIILSG, Mumbai is empaneled by Ministry of Housing and Urban Affairs, Government of India, for providing technical support to the ULBs in the field of water supply, sanitation, sewerage and drainage systems. Later in 2015, RCUES, Mumbai is identified as a technical service provider in Municipal Solid Waste Management projects under Swachh Bharat Mission (SBM) launched by the MoHUA, GoI.

Over the years, RCUES of AIILSG Mumbai has been working in close coordination with state and local Governments to provide strategic, advisory, technical and capacity building support for assessment and improvement in infrastructure service delivery in cities.

Along with ULBs, it is also engaging with multiple stakeholders like NGOs/CBOs, SHGs, private sector organisations, financial institutions at city level for providing technical and strategic support focusing on preparing action plans/strategies, technical assessment reports, CSPs/CDPs/DPRs as well as on-ground support by engaging with communities for improvement in various urban sectors to ensure improved quality of life to the citizens. AIILSG, Mumbai is also working at the grass root level in cities through field visits, guiding ULB officials, conducting situation assessments with the objective of bridging the gap between the cities and state for sustainable sanitation solutions under Swachh Bharat Mission Urban.

In February, 2016, Ministry of Housing and Urban Poverty Alleviation, Government of India empaneled the RCUES of AIILSG, Mumbai for conducting training and capacity building programme for experts of SMMU, CMMUs, COs, Key Officials and other stakeholders of the State and Urban Local Bodies (ULB) level under Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY – NULM).

In 2017, AILSG was empaneled among one of the 35 agencies in India for conducting Integrated Capacity Building Programmes (ICBP). AILSG Mumbai is supporting the states of Maharashtra, Rajasthan and Goa for the same.

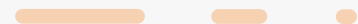
Through all these activities, RCUES of AILSG Mumbai is striving to transform the notion of capacity building by not limiting itself to trainings / workshops but engaging with the state and local governments at multiple levels. With a small but enthusiastic team, RCUES will continue to strive towards improving the capabilities of municipal officials with a broader objective towards developing able governments thereby enabling better cities.

For more information, please visit: <http://www.aailsg.org/rcues/>

**Mr. Ranjit Chavan**  
President

**Mr. Rajiv Agarwal, IAS (Retd.)**  
Director-General

**Ms. Utkarsha Kavadi**  
Director



## About the book

This document is a compilation of reports of capacity building programmes and seminar conducted by RCUES, AILSG, Mumbai in the year 2019–2020, supported by the Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI). It provides a snapshot of programmes including technical sessions, ULB presentations, group work, site visits, panel discussions and testimonials.

The capacity building programmes are categorised into six broader areas viz Solid Waste Management, Moving Towards ODF++ Cities / Faecal Sludge and Septage Management (FSSM), National Urban Livelihoods Mission (NULM), Pradhan Mantri Awas Yojana (PMAY), Development of Green Spaces & Parks under AMRUT and Fire Prevention & Life Safety. The thrust areas of the programmes were to discuss the challenges and innovative solutions for achieving sustainability towards various mission goals.

The RCUES, AILSG, Mumbai planned the training programmes in alignment with the Central and State Governments' agenda and to create a platform for knowledge sharing and cross learning at city level.



# Acknowledgement

The RCUES, AILSG, Mumbai is supported by Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI), pleased to compile this document comprising a brief of the Capacity Building Programmes. The RCUES, AILSG, Mumbai is thankful to MoHUA, GoI for the same.

The RCUES, Mumbai is sincerely grateful to the concerned Urban Development Departments & Authorities of Maharashtra, Goa, Gujarat, Rajasthan and Tripura State Governments for their continued support in facilitating the participants and making the capacity building programmes successful.

The RCUES, Mumbai extends its sincere gratitude to Shri. Ranjit Chavan, President, AILSG & Shri. Rajiv Agarwal, IAS (Retd.), Director General, AILSG for their continued support and encouragement for making the capacity building programmes most effective.

The RCUES, Mumbai invited participants from ULBs of Maharashtra, Goa, Gujarat, Rajasthan, Assam, Tripura and

Union Territories of Diu, Daman, Dadra Nagar Haveli and Lakshadweep and would like to express gratitude towards all the participants who made the programmes successful.

The RCUES, Mumbai is also thankful to all eminent faculties and subject experts for their valuable inputs shared with the participants and motivated them for applying the knowledge in effective implementation of missions at city level.

The RCUES, Mumbai appreciates its entire team for rigorous efforts in conducting all the capacity building programmes and seminar effectively and on time.

**The Director**  
RCUES, AILSG, Mumbai



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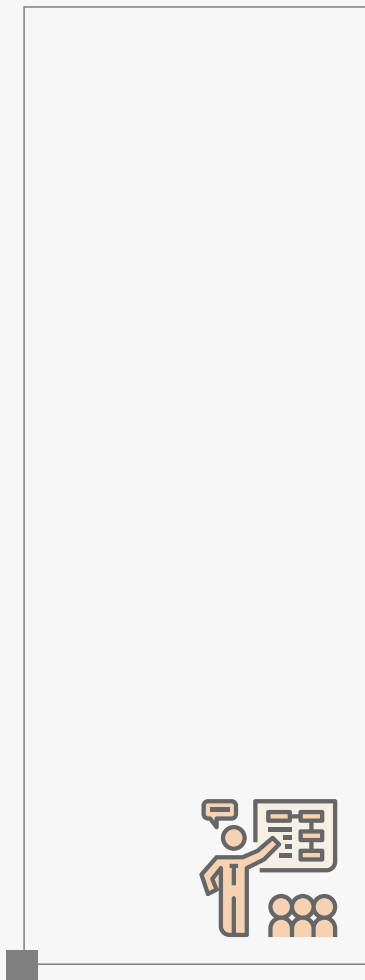
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# Regional Specialized Training Programmes





# Solid Waste Management





# Solid Waste Management

The Swachh Bharat Mission (SBM) was launched in October 2014 by the Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI) as a mass movement with the vision to achieve clean India by October 2019. Cities can take up challenges to manage solid waste under SBM. Municipal Solid Waste Management (MSWM) is an important component of the said mission. SWM Rules - 2016 are a mandatory to follow for all urban local bodies (ULBs) to effectively manage the urban solid waste in the city which enumerates that, landfills should be used for residual waste including non-usable, non-recyclable, non-biodegradable waste.

Indian MSW contains only 40 percent as organic waste and remaining is in-organic waste. In-organic also needs to be further segregated into categories like plastics, glasses, metals etc. which can be sold in the market. Generally most of the useful items are already taken out at the stage of collection of waste. The formation of dry waste centres at city level and its market identification vitally helps to manage dry waste very effectively.

Against this background, Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai had organized four training programmes on the subject.

These specialized training programmes were conducted to assist ULBs in achieving their envisioned targets under SBM. State level review was conducted during the programmes in which the progress made by the ULBs so far and their way forward for Swachh Survekshan 2020 was discussed. In these training programmes, technical sessions on the topics of processing of wet and dry waste, community participation and involvement of waste pickers were conducted as per the State's strategy. These training programmes were supported by the MoHUA, GoI.

## **Key Objective**

The key objective of these programmes was to discuss context specific issues and work plans for achieving targets under Swachh Bharat Mission, Urban.

# Solid Waste Management

26<sup>th</sup> - 27<sup>th</sup> June, 2019 and 27<sup>th</sup> - 28<sup>th</sup> June, 2019, Amravati, Maharashtra.



## Participation

For both the training programmes participants comprised of Chief Officers, Engineers and Sanitary Inspectors. 24 participants from 11 cities of Yavatmal district attended the 1<sup>st</sup> training programme and 44 participants from 21 cities of Buldhana district of Maharashtra attended the 2<sup>nd</sup> training programme.

## Inauguration

Both the training programmes were commenced by the key note address by Ms. Utkarsha Kavadi, Director, RCUES of AILSG, Mumbai wherein she addressed the participants and stated the objective of the programmes. Further, she welcomed the dignitaries on the dais and participants and requested dignitaries to inaugurate the training programme by lighting the lamp.

## Technical Sessions

The first session of the programmes was delivered by Ms. Amruta Paranjape, Research Associate of RCUES of

AILSG, Mumbai, on 'Overview of Solid Waste Management'.

She illustrated the scenario of solid waste management in Indian cities. She further explained the components of Swachh Bharat Mission - Urban (SBM-U) and importance of working on holistic plan of the city that would address the entire value chain of SWM.



*The key highlight of the training programmes were the interaction between the State officials and the participants about the efforts undertaken by the ULBs under SBM and the way forward.*





*Ms. Amruta Paranjape, Research Associate of RCUES of AIILSG, Mumbai addressing the participants.*

She explained the components of value chain from segregation, collection, transportation and disposal with methods to improve the system through efficient planning, identification of key issues in the city, choosing appropriate technologies etc. She highlighted the ways in which cities can achieve maximum impact considering the remaining time duration of the mission. She concluded the session by citing case studies of cities which have significantly improved their Solid Waste Management system.



*Ms. Priyanka Nandurkar, Divisional Expert, SBM addressing the participants.*

Ms. Priyanka Nandurkar, Divisional Expert, SBM presented on the current status of the cities present for the workshop under SBM. She further explained the targets ULBs need to achieve before October 2019. While concluding the session, urged the ULBs to work towards achieving their targets in the given time period.



*Dr. Sandeep Bodke, Principal Scientist, NEERI, Nagpur addressing the participants.*

The second session was undertaken by Dr. Sandeep Bodke, Principal Scientist, National Environmental Engineering Research Institute (NEERI), Nagpur on 'Sustainable Composting Technologies' for training 1 and for training 2 the session was undertaken by Dr. Atul Vaidya, Chief Scientist, NEERI Nagpur. The sessions addressed types of sustainable composting technologies available and their characteristics. The resource persons further discussed with the participants the solutions on the issues and challenges faced by them when undertaking composting at city level.



*Dr. Atul Vaidya, Chief Scientist, NEERI, Nagpur addressing the participants.*

The next session of 'Role of Waste Pickers and their Value Addition in Segregation Process' was taken by Mr. Sanjay Kamble, President, Janadhar, Latur. During his session he presented the work undertaken by their organization in Latur on integrating waste pickers in the system. By sharing his experience of Latur, Mr. Kamble highlighted the aspects which need to be considered to make waste pickers integration in the system a successful case. At the end of the session participants shared the difficulties faced by them in integrating waste pickers in the system and the probable solutions on it were discussed.



*Mr. Sanjay Kamble, President, Janadhar, Latur addressing the participants.*

Session on 'Good Practices on Waste Segregation' was taken by Ms. Anusaya Kale-Chabrani, President, SWACHHA, Nagpur. SWACHHA has worked extensively in cities of Maharashtra to promote segregation of waste at society and community level. Ms. Anusaya conducted an interactive session with the

participants where she discussed ways in which ULBs can influence citizens for increasing their segregation percentages. She urged participants to not consider IEC activities as a one-time activity but to make rigorous and continuous efforts to have maximum and sustained impact.



*Ms. Anusaya Kale-Chabrani, President, SWACHHA, Nagpur addressing the participants.*

The next session was taken by Mr. Subhash Dalvi, Nodal Officer, SBM, Municipal Corporation of Greater Mumbai (MCGM), Mumbai on 'Household Level Waste Segregation with Community Participation'. Mr. Dalvi having worked at ward level has initiated many neighborhood activities for effective segregation and wet waste processing. He presented the successful cases of community participation. He also shared successful cases of vermi composting undertaken by him at various places like hospital, residential area etc. in MCGM area. Further, he explained the mechanism of pit construction and other practices undertaken by him to produce good quality compost.



*Mr. Subhash Dalvi, Nodal Officer, SBM, MCGM, Mumbai addressing the participants.*

On day two the first session was taken by Ms. Amruta Paranjape, Research Associate, RCUES of AILSG, Mumbai on 'Dry Waste Recycling Options'. She started her session by explaining participants scenario of dry waste as seen in Indian cities. Taking it further she mentioned the general issues faced by ULBs in dry waste processing and disposal. Explaining the results of the research study undertaken by RCUES on cluster level dry waste management, she explained the types of clusters that can be explored by the ULB. She presented the cases in India where such clusters have been implemented and how they have tackled the issues faced by ULBs. The session ended with ULBs expressing their interest in exploring the cluster system for dry waste processing.

### Group Exercise

A group exercise was taken on the subject of Solid Waste Management Value Chain wherein participants were divided into groups comprising of different cities. The groups were asked to write the issues faced by their ULB in effective implementation of SWM services and against them probable innovative solutions based on the sessions taken in the programme. Each group presented their work to a panel of jurors comprising of District Administrative Officers (DAO), faculty and State officials. The jurors selected three groups which had done exceptional work in terms of the solutions identified by them. The groups were felicitated with a token for their efforts.



*Presentation of group exercise by participants.*

### Summing-up

At the end of both the programmes, certificates were distributed to the participants. These training programmes were concluded by proposing a vote of thanks to the resource persons and participants by Ms. Amruta Paranjape.

### Testimonial

**Ms. Anusaya Kale-Chabrani, President, SWACHHA, Nagpur, Maharashtra.**

*"Very well organized training programme by RCUES, Mumbai. Commendable efforts by RCUES team to make this programme not just a lecture series but an interactive platform for better knowledge sharing."*

# Solid Waste Management

30<sup>th</sup> - 31<sup>st</sup> July, 2019 and 31<sup>st</sup> July - 1<sup>st</sup> August, 2019, Amravati, Maharashtra.



## Participation

For both the training programmes participants comprised of Chief Officers, Engineers and Sanitary Inspectors and City Coordinators. 62 participants from 25 cities of Amravati and Buldhana district attended the 1<sup>st</sup> training programme. For the 2<sup>nd</sup> training programme,



*The key highlight of the training programmes were the interaction between participants and the faculty on methods for producing good quality compost as per the climatic conditions of Amravati.*

62 participants from 31 cities of Akola, Amravati, Yavatmal and Washim district of Maharashtra and 5 officers from Divisional Commissioner Office of Amravati attended.

## Inauguration

Both the training programmes were commenced with a keynote address by Ms. Utkarsha Kavadi, Director, RCUES of AILSG, Mumbai wherein she addressed the participants and stated the objective of the programmes.



Ms. Utkarsha Kavadi, Director, RCUES of AILSG, Mumbai addressing the participants.



Further, she welcomed the dignitaries and encouraged the participants for taking active part in sessions. Participants joined the dignitaries in inaugurating the training programme by lighting the lamp.

### Technical Sessions

The first session of the programmes was delivered by Ms. Amruta Paranjape, Research Associate of RCUES of AILSG, Mumbai, on 'Overview of Solid Waste Management'.



*Ms. Amruta Paranjape, Research Associate of RCUES of AILSG, Mumbai addressing the participants.*

She illustrated the scenario of solid waste management in Indian cities. She further explained the components of Swachh Bharat Mission - Urban (SBM - U) and importance of working on holistic plan of the city that would address the entire value chain of SWM. She explained the components of value chain from segregation, collection, transportation and disposal with methods to improve the system through efficient planning, identification of key issues in the city, choosing appropriate technologies etc. She highlighted the ways in which cities can achieve maximum impact considering the remaining time duration of the mission. She concluded the session by citing case studies of cities which have significantly improved their SWM system.

Ms. Priyanka Nandurkar, Divisional Expert, SBM presented the current status of the cities present for the workshop under SBM. She further explained the targets ULBs need to achieve before October 2019. While concluding the session, urged the ULBs to work towards achieving their targets in the given time period.



*Ms. Priyanka Nandurkar, Divisional Expert, SBM addressing the participants.*

The second session was undertaken by Dr. Sandeep Bodkhe, Principal Scientist, National Environmental Engineering Research Institute (NEERI), Nagpur on 'Sustainable Composting Technologies'. The sessions addressed types of sustainable composting technologies available and their characteristics. Mr. Bodkhe explained the ways in which the participants can undertake composting as per the climatic and geographic conditions of Amravati Division. He further discussed the solutions on the issues and challenges faced by them while undertaking composting at city level.



*Dr. Sandeep Bodke, Principal Scientist, NEERI, Nagpur addressing the participants.*

The next session of 'Role of Waste Pickers and their Value Addition in Segregation Process' was taken by Mr. Deepak Chabukswar, Dy. President, Janadhar, Latur. During his session he presented the work undertaken by their organization in Latur on integrating waste pickers in the system. By sharing his experience of Latur, Mr. Chabkuswar highlighted the aspects which need to be considered to make waste-pickers integration in the system successful. At the end of the session, participants shared the difficulties faced by them in integrating waste pickers in the system and the probable solutions were discussed.



*Mr. Deepak Chabukswar, Dy. President, Janadhar, Latur addressing the participants.*

Session on 'Good Practices on Waste Segregation' was taken by Ms. Anusaya Kale-Chabrani, President, SWACHHA, Nagpur. SWACHHA has worked extensively in cities of Maharashtra to promote segregation of waste at society and community level. Ms. Anusaya conducted an interactive session with the participants where she discussed ways in which ULBs can influence citizens for increasing their segregation percentages. She urged participants to not consider IEC activities as a one-time activity but to make rigorous and continuous efforts to have maximum and sustained impact.



*Ms. Anusaya Kale-Chabrani, President, SWACHHA, Nagpur addressing the participants.*

On day two, the first session was taken by Ms. Amruta Paranjape, Research Associate, RCUES of AILSG, Mumbai on 'Dry Waste Recycling Options'. She started her session by explaining participants scenario of dry waste as seen in Indian cities. Further, she mentioned the general issues faced by ULBs in dry waste processing and disposal. Explaining the results of the research study undertaken by RCUES, Mumbai on cluster level dry waste management, she explained the types of clusters that can be explored by the ULB. She presented the cases in India where such clusters have been implemented and how they have tackled the issues faced by ULBs. The session ended with ULBs expressing their interest in exploring the cluster system for dry waste processing.

The session on dry waste recycling was followed by the presentation by Re-bell, a dry waste recycling industry based in Amravati. The industry collects mixed dry waste from the ULB and recycles it into outdoor furniture. The session helped the participants to understand the locally available market for recycling dry waste.

The next session was taken by Mr. Suresh Ghorpade, Asst. Programme Coordinator, Centre for Applied Research and People's Engagement (CARPE), Aurangabad on 'Household Level Waste Segregation with Community Participation'. CARPE has worked in many ULBs for facilitating segregation. Mr. Ghorpade explained the activities and initiatives through which CARPE has augmented 100% segregation in cities. He illustrated how data collection and mapping is essential for making a holistic system for SWM.



*Mr. Suresh Ghorpade, Asst. Program Coordinator, CARPE, Aurangabad addressing the participants.*

For the next session, Mr. Nandkishor Gandhi of Vishwabharati Nagrik Manch, Amravati was invited to address the participants. Mr. Gandhi, who has also

worked as brand ambassador for Amravati, shared useful information with the participants regarding various aspects of SBM like plastic and thermocol ban, type of IEC activities to be conducted etc.



*Mr. Nandkishor Gandhi of Vishwabharati Nagrik Manch, Amravati addressing the participants.*

The next session on 'Star Rating' was taken by Mr. Omkar Shauche, Technical Expert, Swachh Maharashtra Mission - Urban (SMM-U) Directorate, Government of Maharashtra (GoM), Mumbai. He explained the participants components and indicators under Star Rating protocol introduced by MoHUA, GoI. He discussed with participants initiatives that should be taken by them for improving their performance for star rating. Towards the end of the session he interacted with the participants to clear doubts that they had with the protocol.



*Mr. Omkar Shauche, Technical Expert, SMM-U Directorate, GoM, Mumbai addressing the participants.*

## Group Exercise



*Participants engaged in group exercise.*

A group exercise was taken on the subject of Solid Waste Management action plan for one month. Participants were divided so that a group consisted representatives of different ULBs. The groups were asked to list down the existing SWM scenario and to list down against that implementable action points for the next one month. The exercise helped the ULBs in prioritizing their efforts for achieving maximum impact. The groups were felicitated with a token for their efforts.

### Summing-up

At the end of both the programmes, certificates were distributed to the participants. These training programmes were concluded by proposing a vote of thanks to the resource persons and participants by Ms. Utkarsha Kavadi.

### Testimonials

**Mr. Pranav Lende, City Coordinator, Dharni Nagar Panchayat, Maharashtra.**

*“Excellent faculty arranged by RCUES, Mumbai for delivering sessions. All the sessions were comprehensive and essential for clearing doubts on implementation of SWM at ULB level.”*

**Ms. Kshanaya Gajbhiye, City coordinator, Shegaon Municipal Council, Maharashtra.**

*“This programme was very useful for all officials working in the sector of SWM as the expert faculty shared their learnings from on-ground experiences.”*

**Mr. Sunil Shriram Khete, Senior Sanitary Inspector, Akola Municipal Corporation, Maharashtra.**

*“The programme organised by RCUES, Mumbai was very good and knowledgeable. The information received in the programme will help me in the service of my department.”*

**Mr. Gajanan Ghavle, City Coordinator, Mangrulpir Municipal Council, Maharashtra.**

*“The training programme of Solid Waste Management was very informative. Such a technical and knowledge sharing programme was arranged for the first time at divisional level and will be helpful in implementing projects.”*







**Moving Towards  
ODF++ Cities /  
Faecal Sludge & Septage  
Management (FSSM)**

# Moving Towards ODF++ Cities / Faecal Sludge & Septage Management (FSSM)

The Swachh Bharat Mission – Urban (SBM-U) aims to fulfill the objective of 100% Open Defecation Free (ODF) status in an Urban Local Bodies (ULBs) in the country by 2<sup>nd</sup> October, 2019. This will entail providing access to toilet facilities (i.e. construction of sanitary latrines – individual household toilets, community and public toilets). In parallel, it will also entail operation and maintenance of these facilities to maintain their functionality, including effective Faecal Sludge and Septage Management (FSSM) to ensure safe disposal. To achieve comprehensive urban sanitation services, India needs to move beyond the current drive for ODF cities: moving towards ODF+ and ODF++ by addressing the entire service chain of sanitation and not focusing only on the number of toilets constructed in cities.

More than 62 lakhs individual toilets and more than 5 lakhs public and community toilets in urban areas were constructed till December, 2018 across the country under SBM. While majority of the cities have made progress on the ODF protocol adherence, the Ministry has launched ODF+ and ODF++ protocols which focuses on sustaining Community / Public toilets usage by ensuring their functionality, cleanliness and maintenance (Improved Standards) and achieving sanitation sustainability by addressing complete sanitation value chain. In many cities the cleaning, conveyance, treatment and disposal of faecal sludge has largely been left to unregulated private, informal service providers. To address this neglected but crucial part of urban sanitation, the government had introduced the Open Defecation Free ++ (ODF++) protocol under SBM-U. As per this protocol, every civic body has to focus on achieving sanitation sustainability by addressing complete sanitation value chain, including safe and complete faecal sludge management. More and more cities have been taking efforts to moving towards ODF++ status to ensure the sanitation sustainability, however ULBs are in need of capacity building on various aspects of FSSM.

The focus was also given to adopt the Standard Operating Procedure (SOP) for cleaning of sewers and septic tanks to improve the working conditions of manual scavengers. It is one of the important step to moving towards ODF++.

Considering this background, Regional Centre for Urban & Environmental Studies (RCUES) of AILSG, Mumbai had organized five training programmes on the subject. The training programme were supported by Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

## **Key Objective**

The key objective of these training programmes was to discuss various actions at city level for moving towards ODF++ cities by addressing entire sanitation value chain.

# Moving Towards ODF++ Cities

3<sup>rd</sup> May, 2019, Mumbai, Maharashtra.



## Participation

29 participants comprising Dy. General Manager, Chief Engineers, Chief Sanitary Inspectors, Sr. Sanitary Inspectors, Health Officers, Junior Engineers of selected AMRUT cities of Maharashtra attended this training programme.



Participants during the programme at Mumbai, Maharashtra.

## Inauguration

The opening session commenced with a welcome address by Ms. Utkarsha Kavadi, Director, RCUES of AILSG, Mumbai. She welcomed the dignitaries on the dias and the participants of the programme. She elaborated on the objective of the training programme and briefed about the SOP for cleaning of sewers and septic tanks developed for ULBs by MoHUA, GoI. She further said that ULBs need to adopt these procedures



Ms. Utkarsha Kavadi, Director, RCUES of AILSG, Mumbai addressing the participants.

and avail benefits of various schemes to improve working conditions of workers involved in cleaning of sewers. She invited the distinguished guests to inaugurate the training programme by lighting the lamp.



*The key highlight of the training programme was the session on safety measures and devices for cleaning of sewers, it understand the importance of safety at work place.*

Mr. Milind Shambharkar, IAS, Commissioner, Social Justice, and Special Assistance Department, Government of Maharashtra (GoM) inaugurated this training programme. Mr. Rajiv Agarwal, IAS (Retd.), Director General, AILSG, Mr. Ajit Kumar Jain, IAS (Retd.), Sr. Advisor and Director, Centre for Sustainable Governance, AILSG, Mumbai, Mr. Kamlakar Phand, Managing Director, Mahatma Phule Corporation Ltd., Mumbai, and Ms. Utkarsha Kavadi, Director, RCUES, AILSG, Mumbai graced the occasion by their presence at the inaugural session.



*Mr. Milind Shambharkar, IAS, Commissioner, Social Justice, and Special Assistance Department, GoM inaugurating the programme.*

Mr. Ajit Kumar Jain, IAS (Retd.), Sr. Advisor and Director, Centre for Sustainable Governance, AILSG, Mumbai in his special address, elucidated the significance of this training programme for the welfare of Safai Karmacharis and people involved in manual scavenging. He mentioned that such training programmes were recommended by National Safai Karmachari Finance and Development Corporation (NSKFDC). He also focused on the convergence of SBM, AMRUT with NSKFDC's mission on the eradication of manual scavenging. He concluded by conveying the objective of this Training of Trainers (ToT) to disseminate the manual scavenging Act to the concerned municipal officials of selected AMRUT cities across the country.



*Mr. Ajit Kumar Jain, IAS (Retd.), Sr. Advisor and Director, Centre for Sustainable Governance, AILSG, Mumbai addressing the participants.*

Mr. Rajiv Agarwal, IAS (Retd.), Director General, AILSG, in his special address, briefed about AILSG

and its functioning. AILSG also has a mandate of conducting training programmes on Manual Scavengers and their Rehabilitation Act, 2013 in different states. All ULBs and other stakeholders should take the responsibility to conduct such training programmes in respected cities after acquiring thorough knowledge through this ToT. He concluded by wishing great success to this training programme.



*Mr. Rajiv Agarwal, IAS (Retd.), Director General, AILSG addressing the participants.*

### Technical Sessions

The first session on 'Overview of Manual Scavenging and Hazardous Cleaning in Indian Cities' was delivered by Dr. Ajit Salvi, Executive Engineer (Sewers), Municipal Corporation of Greater Mumbai (MCGM), Mumbai. He explained the existing scenario of manual scavenging and hazardous cleaning of sewers in cities across the country through photographs and statistical data. The data on manual scavenging reveals that around 1.3 million workers are engaged in sewerage and waste management services across the country. Further, he spoke about the legal provisions of hazardous cleaning in brief by mentioning the Article 14 - Right to Equality, Article 17 – Untouchability, Article 21 - Right to Life and Liberty, Article 46 - Promotion of Educational and Economic Interests of Scheduled Castes, Scheduled Tribes and Other Weaker Sections, Article 47 - Duty of the State to raise the level of nutrition, the standard of living and to improve public health. He also spoke about laws on manual scavenging given below briefly:

- Employment of Manual Scavengers and Constructions of Dry Latrines (Prohibition) Act, 1993.
- National Commission for Safai Karmacharis Act, 1993.
- The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.

He continued explaining the concept of hazardous cleaning as per Manual Scavengers and their Rehabilitation Act, 2013. Furthermore, he explained the comparison between manual scavenging and hazardous cleaning. He concluded by sharing glimpses of manual scavenging, which led to the next session.



*Dr. Ajit Salvi, Executive Engineer (Sewers), MCGM, Mumbai addressing the participants.*

The next session on 'Legal Provisions for the Welfare of Manual Scavengers' was delivered by Mr. Milind Shambharkar, IAS, Commissioner, Social Justice and Special Assistance Department, GoM. After briefly mentioning about the legal provisions as discussed by Dr. Ajit Salvi in the first session, Mr. Shambharkar continued explaining in detail the legal provisions for the welfare of manual scavenging. He gave a historical backdrop of earlier legal acts. The previous laws did not provide adequate measures to prohibit manual scavenging and did not include provision for the rehabilitation of manual scavengers. He continued discussing on 'Manual Scavengers and their Rehabilitation Act, 2013' to ban manual scavenging in the country. He stated that the Act also covers 'hazardous cleaning' of sewers and septic tanks and puts certain compulsions on the employer to provide protective gear and other cleaning devices and ensuring compliance of safety precautions as prescribed in Manual Scavengers and their Rehabilitation Act, 2013. He later spoke on provisions of penalty for hazardous cleaning under this Act. He also explained the key aspects of this Act from survey to identify the manual scavengers and up to their rehabilitation. Rehabilitation efforts include provision of a house, scholarships, skills training, financial assistance, loans, etc. both by the Centre and the State. He then explained the prohibition of insanitary latrines and the employment of manual scavengers. He concluded by explaining the strategy and functions of Implementing Authorities like Vigilance Committee, Central and State Monitoring Committee for effective implementation of this Act.



*Mr. Milind Shambharkar, IAS, Commissioner, Social Justice and Special Assistance Department, Government of Maharashtra addressing the participants.*

Dr. Ajit Salvi, Executive Engineer (Sewers), MCGM, Mumbai, delivered a session on 'Health Issues associated with Hazardous Cleaning of Sewers and Septic Tanks'. He started with health hazards due to manual scavengers. It is observed that many cities do not have sewerage systems that covers the entire city, sometimes, sewer lines are connected to stormwater drains which get clogged and demand for manual intervention. Most of the ULBs are not equipped with latest sewer cleaning machinery. He further discussed overall conditions and working conditions of manual scavengers and sanitation workers. Working conditions of these workers are extremely wretched. They are exposed to toxic / hazardous gases which can cause inadequate oxygen level inside sewers. These workers work in confined spaces which does not have natural ventilation. He described the types and nature of health hazards such as respiratory, cardiovascular and skin diseases, eye and orthopedic problems and infections and its impact on health of manual scavengers and sewage workers. He concluded by explaining the implications of hazardous cleaning. Every year a number of deaths are reported during the cleaning of sewers and septic tanks caused due to illness.



*Mr. Bhalchandra Salvi, Executive Engineer (Retd.), MCGM, Mumbai addressing the participants.*

The session on 'Precautions for Cleaning of Sewers and Septic Tanks' was delivered by Mr. Bhalchandra Salvi, Executive Engineer (Retd.), MCGM, Mumbai. Initially, he talked on conditions, when hazardous cleaning takes place. Further, he stated that the cleaning of sewer manually is done only with protective gear and safety devices. Manual cleaning can be done only with the permission from local authorities with specific reason for allowing such a cleaning. He added that the employer should ensure safety gears to the workers for their safety. He mentioned the safety devices to be used by the workers while cleaning sewers and septic tanks. He concluded by discussing precautions to be ensured by the employer for the safety of manual scavengers.

The next session on 'Safety Measures and Devices for Cleaning of Sewers and Septic Tanks' was delivered by Mr. Sushil Ubale, Executive Engineer (SO), P & MS (WS), MCGM, Mumbai.



*Mr. Sushil Ubale, Executive Engineer (SO), P & MS (WS), MCGM, Mumbai addressing the participants.*

He discussed safety at workplace by using personal protective gears. Equipments like road barricades, traffic cones, flickering lights must be used for the safety of workers as well as pedestrians. He showed pictures of all such equipments to be used by workers at workplace. He emphasized more on mechanical devices to be used during hazardous cleaning as they are extremely safe. The pictures of mechanical devices like sewer line cleaning, jetting machine, suction machine (Gulley), Hydraulic Operated Trolley Mounted Grab Bucket and Truck Mounted Motor and Winch Operated Grab Bucket Machine were exhibited. He said that ULB officials should ensure for the usage of these devices while cleaning of sewers and septic tanks. He also discussed important safety aspects such as providing protective grills in manholes at flood-prone areas, weekly checking of all the available safety accessories, discard / disposal of all the defective safety accessories from the site, yearly medical health check up of workers and having first aid box with valid medicines, etc.

He further exhibited the functioning of Truck Mounted Motor & Winch Operated Grab Bucket Machine and personal safety gears in the AILSG premises to understand the gravity of its effective working. He further talked on the application of grab type manhole desilting machine. He also showed the video clips of operations of grab machines through a GPS system. He concluded by talking on 'Quick Response Vehicle (QRV)' with major components like jetting system, dewatering pump, rodding machine, winch machine, camera, gas detector, respiratory system, etc. installed in one compact vehicle for routine and emergency situations. QRV is useful in redressing the complaints very quickly without the intervention of sewer workers or manual scavengers.

The last session on 'Rehabilitation Schemes for the Welfare of Manual Scavengers' was delivered by Mr. Kamlakar Phand, Managing Director, Mahatma Phule Corporation Ltd., Mumbai. Initially, he talked on the significance of awareness of rehabilitation schemes and required documents for loan approval to the manual scavengers. He further discussed the Self-Employment Scheme for Rehabilitation of Manual Scavengers. This scheme provides onetime cash of Rs.40,000 for enabling



*Mr. Kamlakar Phand, Managing Director, Mahatma Phule Corporation Ltd., Mumbai addressing the participants.*

change in their livelihood, skill development training upto two years with stipend of Rs.3,000 per month, concessional loan for self-employment project upto Rs.15 lakhs with capital subsidy upto Rs.3.25 lakhs, skilling, and financing available to all dependents of the manual scavengers. Later, he explained NSKFDC's loan schemes to be availed by beneficiaries under rehabilitation schemes of manual scavengers. NSKFDC provides loan to sanitation workers through State Channelizing Agency (SCA), bank or ULB. He concluded by stating that, Government of Maharashtra has appointed Mahatma Phule Backward Class Development Corporation Ltd. as Channelizing Agency for financing the loan proposals for the welfare of manual scavengers and their upbringing.

### **Group Exercise**

The group exercise was conducted after the technical sessions to assess the application of knowledge gained through the training programme. The participants were divided into six groups. The groups were given discussion points such as 'existing situation of awareness of laws on manual scavenging, existing mechanisms of cleaning sewers and septic tanks, identification of manual scavengers through surveys, rehabilitation schemes at the local level. The second discussing point was they asked about the need for training at the local level with its timeline. The third discussing point was to decide any two key take away for your own ULB.

It was observed through their presentations that each municipal corporation required to conduct a survey to identify manual scavengers, conduct training for use of safety gears, training of elected representatives, awareness programmes on rehabilitation schemes, construction of STP, etc. For this, every participant ULB agreed to conduct such training programmes in their ULBs.

### **Site Demonstration**

Demonstration on manhole cleaning machine was shown at AILSG, Andheri premises to understand its functioning. Safety gears were also displayed to get the idea of the apparatus handling.

## Summing-up

Ms. Utkarsha Kavadi, Director, RCUES, AILSG, Mumbai concluded the training programme by motivating the participants for mechanized cleaning of sewers and septic tanks in their cities by eradicating manual scavenging.

The feedback of the training programme was taken from the participants and certificates were handed to them by Mr. Ajit Kumar Jain, IAS (Retd.), Sr. Advisor and Director, Centre for Sustainable Governance, AILSG, Mumbai.

## Glimpses of the Site Demonstration



## Testimonials

**Mr. Manoj Patil, Executive Engineer, Navi Mumbai Municipal Corporation (NMMC), Maharashtra.**

*“This training programme exhibited safety gears and demonstrated manhole cleaning machine. It helped in gaining knowledge that will help us replicate the practices in cities.”*

**Mr. Sushil Ubale, Executive Engineer (SO) P & MS (WS), Municipal Corporation of Greater Mumbai (MCGM), Maharashtra.**

*“I would like to express gratitude towards RCUES, Mumbai for taking efforts in arranging such systematically planned training programme. All sessions were thought-provoking. Participants would certainly share their learning on safety to sanitation workers in their cities.”*

# Moving Towards ODF++ Cities

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Panaji, Goa.



## Participation

79 participants comprising Presidents, Chairpersons of Health and Sanitation Committee, Elected Representatives, Engineers from SWM Department, Project Officers, Sanitary Inspectors from Rajasthan, Gujarat, Maharashtra and Goa attended this training programme.

## Introduction

The training programme commenced with an introduction by Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai. She welcomed dignitaries on the dais, guest faculties, and participants. She briefed about the objective of the training programme and also highlighted upon the activities conducted by RCUES, Mumbai in training and research areas.

## Inauguration

Mr. Kantibhai Chawda, President, Anand Municipality and Mr. Jayantibhai Ranavav, President, Amreli Municipality, Gujarat inaugurated the programme by lighting the lamp in the presence of Mr. Rajkumar Funda, Chairman, Pilibanga Municipal Council, Rajasthan and Mr. Himesh Patel, Chairman, Standing Committee, Anand Municipality, Gujarat.

In the inaugural address Mr. Chawda discussed about the efforts taken in his city to convert OD spots into a



Inauguration of the programme at Panaji, Goa..



*The key highlight of the training programme was the site visit conducted to Tonca - Caranzalem Sewerage Treatment Plant to observe and understand the operation and maintenance of the co-treatment plant.*

beautiful garden and sports ground under SBM. He shared status of the city prior to the efforts and also discussed the strategic efforts to become ODF city. At the end, he wished a great success to the training programme.





*Mr. Rajkumar Funda, Chairman, Pilibanga Municipal Council, Rajasthan addressing the participants. (L to R) Ms. Maleka Ansari, Sr. Research Officer, RCUES, AILSG, Mumbai, Mr. Himesh Patel, Chairman, Standing Committee, Anand Municipality, Mr. Kantibhai Chawda, President, Anand Municipality, and Mr. Jayantibhai Ranavav, President, Amreli Municipality of Gujarat.*

### Technical Sessions

Technical sessions started after inaugural session. Eminent subject experts were invited to address the participants.

The first technical session was addressed by Ms. Aashima Parikh, Research Associate, RCUES of AILSG, Mumbai on 'Sustaining ODF Status in Cities'. She initiated the session with an overview of sanitation scenario in India by stressing the importance of moving towards ODF+ and ODF++ strategy. She highlighted the state wise scenario of access to toilets in urban areas and the ODF status of ULBs of several states. She explained the protocols for ODF+ and ODF++ introduced under Swachh Survekshan 2019. She gave an overview of Swachh Survekshan League 2020 and its approach towards sustainable sanitation and ODF sustainability. She highlighted the ODF sustainability strategies adopted by the State of Maharashtra.



*Ms. Aashima Parikh, Research Associate, RCUES of AILSG, Mumbai addressing the participants.*

She emphasized on the 7 step approach (Saptapadi) of Sustainability charter by Maharashtra for ODF sustainability which included provision of individual household toilets, clean and reliable CT/PT, stakeholder participation, conversion of OD spots, monitoring on OD spots, awarding good performances and moving

towards ODF++. She concluded by sharing some of case studies in cities like Chandrapur, Satara, Goregaon, Bhadravati where open defecation spots have been developed into usable spaces like playground, auditorium, jogging track, open gym area, weekly market place etc.

Based on AILSG, Mumbai's ongoing work in cities of Maharashtra, in her next session, she discussed on 'Overview and Planning of FSSM and City Level Approach Towards FSSM'. She commenced her session with the status of sewerage network in cities and stated that very few cities in our country have complete sewer system. Further she informed that in urban India most of the cities are dependent on onsite sanitation system. 38% household's toilets have septic tanks. She explained that smaller and medium sized towns can opt for FSSM by highlighting requirements in FSSM for water, capital costs, O & M costs, maintenance, technical expertise, capacity to operate as compared to conventional sewerage and how septage management is more beneficial than conventional sewerage system. She briefly discussed on sanitation value chain including access, collection, conveyance, treatment and reuse and disposal by explaining several existing challenges among them. She discussed the key components of FSSM planning across the service value chain and the two approaches for desludging of septic tanks i.e demand based and schedule based emptying services. She concluded by emphasizing the importance of FSSM in cities and the ease of planning for FSSM services at city level with some infrastructure calculations.



*Dr. Miind Kulkarni, former Professor, IIT and Environmental Consultant, Mumbai addressing the participants.*

The session on 'Technology Options for FSSM' was delivered by Dr. Milind Kulkarni, former Professor, Indian Institute of Technology (IIT) and Environmental Consultant, Mumbai. He gave an overview of various septage treatment options including septic tank with drain field, septic tank with soak pit, septic tank with small bore system, septic tank with baffles, twin pit pours flush latrine and faecal sludge treatment plant (FSTP). He further explained treatment technology selection by

discussing Devanhalli, Wai and Sinnar models of faecal sludge management. While elaborating about Devanhalli FSTP, he said FSTP in Devanhalli is converting the toilet waste of a city into compost for agriculture. This underground plant functions on a gravity based operation. He concluded by insisting the participants to focus on achieving ODF+ status and efforts towards applicability of FSSM in their respective ULBs.

### Group Exercise



*Presentation of group exercise by the participants.*

The group exercise was conducted for the participants to apply the knowledge disseminated during technical sessions. Six groups were formed and each group had to develop action plan for ensuring ODF sustainability by moving towards ODF+ and ODF++ cities. Participants discussed amongst themselves and prepared a plan of action based on their existing status and key actions towards achieving sanitation sustainability in their respective cities. Thereafter, each group presented the best possible options for achieving ODF+ and ODF++ status. The best performing group was rewarded by a token of appreciation.



*Participants felicitated for best group work and presentation.*

### Site Visit

The site visit was organized at Tonca Sewerage Treatment Plant (STP) located at Tonca Caranzalem, Panaji, Goa. Presently two plants of capacity 12.5 MLD and 15 MLD are in operation. Both the plants are based on C – tech technology (Cyclic activity sludge process) i.e. Sequential Batch Reactor (SBR). The former serves approximately 12,000 households (approximately 2,800 connections) while the latter treated the waste water

flows from the city's outskirts part. Co-treatment of septage at STP was started to end the practice of unauthorized dumping of septage into the region's open areas, storm water drains and water ways by private operators involved in desludging septic tanks which existed in surrounding areas.

A decanting station is located just outside the plant at the Tonca STP to allow desludging trucks to discharge septage. The decanting station was created at a cost of approximately Rs. 1.4 lakhs. The manhole is just upstream of the STP, the septage added to sewage at the manhole enters the STP through the main inlet and passes to the inlet chamber, prior to the preliminary treatment process and subsequently undergoes the entire treatment cycle. The solids from the STP, after treatment is further dried on the sludge drying beds. There is no equalization and storage tank for receiving septage, and septage discharge occurs based on the frequency of trucks visiting the STP.

The Goa Public Health (Amendment) Rules, 2010 made provisions for protecting and advancing public health. Under the Act, some of the measures related to sanitation including safe disposal of sullage and sewage incorporated. This Act has ensured that the activity of septage disposal across the state has been regulated and the practice of indiscriminate discharge of septage into the sea, creeks, etc. has stopped.

Fees levied are by private operators for desludging septic tanks ranges from Rs. 3,000 to 3,500 per septic tank. Approximately 120 truckloads of septage are discharged at the plant on a daily basis, with desludging trucks (capacity of 4-8 KLD). Tipping fee of Rs. 500 is charged per trip by PHE towards the cost of treatment and safe disposal of septage.

Participants observed the entire functioning of STP and can replicate the same in their cities.

### Summing-up



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

At the end of the training programme, feedback was taken from the participants on the training programme. Mrs. Ansari concluded with a vote of thanks to the resource persons and participants.

**Glimpses of the Site Visit****Testimonials****Mr. Rajesh Fadte, Municipal Engineer, Bicholim Municipal Council, Goa.**

*“The site visit to Tonca - Caranzalem Sewerage Treatment Plant (Plant) was insightful. We could learn the strategies to ensure ODF sustainability. The arrangements of this training programme were good.”*

**Mr. Diwiz De'melo, Municipal Engineer, Mapusa Municipal Council, Goa.**

*“By organizing these training programmes, RCUES, Mumbai is doing a great work in imparting knowledge to achieve the mission objectives under SBM. I am thankful to RCUES, Mumbai for this programme. I am looking forward to attend such programmes.”*

# Faecal Sludge & Septage Management (FSSM)

20<sup>th</sup> - 21<sup>st</sup> September, 2019, Ahmedabad, Gujarat.



## Participation

24 participants comprising sanitary inspectors of urban local bodies (ULBs) from the Government of Gujarat attended this training programme.

## Introduction

This programme began with an introduction by Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AIILSG, Mumbai. She welcomed the participants. She explained the objectives of the training programme by stating the importance of



*The key highlight of the training programme was the site visit to Decentralised Wastewater Treatment System (DEWATS), Gandhinagar to understand the sustainable solution for waste water treatment.*

achieving status of ODF + / + + by adopting several strategies applicable to their cities.



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

## Technical Sessions

The technical sessions followed the introduction. Eminent faculties were invited to deliver the sessions to the participants.

The session on 'Sustaining ODF Status in Cities' was delivered by Ms. Aashima Parikh, Research Associate, RCUES, AIILSG, Mumbai. She initiated the session with an overview of sanitation scenario in India by emphasising the importance of moving towards ODF +

and ODF ++ cities. She highlighted the state wise scenario of access to toilets in urban areas and the ODF status of ULBs of several states. She explained the protocols for ODF+ and ODF++ introduced by MoHUA, GoI under Swachh Survekshan 2019. She gave an overview of weightage given to sustainable sanitation under Swachh Survekshan League 2020 for cities to sustain ODF status and move towards ODF+ and ODF++.



*Ms. Ashima Parikh, Research Associate, RCUES, AILSG, Mumbai addressing the participants.*

She explained the approach of Maharashtra state to achieve and sustain ODF status and move towards ODF+ and ODF++. She talked about the Sustainability Charter of Maharashtra for ODF sustainability, which included provision of individual household toilets, maintenance of CT/PT, conversion of OD spots etc. She concluded by sharing some of case studies in cities like Chandrapur and Satara from Maharashtra, where open defecation spots have been developed into usable spaces like playgrounds, jogging park etc.

In her next session on 'Overview and Planning of Faecal Sludge & Septage Management (FSSM) and City Level Approach towards FSSM', she started her session by explaining limited coverage of sewerage network in Indian cities and most cities being dependent on onsite sanitation system. She further explained that smaller and medium sized towns can opt for FSSM by highlighting requirements in FSSM for water, capital cost, O & M cost etc., as compared to conventional sewerage systems. She briefly described the sanitation value chain which included access, collection, conveyance, treatment and reuse and disposal and also explained several existing challenges across the service chain. She also discussed key components of FSSM planning across the service value chain and the approaches of desludging of septic tanks i.e. demand based and schedule based emptying services. She emphasized on the importance of FSSM in cities and explained the approach and calculations required for planning for FSSM service at city level. She concluded the session with an individual exercise for basic infrastructure calculations to plan for FSSM activities in a city.

The next session on 'Technology options for Faecal Sludge & Septage Management (FSSM)' was delivered by Mr. F. T. Kanpurwala, Chief Laboratory Executive, Gujarat Institute of Civil Engineers & Architects (GICEA), Ahmedabad. He gave an overview of sanitation

in the state of Gujarat. He explained various septage treatment options including twin pits, septic tank with drain field, septic tank with soak pit, septic tank with small bore system, septic tanks with baffles and Faecal Sludge Treatment Plant (FSTP). While elaborating technology options, he discussed about Anaerobic Baffle Reactors (ABR) - which biological degrade the organic matter when the waste water is passed through it. The treated water can be used for providing water to gardens, landscape irrigation, agricultural fields, fish ponds and water bodies. This can be combined with other technologies like drying beds, Upflow Anaerobic Sludge Bed (UASB) reactors for treatment of solids. He briefly explained anaerobic filters, biogas and bioremediation.



*Mr. F. T. Kanpurwala, Chief Laboratory Executive, Gujarat Institute of Civil Engineers & Architects (GICEA), Ahmedabad addressing the participants.*

He explained in detail about the FSTP at Devanahalli by the Municipal Council set up with technical guidance by CDD Society. The process included septage passing through five different units. Feeding Tank (FT), Biogas Settler (BGS), stabilizing tank Sludge drying beds for solids and the liquid supernatant from the BGS treated through a Decentralised Wastewater Treatment System (DEWATS) system which consists of 2 chambers of settler, 5 chambers of Anaerobic Baffled Reactor (ABR) and 1 chamber of Anaerobic Filter (AF). After this, it gets finally treated through a Planted Gravel Filter (PGF) bed. He concluded the presentation by discussing the reuse option for dried sludge as soil conditioner and the treated liquid for gardening.

### Site Visit

The participants visited to DEWATS at IIT Campus, Gandhinagar to understand the sustainable wastewater treatment solution through DEWAT system. It can treat wastewater from domestic or industrial sources by providing primary, secondary and tertiary treatment for wastewater. DEWAT system is a comprehensive wastewater management strategy. Wastewater can be converted into a renewable energy, biogas power generation etc. through DEWAT system.

The technical expert from IIT, Gandhinagar explained the mechanism of the DEWAT system. Due to dearth of water in IIT Campus, IIT Gandhinagar residents recycle the waste water through DEWAT system. It requires

very low energy consumption, minimum use of chemicals, and very easy for operation and maintenance. The participants can replicate the similar type of plant in their respective cities.



Participants during the site visit at IIT Campus, Gandhinagar.

On the 2<sup>nd</sup> day, case study presentation on ‘Best Practices Implemented on FSSM’ was delivered by Dr. Milind Kulkarni, former Professor, Indian Institute of Technology (IIT) & Environmental Expert, Mumbai.



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

He discussed the best practice implemented on FSSM in Wai of Maharashtra. He mentioned about the support from Government of Maharashtra to implement FSSM policy effectively to make cities ODF +/ ++. He discussed as per Central Pollution Control Board (CPCB) norms, septage collection from septic tanks or pits should not be disposed without treatment. While elaborating on ODF++ status of Wai, he explained that Wai has become ODF++ by implementing FSSM plan. More than 80% households have individual household toilets and remaining households have access to well-maintained community toilets.

He further discussed FSSM interventions taken in Wai like signing the resolution on FSSM, scheduled

emptying system, construction of Faecal Sludge Treatment Plant (FSTP). Wai Municipal Council has allotted land for installing FSTP of 70 KLD capacity based on pyrolysis technology.

He while explaining Devanahalli FSTP as a best practice and talked on converting the toilet waste of a city in to compost for agriculture. This plant functions on gravity based operation. Devanahalli is the first town in the country that has implemented end-to-end FSSM. He concluded by encouraging the participants to focus on achieving ODF++ status and efforts towards applicability of FSSM in their respective ULBs.

### Group Exercise

The group exercise was conducted to inspire the participants to prepare an action plan to achieve ODF +/ ++ status in their respective cities. Participants were divided into 5 groups. Each group discussed their ideas and developed a plan for implementing FSSM in their current cities with key action points towards achieving sustainable sanitation. At the end, each group presented their action plan on achieving ODF +/ ++ status. The subject experts evaluated the presentations of each group and selected the best group, which was awarded a token of appreciation.



Presentation of group exercise by participants.

### Summing-up

At the end, after group exercise, the feedback was taken from the participants. Ms. Maleka Ansari, Sr. Research Officer, RCUES, AIILSG, Mumbai proposed a vote of thanks to all the participants and ended the training programme by distributing the certificates to the participants.

### Testimonials

#### Mr. R. C. Solanki, Supervisor, Dhanera Municipality, Gujarat.

*“Very pleased to have attended this training programme. We learnt key strategies to move towards ODF+ / ++ for sustainable sanitation through group exercise. Technical sessions disseminated a lot of knowledge on FSSM planning, city level approaches, FSSM value chain, and good practices across states etc. All the sessions were interactive.”*

#### Mr. Parth Prajapati, Sanitary Inspector, Ahmedabad Municipal Corporation, Gujarat.

*“I am grateful to RCUES, Mumbai for conducting site visit to Decentralised Wastewater Treatment System (DEWATS), Gandhinagar. As this system requires very low energy and is easy to operate, we can replicate this comprehensive system in our cities. I acquired a lot of information on FSSM technologies and sustainable solutions. Well organised training programme.”*

# Moving Towards ODF++ Cities

26<sup>th</sup> - 27<sup>th</sup> September, 2019, Agartala, Tripura.



## Participation

30 participants comprising officials of the ULBs from the Government of Tripura attended this training programme.

## Introduction

Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai welcomed the participants and briefed the objective of the training programme. In her introductory address, she stressed on ODF sustainability. Cities across the country are trying to implement several strategies for sustaining ODF status and moving towards ODF+ /++ status. On request from Government of Tripura, RCUES, AILSG, Mumbai has integrated both the sanitation and solid waste management (SWM) components of SBM (U) in this training programme.

## Technical Sessions

The technical sessions followed the introduction. The renowned faculties were invited to deliver the sessions on the subject and address the participants.

The session on 'ODF Sustainability and Moving Towards ODF++ in Cities' was delivered by Mr. Chinmoy Chakraborty, Assistant Engineer, Mechanical Department, Agartala Municipal Corporation.

He began the session with an overview of ODF status in ULBs across Tripura state. He mentioned that the cities which have achieved ODF status are working to move towards ODF+ and ODF++ status. He emphasized on ensuring proper maintenance of toilet facilities and safe collection, transportation, treatment and disposal of faecal sludge and sewage. He later explained ODF+ and ODF++ Declaration Protocol which includes requisite of mandatory toilet facilities to residential premises, notification of fines against open defecation, provision of penalty against the private agency of Community Toilet (CT) and Public Toilet (PT) in the service contract with respect to poor toilet maintenance. He further concluded by describing third party verification process required as mentioned in Protocol to declare ODF+ /++ status of cities.

Mr. Chakraborty continued with the next session on 'Overview and Planning of FSSM and City Level Approach Towards FSSM'. He started with the need of FSSM as very few cities



*The key highlight of the training programme was the group exercise where the ULBs from Tripura worked to develop action plan for implementation of FSSM in cities.*

in India have achieved 100% sewer systems coverage. He continued explaining issues about irregular desludging of septic tanks from CT / PT. Further to this, National Policy on FSSM gives guidelines for implementation of FSSM services planned and safe management of faecal matter from on-site connections. He further discussed stages of FSSM, where calculation of vehicles, route planning, choosing the type of vehicles depending on the accessibility and vehicle tracking system for tracking vehicle movement are considered. Before concluding, he explained technology options such as co-treatment with waste water, settling-thickening pond, anaerobic digester, unplanted sludge drying bed, planted sludge drying bed, composting etc.



*Mr. Chinmoy Chakraborty, Assistant Engineer, Mechanical Department, Agartala Municipal Corporation, Tripura addressing the participants.*

The next session on ‘Overview of Solid Waste Management in Cities’ was delivered by Dr. Amarjyoti Kashyap, President and Chief Functionary, Environ, Guwahati, Assam. He elaborated upon the Indian scenario of Solid Waste Management, illustrating the figures on waste generation and processing in different states across the country stressing more on Assam state. He discussed various sources of solid waste generation in cities and explained various components of SBM – U and importance of working on a holistic approach to address the entire value chain of SWM. He further elaborated in detail about the value chain of SWM from collection to disposal to improve the system through efficient planning, identifying the issues and selecting appropriate technology. He concluded by explaining the ways in which cities can achieve maximum impact considering the time remained of the mission.

He continued with the next session on ‘Segregation Technologies of SWM’. He initially explained the importance of segregation. He further explained the

### Testimonials

**Mr. Jay Chandra Das, Jr. Engineer, Agartala Municipal Corporation, Tripura.**

*“I acquired information on FSSM through this training programme. The group exercise was participatory and helped cross learning. I am thankful to Government of Tripura for giving opportunity to attend this knowledge providing training programme.”*

**Mr. Dibyendu Paul, Jr. Engineer, Belonia Municipal Council, Tripura.**

*“The session of segregation of solid waste and bio degradable waste management was immensely useful to us. The waste assimilator technology developed in Assam is very inventive. The same technology can be adopted in our cities. I am looking forward to attend such informative programmes in future.”*



*Dr. Amarjyoti Kashyap, President and Chief Functionary, Environ, Guwahati addressing the participants.*

technology developed in Assam to manage biodegradable waste at community level. This waste assimilator technology allows to turn solid organic waste into vermi-compost in a day at household level. Currently, many residents are using waste assimilators in Assam. This technology inspires people to take up organic farming by using manure developed through the waste assimilators and resolve 80 percent of the domestic solid waste thereby reducing the pressure on dumpsites. He concluded by encouraging participants to replicate this technology in their respective cities.

### Group Exercise

The group exercise was conducted to encourage the participants to prepare a detailed action plan to attain ODF +/++ status in their respective ULBs. The participants were divided into 6 groups. Each group discussed and developed an action plan for their ULBs to move towards ODF +/++. After the discussions, each group presented their action plan for moving towards ODF +/++ status. The expert faculty reviewed the action plan of each group and selected the top performing group among them. Each group tried to apply knowledge gained while developing action plan of ODF +/++. The top performing group was felicitated with token of appreciation.



### Summing-up

At the end, after group exercise, the feedback was taken from the participants. Ms. Maleka Ansari, Sr. Research Officer, RCUES, AILSG, Mumbai gave a vote of thanks to the participants and concluded the training programme by issuing the certificates to them.



# Moving Towards ODF++ Cities

29<sup>th</sup> - 30<sup>th</sup> January, 2020, Diu, U.T.



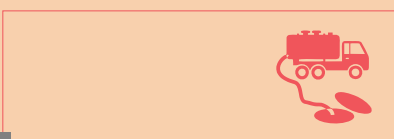
## Participation

17 participants comprising Presidents and other elected representatives, Chief Officers, Engineers, Sanitary Inspectors from various ULBs of Gujarat attended this training programme.

## Introduction

The training programme commenced with an introduction by Dr. Chandan Karkare, Regional Director, AIILSG, Rajkot, Rajasthan. He welcomed the participants and explained the objectives

of the training programme by highlighting the importance of moving towards ODF++ for sustainable sanitation in cities under SBM.



*The key highlight of the training programme was the group exercise on preparing action plan for moving towards ODF++ cities. This participatory activity was helpful to the participants in understanding the strategies of sustainable sanitation for replication in their cities.*



Dr. Chandan Karkare, Regional Director, AIILSG, Rajkot, Gujarat addressing the participants.

## Inauguration

Mrs. Rasilaben Pathar, President, Bagasara Municipality, Gujarat inaugurated the training programme by lighting the lamp in the presence of Mrs. Charu Mori, Chief Officer, Jafrabad, Municipality and Mrs. Bhavanaben Goswami, Chief Officer, Bagasara Municipality of Gujarat. In her inaugural speech, she discussed about the implementation strategy and achievements of ODF declared cities of Gujarat state. At the end, she wished a success to the training programme.



*Inauguration of the training programme at Diu, U.T.*

### Technical Sessions

The first session on 'Sustaining ODF Status in Cities' was delivered by Dr. Chandan Karkare, Regional Director, AILSG, Rajkot, Rajasthan. He initiated the session with an overview of Swachh Bharat Mission and emphasized on the vision of not just constructing the toilets but also to address the entire service chain of sanitation. He highlighted the state wise scenario of access to toilets in urban areas and the ODF status of ULBs of several states. He explained the protocols for ODF+ and ODF++ introduced by MoHUA, GoI under Swachh Survekshan 2019. He gave an overview of weightage given to sustainable sanitation under Swachh Survekshan League 2020 for cities to sustain ODF status and move towards ODF+ and ODF++.

The next session on 'Overview and Planning of Faecal Sludge & Septage Management (FSSM) - City Level Approach Towards FSSM' was delivered by Dr. Milind Kulkarni, former Professor, Indian Institute of Technology (IIT), Mumbai. He discussed the existing scenario of FSSM in Indian cities. He further explained the importance of FSSM for safe disposal and sustainable sanitation at city level. He then elaborated, at present, more than 45% of urban Indian households are dependent on On-Site Sanitation (OSS) systems. Thus, till the time the Government's vision of 100% sewerage network is achieved, faecal sludge needs to be managed in an environmentally safe and sustainable manner using alternative methods of treatment. Thus, the MoHUA, GoI launched the National Policy on Faecal Sludge and Septage Management to facilitate implementation of FSSM in cities. He also mentioned, for effective implementation of FSSM every state has to prepare its own policy / guidelines.

Dr. Kulkarni continued his next session on 'Technology Options for Faecal Sludge & Septage Management (FSSM)'. He spoke about the current situation of sanitation service chain in cities and need to undertake an integrated FSSM. He explained various septage treatment options including twin pits, septic tank with drain field, septic tank with soak pit, septic tank with

small bore system, septic tanks with baffles and Faecal Sludge Treatment Plant (FSTP). While elaborating technology options, he discussed about Anaerobic Baffle Reactors (ABR) in which biological degrade the organic matter when the waste water is passed through it. The treated water can be used for providing water to gardens, landscape irrigation, agricultural fields, fish ponds and water bodies. This can be combined with other technologies like drying beds, UASB for treatment of solids. He briefly explained anaerobic filters, biogas and bio remediation. He also briefed about the FSTP by giving the example of Wai city in Maharashtra. Further, he added that each ULB is expected to develop a detailed FSSM Plan in conformity with the National FSSM policy and respective State guidelines on FSSM. Citywide assessment of FSSM is the key step for FSSM process planning. Such plan should be technically appropriate and financially feasible. He emphasized more on public outreach and behaviour change communications to ensure timely and necessary participation of all the key stakeholders.



*Dr. Milind Kulkarni, former Professor, IIT, Mumbai addressing the participants.*

Next session was an interactive exercise on Technology Options for FSSM. This session was addressed to test the understanding of the participants about the planning of FSSM based on the needs of the city by providing sufficient services. Questions were based on the sanitation service chain including planning and implementation by adoption of various technological options for faecal management with a focus on access, collection, conveyance, treatment and disposal. The participants actively participated to provide the appropriate FSSM plan for their city based on the specific needs of their city.

### Group Exercise

After the technical sessions, a group exercise was conducted on 'Making Cities ODF++' by adopting FSSM. The participants were divided into three groups and asked to make FSSM action plans. The objective of this exercise was to implement their knowledge

acquired during the technical sessions into planning for their respective cities. The participants were asked to discuss on the major key actions that they will undertake to ensure ODF sustainability and moving towards ODF++. This was followed by a presentation on key points discussed by each group.

### Testimonials

**Ms. Bhavana Goswami, Chief Officer, Bagasara Municipality, Gujarat.**

*“I felt that the technical sessions were very helpful, the information provided on ODF++ and its various FSTP technologies was very important for us which will definitely benefit during the implementation and operation of ODF++ in our city.”*

### Summing-up

The training programme was concluded by distributing certificates to the participants and proposing a vote of thanks to the eminent faculty and the participants.

### Glimpses of the Programme





**National Urban  
Livelihoods Mission  
(NULM)**

# National Urban Livelihoods Mission (NULM)

National Urban Livelihoods Mission (NULM) was launched by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), Government of India (GoI) on 23rd September, 2013 in continuation to the Swarna Jayanti Shahari Rozgar Yojana (SJSRY). The NULM will focus 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 venture by ensuring easy access to credit. The Mission is aimed at providing shelter equipped with essential services to the urban homeless in a phased manner. In addition, the Mission would also address livelihoods concerns of the urban street vendors.

The core belief of NULM is that the poor are entrepreneurial and have innate desire to come out of poverty. The challenge is to unleash their capabilities to generate meaningful and sustainable livelihoods. The first step in this process is motivating the urban poor to form their own institutions. They and their institutions need to be provided sufficient capacity so that they can manage the external environment, access finance, expand their skills, enterprises and assets. This requires continuous and carefully designed hand-holding support. An external, dedicated and sensitive support structure, from the national level to the city and community levels is required to induce social mobilisation, institution building and livelihoods promotion. As per the Constitution (74th Amendment Act, 1992), urban poverty alleviation is a legitimate function of the Urban Local Bodies (ULBs).

Therefore, ULBs would need to undertake a lead role for all issues and programmes concerning the urban poor in cities for their sustainable livelihoods.

Convergence between Swachh Bharat Mission (SBM) and NULM will help in realising the synergies between the two missions in empowering Self-Help Groups (SHGs) by providing them employment opportunities in the growing sanitation and waste management sector.

Considering this background, Regional Centre for Urban & Environmental Studies (RCUES) of AIILSG, Mumbai had organized four training programmes on the subject. These training programmes were supported by MoHUA, GoI.

## **Key Objective**

The key objective of these training programmes was to assist ULBs in developing an inclusive approach and action plan for creating sustainable livelihoods.

# National Urban Livelihoods Mission (NULM)

17<sup>th</sup> - 18<sup>th</sup> July, 2019, Daman, U.T.



## Participation

The 54 participants comprising Presidents, Chairpersons of Social Welfare Committee, Elected Representatives, Project Officers, Community Organisers of NULM and Sanitary Inspectors from ULBs of Gujarat and Maharashtra attended this training programme.

## Introduction



*The key highlight of the training programme was the group exercise to identify innovative solutions of NULM implementation by integrating Area Level Federation (ALF) and City Level Federation (CLF) for encouraging livelihood opportunities in cities.*

The training programme commenced with an introduction by Mrs. Maleka Ansari, Sr. Research Officer, RCUES of A I I L S G, Mumbai. She welcomed dignitaries on the dais, guest faculties and participants.

She explained the objective of the training programme and also highlighted upon the activities conducted by RCUES, Mumbai in training and research areas.

## Inauguration

This programme was inaugurated by Mrs. Sonal Solanki Jain, former President, Navsari Municipality, Gujarat and Mrs. Manjusha Mutha, Dy. Municipal Commissioner, Aurangabad Municipal Corporation, Maharashtra. Mrs. Solanki in her inaugural address conveyed the status of projects implemented under NULM mission to develop better livelihood opportunities in the city. She encouraged the participants to acquire knowledge through cross learning. She concluded by wishing a great success to the programme.



Inauguration of the training programme at Daman, U.T.

## Technical Sessions

The technical sessions followed the inauguration. The renowned subject experts were invited to address the participants.



*Mr. Hardik Desai, Project Officer, NULM, Navsari Municipality, Gujarat addressing the participants.*

The first technical session on ‘Overview of NULM, its Strategies and Components’ was delivered by Mr. Hardik Desai, Project Officer, NULM, Navsari Municipality, Gujarat. He explained the components of NULM. He further explained how to enhance sustainable livelihood opportunities through skill development. He added that ULBs are supposed to develop City Livelihood Centre (CLC), through which government schemes can be implemented and livelihood opportunities can be created. He concluded his session by giving innovative examples of skill building for sustainable livelihood, e.g. the project on making furniture from waste tyres. He noted that this was an innovative way to generate sustainable livelihood through SHGs in Navsari city.



*Dr. Milind Kulkarni, former Professor, IIT, Mumbai addressing the participants.*

The next session on ‘Convergence of SBM and NULM, Livelihood Opportunities through SHGs, Area Level Federation (ALFs) and City Level Federation (CLFs)’ was delivered by Dr. Milind Kulkarni, former Professor, Indian Institute of Technology (IIT), Mumbai. He explained the examples of empowered self-help groups who have taken on the responsibility of managing their city’s waste and converted them into zero-garbage and zero-waste cities by citing example of Pune city. He discussed livelihood opportunities linked with solid waste management. Urban poor can be deployed in SWM activities such as segregation of waste, door to door waste collection, construction of toilets etc. by developing livelihood opportunities through convergence of SBM and NULM.



*Mr. Janak Prajapati, Project Director, Shraddha Foundation, Anand, Gujarat addressing the participants.*

The next session on ‘Good Practices under NULM in Livelihood Opportunities in Sanitation and Waste Management Sector’ was delivered by Mr. Janak Prajapati, Project Director, Shraddha Foundation, Anand, Gujarat and Mr. Kartik Patel, President, Jan Mangal Foundation, Anand, Gujarat. They explained the importance of SHGs in livelihood opportunities. They presented success stories of SHGs involved in door to door waste collection and road sweeping, making innovative products with coconut shell waste. SHGs play a vital role in developing livelihood opportunities in the city.



*Mr. Kartik Patel, President, Jan Mangal Foundation, Anand, Gujarat addressing the participants.*

### Site Visit

The site visit was conducted at ‘Rural Self Employment Training Institute (RSETI)’ at Khanvel, Daman to observe the livelihood opportunities under NULM mission. Mr. Sunil Mali, Director, RSETI explained the development of self-employment opportunities for sustainable livelihood. The participants observed activities undertaken at RSETI to encourage the livelihood opportunities, such as photography, videography etc. The participants had a dialogue with the students to understand its useful application for developing livelihood opportunities.

### ULBs’ Presentations

On day two, ULBs presented their efforts in their respective cities to achieve objectives under NULM mission for the participants to understand the good practices.

The first ULB presentation on ‘Urban Poor and Sustainable Livelihood’ was delivered by Mrs. Sonal Solanki Jain, former President, Navsari Municipality, Gujarat. She explained the efforts taken in developing livelihood opportunities by citing various activities implemented under NULM. She explained that, SHGs under NULM developed sustainable livelihood opportunities in solid waste management sector through clean city programme.



*Mrs. Sonal Solanki Jain, former President, Navsari Municipality, Gujarat addressing the participants.*

The next ULB presentation on ‘PPP in NULM Convergence for Livelihoods Opportunities and Sustainability’ was delivered by Mr. Hardik Desai, Project Officer, NULM, Navsari Municipality, Gujarat.

He explained the efforts taken in the city under NULM in the transport sector through Public Private Partnership (PPP) with private organisations. The ‘Pink Auto’

project was successfully implemented through SHGs to serve the purpose of last mile connectivity and developed sustainable livelihood opportunities for unemployed youth.

### Group Exercise

The group exercise was conducted to assess the application of knowledge gained through technical sessions and ULB presentations. The participants were divided into 6 groups. Each group was asked to prepare an action plan for sustainable implementation of various components under NULM. The participants discussed the issues and challenges which came up during implementation of activities under NULM.

At the end, each group presented the action plan prepared. The subject experts assessed the presentations of each group and selected the best performing group. The assessment was done on the basis of action points presented considering sustainable measures for effective implementation of activities under NULM.

### Summing-up

After group exercise, the feedback was taken from the participants. Certificates were handed to the participants and the training programme was concluded by giving vote of thanks to all eminent faculties and the participants by Ms. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai.

### Glimpses of the Programme



### Testimonials

#### Ms. Sonal Solanki, Former President, Navsari Municipality, Gujarat.

*“I am glad to have been invited to this platform for cross learning. I understood the strategy to form Area Level Federation (ALF) and City Level Federation (CLF) under NULM mission through the sessions.”*

#### Ms. Manjusha Mutha, Assistant Municipal Commissioner, Aurangabad Municipal Corporation, Maharashtra.

*“The good practices on skill development under NULM were encouraged us to replicate them in our cities. The group exercise on preparation of action plan on SBM and NULM Convergence, through ALF, CLF was encouraging.”*



# National Urban Livelihoods Mission (NULM)

28<sup>th</sup> - 29<sup>th</sup> August, 2019, Udaipur, Rajasthan.



## Participation

51 participants comprising Dy. Mayor, Presidents, Elected Representatives, Assistant Commissioner, Project Officers and City Mission Manager (CMM) of NULM sector from the states of Gujarat and Rajasthan attended this training programme.

## Introduction

This programme was initiated through an introduction by Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai. She greeted dignitaries of the programme, distinguished faculties and the participants.



*The key highlight of the training programme was the ULB presentation on skill development of homeless and their upgradation through livelihood opportunities to replicate in other cities.*

training programmes in alignment with mission objectives

She elucidated the objective of the programme and also highlighted upon the activities conducted by RCUES, Mumbai in training and research areas. She further mentioned that RCUES Mumbai is conducting

to be achieved, launched by Government of India. She further requested the guests to inaugurate the training programme.

## Inauguration

Mr. Chandrakant Kothari, Hon'ble Mayor, Udaipur Municipal Corporation, Rajasthan inaugurated this programme. He shared the status of Udaipur in the context to the development of shelters for homeless. Most of the daily wagers, waste pickers, street dwellers in the city are provided this facility after they have been identified through demand survey. They have been provided night shelter and food facility under NULM. He concluded by wishing a success to the programme.



*Inauguration of the training programme at Udaipur, Rajasthan.*

## Technical Sessions

The technical sessions followed the inauguration. The distinguished faculties were invited to address the participants.

Mr. Shail Singh Solanki, District Project Officer, NULM, Udaipur, Rajasthan delivered the first session on 'Overview of NULM - Its Strategies and Components'. Mr. Solanki discussed components of NULM. He exclusively focused on vendor's zone declaration in the city for street vendors and generation of their livelihood opportunities under NULM. He appreciated street vendor component of the mission and further added, each city has to implement street vendors' policy and demarcation of zones for justifying their secured livelihood. He further discussed the efforts initiated under NULM in Udaipur city for Self Help Groups (SHGs) by providing income generation. He gave the example of one of the SHGs that has been entrusted with the garden beautification work as a sustainable livelihood.



*Mr. Shail Singh Solanki, District Project Officer, NULM, Udaipur, Rajasthan addressing the participants.*

The next session on 'Convergence of SBM and NULM, Livelihood Opportunities through SHGs, Area Level Federation (ALFs) and City Level Federation (CLFs)' was delivered by Mr. Bhupendra Silodia, Project Manager, International Council for Local Environmental Initiatives (ICLEI), South Asia, Udaipur. He explained 'Shunya - towards zero waste management' project which was been successfully implemented by Udaipur Municipal Corporation (UMC) and Udaipur Smart City Limited (USCL). UMC intends to promote source segregation, collection of segregated waste and decentralized waste management practices by scientific treatment and processing of segregated waste.



*Mr. Bhupendra Silodia, Project Manager, ICLEI, South Asia, Udaipur addressing the participants.*

He further explained 'Shunya' and its direct linkage with livelihood opportunities. Shunya project provides livelihood opportunities by hiring swachhata sevika for daily hands-on awareness and on-ground mobilization. He concluded the session by mentioning that projects like Shunya can be replicated in other cities.

He continued the next session on 'Good Practices under NULM - Employment Opportunities in Sanitation and Waste Management Sector'. He gave the reference of how it has been scaled up towards zero waste management project and to generate employment opportunities to 50 SHGs in Udaipur city. He explained the success stories of SHGs which gained livelihood opportunities through skill development. He gave examples of livelihood opportunities such as manufacturing of cleaning tools and equipment's, e.g. brooms, baskets, mops, products from waste, e.g. bags, straws, compressed sheets, decorative items; develop compost production, plumbing skills etc. Besides these livelihood opportunities through skill development, other livelihood opportunities such as maintenance of public toilets, handling of waste management plants, source segregation are also encouraged.

## Site Visit

The participants visited the City Livelihood Centre (CLC) recently developed by Udaipur Municipal Corporation (UMC) at Chetak circle, near Udaipur Fire Brigade.

## Glimpses of the Site Visit



This centre is registered under Charity Commission office. The municipal official working in CLC explained the functioning of the centre. The centre has identified 23 types of need based vocational trainings. The beneficiary needs to register in the centre by paying Rs.100 as a registration fees. This centre is also catering to skilled services like plumbers, electricians, AC repairs etc. by providing guaranteed livelihood to the beneficiaries. The participants were encouraged to establish CLC in their cities. CLC has also developed a platform to beneficiaries by creating handmade decorative and domestic products for creating markets.

### ULB's Presentation

The ULB presented the work done under NULM for participants to understand the good practices in their respective cities to achieve the objectives under the mission.



*Mrs. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat addressing the participants.*

The ULB presentation on 'Best Practices under NULM - Implementation in Surat City' was presented by Mrs. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat. She described the efforts taken in developing livelihood opportunities by citing several activities implemented under NULM. She further explained the approach to change identity of homeless from vulnerable to valuable through city's inclusive growth planning. Considering the approach, well designed shelter models are developed in Gujarat and managed by SHGs and their federations. She explained that in shelter homes at Surat city, women beneficiaries were trained to make clay idols and other decorative items from coconut husk with help of our SHGs.

### Testimonials

#### **Mrs. Asmitaben Shiroya, Former Mayor, Surat Municipal Corporation, Gujarat.**

*"I would like to appreciate the group work conducted in the programme as this was a great opportunity for cross learning. I would be looking forward to attend such programmes in the near future. The site visit to City Livelihood Centre (CLC) was very helpful. The participants were encouraged to establish CLC in their cities to create more livelihood opportunities."*

#### **Mr. Manish Sarraf, Dy. President, Shivganj Mandal Municipal Council, Rajasthan.**

*"I am glad to have attended this training programme. The livelihood opportunities developed under NULM presented by the Surat municipal official was very informative and can be replicated in our cities."*

She concluded that the aim of the skill training was for the upgradation of homeless as well as development of livelihood opportunities for the homeless population for their sustainability.

### Group Exercise

The group exercise was conducted to assess the issues & challenges under NULM and its effective implementation. The participants were divided into 4 groups. Each group was conveyed to prepare an action plan for sustainable implementation under components of NULM. Participants discussed about the issues, challenges that occurred during the implementation of activities under NULM.

At the end, each group presented the action plan as prepared by them. The subject experts assessed the presentations of each group and selected the best performing group. The assessment was done on the basis of action points presented by them considering sustainable measures for effective implementation of activities under NULM.



*Presentation of group exercise by the participants.*

### Summing-up

On day two, after group exercise, the feedback was taken from the participants. Ms. Maleka Ansari, Sr. Research Officer, RCUES, AILSG, Mumbai proposed a vote of thanks to all eminent faculties and the participants and distributed the certificates at the end of the of the training programme.

# National Urban Livelihoods Mission (NULM)

14<sup>th</sup> - 15<sup>th</sup> November, 2019, Jaisalmer, Rajasthan.



## Participation

39 participants comprising of Presidents, Elected Representatives, Executive Officers, District Mission Managers (DMM), City Mission Managers (CMM), Assistant Project Officers (APO) and Community Organisers (CO) of ULBs from Gujarat and Rajasthan attended this training programme.

## Inauguration

The programme commenced with an introduction from Mr Vinod Paliwal, Regional Director, AILSG, Jodhpur, Rajasthan. He welcomed distinguished faculties and the participants. He then explained the objective of the training programme. After the introduction, Mr. Brijeshwar Rai, Municipal Commissioner, Jaisalmer



*The key highlight of the training programme was the session on 'Good Practices on the convergence of SBM and NULM in sanitation and solid waste management sector'. In this session convergence case studies which can be replicated in other cities were presented to the participants.*



Mr. Brijeshwar Rai, Municipal Commissioner, Jaisalmer Municipal Council, Rajasthan inaugurated the programme by lighting the lamp in the presence of (L to R) Mr. Nitin Pareek, State Mission Manager, SEP, FI & ME, Jaipur, Rajasthan, Mr. Bhanwar Khan, State Mission Manager, SM & ID, NULM, Jaipur, Rajasthan, Mr. Vinod Paliwal, Regional Director, AILSG, Jodhpur, Rajasthan and Ms. Gayatri Jariwala, Assistant Municipal Commissioner, SMC, Surat, Gujarat.

Municipal Council, Rajasthan inaugurated the training programme by lighting the lamp in the presence of Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat and Mr. Vinod Paliwal,

Regional Director, AILSG, Jodhpur, Rajasthan. In his inaugural speech, he explained the status of NULM in Rajasthan state. He elaborated on the improvement opportunity for the urban poor by providing them access to self-employment and skilled wage employment opportunities. Mr. Paliwal explained how building such strong grassroots level institutions of the poor is a sustainable way of substantially improving their livelihoods. He further added that Rajasthan Skill and Livelihood Development Corporation (RSLDC) took initiative for running Employment Linked Skill Training Programme (ELSTP) at various cities of Rajasthan like Jaipur, Jaisalmer and Ajmer. Mr. Paliwal concluded his speech by mentioning the courses run by RSLDC in Jaisalmer like travel and tourism, hospitality assistant, account assistant etc. to increase the livelihood opportunities through Skill Training Programme (STP).

### Technical Sessions

The technical sessions commenced after the inauguration for which renowned faculties were invited to address the participants.

The first session on 'Overview of NULM: Its Strategies and Components' was delivered by Mr. Bhanwar Khan, State Mission Manager, Social Mobilisation & Institutional Development (SM & ID), NULM, Jaipur, Rajasthan. He discussed the components of NULM such as SM & ID, Employment through Skill Training & Placement (ESTP), Self-Employment Programme (SEP), Shelter for Urban Homeless (SUH) and Support to Urban Street vendors (SUSV), Capacity Building and Training, and Innovative Special Projects. He focused more on SM & ID in response to participants interest and queries.



*Mr. Bhanwar Khan, State Mission Manager, SM & ID, NULM, Jaipur, Rajasthan addressing the participants.*

He then explained the 3 tier structure viz., Self Help Groups (SHGs) at the grass-root level, Area Level Federation (ALF) at slum level and City Level Federation (CLF) at the city level for mobilisation of urban poor. He explained the process of formation of these federations and their functions at respective levels.

SHGs formed to improve their living conditions through group savings and loans. SHGs gradually developed bank linkages through ALF. He further discussed how ALF facilitates bank linkages for member SHGs for the opening of their accounts and helping those getting loans, provides hand-holding support in the loan process to SHG members etc. ALF takes help of CLF in the process of loan sanction up to disbursement to SHG members at the city level. He then explained the formation and responsibilities of CLF. While elaborating on CLF functioning, he stated that CLF's major responsibility is to support ULB for the planning of improving livelihood opportunities for urban poor and reduce vulnerability in cities. He concluded by emphasizing on the importance of community participation as an integral aspect of NULM.

The next session on 'Convergence of SBM and NULM Livelihood Opportunities through SHGs, ALFs and CLFs' was delivered by Mr. Nitin Pareek, State Mission Manager, SEP, Financial Inclusion and Micro Enterprises (FI & ME), Jaipur, Rajasthan. He explained the convergence based approach that can expedite the achievement of these two national missions towards achieving holistic social development goals. While elaborating on convergence he described that convergence between SBM and NULM will be instrumental in empowering Self-Help Groups (SHGs) by providing them livelihood opportunities in the sanitation sector. He further added that the SBM has created tremendous livelihood opportunities through the construction of individual households' latrines, community and public toilets in urban areas etc. Mr. Pareek concluded his session by explaining the significance of convergence of various NULM components with SBM to generate livelihood opportunities.



*Mr. Nitin Pareek, State Mission Manager, SEP, FI & ME, Jaipur, Rajasthan. addressing the participants.*

He also delivered the session on 'Good Practices on livelihood opportunities in Sanitation and Waste Management'. He discussed the case of Cuttack, Odisha where desludging of on-site sanitation systems is undertaken by SHG members. He further explained the process of making desludging services affordable for its citizens and to eliminate manual scavenging. Cuttack Municipal Corporation (CMC) has also engaged SHGs for operating the process and is also considering engaging SHGs in O & M of community and public toilets.

He also explained another case of Warangal, Telangana for the convergence in the waste management sector. He explained how SHGs are effectively running dry waste segregation centres in the city. He further added that this initiative has ensured waste segregation at the household level and has established a value chain for its processing. He further explained that SHG members were trained in educating households on segregation of waste. SHGs interact with citizens to make them aware about the benefits of segregation as well as to train them in the specifics of waste segregation. He concluded by encouraging the participants to implement similar convergence cases in their respective cities.



*Ms. Gayatri Jariwala, Assistant Mun. Commissioner, SMC, Surat, Gujarat addressing the participants.*

The next session on 'An Approach to Change the Identity of Homeless Vulnerable to Valuable at City Level' was delivered by Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation (SMC), Surat, Gujarat. She commenced her session by explaining to the participants how homeless urban poor contribute to the economy of the cities. They survive with many challenges like no access to basic services such as shelter, food health facilities, water and sanitation. She further added that NULM aims at providing permanent shelter equipped with essential services to the urban homeless.

She explained that the percentage of migration to Surat city is more due to industrialisation, diamond market etc. As per the World Migration Report 2017, 62% population is migrating to Surat city for their livelihood. In view of this, SMC has taken up the initiative to provide shelters to urban homeless under NULM.

She further explained that SMC built eight shelter homes to accommodate six thousand homeless population. These shelters have well-ventilated rooms with adequate lighting facilities, water arrangements, adequate bathing and toilet facilities, fire protection measures etc. She further added that SMC has started a shelter where homeless urban poor are trained in multiple activities like making decorative items with clay, coconut husk, with the help of SHGs. She concluded by stating that, Shelter for Urban Homeless (SUH) is well implemented in a sustainable manner in Surat city, which can be replicated in other cities.

### Summing-up

The training programme was concluded by distributing the certificates to the participants and proposing a vote of thanks to renowned subject experts and the participants.



*Distribution of certificates to the participants at Jaisalmer, Rajasthan.*

### Testimonials

#### **Mr. Umesh Kathade, Asst. Project Officer, Warora Municipal Council, Nagpur, Maharashtra.**

*"It was one of the best learning experience. This training programme organised by RCUES of AILSG, Mumbai covered all the components of the mission. Participating in group work intimated us about practical ways of finding solutions during implementation of mission components for urban poor communities."*

#### **Mr. Lalit Lodha, District Mission Manager, Jaisalmer, Rajasthan.**

*"Programme outline is very relevant and apt that covered all the mission components. All sessions were designed thoughtfully. Participants were very much interactive. I enjoyed group work and presentations."*

# National Urban Livelihoods Mission (NULM)

4<sup>th</sup> - 5<sup>th</sup> December, 2019, Silvassa, U.T.



## Participation

22 participants comprising of officers of City Level Technical Cell (CLTC), Presidents, Chairpersons of Mahila Bachat Gat, and other concerned officers of NULM cell from various ULBs of Gujarat and UTs attended this training programme.

## Introduction

The training programme commenced with an introduction by Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AIILSG, Mumbai. She welcomed dignitaries on the dais, guest faculties, and participants in the programme. She briefed the objective of the training programme and



*The key highlight of the training programme was the site visit to Rural Self Employment Training Institute (RSETI) at Khanvel, Silvassa to learn how to generate employment through entrepreneurship and skill development under NULM.*

also highlighted upon the activities conducted by RCUES, Mumbai in training and research areas.

## Inauguration

This training programme was inaugurated by Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat. In the inaugural address, Ms. Jariwala explained the status of NULM in Surat city under various components. She also highlighted that NULM is a target oriented mission, directly focused on the primary issues pertaining to urban poverty such as skill upgradation, entrepreneurship development and employment creation through wage employment and self-employment opportunities in urban areas. She concluded by wishing a success to the programme.



*Inauguration of the training programme at Silvassa, U.T.*

## Technical Sessions

The first technical session on 'Overview of NULM, its Strategies and Components' was delivered by Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation (SMC), Gujarat. She initiated the session with an overview of NULM scenario in India by highlighting the gaps between demand and supply of employment opportunities in urban areas. She further extended her discussion by pointing out multiple opportunities available in self-employment ventures like vending of dairy products, vegetables, etc. in urban areas. She concluded by discussing about sustainability of livelihood which can be achieved through enhancing people's living and working conditions.



*Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat addressing the participants.*

In her next session, she discussed about 'PPP in NULM Convergence for Livelihood Opportunities and Sustainability.' She continued her session with discussion on the status of urban poor in Surat city with a special focus on women and children. She highlighted the SJSRY scheme implemented in the city for BPL families of the slum area. She further explained the 'pink auto project' implemented by Surat Municipal Corporation (SMC), under which women were encouraged to drive auto-rickshaws for their livelihood. She concluded by explaining the gist of the successful implementation of the project by SMC in collaboration with other stakeholders under PPP to create sustainable livelihood opportunities in Surat for women.

The next session on 'Convergence of SBM and NULM and Livelihood Opportunities through SHGs, ALF and CLF' was delivered by Mr. Janak Prajapati, Project Director, Shraddha Foundation, Anand, Gujarat. He gave an overview of various activities undertaken while implementing NULM in the ULBs of Gujarat. He focused on importance of Self Help Groups (SHGs), Area Level Federation (ALF) and City Level Federation (CLF) in effective implementation of NULM. He further explained the benefits of the revolving funds for the vulnerable groups in cities. He then explained the necessity of establishing City Livelihood Centres (CLC) at ULB level and their role in generating livelihood opportunities at the city level. He concluded by explaining the significance of convergence of NULM

with SBM. Convergence of NULM with SBM creates a livelihood opportunities in sanitation sector, for the urban poor such as cleaning and maintenance of public toilets, constructing community toilets etc. This helps vulnerable groups to improve their day to day living, by giving them employment and steady source of income.



*Mr. Janak Prajapati, Project Director, Shraddha Foundation, Anand, Gujarat addressing the participants.*

The next session on 'Livelihood Opportunities in Sanitation and Waste Management under NULM – Case of Anand Municipality, Gujarat' was delivered by Mr. Kartik Patel, President, Jan Mangal Foundation, Anand, Gujarat. He spoke on the project implemented by Anand Municipality by creating livelihood opportunities in sanitation by outsourcing the cleaning and maintenance services to the vulnerable groups through SHGs. He further spoke on livelihood opportunities in solid waste management (SWM) by involving the urban poor in door to door waste collection and segregation at household level.



*Mr. Kartik Patel, President, Jan Mangal Foundation, Anand, Gujarat addressing the participants.*

## Site Visit

The site visit was conducted at Rural Self Employment Training Institute (RSETI) at Khanvel. It is an initiative towards entrepreneurship development and



skill upgradation under NULM. Silvassa Municipal Council is implementing the Employment Skills Training & Programme (EST&P) component of NULM in some parts of Silvassa through RSETI. It is aimed towards generating self-employment for urban poor through Entrepreneurship Development Programmes (EDPs) on skills such as tailoring, candle making, jewelry making, bamboo and cane craft, food products, jute products, motor vehicle repairs and services, mobile repairs and services, masonry, salon and beauty services. It helps in launching micro enterprises either with or without credit linkage from financial institutions. The participants learnt generating self-employment skills under NULM to replicate in their city.

### Summing-up

The training programme was concluded by proposing a vote of thanks to the eminent faculties and the participants. The feedback of the participants was taken and certificates were handed to them.

### Glimpses of the Site Visit



### Testimonials

**Ms. Abhilasha Patel, Community Organiser, Surat Municipal Corporation, Gujarat.**

*“The content of the training programme was well planned and it was also organized well. The site visit at RSETI, Khanvel was a good learning experience for me. I would be happy to attend similar trainings in future.”*

**Ms. Megha Sapt, Officer, CLTC, Silvassa, U.T.**

*“The training programme was systematically conducted by RCUES, AILSG, Mumbai. I was able to fill the gaps in my knowledge about the mission through the technical sessions. I will be happy to attend more such training programmes.”*



**Pradhan Mantri  
Awas Yojana (PMAY)**

# Pradhan Mantri Awas Yojana (PMAY)

Pradhan Mantri Awas Yojana (PMAY) mission was launched by Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI) in June 2015. The mission aims to provide housing for all by 2022 and is being implemented since June 2015. It provides central assistance to Urban Local Bodies (ULBs) and other implementing agencies for In-Situ Slum Redevelopment (ISSR) of existing slum dwellers; Credit Linked Subsidy Scheme (CLSS); Affordable Housing in Partnership (AHP) and Beneficiary - Led 'Individual House' Construction (BLC).

PMAY mission sanctioned 79.77 lakh houses out of which 43.83 lakh houses grounded for construction and 18.07 lakh houses completed. Over 5.07 lakh beneficiaries under CLSS were benefited. After sanctioning 79.77 lakh houses for construction, 1,23,274 crores assistance was approved by Central Government out of which 44,005 crores assistance was released for implementation of more than 16,000 housing projects.

In pursuance of the vision GoI to facilitate "Housing for All by 2022", the MoHUA, States and ULBs have taken several steps to implement the housing projects under Pradhan Mantri Awas Yojana (Urban). In this regard, knowledge in various thematic areas such as housing technologies, innovative designs, housing finance, development policies, comparative analysis etc. is being imparted. Efforts are being made towards planning and formulation of policy documents, tender documents, Housing for All, Plan of Action, Detailed Project Reports (DPRs), Innovative Housing Designs and Public Private Partnership Projects.

At the same time, capacities of concerned municipal officials have to be enhanced for effective and early implementation of housing projects to achieve the mission objective in stipulated time frame.

Considering this background, Regional Centre for Urban & Environmental Studies (RCUES) of AIILSG, Mumbai had organized three training programmes on the subject.. These training programmes were supported by MoHUA), GoI.

## **Key Objective**

The key objective of these training programmes was to discuss status of PMAY and way forward at ULB level for achieving mission targets for providing housing for all.

# Pradhan Mantri Awas Yojana (PMAY)

3<sup>rd</sup> - 4<sup>th</sup> July, 2019, Mumbai, Maharashtra.



## Participation

12 participants comprising former Presidents, Elected Representatives, Town Planners, Engineers, MIS Specialists and Social Specialists from ULBs of Gujarat, Maharashtra and Goa attended this training programme.

## Introduction

Mrs. Maleka Ansari, Sr. Research Officer, RCUES of A I I L S G ,



*The key highlights of the training programme were sessions on various components under PMAY to understand the implementation process of the mission. This would help participants to lay efforts in their respective cities.*

## Technical Sessions

After the introduction of the training programme, the technical sessions commenced by subject experts.



*Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai addressing the participants.*

M u m b a i welcomed the eminent subject experts and the participants at the programme. She gave an introduction to the training programme by explaining its objectives and broad coverage.

Dr. Jairaj Phatak, IAS (Retd.), former Municipal Commissioner, Municipal Corporation of Greater Mumbai (MCGM), Mumbai & Visiting Professor, AILSG, Mumbai delivered the session on 'Administrative Reforms under Urban Development Missions'. He discussed urban reforms under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and PMAY. He described impacts and challenges of urban areas due to rapid urbanization.

Some of the challenges are inadequate houses and urban service delivery. He further explained the objectives of

AMRUT and PMAY. He later added that, these challenges can be resolved by constructing houses under PMAY and providing urban service delivery under AMRUT.



*Dr. Jairaj Phatak, IAS (Retd.), former Municipal Commissioner, MCGM & Visiting Professor, AIILSG, Mumbai addressing the participants.*

Mr. Dhiraj Kumar Jain, Executive Engineer, PMAY, Maharashtra Housing & Area Development Authority (MHADA), Mumbai delivered a session on 'Review of PMAY Implementation and its Status in Various States'. He started his session with brief discussion on the initiatives taken by Government of Maharashtra under PMAY implementation. He discussed about Maharashtra Housing Policy including Real Estate Regulatory Authority (RERA), Slum Rehabilitation Authority (SRA) model, Monopolistic and Restrictive Trade Practices (MRTP) Act, 1969, act related to illegal slums. He also spoke about housing development model of Chandigarh and Nagpur, Andhra Pradesh Patta practice, Orissa and Bhubaneshwar Malki Patta (ownership right) etc.



*Mr. Dhiraj Kumar Jain, Executive Engineer, PMAY, MHADA, Mumbai addressing the participants.*

Ms. Alinda Saikia, Planner, AIILSG, Mumbai delivered a session on 'Urban Sector Overview with reference to PMAY' by covering issues and challenges in the urban sector and introduction to various missions and their convergence with PMAY with a focus on affordable housing. She explained how the mission seeks to address the housing requirement of urban poor including slum dwellers through verticals of PMAY.



*Ms. Alinda Saikia, Planner, AIILSG, Mumbai addressing the participants.*

She further added that housing requirements will be understood through demand surveys at city level. She lastly mentioned that, Economically Weaker Section (EWS) category of beneficiaries are eligible for assistance in all four verticals of the missions whereas LIG and MIG categories are eligible under only CLSS component of the mission.



*Ms. Pranjal Kansare, Urban Planner, AIILSG, Mumbai addressing the participants.*

Ms. Pranjal Kansare, Urban Planner, AIILSG Mumbai delivered a session on 'Overview of PMAY'. She explained PMAY verticals and its financial inclusion. She explained the process of availing loan under each vertical. She further cited several examples of successful beneficiaries after availing loan under Beneficiary Led Construction (BLC) component of PMAY.

Mr. Kishor Kumbhare, Dy. General Manager, National Housing Bank (NHB), Mumbai delivered the session on 'PMAY - Credit Linked Subsidy Scheme (CLSS)' and 'Financial Interventions through Housing Finance Institution (HFI) for Successful Implementation of PMAY'.



*Mr. Kishor Kumbhare, Dy. General Manager, NHB, Mumbai addressing the participants.*

He explained the role of National Housing Bank (NHB) in availing home loans to the beneficiaries. The goal of NHB is to provide support in acquiring loans under PMAY keeping in mind flagship mission of Housing for All. He further explained the process of availing loans under PMAY. He also discussed the documentation and timeline required to complete the loan process. He elaborated upon the Management Information System (MIS) and its implementation through city wide portal system. He concluded by mentioning other housing finance institutions and their effective functioning in providing loans to the beneficiaries under PMAY.

## ULBs' Presentations

### Anand Municipality, Gujarat.

Mr. Gyanesh Patel, Municipal Civil Engineer, Anand Municipality, Gujarat shared his experience during implementation of PMAY in Anand city. At the initial stage, as per revenue record (7/12 extract) surveyed, main constraint they face in ownership title, within 3 months of continuous effort completed all records. Through mapping and listing of the beneficiaries, they have covered 50 beneficiaries under BLCs verticals of the mission.



*Mr. Gyanesh Patel, Municipal Civil Engineer, Anand Municipality, Gujarat addressing the participants.*

### Thane Municipal Corporation (TMC), Maharashtra.

Mr. Samir Shah, Social Specialist, PMAY, TMC discussed about their journey of PMAY implementation in Thane city. On the basis of previous experience in implementation of Basic Services for Urban Poor (BSUP), TMC initiated activities under PMAY mission. He explained the entire process. Through this scheme, the beneficiary is eligible to avail interest subsidy on the purchase / construction of a house.

Credit Linked Subsidy is available for housing loans availed for new construction and addition of rooms, kitchen, and toilet to existing dwelling as incremental housing. He also explained eligibility criteria to avail loan under PMAY and documentation required to fulfill the necessary requirements. Subsequently, he discussed that the rehabilitation of people affected by projects was one of the biggest hurdles in the path of Thane city as there was scarcity of units available for shifting residents whose homes were in the way of proposed development projects.



*Mr. Samir Shah, Social Specialist, PMAY, Thane Municipal Corporation, Maharashtra addressing the participants.*

He concluded by showing the current status of Thane city under PMAY. In Khoni, Thane, a detailed project report (DPR) of development of over 10,000 houses have already been approved. Another PMAY project will be developed at Shirdhon in Thane where more than 35,000 affordable houses would be constructed.

## Summing-up

At the end of the training programme, feedback was taken from the participants and certificates were distributed to them. The training programme was concluded by a vote of thanks to subject experts and participants.



*Distribution of certificates among participants at Mumbai, Maharashtra.*

## Testimonials

### Mr. Gyanesh Patel, Municipal Civil Engineer, Anand Municipality, Gujarat.

*“Well planned sessions on PMAY. The session on process of availing loan through National Housing Banks was very helpful. This was a good platform for experience sharing and cross learning.”*

### Mr. Diniz De'Melo, Executive Engineer, Mapusa Municipal Council, Goa.

*“I am satisfied after attending this training programme, as the sessions on PMAY were contextual. The session on availing loan under appropriate vertical was insightful. The overall arrangement of the programme was good.”*

# Pradhan Mantri Awas Yojana (PMAY)

7<sup>th</sup> - 8<sup>th</sup> August, 2019, Ajmer, Rajasthan.



## Participation

28 participants comprising presidents, elected representatives from various ULBs of Rajasthan, Gujarat and Maharashtra and officials of Ajmer Development Authority (ADA) attended the programme.

## Introduction

The training programme began with introduction by Mrs. Maleka Ansari, Sr. Research Officer, RCUES of A I I L S G , Mumbai. She welcomed the renowned faculty and the participants. She later requested Mr. Ashish Deosthali, Sr.



*The key highlight of the training programme was the session on beneficiary validation mechanism. The participants learned the importance of validation to avoid the roadblocks in PMAY implementation.*

Deputy Director General (Sr. Dy. DG), A I I L S G to inaugurate the training programme.

## Inauguration



*Inauguration of the training programme at Ajmer, Rajasthan.*

Mr. Ashish Deosthali, Sr. Dy. Director-General, A I I L S G , inaugurated this training programme in the presence of Dr. Vijay Kumar Sawant, President, Tasgoan Municipal Council, Maharashtra and Mr. Shiraj Vaja, President, Vanthali Municipality, Gujarat. He in his inaugural address, briefed on RCUES, Mumbai functioning in western region and north east states through capacity building trainings. RCUES of A I I L S G , Mumbai's annual work plan is developed in aligned with mission objectives. He concluded by wishing success to the programme and encouraged the participants to be interactive during the sessions.

Dr. Vijay Kumar Sawant, President, Tasgoan Municipal Council, Maharashtra also addressed the participants in the inaugural session. He encouraged the participants by sharing his experience in implementation of PMAY in the city through comprehensive efforts and effective leadership. He added that various missions and projects are being implemented successfully in Tasgoan city by utilizing funds from their own municipal budget.

## Technical Sessions

After the inaugural session, the technical sessions were delivered by the subject experts to comprehend the strategies for effective implementation of PMAY.

The first session on 'Urban Sector Overview with reference to PMAY' was delivered by Mr. Ramesh Yadawar, Senior Programme Officer, Participatory Research in Asia (PRIA), Ajmer, Rajasthan. He discussed the overall scenario of PMAY in the country. He further discussed the issues and challenges in the urban sector. The prominent issue faced due to urbanization is inadequacy of houses. The rapid rate of migration in urban areas leads to stress on the limited affordable housing stock and causes shortage of basic amenities in the city. He further explained the importance of various missions and their convergence with PMAY with a focus on affordable housing. He also added that, construction of houses under PMAY is an imperative need to achieve mission objective under PMAY. He concluded by sharing success stories in construction of houses under PMAY.



*Mr. Ramesh Yadawar, Senior Programme Officer, PRIA, Ajmer, Rajasthan addressing the participants.*

The next session on 'Pradhan Mantri Awas Yojana (PMAY) - Centrally Sponsored Schemes' delivered by Mr. R. K. Agarwal, former Managing Director, Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Ltd. (RUDSICO), Jaipur, Rajasthan. He explained the broad perspective towards the PMAY mission. The need for housing in the urban areas in the country was illustrated through tabulated data. He further discussed the significant verticals under PMAY given below:

- In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation (ISSR)

- Affordable Housing in Partnership (AHP)
- Subsidy for Beneficiary-led individual house construction/enhancement (BLC)

He further added that the objective of the mission to assess the gap between the need of houses and the existing houses. The effective implementation of PMAY projects is required through construction of houses under various verticals of PMAY. He also explained the several provisions in affordable housing viz., construction of houses, incentives to the developer, land selection, land allotment, bidding parameters etc.



*Mr. R. K. Agarwal, former Managing Director, RUDSICO, Jaipur, Rajasthan addressing the participants.*

He continued the next session on 'Review of PMAY Implementation and its Status in Rajasthan'. In this session, he showed the figures of constructed houses under different verticals. He explained the status of PMAY implementation in Rajasthan. Rajasthan State has targeted 50,000 households by 2020 and 2, 00,000 by 2022 under PMAY. Affordable schemes are being built by few developers but demand is very less. Private developers are also encouraging the beneficiaries to avail loan facility given by state under PMAY.

Mr. Ashish Deosthali, Sr. Dy. Director-General, AIILSG delivered the next session on 'Beneficiary Validation Mechanism for PMAY (Urban) Scheme - Best Practices'. He explained how the mission is implemented through four verticals giving options to beneficiaries, ULBs and state governments. He further added, in Credit Linked Subsidy Scheme (CLSS) of PMAY, the State Level Nodal Agency (SLNA) has been identified by States/UTs for implementing the mission. The SLNA facilitates the identified eligible beneficiaries in getting approvals and documents, etc. to avail credit linked subsidy. He explained that, while validating the demand survey, states and cities should consider possible temporary migration from rural areas to cities. After explaining the verticals, he elaborated upon the efforts taken by AIILSG in PMAY projects. AIILSG has worked as a third party validation agency for Solapur and Nagpur Municipal Corporations. AIILSG is also handling the State and City Level Technical Committees for Bihar state. AIILSG had conducted Demand Survey for 195 Slums in the limits of Solapur Municipal Corporation. He further discussed the scope and methodology of the project. He also discussed some of



the roadblocks in the project like duplicate applications by beneficiaries under multiple verticals, delays in validation process due to change in address, mobile number not linked to Aadhar etc. He concluded by explaining the role of state level and city level technical committees, beneficiary centric implementation plans for Bihar.



*Mr. Ashish Deosthali, Sr. Dy. Director-General, AIILSG addressing the participants.*

The next session on ‘Financial Interventions through Housing & Finance Institute (HFI) for Successful Implementation of PMAY’ was delivered by Mr. R. K. Agarwal, former Managing Director, RUDSICO, Jaipur, Rajasthan. He described the need of expansion of institutional credit flow for successful implementation of PMAY. He mentioned that CLSS has remained the weakest vertical of PMAY in construction of houses. In conclusion, he emphasized on the importance of financial interventions needed for the beneficiaries to avail housing loans under CLSS.

### **ULBs’ Presentations**

After the technical sessions, ULBs made presentations to the participants, showcasing their work implemented through strategic planning.

### **Testimonials**

#### **Dr. Vijay Sawant, President, Tasgaon Municipal Council, Maharashtra**

*“I am thankful to RCUES, Mumbai for conducting training programme on PMAY. The session conducted by Mr. Ashish Deosthali, Sr. Dy. Director-General, AIILSG was very comprehensive and helpful. We could learn the importance of validation of beneficiaries to avoid the roadblocks in PMAY implementation.”*

#### **Mr. Sanjay Meena, Engineer, Ajmer Development Authority, Rajasthan**

*“The insightful presentations by the eminent subject experts gave us a clear understanding of the implementation process of PMAY. The technical session conducted by Mr. R. K. Agarwal was especially helpful, as he explained all the verticals of PMAY in a simple way. I feel this training programme would be very useful for implementation of PMAY activities in our cities.”*

The first ULB presentation on ‘Implementation of PMAY in Ajmer, Rajasthan’ was delivered by Mr. Amit Azha, Engineer, Ajmer Development Authority (ADA), Rajasthan. He described ADA’s emphasis on CLSS through National Housing Finance Institutions (NFIs). Total 642 applications were received under CLSS vertical of PMAY, thus giving a boost to the implementation of PMAY in the city.



*Mr. Amit Azha, Engineer, ADA, Rajasthan addressing the participants.*

The next ULB presentation on ‘Implementation of PMAY in Vanthali, Gujarat’ was delivered by Mr. Vaja Shiraj, President, Vanthali Municipality, Gujarat. He explained the efforts being taken towards implementation of PMAY in Vanthali city. Vanthali Municipality has received 75 applications to avail the benefit under BLC.

### **Summing-up**

Mrs. Maleka Ansari presented a vote of thanks to distinguished guest and the participants at the end of the training programme. She took the feedback from the participants and distributed the certificates to them at the concluding session.

# Pradhan Mantri Awas Yojana (PMAY)

12<sup>th</sup> - 13<sup>th</sup> December, 2019, Surat, Gujarat.



## Participation

34 participants comprising of former presidents, elected representatives, town planners, CLTC engineers, MIS specialists from ULBs of Gujarat and Maharashtra attended this training programme.

and the participants at the beginning of the programme. She explained the objectives of the training programme.

## Introduction



*Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai addressing the participants.*

Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai welcomed the eminent subject experts

## Inauguration

Mr. Jagdishbhai Patel, Hon'ble Mayor of Surat Municipal Corporation, Surat, Gujarat inaugurated the training programme by lighting the lamp. In his inaugural speech, he briefed about status of implementation of PMAY in Surat. He stated that the



*The key highlight of the training programme was the site visit to see the houses constructed under PMAY. The participants learned the process of acquiring affordable houses under PMAY.*

conventional technology of housing construction is time-consuming and in order to meet the targets of a affordable housing in a timely manner, Government of Gujarat has started using waffle crete, an

innovative and emerging technology for construction of houses. He concluded by explaining the benefits of waffle crete technology as an innovative, cost effective, time saving etc. in construction of houses under PMAY.



*Inauguration of the training programme at Surat, Gujarat. (L to R) Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat, Mr. Jagdishbhai Patel, Hon'ble Mayor of Surat Municipal Corporation, Surat, Gujarat and Mr. Mukeshbhai Patel, Chairman, Building Committee, Surat Municipal Corporation, Gujarat.*

### Technical Sessions

The first technical session on 'Urban Sector Overview with reference to PMAY' was delivered by Prof. (Dr.) Shashikant Kumar, Principal, Parul University, Vadodara, Gujarat covering issues and challenges in the urban sector and introduction to various missions and their convergence with PMAY with a focus on affordable housing. He explained the rate of construction of affordable housing in cities do not match up with the rapid growth of urban population or rate of migration of people from the hinterland in search of employment opportunities. The lack of affordable housing leads to urban sprawl, homelessness, overcrowding and illegal housing developments and causes severe stress to the urban infrastructure. The need for construction of affordable houses under PMAY mission is imperative for providing people with a better quality of life and assurance of a shelter. He then explained the informal housing spectrum elaborating upon the different categories of living environment of the urban poor, their role in the informal sector at city level. He continued explaining the challenges in construction of affordable housing- including the lack of availability of land within the city boundaries, inadequate development norms, lengthy legal clearance and approval process. He concluded by mentioning that, public private partnership and convergence of other missions with PMAY can boost affordable housing in Indian cities.

He continued the next session on 'Pradhan Mantri Awas Yojana (PMAY) and Its Components'. He described the four verticals of PMAY. While elaborating upon the components, he described that, 'in-situ redevelopment of slums' use land as a resource in participation with the private sector. In this component, the land which is currently occupied by slums are redeveloped and the

slum dwellers are provided with formal urban houses. He, further explained the Credit Linked Subsidy (CLS) scheme, in which the government provides an interest subsidy of 6.5% on housing loans for 15 years. This helps in making the housing affordable. Another component of PMAY, is the Affordable Housing in Partnership (AHP) with the Public and Private sector, affordable housing is provided to the economically weaker sections. The States or Union Territories, either with different agencies or in partnership with different industries can plan affordable housing projects. Lastly, he explained the fourth component, enhancement and construction of Beneficiary Led Construction (BLC). This component provides assistance to families of Economically Weaker Section (EWS) category to construct new houses or enhance the existing houses on their own. Under this component, families get a central assistance of Rs 1.5 lakh per family to improve their existing houses or construct new houses.



*Prof.(Dr) Shashikant Kumar, Principal, Parul University, Vadodara, Gujarat addressing the participants.*

The next session on 'Role of Resident Welfare Association in PMAY in Cities' was delivered by Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat.



*Ms. Gayatri Jariwala, Assistant Commissioner, Surat Municipal Corporation, Gujarat addressing the participants.*

She explained the process of formation of Resident Welfare Association (RWA) and added that, RWA has been an integral part of the implementation process of PMAY in Surat. The association is responsible for managing problems of the residents and safeguarding

the rights of the unit holders. In conclusion, she explained that the builder/ developer has to hand over the constructed houses to the beneficiaries on time. RWAs intervene in between them for document verification, check the facilities provided by the builder. RWA scrutinizes Occupancy Certificate (OC), fund details, books of account, property title etc. before handing over house to the beneficiary.

The next session on 'Geo-tagging and Beneficiary Validation for PMAY' was delivered by Mr. Kaushik Mehta, former Town Planner, Government of Gujarat. He explained the key objective of geo-tagging, that is to track the progress of construction of individual houses through geo-tagged photographs, under the Beneficiary Led Construction (BLC) component. He further explained the process of capturing beneficiaries through mobile app and validating them through MIS system. He then added that, geo tagging is a powerful tool in monitoring housing projects under PMAY. He further explained PMAY (U) MIS creates a data base with required beneficiary details. He added that for each BLC house constructed under PMAY (U), beneficiary ID is generated in PMAY (U) MIS and same is shared for Geo-tagging. He then concluded by mentioning that the details of the house and beneficiary is essential as it solely describes the house type, quality and location. This helps to identify the house to be geo-tagged.



*Mr. Kaushik Mehta, former Town Planner, Government of Gujarat addressing the participants.*

### Group Exercise



*Participants engaged in group exercise.*

The group exercise was conducted on 'Preparation of Action Plan for Providing Affordable Houses under PMAY'. The participants were divided into four groups and asked to develop a plan of affordable housing under four components at city level.



*Presentation of group exercise by participants.*

The participants discussed and prepared a mock plan for the city. Each group established the need for intervention by elaborating upon the difference between the existing population and existing number of housings in the city, process of identification of beneficiaries, validation of beneficiaries' documents, convergence with SBM and NULM missions with PMAY by presenting their plan of action under each component of PMAY. The group exercise was an effective tool to assess the knowledge gained by the participants through the technical sessions. A token of appreciation was given for the best action plan for PMAY after the group presentation.



*Participants felicitated for best group work and presentation.*

### Site Visit

The participants were taken on an exposure visit to see the affordable houses constructed under PMAY, at VIP Road in Surat. The beneficiary families were identified from economically weaker section of the city. After the document verification, constructed houses were handed over to them at affordable prices. The participants discussed the procedure of acquiring PMAY houses with

the beneficiaries. The beneficiaries informed them that the cost of an individual house is Rs. 7.5 lakhs. Out of the total amount, the beneficiaries paid Rs. 40,000/- at the time of document verification and Rs. 80,000/- paid at the time of allotment of houses. The Central government and the State Government of Gujarat give a subsidy of Rs. 1.5 Lakhs and Rs. 1 Lakh per household, respectively to support the beneficiaries. After deduction of all these amounts, each beneficiary has to pay Rs.3.8 Lakhs through loans from banks, and the interest of the loan is paid from the subsidy that has been given by the government. The participants learned the entire process of identifying beneficiary up to providing affordable houses to EWS population.

### Summing-up

At the end of the training programme, the feedback was taken from the participants. The training programme was concluded by proposing a vote of thanks to the faculty and the participants and by distributing the certificates to the participants.

### Glimpses of the Site Visit



### Testimonials

**Mr. Parmavir Singh Rathod, CLTC Engineer, Bhandara Municipal Council, Maharashtra.**

*“The training programme was very helpful. I expanded my learnings on the implementation process of PMAY by attending this training programme.”*

**Ms. Sayali Dilip Rathi, Town Planning Specialist, Malegaon Municipal Corporation, Maharashtra.**

*“I appreciate the efforts taken by RCUES team to conduct this training programme successfully. The sessions conducted were very informative. The site visit helped in understanding the process of beneficiary identification.”*



**Development of  
Green Spaces & Parks  
under AMRUT**

# Development of Green Spaces & Parks under AMRUT

'Urban Green Spaces' is one of the most significant elements of any urban ecosystem, both due to its ecosystem dynamics and its essential contribution in wellbeing of individuals. However, despite its immense significance, vegetation is undergoing destruction and degradation in the modern times due to rapid and haphazard urbanization in developing countries, making urban settlements major source of Green House Gases (GHG) emissions and at the same time making them more vulnerable to global environmental change impacts. Hence, landuse / landcover and green cover change monitoring becomes very crucial in conserving green spaces in cities.

According to the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI) more than 4,288 acres of land is being enriched as green spaces and parks under the mission. So far, over 1,100 parks have been developed under the mission across the country. These parks have children friendly equipment, disabled friendly features, open gyms, etc.

On the basis of this budget outlay, policymakers, practitioners, and the public should begin to think and plan about green spaces and parks at city level planning. As the cities continue to grow, conserving green spaces in cities is not only important but is also a challenge, particularly in developing countries where there is pressure for space, resources and development. Parks also help create energy efficient cities that can help slow global warming. Linear parks and open spaces make compact living attractive and viable.

The thrust areas of AMRUT are to (i) ensure that every household has access to a tap with assured supply of water and septage management; (ii) storm water drains to reduce flooding (iii) Pedestrian, non motorized and public transport facilities (iv) increase the amenity value of cities by developing greenery and well maintained open spaces (e.g. parks). There are numerous health benefits associated with access to public open space and parks.

Against this background, Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai had organized four training programmes on the subject. These training programmes were supported by the MoHUA, GoI.

## Key Objective

The key objective of these training programmes was to encourage ULBs and other stakeholders to prioritize development of green spaces and parks and exploring ideas for the same.

# Development of Green Spaces & Parks under AMRUT

5<sup>th</sup> - 6<sup>th</sup> November, 2019, Pune, Maharashtra.



## Participation

15 participants comprising Dy. Engineer, Garden, Civil Engineers and Jr. Engineers of ULBs from Maharashtra attended this training programme.

## Introduction

The training programme commenced with an introduction by Ms. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai. She welcomed the participants and briefed the objective of the training programme. In her introduction, she explained the importance of green spaces and parks and how it is a crucial component under AMRUT mission.



*The key highlight of the training programme was the site visit to green spaces and parks at Punawale area, Wakad developed by Pimpri-Chinchwad Municipal Corporation (PCMC) under AMRUT. This site visit gave the participants an exposure to understand how to develop green spaces in their cities.*



Mrs. Maleka Ansari, Sr. Research Officer, RCUES of AILSG, Mumbai addressing the participants.

## Technical Sessions

The session on 'Overview of Green Spaces and Parks under AMRUT' was delivered by Ms. Aditi Navgire, Director, Samkalin Design and Infrastructure Pvt. Ltd., Pune. She gave an overview of developing green spaces under AMRUT. She started her session by stating the necessity of developing green spaces and parks in cities. She further added that each city should assess current status of city parks / open spaces and bring out the gap of open spaces in terms of area allocation, having inadequate citizen friendly features and issues pertaining to their maintenance.





*Ms. Aditi Navgire, Director, Samkalin Design and Infrastructure Pvt. Ltd., Pune addressing the participants.*

She also explained the significance of developing plans to bridge this gap by converging with the ongoing Central, State and ULB level programmes. She further stated that all projects involving development of green spaces and parks shall have to make special provision for child friendly components and establish a system of their maintenance through local community participation. She highlighted that “Green Infrastructure” serves the role of improving air quality, flood protection and pollution control. She then explained the typologies of urban green spaces including City Wide Parks, Linear Green Ways, Plazas, and Public Sitting Areas etc. She concluded by citing several examples of open spaces, playgrounds, open plazas, recreation centres like Biodiversity Parks (BDP) in Pune and explained the benefits of developing green spaces to the citizens for pollution free life in cities.

The next session on 'Development Process of Green Space under AMRUT' was delivered by Ms. Priya Deshpande, Partner, Engarch, Kolhapur. She started her session by displaying a video clip to exhibit the transformation of 360 acres of barren land into beautiful green space in Kolhapur. She mentioned that development of green spaces is taking shape as envisaged in cities like Kolhapur and Solapur in Maharashtra. She explained that the Urban Greening guidelines 2014 stated that, 15 percent of the city should be green. Currently only 0.02 percent area of cities is developed as green spaces.



*Ms. Priya Deshpande, Partner, Engarch, Kolhapur addressing the participants.*

She further explained the Green Spaces Development norms under AMRUT. 80 percent of the city has to be developed as a green space under AMRUT and rest 20 percent can be developed with civil work. She explained about value addition in development of parks and play grounds done by using bamboo, plastic bottles, used tins etc. in cities where green spaces and parks are developed under AMRUT. The revenue will be generated with these innovative elements, viz smart amenities like WIFI, exhibitions, nursery and organic farming, solar trees etc. She concluded by explaining the importance of citizen participation in development of green spaces and parks and environmental, social and economic benefits of urban green spaces, which promotes healthy living and quality life, improves air quality, conserves biodiversity, generates revenue etc.

The next session on 'ULB Efforts in Development of Green Spaces and Parks – Case of PCMC' was delivered by Ms. Neha Singh, Founder and Director, Forrest, Pune. She explained the entire process of developing garden under AMRUT at Pune and PCMC. While explaining the entire process of developing green areas, she discussed the Importance of restoring areas with forestry. She explained the process of developing urban forest by planting several trees of different species. She added that, developing an urban forest can be a solution to climate crisis, which reduces the heat island effect, lowering the temperatures, absorbing pollution, providing clean air, providing shelter for urban biodiversity and providing various other ecological benefits like soil and water conservation.



*Ms. Neha Singh, Founder and Director, Forrest, Pune addressing the participants.*

She further explained the Miyawaki technique in detail. Miyawaki is a Japanese technique of growing dense plantation in short time. The growth of plants with this technique is 10 times faster and 30 times dense. This technique is cost effective after three years of plantation. She concluded by stating that in developing an urban forest, 100 indigenous tree species were selected and planted densely to match natural forest ecosystem.

### Site Visit

The site visit was organised at the gardens and urban forest developed by PCMC at Shahu nagar, Laxmi nagar

and Punawale areas. PCMC has developed urban forest with Miyawaki technique. This technique ensures faster and denser growth of plants. PCMC is looking after its maintenance for 5 years, which is a sufficient time span to restore it into natural forest. The maintenance is being done under the project of development of green spaces under AMRUT mission. The similar kind of urban forest can be replicated in other cities to maintain eco system.

### Summing-up

The training programme was concluded by distributing certificates to the participants and proposing a vote of thanks to the eminent faculty and the participants.

### Glimpses of the Site Visit



### Testimonials

**Mr. Chandrakant More, Dy. Engineer, Garden, Pimpri Chinchwad Municipal Corporation (PCMC), Maharashtra.**

*“This was a great opportunity to me to attend this training programme. As I work in the Garden Department of PCMC, I acquired an extensive knowledge / ideas in developing child friendly gardens. It was a good deliberation with subject experts in the field of landscaping. I am looking forward to attending similar training programmes.”*

**Mr. Amol Rudrake, Dy. Engineer, Garden, Pune Municipal Corporation (PMC), Maharashtra.**

*“This was well organised training programme and a good experience indeed. It provided a platform to converse with eminent experts. We could understand the best practices in other parts of Maharashtra.”*

# Development of Green Spaces & Parks under AMRUT

21<sup>st</sup> - 22<sup>nd</sup> November, 2019, Vadodara, Gujarat.



## Participation

68 participants comprising Mayors, Dy. Mayors, Elected Representatives, Dy. Municipal Commissioner and concerned municipal officials of ULBs from Gujarat and Maharashtra attended this training programme.



Participants during the programme at Vadodara, Gujarat.

Ms. Neha Hardikar, Sr. Research Officer, RCUES of AILSG, Mumbai commenced the training programme by welcoming the Chief Guest, dignitaries on the dais and the participants.

She explained the objective of the training programme and importance of green belt in cities. She further added the requisite of developing green spaces under AMRUT mission to make the city liveable.

Then, she requested the chief guest Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat to inaugurate this training programme. He inaugurated the programme by lighting the lamp

in the presence of Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara, Dr. Jivraj Chauhan, Dy. Mayor



*The key highlight of the training programme was discussion on developing urban forest by Miyawaki technique. The participants were encouraged to replicate the idea of urban forest in their cities with same technique.*

## Inauguration



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

of Vadodara, Mr. Ranjit Chavan, President of AIILSG & former Mayor of Vadodara, Ms. Hansaben Patel, Executive Advisor, AIILSG and Ms. Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai.



*Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat inaugurated the programme by lighting the lamp in the presence of (L to R) Ms. Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai, Dr. Jivraj Chauhan, Dy. Mayor of Vadodara, Ms. Hansaben Patel, Executive Advisor, AIILSG, Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara and Mr. Ranjit Chavan, President of AIILSG & former Mayor of Vadodara.*

Mr. Ranjit Chavan, President of AIILSG & former Mayor of Vadodara then felicitated Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat. Ms. Hansaben Patel, Executive Advisor, AIILSG felicitated Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara.



*Ms. Hansaben Patel, Executive Advisor, AIILSG honoured Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara by offering a memento. On the dais (L to R) Ms. Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai, Dr. Jivraj Chauhan, Dy. Mayor of Vadodara, Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat and Mr. Ranjit Chavan, President of AIILSG & former Mayor of Vadodara.*

After felicitation, Mr. Ranjit Chavan, President of AIILSG & former Mayor of Vadodara addressed the participants. He talked about the functioning of RCUES & AIILSG. He also discussed about various courses run by AIILSG across the country. He further added that, ULBs have to implement AMRUT effectively by ensuring access to tap water and sewerage connection to every household and by developing green belts and well maintained open spaces and parks to increase the amenity value of cities. He also spoke about air pollution

caused due to increasing urbanisation. Plantation helps in increasing oxygen level and reduces pollution in cities, and therefore citizens need to be encouraged to develop green belts to make their cities liveable. He concluded by highlighting some of the developed green spaces in cities like Gandhinagar, Chandigarh, Bhopal, Jamshedpur, Bangalore etc. across the country.



*Mr. Ranjit Chavan, President of AIILSG & former Mayor of Vadodara addressing the participants. On the dais (L to R) Ms. Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai, Dr. Jivraj Chauhan, Dy. Mayor of Vadodara, Ms. Hansaben Patel, Executive Advisor, AIILSG, Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara and Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat.*

Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara in her special address, explained the importance of urban green areas and its necessity to develop green spaces in cities to live healthy life. She further mentioned the Miyawaki technique in which urban forest is developed by planting thousands of trees of different species. She concluded by encouraging participants to develop urban forests with Miyawaki technique in their own cities.



*Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara addressing the participants. On the dais (L to R) Ms. Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai, Dr. Jivraj Chauhan, Dy. Mayor of Vadodara, Ms. Hansaben Patel, Executive Advisor, AIILSG, Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat and Mr. Ranjit Chavan, President of AIILSG & former Mayor of Vadodara.*

Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat in his inaugural address, explained the objective of AMRUT and how the

Government of Gujarat is monitoring implementation of projects on water supply, sewerage, public transportation and development of green spaces at ULB level.



*Mr. Yogeshbhai Patel, State Minister, Narmada Urban Housing, Government of Gujarat addressing the participants. On the dais (L to R) Ms. Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai, Dr. Jivraj Chauhan, Dy. Mayor of Vadodara, Ms. Hansaben Patel, Executive Advisor, AIILSG and Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara.*

Gandhinagar Municipal Corporation has successfully implemented projects on developing green spaces at city level. Vadodara Municipal Corporation has also developed green parks in the city to increase the biodiversity. He concluded by encouraging participants to develop more green parks in their cities.



*Ms. Hansaben Patel, Executive Advisor, AIILSG honoured Ms. Bijalben Patel, Hon'ble Mayor of Ahmedabad by offering a memento. Dr. Jignishaben Seth, Hon'ble Mayor of Vadodara also seen in the photo.*

Ms. Hansaben Patel, Executive Advisor, AIILSG felicitated Ms. Bijalben Patel, Hon'ble Mayor of Ahmedabad. In her special address, she spoke on integrated approach of in developing open spaces. She discussed that, most cities lack city level and community level parks, but how Sabarmati Riverfront Development Project in Ahmedabad is an exception to it. She added that, more than 10 Km belt along the river is being developed to include open space and recreational areas accessible to public. She concluded by wishing a success to the training programme.

Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai proposed a vote of thanks to chief guest, other dignitaries and the participants at the end of the inaugural session.

## Technical Sessions

After the inaugural session, the technical sessions were commenced by the eminent subject experts.

The first session on 'Overview of Green Spaces & Parks under AMRUT' was delivered by Mr. Rohit Prajapati, Environmental Consultant, Vadodara. He explained the importance of planning in development of green spaces and parks. He added that, city should reserve the space for developing green belts in city development plans. He explained, Gujarat state being an Industrial hub, areas critically polluted by industrial clusters have developed in cities. The city managers /environmentalist have to impose moratorium on these clusters to improve environmental, agricultural and health conditions. He highlighted the "Green Infrastructure" that serves the role of improving air quality, flood protection and pollution control etc. He concluded by discussing the approach for development of green spaces in urban areas for a pollution free and healthy life of the citizens.



*Mr. Rohit Prajapati, Environmental Consultant, Vadodara addressing the participants.*

The next session on 'Development Process of Green Space under AMRUT' was delivered by Ms. Priya Deshpande Partner, Engarch, Kolhapur.



*Ms. Priya Deshpande, Partner, Engarch, Kolhapur addressing the participants.*

She explained that, Urban Greening guidelines 2014 stated that, 15 percent of the city should be green. Currently only 0.02 percent of city spaces are developed as green spaces. She further explained AMRUT Green Spaces Development Norms. Under AMRUT, in

area reserved for open space, 80 percent of the area has to be developed as a green space and rest 20 percent can be developed with civil work. She explained the use of bamboo, plastic bottles, used tyres etc which can be a value addition in development of parks & play grounds in cities. There can be revenue generation with innovative elements, viz smart amenities like WIFI, exhibitions, nursery and organic farming, solar trees etc. She concluded by explaining the importance of citizen participation in development of green spaces & parks and environmental, social and economic benefits of urban green spaces, which promote healthy living and quality life, improves air quality, conserves biodiversity, generates revenue etc.

The next session on 'Importance of Biodiversity in Urban Areas' was delivered by Dr. Deepa Maheshwari, Programme Coordinator (Landscape Architecture), Centre for Environmental Planning & Technology (CEPT) university, Ahmedabad. She highlighted the importance of landscape approaches in developing green spaces. She further described how urban parks are one of the most important components of cities. The green parks contribute to benefits which are ecological, economic, social and psychological. While elaborating on the type of benefits of green parks, she explained the environmental benefits including ecological benefits, pollution control, biodiversity and nature conservation, economic benefits including water management, property value, social and psychological benefits including recreation and well-being of citizens. She also explained the benefits of good health of the city and contribution of good planning and design, including perceptions of green space, aesthetic values, efficiency of layout etc for the same. She concluded by highlighting the benefits of designed green spaces and biodiversity in urban areas.



*Dr. Deepa Maheshwari, Programme Coordinator (Landscape Architecture), CEPT University, Ahmedabad addressing the participants.*

The next session on 'ULB Efforts in Development of Green Spaces & Parks - Cases of Maharashtra' was delivered by Ms. Neha Singh, Founder & Director, Forrest, Pune. She explained the process of developing garden under AMRUT. While explaining the entire process of developing green areas, she discussed the

importance of restoring areas with forestry. She also explained the conventional way of planting of trees, the trees are not planted densely but at a distance of five feet or more that never become forest and cannot provide benefits of forest. She added that, developing an urban forest can be a solution to climate crisis, which is reducing heat island effect, lowering the temperatures, absorbing pollution, providing clean air, providing shelter for urban biodiversity and providing various other ecological benefits like soil and water conservation.



*Ms. Neha Singh, Founder and Director, Forrest, Pune addressing the participants.*

She further explained the Miyawaki technique in detail. Miyawaki is a Japanese technique that helps to build dense, indigenous forests. The growth of plants with this technique is 10 times faster and 30 times dense. In Miyawaki, the ULBs can bear the cost for three years and this technique shall be self-sustainable after three years of plantation. She concluded by stating that, in developing urban forest, 100 indigenous tree species were selected and planted densely to match natural forest ecosystem and increase biodiversity.

On the second day, Mr. S. K. Patel, Dy. Municipal Commissioner, Vadodara Municipal Corporation inaugurated the training programme by lighting the lamp in the presence of Dr. Jatin Modi, President Emirates, AIILSG and Ms. Hansaben Patel, Executive Advisor, AIILSG.



*Mr. S. K. Patel, Dy. Municipal Commissioner, Vadodara Municipal Corporation, Gujarat inaugurated the programme by lighting the lamp in the presence of (L to R) Ms. Hansaben Patel, Executive Advisor, AIILSG and Dr. Jatin Modi, President Emirates, AIILSG.*

Dr. Jatin Modi, President Emirates, AIILSG, felicitated Mr. S. K. Patel. Mr. Patel in his inaugural address stated that, parks and open spaces are the backbone of sustainable cities, facilitating healthy living. He further added that, it helps in preservation of indigenous plants and wildlife habitat, conservation of ecosystems. He highlighted on vertical gardens to be developed in cities and landfill sites to be converted into urban forest to develop biodiverse ecosystems. He concluded by mentioning that, the open spaces need to be designed to maintain a natural environment with a native and self-sustaining ecosystem.



*Mr. S. K. Patel, Dy. Municipal Commissioner, Vadodara Municipal Corporation, Gujarat addressing the participants. On the dais (L to R) Ms. Hansaben Patel, Executive Advisor, AIILSG, Dr. Jatin Modi, President Emirates, AIILSG and Mr. Gopal Shah, Consultant, Planning Solutions, Vadodara.*

Dr. Jatin Modi, President Emirates, AIILSG in his special address, talked on urbanisation and increasing environmental pollution in cities.



*Dr. Jatin Modi, President Emirates, AIILSG addressing the participants. On the dais (L to R) Ms. Hansaben Patel, Executive Advisor, AIILSG, Mr. S. K. Patel, Dy. Municipal Commissioner, Vadodara Municipal Corporation, Gujarat and Mr. Gopal Shah, Consultant, Planning Solutions, Vadodara.*

He highlighted that the parks and open spaces will promote sustainable practices such as urban forestry and urban agriculture. He further added that, Integration of urban agriculture with urban forests, public open spaces

will significantly contribute to a sustainable urban environment. While elaborating on ongoing maintenance of parks and public spaces, he said that, annual audit is required for better maintenance of green spaces. ULBs are responsible for managing parks and open spaces. Many ULBs in Gujarat are considering alternative financial models for managing their public spaces. He concluded by explaining Geographical Information System (GIS) as a significant tool in mapping green spaces to assess the environment sustainability.

The last technical session on 'Legal Provisions for Planning of Green Spaces' was delivered by Mr. Gopal Shah, Consultant, Planning Solutions, Vadodara. He explained that under the guidelines of Urban and Regional Development Plan Formulation and Implementation (URDPFI), green spaces are defined as a sub category of Open Spaces. He highlighted that, there are environmental, health and economic risk of poor green spaces. He further explained the legal provisions for allotment of green spaces. He explained the minimum area requirement of green spaces per person. He also discussed green spaces per person for various cities across the country. It was observed that, India does not meet minimum requirement of green spaces per person. He then explained the issues of development of green spaces in cities like, increasing deforestation as farmlands are converted to buildings, poorly allotted funds for green space maintenance and repair, etc.



*Mr. Gopal Shah, Consultant, Planning Solutions, Vadodara addressing the participants. Dr. Jatin Modi, President Emirates, AIILSG also seen on the dais.*

He concluded by discussing the Strategies for legal provisions for allotment of green spaces like setting quality and quantity standards, setting accessibility standards and monitoring the green space development.

### Group Exercise

After the technical sessions, the group exercise was conducted. The exercise was taken on 'Development of Urban Forest in Your City'. The objective of this

exercise was to put the knowledge added during the technical sessions into planning for their respective cities. The participants discussed the area required for urban forest, the number of trees required for dense plantation, types of species required, with the subject expert. Some of the participants discussed about vertical urban forest and ecological benefits of developing urban forest. As a result of the group work, it was discussed that instead of indefinite plantation, urban forest is beneficial to increase the biodiversity.

### Summing-up

The training programme was concluded by distributing certificates by the hands of Mr. S. K. Patel, Dy. Municipal Commissioner, Vadodara Municipal Corporation and Dr. Jatin Modi, President Emirates, AIILSG to the participants in the presence of Ms. Hansaben Patel, Executive Advisor, AIILSG. Ms. Neha Hardikar, Sr. Research officer, RCUES, AIILSG, Mumbai proposed a vote of thanks to the distinguished faculty and the participants.



Certificate distribution by Mr. S. K. Patel, Dy. Municipal Commissioner, Vadodara Municipal Corporation, Gujarat. On the dais (L to R) Ms. Hansaben Patel, Executive Advisor, AIILSG and Dr. Jatin Modi, President Emirates, AIILSG.

### Testimonials

#### Mr. Rajendra Vasava, Executive Engineer, Vadodara Municipal Corporation, Gujarat.

*“This training programme was systematically planned. The sessions conducted were informative. I also enjoyed the food and other arrangements. I will implicate the knowledge gained while developing gardens in Vadodara city.”*

#### Mr. S. K. Patel, Dy. Municipal Commissioner, Vadodara Municipal Corporation, Gujarat.

*“It was an opportunity to interact with subject experts across western region for cross learning. The session on developing urban forestry was nicely explained. This will indeed be helpful in replicating forestry in our city. I am looking forward to attending such knowledge gaining training programmes in future.”*



# Development of Green Spaces & Parks under AMRUT

25<sup>th</sup> - 26<sup>th</sup> November, 2019, Rajkot, Gujarat.



## Participation

31 participants comprising Chairpersons of Fire & Garden Committees, Elected Representatives, Municipal Engineers, Sanitary Inspectors and Officers of concerned department of ULBs from Gujarat attended this training programme.

## Introduction

Ms. Maleka Ansari, Sr. Research Officer, RCUES of



*The key highlight of the training programme was the exposure visit to the Rajkot zoological park to exhibit good practices implemented under the development of green spaces and parks in a sustainable manner.*

explained the importance of green spaces and parks in cities under AMRUT.

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## Inauguration

Mr. Ashwinbhai Mauliya, Dy. Mayor, Rajkot Municipal Corporation graced the occasion by inaugurating the training programme. In his inaugural speech, he spoke on garden development projects undertaken in Rajkot under AMRUT mission. While elaborating on garden development he added that, Rajkot Municipal Corporation is preparing Detailed Project Reports (DPRs) for garden landscaping. At the end he encouraged cities to focus on developing green belts to maintain ecosystem.



Inauguration of the training programme at Rajkot.

## Technical Sessions

The first session on 'Overview of Green Spaces & Parks under AMRUT' was delivered by Mr. Hakimuddin Bharmal, Head, Planning Department, H. K. Dhruv Centre of Planning, Rajkot. He gave an overview of

developed green spaces under AMRUT in state of Gujarat. He then focussed on importance of development of green spaces and parks with special provisions for children, senior citizen and disabled-friendly features. Later, he discussed that the city managers should review the existing gap and develop the measures to bridge a gap and make the parks and gardens child and citizen friendly. He explained the key highlights of State Government's GR on green spaces where focus is given on developing 80 percent of the open space area as green and allowing only 20 percent concrete structure for development.



*Mr. Hakimuddin Bharmal, Head, Planning Department, H. K. Dhruv Centre of Planning, Rajkot, Gujarat addressing the participants.*

He continued the session on 'ULB Efforts in Development of Green Spaces and Parks under AMRUT'. In this session, he explained the role of ULB in maintaining old parks by restoring them and also in developing new parks & gardens in cities. He continued explaining the process of developing parks at ULB level by preparing the State Level Improvement Plans (SLIPS) under AMRUT mission and the process of request of funding to Government of India under AMRUT mission through State Annual Action Plan (SAAP). He concluded by describing on process of development of Detailed Project Report (DPR) for ULBs and annual audit which helps cities to acquire funding through AMRUT mission for developing green spaces / belts.

The next session on 'Development Process of Green Space under AMRUT' was delivered by Ms. Tithi Soladhara, Consultant, Centre for Advance Resource Management (CARM), Ahmedabad, Gujarat.



*Ms. Tithi Soladhara, Consultant, CARM, Ahmedabad, Gujarat addressing the participants.*

She commenced her session by highlighting that, development of green spaces and parks helps to increase the amenity value of cities. She further described that, a sustainable green city is primarily based on the pillars of urban planning, transport, water and biodiversity. The development of green spaces can help to reduce temperature, encourage walking or even bicycling, increases the aesthetic value of the place and in turn add to the economy generation, recharge ground water, purify the air and improve the health of people.

She continued the next session on 'Green Spaces under AMRUT – Case of Ahmedabad'. She explained how the Ahmedabad Municipal Corporation (AMC) develops parks and open spaces. AMC has a dedicated parks and gardens department which looks into the implementation and maintenance of parks within its administrative boundaries. She further added that AMC has decided to carry out a quality audit for each individual park and open space to correctly assess the usability of the amenity. She concluded by discussing self-sustainability of the garden maintenance costs. She gave an example of the Mother Dairy of Ahmedabad where a booth has been constructed within the garden plot to store and sell whole range of products being marketed by them to support the garden maintenance and make it financial viable.

The next session on 'Promoting Biodiversity, Landscape and Public Gardens' was delivered by Mr. Shishir Raval, Landscape Architect and Consultant, Vadodara, Gujarat. He commenced his session by emphasizing that cities are rapidly expanding and there is an increasing need to protect urban biodiversity, primarily through the provision of suitable environment, most of which is in urban green spaces. He then explained the importance of conserving biodiversity by understanding the ecological processes in urban areas. He discussed the need to advance the ecology of urban green spaces for biodiversity conservation and restoration. He concluded by explaining the benefits of green spaces viz, pollution control, increase in biodiversity, add aesthetic value of the city.



*Mr. Shishir R. Raval, Landscape Architect and Consultant Vadodara, Gujarat addressing the participants.*

The next session on 'Ecological Planning, Restoration and Resource Management' was delivered by Mr. Ritvik

Tank, Civil Engineer & Urban Planner, Vadodara, Gujarat. He highlighted the need for land restoration in cities. He discussed the growth and rapid industrialization concurrent with increasing better quality of life. This quest has resulted in a growing demand for infrastructure in cities, leading to significant impact on the country's environment and ecology. He added that resources such as natural forests are being exploited. He stated the consequences of overexploitation of forest resources such as depletion of natural resources, soil erosion and land degradation, lower productivity, groundwater depletion, reduction in species diversity and an overall increase in the extent of wasteland. He concluded by discussing the ecological restoration which is rapidly diversifying to adapt and mitigate environmental change. A growing awareness is required to develop different restoration strategies and techniques to attain effective ecosystem.



*Mr. Rutvik Tank, Civil Engineer & Urban Planner, Vadodara, Gujarat addressing the participants.*

### Group Exercise

After the technical sessions, a group exercise was conducted. The exercise was taken on 'Development of Urban Forest in Your City'. The objective of this exercise was to put the knowledge added during the technical sessions into planning for their respective cities. They discussed and planned for a garden space for their cities. They came up with ideas for parks and butterfly garden including food plaza, charging points, music area, walk ways, play zone, medical zone etc. The participants applied knowledge gained through the training for the exercise. Though it was group exercise, the activity was carried out individually based on discussions between subject experts and participants.

### Testimonials

**Ms. Anitaben Goswami, Chairperson, Town Planning, Rajkot Municipal Corporation, Gujarat.**

*“It was a good opportunity to attend this particular training programme in which I was able to clear my doubts regarding landscape development, design process, ecological planning, restoration and resource management.”*

**Mr. Malek Nazimmuddin Lalmiya, Sanitary Inspector, Thasara Municipality, Gujarat.**

*“Overall training experience is very good, especially sessions on ULBs efforts in the development of green spaces under AMRUT by Mr. Bharmal, was very informative and encouraging towards implementing development of green spaces and parks in our city.”*

### Site Visit

The site visit was conducted to the Pradyumn Park now developed as urban forest and zoological park by Rajkot Municipal Corporation. The park area is about 55.37 hecter. The area is undulated with ridges and valleys, rocky outcrops and surrounded by two big lakes. This park is covered with more than 4000 trees and 100 species of free ranging birds which are attraction of naturally created habitat. This zoo follows all norms of CZA for keeping animals healthy, having zoo hospital with all amenities facilitated with latest tranquillizing guns & accessories for treatment and immobilization. During discussion, officials informed about the wide range activities conducted including attractive state of art interpretation centre which provided information about zoo, ecosystem of Gir sanctuary & Wild buck sanctuary of Gujarat. With the aim to provide facilities to visitors to spend long recreational time at the park all necessary amenities like battery operated cars, bicycles, resting sheds, drinking water points, toilets block, cafeterias, benches to relax, kinder garden etc have been developed. Participants were happy to see developed zoological park and urban forest and understood multiple techniques to adopt in their cities while developing parks.



*Participants during the site visit at Pradyumn Park, Rajkot.*

### Summing-up

The training programme was concluded by distributing certificates to the participants and proposing a vote of thanks to the eminent faculty and the participants.

# Development of Green Spaces & Parks under AMRUT

22<sup>nd</sup> - 23<sup>rd</sup> January, 2020, Mount Abu, Rajasthan.



## Participation

34 participants comprising presidents, chairpersons of standing and garden committee and other elected representatives, commissioners, engineers, sanitary inspectors from Maharashtra, Gujarat, Rajasthan and Goa attended this training programme.

the participants and explained the objective of the training programme by highlighting on development of green spaces and parks towards beautification in cities under AMRUT.

## Introduction



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

The training programme commenced with an introduction by Ms. Maleka Ansari, Sr. Research Officer, RCUES of AIILSG, Mumbai. She welcomed

## Inauguration

Mr. Jitendra Vyas, Municipal Commissioner, Mt. Abu Municipal Council graced the occasion by inaugurating the training programme. In his inaugural speech, he spoke on the clean environment drive, which is being implemented in Mount Abu since 15<sup>th</sup>



*The key highlights of the programme were the dissemination of strategies to develop green spaces and parks in cities, and the group work on preparation of the action plan for development of parks and gardens in a sustainable manner. Participants were encouraged to implement one of the major thrust areas under the mission of increasing the amenity value of the cities.*

August, 2019 by the city and the

complete ban on single use of plastic. Municipal officials, hotel managers and other stakeholders participated jointly in plastic ban drive. He also spoke about Janaki Garden developed under AMRUT with three years maintenance policy, situated adjacent to Nakki Lake. He encouraged participants to develop parks and greenery in their cities to achieve the targets under the mission. He ended inaugural speech by wishing a success to this training programme.



*Inauguration of the training programme at Mount Abu, Rajasthan.*

### Technical Sessions

The first session on 'Overview of Green Spaces and Parks under AMRUT' was delivered by Dr. Ajit Salvi, Executive Engineer, Municipal Corporation of Greater Mumbai (MCGM), Mumbai. He discussed AMRUT mission component briefly with a focus on development of green spaces & parks. He highlighted on four major aspects including governance, funding, planning and sustainability which are the key to successful implementation of any project. He then explained the thrust areas under AMRUT. While elaborating on this, he explained the indicators of water supply, waste water, solid waste management and storm water drainage. He further spoke on financing options to develop green spaces and parks in cities under AMRUT. He concluded by citing effectively implemented cases of green spaces and parks in various cities of Maharashtra which can be replicated in participants' cities.

He continued the session on 'Promoting Biodiversity, Landscape and Public Gardens'. He explained about urban biodiversity which is an important part of urban ecosystem. He also explained that the native flora and fauna are important for urban ecological and cultural identity. The urban environment is ecologically very dynamic and can provide opportunities for improving the biodiversity and ensuring beneficial insights in the management of biodiversity in ecosystems. He further added, the existence of urban biodiversity can have positive impact on quality of life as well as environmental improvement. He concluded by describing the conservation of urban biodiversity as an important issue in managing urban landscape especially in mega cities.

The next session on 'Development Process of Green Space under AMRUT' was discussed by Mr. Kaushik Mehta, former Town Planner, Government of Gujarat.



*Dr. Ajit Salvi, Executive Engineer, MCGM, Mumbai addressing the participants.*

He commenced his session by highlighting the Urban Greening Guidelines 2014, international as well as Indian standards for development of district parks, neighbourhood parks and playgrounds in cities. He further elucidated on general standards of development process of green spaces and parks including children friendly equipments, disabled friendly features, open gym etc.



*Mr. Kaushik Mehta, former Town Planner, Government of Gujarat addressing the participants.*

In his next session on 'Ecological Planning, Restoration and Resource Management', he pointed out the benefits of developing green spaces in upgrading health and well-being, changing air quality and existence of wild life and habitats. He explained that the urban environment is a single large ecosystem including all individual ecosystems like parks, lakes, trees, street trees, lawns, urban forests, cultivated land, wetlands, sea and streams, etc. He then explained the importance of ecological restoration by recovering damaged natural systems. In India, forest areas are degraded due to low conservation priority and high human pressure. Restoration provides potential for generating livelihoods in conservation efforts.

The next session on 'Green Spaces under AMRUT – Case of Ahmedabad' was delivered by Ms. Tithi Soladhara, Consultant, Centre for Advance Resource Management (CARM), Ahmedabad Gujarat. She explained how Ahmedabad Municipal Corporation (AMC) developed parks and open spaces under

AMRUT. AMC has a dedicated garden department which looks into the implementation and maintenance of parks within its administrative boundaries. She further explained the importance of maintenance of existing parks and open spaces as equivalent to increasing provision of new parks and open spaces. She further added that AMC has decided to carry out a quality audit for each individual park and open space to properly assess the usability of the park as public amenity. She concluded by discussing self-sustainability of the garden maintenance costs by giving an example of Mother Dairy of Ahmadabad where a milk booth has been installed within the garden plot to store and sell whole range of products being marketed by them to support the garden maintenance and make it financially viable.



*Ms. Tithi Soladhara, Consultant, CARM, Ahmedabad, Gujarat addressing the participants.*

The next session on 'ULB Efforts in Development of Green Spaces under AMRUT' was delivered by Ms. Neha Singh, Founder & Director, Forest Regeneration & Environmental Sustainability Trust (FORREST), Pune.



*Ms. Neha Singh, Founder & Director, FORREST, Pune addressing the participants.*

She explained the role of ULBs in implementing projects under AMRUT. She continued explaining the process of developing parks at ULB level by preparing Service Level Improvement Plans (SLIPS) under AMRUT. To assess the gaps in existing scenario in the

city and evaluate the required measures to bridge the gap. She then explained the process of raising the request for funding to Government of India under AMRUT through State Annual Action Plan (SAAP). She concluded by describing the process of development of Detailed Project Report (DPR) of Development and maintenance of Green Spaces and Parks at ULBs level and explained how the annual audit helps cities in acquiring funding through AMRUT.

### Group Exercise



*Participants engaged in group exercise.*

After the technical sessions, a group exercise was conducted on 'Development of Green Spaces and Parks in your City'. The objective of this exercise was to assess the knowledge gained during the technical sessions. The participants were divided into five groups. They discussed and planned for a garden space for their cities as per their need based on existing conditions. They came up with ideas for major two to three gardens as per the population considered by different groups including butterfly garden, astral garden, food plaza, charging points, music area, walk ways, play zone, medical zone etc. All groups also designed their gardens by highlighting the adjacent road, auto/bus stand near garden, installation of CCTV camera, play zone for kids, area for senior citizens etc.



*Presentation of group exercise by participants.*

The participants applied knowledge gained through the training for this exercise. This exercise was participatory and effective for the replication in their cities.

### Site Visit

The site visit was conducted to the Janaki Garden developed by Mount Abu municipal council under AMRUT. Participants were taken around to observe the different areas of the garden - walking and leisure activities play zone for kids and areas for senior citizens, exercise area, open gym for the youth and the middle age group, food court, facilities such as toilet, drinking water etc., and resting spaces for elders.

The designated officer cum garden superintendent also noted that this garden was old and in a dilapidated condition before being renovated under AMRUT. The boundaries were extended and pattern of plantation was changed and seating spaces were installed. South side of Nakki Lake which is end point of the garden Mount Abu municipal council settled 102 ft. heightened Tiranga flag which attracts visitors.

Astral garden was also developed on the north side of Janaki Garden by planting shrubs like palas, kadulimb, kalamb, rui-mandar and shami on various local spaces. The participants were encouraged to replicate similar ways of developing green parks and gardens in their cities.

### Summing-up

The training programme was concluded by distributing certificates to the participants and proposing a vote of thanks to the eminent faculties and the participants.

### Glimpses of the Site Visit



### Testimonials

#### Mr. Kantibhai Chavda, President, Anand Municipality, Gujarat.

*“This training programme and the site visit at Janaki garden which was developed under AMRUT gave us an opportunity to prepare practically towards developing parks and gardens in our city.”*

#### Mr. Vinay Shirodkar, Municipal Elected Representative, Madgaon Municipal Council, Goa.

*“I enjoyed the group work conducted on the second day of the training programme and it was a great opportunity to express our ideas about provisions of various facilities required for mapping during designing and developing parks & gardens.”*



**Fire Prevention &  
Life Safety**



# Fire Prevention & Life Safety

Fire poses a major threat to various occupancies in cities. During the last two decades there was rapid growth in the construction activities in cities, especially in high rise buildings. Fire hazards in high rise residential buildings have become more complex and the rescuing operations become more challenging and sometimes even resulting in many casualties and huge property losses.

Fire Prevention and Life Safety Acts have been enacted and amended in various states across the country. Urban Local Bodies (ULBs) regulate the safety measures in accordance with the state acts. One of the most effective tools for fire prevention is regular inspection which can be used to identify vulnerable fire areas. Once these problems have been identified, further steps can be taken to prevent the fire. The fire audit stipulated in the Fire Prevention and Safety Act 2006 is focused on firefighting system and equipment. The factors that lead to fire and could be impediments in firefighting and rescue are not covered by the audit by licensed agencies, such as, fire escapes, tampering with approved building plans. This results in such safety features not being proactively reviewed or evaluated by any of the agencies, despite their importance, and are noticed only during accidents. The owner/occupier has to be aware of the serious consequences of such violations and the collateral damage it may cause.

National Building Code (NBC) of India is published by Bureau of Indian Standards and covers the detailed guidelines for construction, maintenance and fire safety of the structures. Guidelines were issued to the States to incorporate the recommendations of NBC into their local building bye-laws. The Government of Maharashtra has set up a Working Group on fire safety which is being anchored by the Centre for Sustainable Governance (CSG), All India Institute of Local Self Government (AIILSG), Mumbai. CSG has also issued advisories on 18<sup>th</sup> April, 2017 to all the State Governments to incorporate and implement the latest National Building Code of India 2016 Part – IV ‘Fire and Life Safety’ in their building bye-laws.

Considering this background, Regional Centre for Urban & Environmental Studies (RCUES) of AIILSG, Mumbai had organized one training programme on the subject. The training programme was supported by Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

## **Key Objective**

The key objective of the training programme was to enhance the capacities of ULBs towards fire prevention and in developing life safety measures in cities.

# Fire Prevention & Life Safety

17<sup>th</sup> - 18<sup>th</sup> October, 2019, Mumbai, Maharashtra.



## Participation

29 participants comprising Dy. Commissioners (Fire), Additional Executive Engineers, Station Officers, Chief Fire Officers, Dy. Chief Fire Officers, Divisional Fire Officers, Fire Officers, Dy. Law Officers, Chief Engineers, Sub Engineers from the ULBs of Maharashtra and Rajasthan attended this training programme.

## Introduction



*Ms. Utkarsha Kavadi, Director, RCUES, AILSG, Mumbai addressing the participants.*

The training programme was introduced by Ms. Neha Hardikar, Sr. Research Officer, RCUES of AILSG, Mumbai. Ms. Utkarsha Kavadi, Director, RCUES of AILSG, Mumbai delivered a welcome address and

briefed the participants about the background, need and the objective of the training programme.

## Inauguration

The training programme was inaugurated by Dr. Prabhat Rahangdale, Director, State Fire Services and Chief Fire Officer, Mumbai Fire Brigade in the presence of Mr. Ajit Kumar Jain, IAS (Retd.), Director, CSG, AILSG, Mumbai, Ms. Indrani Malkani,

Chairperson, V Citizens Action Network (VCAN), Mumbai, Ms. Utkarsha Kavadi, Director, RCUES of AILSG, Mumbai and Ms. Abha Beniwal, Dy. Municipal Commissioner (Fire), Jaipur Municipal Corporation, Rajasthan.

Mr. Ajit Kumar Jain gave an overview of the Fire Safety in the country and highlighted the issues in fire prevention regime and shared with the participants the setting up of the working group on fire safety by the Urban Development Department, Government of Maharashtra.



*The key highlight of the training programme was identification of important focus areas for fire prevention and life safety.*



Mr. Ajit Kumar Jain, IAS (Retd.), Director, Centre for Sustainable Governance (CSG), AIILSG lighting the lamp in the presence of Dr. Prabhat Rahangdale, Director, State Fire Services and Chief Fire Officer, Mumbai, Ms. Abha Beniwal, Dy. Municipal Commissioner (Fire), Jaipur Municipal Corporation, Rajasthan, Ms. Indrani Malkani, Chairperson, V Citizens Action Network (VCAN) and Ms. Utarksha Kavadi, Director, RCUES of AIILSG, Mumbai.

### Technical Sessions

This training programme broadly covered three key areas of fire safety and management:

1. Fire Safety: Legal and Operational Issues in Fire Prevention, Fire Acts and Rules.
2. Electrical Safety and Fire Prevention.
3. National Perspective on Fire Safety and Implementation of National Building Code.



Mr. Ajit Kumar Jain, IAS (Retd.), Director, Centre for Sustainable Governance (CSG), AIILSG addressing the participants.

#### 1. Fire Safety: Legal and Operational Issues in Fire Prevention, Fire Acts and Rules.

The first session covered three presentations :

- Fire Services and Challenges.
- Legal Framework of Fire Prevention and Issues in Enforcement.
- Operational Issues in Fire Prevention.

This session was chaired by Dr. Prabhat Rahangdale, Director, State Fire Services and Chief Fire Officer, Mumbai Fire Brigade. He also delivered the first presentation on 'Fire Services and Challenges'. In his presentation, he briefed the participants on the current fire prevention and fire safety scenario in Maharashtra, with focus on Mumbai. After highlighting a few recent fires, he spoke about the challenges faced by the Maharashtra Fire Services, including a lack of qualified officers, infrastructure requirements and the importance of technology and communications in modern fire-fighting.



Dr Prabhat Rahangdale, Director, State Fire Services & Chief Fire Officer, Mumbai Fire Brigade addressing the participants.

The second presentation on 'Legal Framework of Fire Prevention and Issues in Enforcement' was delivered by Mr. Arvind Mandke, Chief Fire Officer, CIDCO, Mumbai. Mr. Mandke spoke about the historical background of fire prevention regulations across the country, and explained the evolution of the legislative framework currently in place. He went through the Maharashtra Fire Act and Rules, and explained key provisions to the participants, including provisions related to the legal responsibilities of owners/occupiers, powers and duties of fire officers, and financial provisions.



Mr. Arvind Mandke, Chief Fire Officer, CIDCO, Mumbai addressing the participants.

The third presentation on 'Operational Issues in Fire Prevention' was delivered by Mr. K. N. Mathur, Fire, Safety and Security Consultant, Jaipur. His presentation covered the essentials of fire prevention and firefighting, including technical details. He also elaborated upon the role and significance of fire safety audits and how to conduct them.



Mr. K. N. Mathur, Fire, Safety & Security Consultant, Jaipur addressing the participants.

At the end of the first session, Dr. Prabhat Rahangdale briefly summed up the presentations and emphasized on regulatory framework needed for effective implementation of Acts and Regulations in fire safety.

## 2. Electrical Safety and Fire Prevention

The second session covered four presentations :

- Electrical Safety Regulations.
- Role of Electricity Distribution Companies in Ensuring Electrical Safety.
- Public Awareness Creation for Electrical Safety.
- Essentials of Electrical Safety Audit.



*Mr. Arvind Singh, IAS, Additional Chief Secretary, Industry, Energy and Labour Department, Government of Maharashtra addressing the participants. (L to R) Mr. Nandkumar Mahajan, Electrical Inspector, Government of Maharashtra, Mr. Prakash Kulkarni, former Electrical Inspector, Government of Maharashtra, Mr. Jitendra Kumar Rathour, Additional Executive Engineer, Safety Management Team, MSEDCL, Nashik, Mr. Sunil Kumar Borse, Assistant Vice President, O&M Safety, AEML, Mumbai*

This session was chaired by Mr. Arvind Singh, IAS, Additional Chief Secretary, Industry, Energy and Labour Department, Government of Maharashtra.



*Mr. Nandkumar Mahajan, Electrical Inspector, Government of Maharashtra addressing the participants.*

In this session, the first presentation on ‘Electrical Safety Regulations’ was delivered by Mr. Nandkumar Mahajan, Electrical Inspector, Government of Maharashtra. After explaining the correlation between electrical safety and fire prevention, Shri Mahajan delved into the legislative

and regulatory framework governing electrical safety. He highlighted key points of the Electricity Act, Rules, and the Central Electricity Authority (CEA) Regulations, including the new concept of Chartered Electrical Safety Engineers.



*Mr. Jitendra Kumar Rathour, Additional Executive Engineer, Safety Management Team, MSEDCL, Nashik addressing the participants.*

The second presentation on ‘Role of Electricity Distribution Companies in Ensuring Electrical Safety’ was delivered by Mr. Jitendra Kumar Rathour, Additional Executive Engineer, Safety Management Team, Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL), Nashik. His presentation covered some common ‘dos and don’ts’ of electrical safety, and examined some of the common electrical safety issues and cases faced by the MSEDCL. He also suggested some specific amendments to the CEA Regulations, and broadly presented a roadmap to ‘zero accidents’.



*Mr. Sunil Kumar Borse, Assistant Vice President, O&M Safety, AEML, Mumbai addressing the participants.*

The third presentation on ‘Public Awareness Creation for Electrical Safety’ was delivered by Mr. Sunil Kumar Borse, Assistant Vice President, O & M Safety, Adani Electricity Mumbai Ltd. (AEML), Mumbai. Shri Borse spoke extensively about the IEC activities undertaken by AEML and elaborated upon some of the common issues that arose during their campaigns. He highlighted the activities carried out by them during Fire Safety Week and Electrical Safety Week, and their training of Licensed Electrical Contractors (LECs).

The fourth presentation on ‘Essentials of Electrical Safety Audit’ was delivered by Mr. Prakash Kulkarni, former Electrical Inspector, Government of Maharashtra.

He outlined the process to be followed during electrical safety audits and spoke about the common issues that can arise during the inspections.



*Mr. Prakash Kulkarni, former Electrical Inspector, Government of Maharashtra addressing the participants.*

As a chairperson, Mr. Singh discussed electrical safety aspects and its importance in life safety.

### 3. National Perspective on Fire Safety and Implementation of National Building Code



*(L to R) Mr. Sandeep Goel, MEP and Fire and Life Safety Consultant, Mr. Ajit Kumar Jain, IAS (Retd.), Director, Centre for Sustainable Governance, AIILSG, Mr. D. K. Shami, Fire Advisor, Government of India, and Mr. S. K. Dheri, Fire Advisor, Government of India, Dr Prabhat Rahangdale, Director, State Fire Services & Chief Fire Officer, Mumbai Fire Brigade during the panel discussion.*

This session was chaired by Shri Sandeep Goel, MEP and Fire and Life Safety Consultant. The session was conducted as a panel discussion with Mr. Ajit Kumar Jain, Mr. Sandeep Goel, Dr. Prabhat Rahangdale, Mr. D. K. Shami, Fire Advisor, Government of India, and Mr. S. K. Dheri, Fire Advisor, Government of India, as speakers.

#### Testimonials

##### **Ms. Abha Beniwal, Dy. Municipal Commissioner (Fire), Jaipur Municipal Corporation, Rajasthan.**

*“I am very glad to have attended this training programme on Fire Prevention & Life Safety. This was a good platform created to discuss the issues on fire prevention and develop life safety measures. The content of the training programme was designed well to the requirements of the participants.”*

##### **Ms. Indrani Malkani, Chairperson, V Citizens Action Network (VCAN), Mumbai, Maharashtra.**

*“It was a good opportunity to partake in the discussions on life safety measures. Subject experts immensely contributed their thoughts on issues highlighted on fire fighting and electrical handling measures. This was an excellent forum for discussions to understand the national perspective on fire safety.”*

The issues discussed by the panel included the development of Fire Safety and Firefighting provisions in India, structural and administrative reforms required to ensure efficient State Fire Services, the importance of the National Building Code and its relationship with local Development Control Regulations, and the convergence of various authorities to ensure an institutional approach to fire safety.

#### Group Exercise

During the workshop, a Group Exercise was conducted at the end of day one. Based on the participatory process the following points were highlighted as the key issues in fire safety.

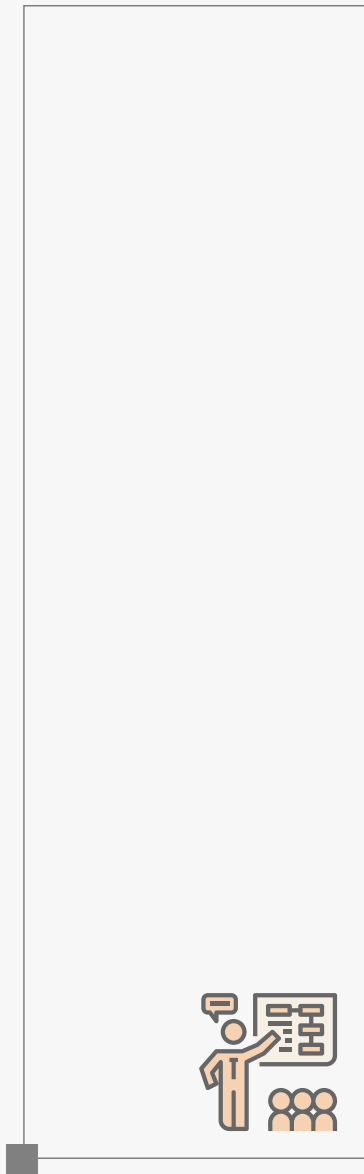
- Convergence of electrical safety and fire safety regulatory mechanisms.
- Importance of the National Building Code.
- Identification of focus points for amendments to legislative framework.
- Importance of Fire Safety Audits and Inspections, and Electrical Safety Inspections.

The above points were presented by Mr. Ajit Kumar Jain, IAS (Retd.), Director, CSG, AIILSG, Mumbai. The participants interacted with the panel on the above issues. The participants were encouraged to share their own perspectives on the issues, and highlight the challenges, best practices, and unique insights from their own departments.

#### Summing-up

At the end, a consensus emerged that the above issues identified by the participants could be considered for amendments in the Fire Act and Rules in Maharashtra. The training programme was concluded by distributing the certificates to the participants.

# REGIONAL SEMINAR





## Faecal Sludge & Septage Management (FSSM)

# Faecal Sludge & Septage Management (FSSM)

Expansion in the coverage of sanitation services in urban India is imperative citing the associated negative externalities within the health domain and beyond. While the objective of making the country open defecation free under Governments' mutually reinforcing schemes like Swachh Bharat Mission (SBM) and Atal Mission for Rejuvenation and Urban Transformation (AMRUT), more than 56% of households are beyond the coverage of sewerage network. (Source: Sanitation existing situation and analysis – CEPT, 2017).

Though the efforts are on-going to expand the sewerage network in Indian cities, keeping in view the current scenario, it is important to explore decentralized solutions. The National Policy on Faecal Sludge and Septage Management (FSSM) induces and sensitizes national, state and local bodies to decentralized sanitation approaches as a viable alternative to centralized sewerage systems.

Since the States have the responsibility of the implementation of this policy, considerable flexibility is granted to states to develop their own models to further the cause of FSSM. The National Policy acts as a guiding document for the States by setting the context, priorities and direction for states and cities to ensure proper implementation of FSSM across urban India.

To implement faecal sludge management initiatives, multiple stakeholders play crucial role. While city officials have the mandate to ensure service provisions, implementation partners can share the technical expertise. There is also an opportunity for the private sector to get involved by providing partial or complete FSSM services in urban India.

Considering this background, Regional Centre for Urban & Environmental Studies (RCUES) of AILSG, Mumbai had organized one seminar on the subject. The Seminar was supported by Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI).

## **Key Objective**

The key objective of the seminar was to discuss various actions at city level for moving towards ODF++ cities by addressing entire sanitation value chain.



# Faecal Sludge & Septage Management (FSSM)

28<sup>th</sup> January, 2020, Shirdi, Maharashtra.



## Participation

Participants comprising president, elected representatives and technical officers from Urban Local Bodies (ULBs) of Maharashtra attended this Seminar.

## Introduction



Ms. Neha Hardikar, Sr. Research Officer, RCUES of AIILSG, Mumbai addressing the participants. On the dais (L to R) Ms. Sujata Telang, Municipal Elected Representative, Sinnar Municipal Council, Ms. Archana Kote Patil, President, Shirdi Municipal Council, and Ms. Chhaya Shinde, Municipal Elected Representative, Shirdi Municipal Council, Maharashtra.

Ms. Neha Hardikar, Sr. Research Officer, RCUES, AIILSG, Mumbai commenced the seminar by explaining the objective of the seminar. She briefed on sanitation component of Swachh Bharat Mission. She further explained that urban Maharashtra became Open Defecation Free (ODF) in October, 2017. After it became ODF, cities from Maharashtra



*The key highlights of the seminar were the technical sessions on technology options for FSSM and UASB technology implemented at the FSTP at Sinnar, which the participants found replicable in their respective cities.*

were encouraged to move towards ODF +/++. She then gave information on national policy on FSSM launched in February 2017 on decentralised sanitation approaches to make sustainable sanitation.

## Inauguration

Ms. Archana Kote Patil, President, Shirdi Municipal Council inaugurated the seminar by lighting the lamp.

She described the notable work done by Shirdi Municipal Council in Swachh Survekshan 2020.



*Inauguration of the seminar at Shirdi, Maharashtra.*

### Technical Sessions



*Ms. Aashima Parikh, Research Associate, RCUES, AILSG, Mumbai addressing the participants.*

The session on 'Overview of Faecal Sludge & Septage Management (FSSM)' was delivered by Ms. Aashima Parikh, Research Associate, RCUES, AILSG, Mumbai. She initiated the session by explaining what faecal sludge and septage mean. She then gave an overview of the existing scenario by explaining limited coverage of sewerage network in Indian cities and most cities being dependent on onsite sanitation system. She also spoke about the need for FSSM in cities. She further explained that smaller and medium sized towns can opt for FSSM by highlighting requirements such as capital cost, O & M cost, technical expertise etc. in FSSM as compared to conventional sewerage systems. She briefly described the sanitation value chain which included access, collection, conveyance, treatment, reuse and disposal and also explained several existing challenges across the service chain.

The session on 'State Perspectives for Implementation of FSSM' was delivered by Ms. Dhanshree Zende, Consultant (Sanitation, SWM, Urban Management and Climate Change), Mumbai. She started the session by explaining the role of Central and State government in implementation of FSSM. She explained in detail the

approach of Maharashtra and Odisha state to move towards ODF+ and ODF++ along with key steps taken with timeline. She spoke about the type DPRs' by Maharashtra Jeevan Pradhikaran (MJP) and model tender documents by the Government of Maharashtra (GoM). She also explained the role of Odisha Water Supply and Sewerage Board (OWSSB) in constructing and operating Septage Treatment Plants (SeTPs) in Odisha and highlighted 8 AMRUT towns with SeTPs. She concluded the session by giving a brief highlight of existing FFSM implementation approach in Chhattisgarh, Jharkhand and Andhra Pradesh.



*Ms. Dhanshree Zende, Consultant (Sanitation, SWM, Urban Management and Climate Change), Mumbai addressing the participants.*

The next session on 'Planning for Emptying and Conveyance' was delivered by Ms. Aashima Parikh, Research Associate, RCUES, AILSG, Mumbai. She briefly discussed key components of FSSM planning across the service chain for small and medium cities. She explained the technology options for conveyance and the parameters of road width, site access, volume of septic tank etc. which need to be considered while selecting an option. She explained the approaches of desludging of septic tanks i.e. demand based and schedule based emptying services. She detailed out the benefits of scheduled desludging and also explained the monitoring and awareness activities required for implementing scheduled desludging. She emphasized on the importance of FSSM in cities and explained the approach required for planning for FSSM service at city level. She concluded the session by presenting the case of Wai and Sinnar cities of Maharashtra which are the first cities to implement scheduled desludging in India.

The next session on 'Technology Options for Faecal Sludge & Septage Management (FSSM)' was delivered by Ms. Dhanshree Zende, Consultant (Sanitation, SWM, Urban Management and Climate Change), Mumbai. She explained that the main types of treatments available for treating the faecal sludge are co-treatment at nearby or own Sewage Treatment Plant (STP), co-treatment with solid waste, contradictory - independent FSTPs and co-treatment at nearby FSTPs. She further discussed about the various technologies that can be used for treatment like Unplanted Sludge Drying Bed used in Bhubaneswar, Planted Sludge Drying Bed implemented in Leh, Upflow Anaerobic Sludge Blanket in Sinnar and Cochin, Moving Bed Bio

Reactor used in Ambikapur and Pyrolysis implemented in Wai and Warangal. She concluded with a comparative analysis of different parameters like land, finance, energy, operation and maintenance (O&M) costs etc. required for selection of technology.

The next session on 'Financing FSSM for a City' was delivered by Ms. Aashima Parikh, Research Associate, RCUES, AILSG, Mumbai. She initiated her session by explaining the requirements of finance across the service chain for capital expenditure like toilet construction, buying of vacuum trucks, construction of FSTP etc. and operational expenditure like fuel cost, human power salaries etc.

She highlighted the potential sources of finance for both capital and operating expenses like government grants/subsidies, CSR funds, crowd funding, taxes, charges, etc. She explained the existing revenue sources with tariff flows and the legal provisions in different states for sanitation tax and user charges. She concluded by briefing about the sanitation tax model for scheduled desludging and discussed the implementation of the model in Wai and Sinnar.



*Mr. Prasad Gadekar, Project Engineer, Panse Consultants, Pune addressing the participants.*

The session on 'UASB Technology for FSTP with a Focus on Implementation of Sinnar FSTP' was delivered by Mr. Prasad Gadekar, Project Engineer, Panse Consultants, Pune. He started by explaining the need for Upflow Anaerobic Sludge Blanket (UASB) technology for effective functioning of FSTP at Sinnar. UASB reactor is a form of anaerobic digester which is used in waste water treatment. UASB uses an anaerobic process whilst forming a blanket of granular sludge which suspends in the tank. Wastewater flows upwards through the blanket and is processed (degraded) by the anaerobic microorganisms. The upward flow combined with the settling action of gravity suspends the blanket with the aid of flocculants. The blanket begins to reach maturity at around three months. Small sludge granules begin to form whose surface area is covered in aggregations of bacteria. In the absence of any support matrix, the flow conditions create a selective environment in which only those microorganisms capable of attaching to each other survive and proliferate. Eventually the aggregates

form into dense compact biofilms referred to as "granules". The main advantage of this technology is of high reduction BOD. He then explained sanitation scenarios at Sinnar stating that majority of toilets are connected to septic tanks. The emptying cycle of containment systems was around 5-7 years leading to high levels of BOD in the effluent flowing into open drains. Earlier, Faecal Sludge and Septage (FSS) from the septic tanks were disposed off at the solid waste management site without any treatment. He further added improper disposal of septic tank effluents and septage posed direct and indirect socio-economic impacts. Hence, Sinnar city aimed to improve their sanitation situation by moving towards ODF++ as envisioned by the Government of Maharashtra. He further emphasised that, moving towards ODF ++ will take care of its faecal sludge and septage along the value chain. This includes scheduled emptying of containment systems and installation of FSTP to manage FSS. This plant of Sinnar is located at the existing solid waste management site. He concluded by explaining that, Sinnar Municipal Council emptied septic tanks of community and public toilets by Sinnar Municipal Council (SMC). UASB technology is very effective for producing biogas.

### Summing-up

Ms. Neha Hardikar, Sr. Research Officer, RCUES, AILSG, Mumbai proposed a vote of thanks to the speakers and the participants and concluded the seminar by distributing the certificates to them.



*Distribution of certificates among participants at Shirdi, Maharashtra.*

**Testimonials****Mr. Rohan Magade, Mechanical Engineer, Sangali Miraj Kupawad Municipal Corporation (SMKMC), Maharashtra.**

*“It was a great opportunity to attend this seminar as the content was useful to us. In SMKMC, only half of the properties in the ULB are connected to sewer lines and STP. The information on FSTP technologies can be helpful if FSTP is implemented in SMKMC.”*

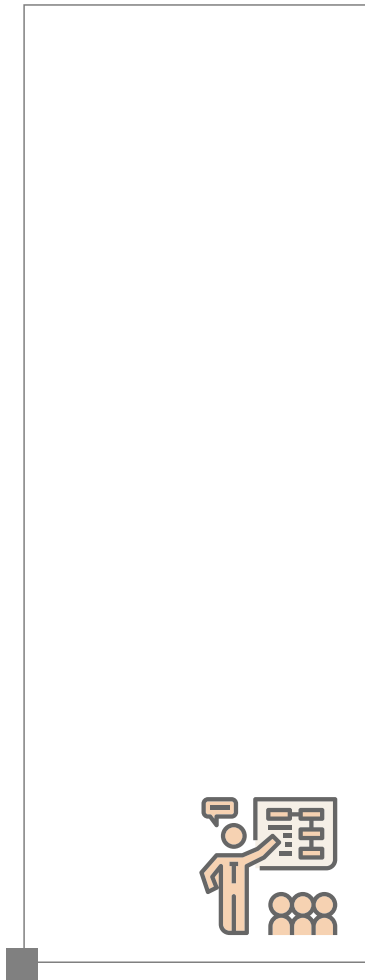
**Ms. Sujata Telang, Municipal Elected Representative, Sinnar Municipal Council, Maharashtra.**

*“The seminar conducted by RCUES, AIILSG, Mumbai was informative and insightful. I gained practical knowledge on the effective management of faecal sludge to keep the environment clean. I am proud that Sinnar Municipal Council has done good work in FSSM.”*



## ANNEXURES

# Solid Waste Management



# Solid Waste Management

26<sup>th</sup> - 27<sup>th</sup> June, 2019, Amravati, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Registration - 09.00 to 10.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction, Inauguration &amp; Special Address – 10.30 to 11.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Session 1</b> 11:00 to 11.30 hrs.	Overview of SWM	<b>Ms. Amruta Paranjape</b> Research Associate, RCUES, AILSG, Mumbai
<b>Session 2</b> 11.30 to 12.15 hrs.	<ul style="list-style-type: none"> <li>• SWM Status of Amravati Division</li> <li>• Overview of Swachh Survekshan 2020</li> </ul>	<b>Ms. Priyanka Nandurkar</b> Divisional Technical Expert, Amravati
<b>Session 3</b> 12.15 to 13.15 hrs..	Sustainable composting technologies	<b>Dr. Sandeep Bodkhe</b> Principal Scientist, NEERI Nagpur
<b>Lunch Break- 13.15 to 14.15 hrs.</b>		
<b>Session 4</b> 14.15 to 15.15 hrs.	Role of waste pickers & their value addition in segregation process	<b>Mr. Sanjay Kamble,</b> President, Janadhar, Latur
<b>Session 5</b> 15.15 to 16.15 hrs..	Good practices on waste segregation	<b>Ms. Anusaya Kale-Chabrani</b> President, SWACHHA, Nagpur
<b>Session 6</b> 16.15 to 17.15 hrs.	Household level waste segregation with community participation	<b>Mr. Subhash Dalvi</b> Nodal Officer, SBM, MCGM, Mumbai
<b>Session 7</b> 17.15 to 18.15 hrs.	Dry waste recycling options	<b>Ms. Amruta Paranjape</b> Research Associate RCUES, AILSG, Mumbai
Day 2	Content	Faculty
<b>Session 1</b> 10.30 to 12.00 hrs.	Review by Government of Maharashtra	Government of Maharashtra Officials / SWM team
<b>Session 2</b> 12.00 to 13.00 hrs.	Group Exercise on “Strategy for SWM target achievement by 15th September 2019, with timeline”	RCUES, AILSG, Mumbai Team
13.00 to 13.30 hrs.	Feedback & closing	RCUES, AILSG, Mumbai Team
<b>Lunch Break- 13.30 to 14.30 hrs. (for batch 1 and batch 2) &amp; Departure of batch 1</b>		

# Solid Waste Management

26<sup>th</sup> - 27<sup>th</sup> June, 2019, Amravati, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Subhash Ranvir	Sanitary Inspector	Darwaha Municipal Council
2	Mr. Harshal Pawar	Jr. Engineer	Pandhakawada Municipal Council
3	Mr. Chandrashekhar Mahajan	Jr. Engineer	Arni Municipal Council
4	Mr. Nilesh G. Jadhao	Chief Officer	Ner- Nawabpur Municipal Council
5	Mr. Amol S. Malkar	Chief Officer	Arni Municipal Council
6	Mr. Sumed A. Khirale	Taxation and Administrative officer	Babhulgaon Nagar Panchayat
7	Mr. Gaurav G. Gotphode	Clerk	Babhulgaon Nagar Panchayat
8	Mr. Harish Shinde	Computer Engineer	Pusad Nagar Panchayat
9	Mr. Subhash Rathod	Sanitary Inspector	Pusad Nagar Panchayat
10	Mr. Swapnil Pawar	Engineer	Digras Nagar Panchayat
11	Mr. Nilesh Rathod	Jr. Engineer	Arni Nagar Panchayat
12	Mr. Irfan Khan	Chief Officer	Digras Nagar Panchayat
13	Mr. Anil Adhagale	Chief Officer	Yavatmal Nagar Panchayat
14	Mr. Shashimohan Nanda	DAO/ Chief Officer	Babhulgaon Nagar Panchayat
15	Mr. Mangesh Chandekar	Sanitary Inspector	Pandharkawada Municipal Council
16	Mr. A.R. Mane	Chief Officer	Ralegaon Nagar Panchayat
17	Mr. S.R.Raut	Account Officer	Ralegaon Nagar Panchayat
18	Dr. Prashant Jadhav	Chief Officer	Pandharkawada Municipal Council
19	Mr. Pavan P. Jatkar	Nodal Officer	Yavatmal Nagar Panchayat
20	Mr. Prafulla L. Janbandhy	Sanitary Inspector	Yavatmal Nagar Panchayat
21	Mr. Dhiraj Gohad	Chief Officer	Darwaha Municipal Council
22	Mr. Akshay Raut	Civil Engineer	Mahagaon Nagar Panchayat
23	Mr. Dnyaneshwar Gharde	Municipal Engineer	Ralegaon Nagar Panchayat
24	Mr. Priteshkumar S. Waghmare	Divisional Technical Expert	Amravati Municipal Corporation
25	Mr. Bhushan S. Chavhan	Water Supply & Sanitation Engineer	Pusad Municipal Council



# Solid Waste Management

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Amravati, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Session 1</b> 14.30 to 16.30 hrs.	Review by Government of Maharashtra	Government of Maharashtra Officials / SWM team
<b>Session 2</b> 16.30 to 17.30 hrs.	Group Exercise on “Strategy for SWM target achievement by 15th September 2019, with timeline”	RCUES, AILSG, Mumbai Team
Day 2	Content	Faculty
<b>Registration - 09.00 to 10.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction, Inauguration &amp; Special Address – 10.30 to 11.00 hrs.</b>		<b>State/division/district level authorities</b>
<b>Session 3</b> 11:00 to 11.30 hrs.	Overview of SWM	<b>Ms. Amruta Paranjape</b> Research Associate, RCUES, AILSG, Mumbai
<b>Session 4</b> 11.30 to 12.15 hrs.	<ul style="list-style-type: none"> <li>• SWM Status of Amravati Division</li> <li>• Overview of Swachh Survekshan 2020</li> </ul>	<b>Ms. Priyanka Nandurkar</b> Divisional Technical Expert, Amravati
<b>Session 5</b> 12.15 to 13.15 hrs..	Sustainable composting technologies	<b>Dr. Atul Vaidya</b> Chief Scientist, NEERI Nagpur
<b>Lunch Break- 13.15 to 14.00 hrs.</b>		
<b>Session 6</b> 14.00 to 15.00 hrs.	Role of waste pickers & their value addition in segregation process	<b>Mr. Sanjay Kamble,</b> President, Janadhar, Latur
<b>Session 7</b> 15.00 to 16.00 hrs..	Good practices on waste segregation	<b>Ms. Anusaya Kale-Chabrani</b> President, SWACHHA, Nagpur
<b>Session 8</b> 16.00 to 17.00 hrs.	Household level waste segregation with community participation	<b>Mr. Subhash Dalvi</b> Nodal Officer, SBM, MCGM, Mumbai
<b>Session 9</b> 17.00 to 17.30 hrs.	Dry waste recycling options	<b>Ms. Amruta Paranjape</b> Research Associate RCUES, AILSG, Mumbai

# Solid Waste Management

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Amravati, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Ajay kunj Mishra	Health officer	Jalgaon- Jamod Municipal Council
2	Mr. S. G. Ingle	Sanitary Inspector	Jalgaon- Jamod Municipal Council
3	Mr. A. G. Bobade	Chief Officer	Motala Nagar Panchayat
4	Mr. B. V. Varma	Jr. Engineer	Malkapur Municipal council
5	Mr. Nooral Amin Khan	Jr. Engineer	Digras Municipal Council
6	Mr. Sheshrao S. Tale	Chief Officer	Digras Municipal Council
7	Mr. Swapnil S. Ghuge	City-Co-ordinator	Khamgaon Municipal Council
8	Mr. Lalit A. Aherwal	Sanitary Inspector	Khamgaon Municipal Council
9	Mr. Bhushan P. Mapari	Coordinator	Shegaon Municipal Council
10	Mr. Samadhan N. Jaybhaye	Sanitary Inspector	Shegaon Municipal Council
11	Mr. Subhash M. Chaware	Sanitary Inspector	Shegaon Municipal Council
12	Mr. Sandeep Borkar	Chief Officer	Wani Municipal Council
13	Mr. S. B. Pakhare	Sanitary Inspector	Chikhali Municipal Council
14	Mr. Shubham Tayade	Municipal Engineer (WSS)	Wani Municipal Council
15	Mr. Kishor Dheple	Civil Engineer	Wani Municipal Council
16	Mr. Nikhil G. Chavhan	Civil Engineer	Maregaon Municipal Council
17	Mr. Dhananjay B. Ingale	Nodal Officer	Chikhali Municipal Council
18	Mr. Sunil Bendwal	Sanitary Inspector	Buldana Municipal Council
19	Mr. Shrikant S. Pawar	Nodal Officer	Buldana Municipal Council
20	Mr. Ashish M. Nagpure	Nodal Officer	Sangrampur Nagar Panchayat
21	Mr. Chandrakant R. Pawar	Tax Inspector	Zari Jamni Nagar Panchayat
22	Mr. Sandeep A. Gaikwad	Nodal Officer	Darwaha Municipal Council
23	Mr. Charudatta Ingale	Chief Officer	Kalamb Municipal Council
24	Mr. Ishwar Bichewar	Tax Inspector	Kalamb Municipal Council
25	Mr. Ramesh Dhage	Chief Officer	Sangrampur Nagar Panchayat
26	Mr. Ravindra D. Waghmode	Nodal Officer	Mekhar Municipal Council
27	Mr. Mahesh S. Waghmode	Chief Officer	Lonar Municipal Council
28	Mr. Saurabh S. Kulkarni	Municipal Engineer	Umardhed Municipal Council
29	Mr. Vishal v. Shrivastav	Sanitary Inspector	Umardhed Municipal Council
30	Mr. Rahul V. Mapasi	Municipal Engineer	Buldhana Municipal Council
31	Mr. Nanarao Narayan Ingle	Sanitary Inspector	Sindakhedraja Municipal Council
32	Mr. Prajakta S. Pande	Municipal Engineer (WSS)	Khamgaon Municipal Council
33	Mr. Sanjay R. Mokasabe	Dy. Engineer (WSS)	Shegaon Municipal Council
34	Mr. Niraj P. Naphade	Dy. Engineer	Motala Municipal Council
35	Mr. Patel Tanvir	Sanitary Inspector	Nandura Municipal Council
36	Mr. Arif Shaha Rashid Shaha	City Coordinator	Lonar Municipal Council
37	Mr. Sharad J. Ingole	Sanitary Inspector	Jalgaon- Jamod Municipal Council
38	Mr. S. S. Borey	Sanitary Inspector	Lonar Municipal Council
39	Mr. S.O. Wakhade	Jr. Engineer	Sindakhedraja Municipal Council
40	Mr. Sachin Rane	Chief Officer	Tiora Municipal Council

# Solid Waste Management

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Amravati, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
41	Ms. Sonali A. Nagargoje	Jr. Engineer/ Nodal Officer	Kalamb Municipal Council
42	Mr. Abhijit A. Ghadage	City Coordinator	Deulgaonraja Municipal Council
43	Mr. Dnyaneshwar T. Pawar	Jr. Engineer	Lonar Municipal Council
44	Mr. Dhananjay R. Borkar	Chief Officer	Buldhana Municipal Council

# Solid Waste Management

30<sup>th</sup> - 31<sup>st</sup> July, 2019, Amravati, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Registration - 09.00 to 09.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction, Inauguration &amp; Special Address – 09.30 to 10.00 hrs.</b>		<b>State/division/district level authorities</b>
<b>Session 1</b> 10:00 to 11.00 hrs.	Overview of SWM	<b>Ms. Amruta Paranjape</b> Research Associate, RCUES, AILSG, Mumbai
<b>Session 2</b> 11.00 to 12.00 hrs.	<ul style="list-style-type: none"> <li>• SWM Status of Amravati Division</li> <li>• Overview of Swachh Survekshan 2020</li> </ul>	<b>Ms. Priyanka Nandurkar</b> Divisional Technical Expert, Amravati
<b>Session 3</b> 12.00 to 13.00 hrs..	Sustainable composting technologies	<b>Dr. Sandeep Bodkhe</b> Principal Scientist, NEERI Nagpur
<b>Lunch Break- 13.00 to 14.00 hrs.</b>		
<b>Session 4</b> 14.00 to 15.00 hrs.	Role of waste pickers & their value addition in segregation process	<b>Mr. Sanjay Kamble,</b> President, Janadhar, Latur
<b>Session 5</b> 15.00 to 16.00 hrs..	Good practices on waste segregation	<b>Ms. Anusaya Kale-Chabrani</b> President, SWACHHA, Nagpur
<b>Session 6</b> 16.00 to 17.00 hrs.	Household level waste segregation with community participation	<b>Mr. Subhash Dalvi</b> Nodal Officer, SBM, MCGM, Mumbai
<b>Session 7</b> 17.00 to 18.00 hrs.	Dry waste recycling options	<b>Ms. Amruta Paranjape</b> Research Associate RCUES, AILSG, Mumbai
Day 2	Content	Faculty
<b>Session 8</b> 10.30 to 12.00 hrs.	Review by Government of Maharashtra	Government of Maharashtra Officials / SWM team
<b>Session 9</b> 12.00 to 13.00 hrs.	Group Exercise on “Strategy for SWM target achievement by 15th September 2019, with timeline”	RCUES, AILSG, Mumbai Team
13.00 to 13.30 hrs.	Feedback & closing	RCUES, AILSG, Mumbai Team
<b>Lunch Break- 13.30 to 14.30 hrs. (for batch 1 and batch 2) &amp; Departure of batch 1</b>		

# Solid Waste Management

30<sup>th</sup> - 31<sup>st</sup> July, Amravati, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Swapnil S. Ghuge	City Co-ordinator	Khamgaon Municipal Council
2	Mr. Manoj D. Tarale	City Co-ordinator	Anjangaon Municipal Council
3	Ms. Neha A. Lange	City Co-ordinator	Chandur Bazar Municipal Council
4	Ms. Sujata D. Pachaghare	City Co-ordinator	Morshi Municipal Council
5	Ms. Payal R. Patil	City Co-ordinator	Nandgaon Khandesh Municipal Council
6	Mr. Rushikesh Deshmukh	Municipal Engineer (WSS)	Morshi Municipal Council
7	Mr. Mahesh K. Choudhari	City Co-ordinator	Motala Municipal Council
8	Mr. Ravindra D. Waghmode	Nodal Officer	Mehkar Municipal Council
9	Mr. Jeetkumar Shejao	Chief Officer	Chandur Bazar Municipal Council
10	Mr. Parimal P. Deshmukh	Municipal Engineer (WSS)	Chandur Bazar Municipal Council
11	Mr. Vikram V. Khodke	City Co-ordinator	Shendurjanaghat Municipal Council
12	Mr. Sharad J. Ingole	Sanitary Inspector	Jalgaon Jamod Municipal Council
13	Ms. Kshanaya Gajbhiye	City Co-ordinator	Shegaon Municipal Council
14	Mr. Manish V. Hadale	Sanitary Inspector	Amravati Municipal Corporation
15	Mr. Vijay S. Bure	Sr. Sanitary Inspector	Amravati Municipal Corporation
16	Mr. Mahesh S. Mule	City Co-ordinator	Daryapur Municipal Council
17	Mr. Sumit P. Rajgure	City Co-ordinator	Nandura Municipal Council
18	Mr. Pankaj Gawande	Municipal Engineer (WSS)	Nandgaon Khandesh Municipal Council
19	Mr. Sumedh A. Ganesh	City Co-ordinator	Mehkar Municipal Council
20	Mr. V. D. Jedte	Sanitary Inspector	Amravati Municipal Corporation
21	Mr. S. S. Palasankar	Sr. Sanitary Inspector	Amravati Municipal Corporation
22	Mr. I. K. Khan	Sr. Sanitary Inspector	Amravati Municipal Corporation
23	Ms. Shweta Bokey	City Co-ordinator	Amravati Municipal Corporation
24	Ms. Krutika C. Band	City Co-ordinator	Achalpur Municipal Council
25	Mr. Pranav Lende	City Co-ordinator	Dharani Municipal Council
26	Ms. Snehal Baitule	City Co-ordinator	Dhamangaon Municipal Council
27	Mr. R. S. Sonekar	Nodal Officer / Sanitary Inspector	Shendurjanaghat Municipal Council
28	Ms. Nikita P. Deshmukh	Municipal Engineer	Daryapur Municipal Council
29	Mr. Pankaj A. Tatte	Sanitary Inspector	Amravati Municipal Council
30	Mr. Anupkant P. Patne	Sanitary Inspector	Amravati Municipal Council
31	Mr. Tushar Sonawane	Sanitary Inspector	Amravati Municipal Council
32	Mr. Anurag Watane	City Co-ordinator	Bhatkuli Municipal Council
33	Mr. Mayur R. Behare	Sanitary Inspector	Bhatkuli Municipal Council
34	Mr. Shripad A. Bhagat	City Co-ordinator	Warud Municipal Council
35	Mr. Dhananjay B. Shinde	Sr. Sanitary Inspector	Amravati Municipal Corporation

# Solid Waste Management

30<sup>th</sup> - 31<sup>st</sup> July, 2019, Amravati, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
36	Mr. Pratik V. Gattani	City Co-ordinator	Jalgaon Jamod Municipal Council
37	Mr. Manoj R. Thakare	City Co-ordinator	Sindkhedraja Municipal Council
38	Mr. Shekhar P. Kulkarni	City Co-ordinator	Malkapur Municipal Council
39	Mr. Sagar S. Rajurkar	Sanitary Inspector	Amravati Municipal Corporation
40	Mr. Anil K. Gohar	Sanitary Inspector	Amravati Municipal Corporation
41	Mr. Abhijit A. Ghadage	Sanitary Inspector	Deulgaonraja Municipal Council
42	Mr. Rajendra K. Jadhav	Sanitary Inspector	Chandurbazar Municipal Council
43	Mr. Sachin R. Chawake	City Engineer (WS)	Chikhaldara Municipal Council
44	Mr. Chandan R. Gawande	City Co-ordinator	Chikhaldara Municipal Council
45	Mr. Pratik R. Watu	Sanitary Inspector	Anjangaon Municipal Council
46	Mr. Rajesh K. Rathod	Sanitary Inspector	Amravati Municipal Corporation
47	Mr. S. N. Wahurwagh	Chief Officer	Anjangaon Surji Municipal Council
48	Mr. Pravin D. Thombre	Municipal Engineer (WS)	Chandur Railway Municipal Council
49	Mr. Santosh K. Pawar	City Co-ordinator	Buldhana Municipal Council
50	Mr. M. D. Pote	Municipal Engineer (WSS)	Achalpur Municipal Council
51	Mr. Mohd. Zaheer	Sanitary Inspector	Achalpur Municipal Council
52	Mr. Mohd. Muzaffar	Sanitary Inspector	Achalpur Municipal Council
53	Mr. Sanjay R. Samund	Sanitary Inspector	Achalpur Municipal Council
54	Mr. Roshan Deshmukh	City Co-ordinator	Chikhali Municipal Council
55	Mr. Rajesh B. Shirke	Sanitary Inspector	Chandurrailway Municipal Council
56	Mr. Suryakant Pidurkar	Chief Officer	Chikhaldara Municipal Council
57	Mr. G. V. Bhoyar	Chief Officer	Shendurjanaghat Municipal Council
58	Dr. Meghana Wasankar	Chief Officer	Chandurrailway Municipal Council
59	Mr. N. S. Wanik	Sanitary Inspector	Warud Municipal Council
60	Mr. P. U. Wankhade	Chief Officer	Morshi Municipal Council
61	Mr. Raju B. Pathan	Sr. Sanitary Inspector	Dhamangaon Rly. Municipal Council
62	Mr. Sumedh I. Afoney	Chief Officer	Dhamangaon Municipal Council

# Solid Waste Management

31<sup>st</sup> July - 1<sup>st</sup> August, 2019, Amravati, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Session 1</b> 14.30 to 16.30 hrs.	Review by Government of Maharashtra	Government of Maharashtra Officials / SWM team
<b>Session 2</b> 16.30 to 17.30 hrs.	Group Exercise on “Strategy for SWM target achievement by 15th September 2019, with timeline”	RCUES, AILSG, Mumbai Team
Day 2	Content	Faculty
<b>Registration - 09.00 to 10.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction, Inauguration &amp; Special Address – 10.30 to 11.00 hrs.</b>		<b>State/division/district level authorities</b>
<b>Session 3</b> 11:00 to 11.30 hrs.	Overview of SWM	<b>Ms. Amruta Paranjape</b> Research Associate, RCUES, AILSG, Mumbai
<b>Session 4</b> 11.30 to 12.15 hrs.	<ul style="list-style-type: none"> <li>• SWM Status of Amravati Division</li> <li>• Overview of Swachh Survekshan 2020</li> </ul>	<b>Ms. Priyanka Nandurkar</b> Divisional Technical Expert, Amravati
<b>Session 5</b> 12.15 to 13.15 hrs..	Sustainable composting technologies	<b>Dr. Sandeep Bodke,</b> Principal Scientist, NEERI Nagpur
<b>Lunch Break- 13.15 to 14.00 hrs.</b>		
<b>Session 6</b> 14.00 to 15.00 hrs.	Role of waste pickers & their value addition in segregation process	<b>Mr. Deepak Chabukswar,</b> Dy. President, Janadhar, Latur
<b>Session 7</b> 15.00 to 16.00 hrs..	Good practices on waste segregation	<b>Ms. Anusaya Kale-Chabrani</b> President, SWACHHA, Nagpur
<b>Session 8</b> 16.00 to 17.00 hrs.	Household level waste segregation with community participation	<b>Mr. Subhash Dalvi</b> Nodal Officer, SBM, MCGM, Mumbai
<b>Session 9</b> 17.00 to 17.30 hrs.	Dry waste recycling options	<b>Ms. Amruta Paranjape</b> Research Associate RCUES, AILSG, Mumbai

# Solid Waste Management

31<sup>st</sup> July - 1<sup>st</sup> August, 2019, Amravati, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Gopal A. Patil	City Co-ordinator	Ner Nababapur Municipal Council
2	Mr. Sourabh C. Hingane	City Co-ordinator	Babhulgaon Municipal Council
3	Mr. Suresh Chimate	Municipal Engineer (WSS)	Murtijapur Municipal Council
4	Mr. Sagar G. Buk	City Co-ordinator	Kalamb Municipal Council
5	Mr. Aniket P. Fuke	City Co-ordinator	Akot Municipal Council
6	Mr. Arjun M. Mehare	City Co-ordinator	Karanja Municipal Council
7	Ms. Dipa V. Ganorkar	City Co-ordinator	Akola Municipal Corporation
8	Mr. Akshay A. Dhabale	City Co-ordinator	Teosa Municipal Council
9	Mr. Gajanan D. Ghawale	City Co-ordinator	Mangrulpir Municipal Council
10	Mr. Navin G. Deshaliwar	City Co-ordinator	Pandharkawada Municipal Council
11	Mr. Jeetu K. Badhel	Sanitary Inspector	Washim Municipal Council
12	Mr. Vasant A. Ingole	Chief Officer	Washim Municipal Council
13	Mr. Sunil S. Khete	Sr. Sanitary Inspector	Akola Municipal Council
14	Mr. Shailendra B. Pawar	Sr. Sanitary Inspector	Akola Municipal Council
15	Mr. A. S Sk. Ismail	Sr. Sanitary Inspector	Akola Municipal Council
16	Mr. Amar H. Khode	Sr. Sanitary Inspector	Akola Municipal Council
17	Mr. Nilesh G. Chavhan	City Co-ordinator	Telhara Municipal Council
18	Mr. Darpan V. Rathod	City Co-ordinator	Pusad Municipal Council
19	Mr. Shubham B. Rade	City Co-ordinator	Ralegaon Municipal Council
20	Mr. Sachin Hanegaonkar	Sanitary Inspector	Amravati Municipal Corporation
21	Mr. Prashant Rode	Chief Officer	Akot Municipal Council
22	Mr. Muzammi L Akhatar	City Coordinator	Risod Municipal Council
23	Mr. Harun Shaikh	City Coordinator	Umarkhed Municipal Council
24	Mr. Manohar V. Akotkar	Chief Officer	Telhara Municipal Council
25	Mr. Gopichand S. Pawar	Chief Officer	Balapur Municipal Council
26	Mr. Vijay R. Lohakare	Chief Officer	Murtizapur Municipal Council
27	Mr. Harshal S. Mankar	City Co-ordinator	Chandur Rly. Municipal Council
28	Mr. Nitin P. Imale	Sanitary Inspector	Chandur Rly. Municipal Council
29	Ms. Geeta Wanjari	Chief Officer	Daryapur Municipal Council
30	Dr. Ajay G. Kuswade	Chief Officer	Karanja Municipal Council
31	Mr. Milind N. Wandkhade	Dy. Engineer (WS)	Achalpur Municipal Council
32	Mr. Amit Choutiyal	Computer Operator	Achalpur Municipal Council
33	Mr. Rahul Sarwan	Clerk	Achalpur Municipal Council
34	Mr. Ganesh R. Pande	Chief Officer	Risod Municipal Council
35	Mr. Vinay B. Wankhade	Sanitary Inspector	Karanja Municipal Council
36	Mr. Charudatta Dandavat	Municipal Engineer	Manora Municipal Council
37	Ms. Apurva S. Meshram	City Co-ordinator	Darwha Municipal Council
38	Ms. Komal D. Kotrange	City Co-ordinator	Digras Municipal Council
39	Mr. Jitendra N. Karse	Clerk	Chandur Rly. Municipal Council
40	Ms. Sukanya S. Jadhav	City Co-ordinator	Mahagaon Municipal Council



# Solid Waste Management

31<sup>st</sup> July - 1<sup>st</sup> August, 2019, Amravati, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
41	Mr. Vikas M. Khandare	Chief Officer	Malegaon Municipal Council
42	Ms. Sonali A. Yadav	Chief Officer	Patur Municipal Council
43	Ms. Kalyani D. Solanke	Nodal Officer	Patur Municipal Council
44	Ms. Swati U. Korde	City Co-ordinator	Arni Municipal Council
45	Mr. Satish S. Deshmukh	Nodal Officer	Balapur Municipal Council
46	Mr. Shyam A. Bhusewar	City Co-ordinator	Malegaon Municipal Council
47	Mr. Akshay D. Sonane	City Co-ordinator	Manora Municipal Council
48	Mr. Satish Snevada	Municipal Engineer(WSS)	Malegaon Municipal Council
49	Ms. Sonali A. Khadekar	Jr. Engineer (WSS)	Mangrulpir Municipal Council
50	Mr. Sagar M. Thakre	Tax & Administration Officer	Amravati Municipal Corporation
51	Mr. Amit Wankhade	Tax & Administration Officer	Amravati Municipal Corporation
52	Mr. Mahesh B. Rathod	Municipal Engineer	Telhara Municipal Council
53	Mr. Shabaji Wathare	Municipal Engineer	Yavatmal Municipal Council
54	Ms. Deepali Y. Bhatkar	City Co-ordinator	Barshitakali Municipal Council
55	Mr. Roshan Kumare	Municipal Engineer (WSS)	Akot Municipal Council
56	Mr. Mayur V. Mundane	City Co-ordinator	Wani Municipal Council
57	Mr. Yogesh R. Tayade	Municipal Engineer	Barshitakali Municipal Council
58	Mr. C. P. Chandaliya	Sanitary Inspector	Akot Municipal Council
59	Ms. Mitushri V. Lonare	City Co-ordinator	Murtizapur Municipal Council
60	Mr. Rajesh P. Sangole	Sanitary Inspector	Mangrulpir Municipal Council
61	Mr. Milind M. Devaskar	Sanitary Inspector	Mangrulpir Municipal Council
62	Dr. Ajay G. Karwade	Sanitary Inspector	Manora Municipal Council
63	Mr. Omkar Sholve	Co-ordinator	Swachh Maharashtra Mission
64	Ms. Priyanka Nandurkar	Co-ordinator	Divisional Commissioner Office, Amravati
65	Priteshkumar S. Waghmare	Co-ordinator	Divisional Commissioner Office, Amravati
66	Mr. Shrikant D. Borkar	Co-ordinator	Divisional Commissioner Office, Amravati
67	Mr. Shahaji B. Chavan	Co-ordinator	Divisional Commissioner Office, Amravati

## **Moving Towards ODF++ Cities / Faecal Sludge & Septage Management (FSSM)**



# Moving Towards ODF++ Cities

3<sup>rd</sup> May, 2019, Mumbai, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.00 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.00 to 10.30 hrs.</b>		<b><u>Welcome Address</u></b> <b>Ms. Utkarsha Kavadi</b> Director, RCUES of AILSG, Mumbai  <b><u>Inauguration</u></b> <b>Mr. Milind Shambharkar, IAS</b> Commissioner, Social Justice and Special Assistance Department, GoM  <b>Mr. Rajiv Agarwal, IAS (Retd.)</b> Director General, AILSG  <b>Mr. A. K. Jain, IAS (Retd.),</b> Director, Centre for sustainable Governance, AILSG, Mumbai
<b>Session 1</b> 10:30 to 11.30 hrs.	Overview of Manual Scavenging & Hazardous Cleaning in Indian Cities	<b>Dr. Ajit Salvi</b> Executive Engineer (Sewers), MCGM, Mumbai
<b>Session 2</b> 11.30 to 12.30 hrs.	Legal Provisions for the welfare of the manual scavengers	<b>Mr. Milind Shambharkar, IAS</b> Commissioner, Social Justice and Special Assistance Department, GoM
<b>Session 3</b> 12.30 to 13.30 hrs..	Health Issues associated with Hazardous Cleaning of Sewers & Septic tanks & its implications.	<b>Dr. Ajit Salvi</b> Executive Engineer (Sewers), MCGM, Mumbai
<b>Lunch Break- 13.30 to 14.00 hrs.</b>		
<b>Session 4</b> 14.00 to 15.00 hrs.	Precautions for cleaning of sewer and septic tanks	<b>Mr. Bhalchandra Salvi</b> Retired Executive Engineer, MCGM, Mumbai
<b>Session 5</b> 15.00 to 16.00 hrs..	Safety measures & devices for manual cleaning of sewer and septic tanks	<b>Mr. Sushil Ubale</b> Executive Engineer (S.O) P & MS (W S), MCGM, Mumbai
<b>Session 6</b> 16.00 to 17.00 hrs.	Rehabilitation Schemes for Welfare of Manual Scavengers	<b>Mr. Kamlakar Phand</b> Managing Director, Mahatma Phule Corporation Ltd., Mumbai
17.00 to 17.30 hrs.	Discussion	<b>Ms. Amruta Paranjape</b> Research Associate RCUES, AILSG, Mumbai
17.30 to 18.00 hrs.	Feedback & Summing up	

# Moving Towards ODF++ Cities

3<sup>rd</sup> May, 2019, Mumbai, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Shailesh L. Ulkay	Dy. General Manager	Mahatma Phule Backward Class Development, Ltd.
2	Mr. Ashutosh S. Nagawade	Jr. Engineer	Municipal Corporation of Greater Mumbai
3	Mr. Aniket S. Khandave	Jr. Engineer	Municipal Corporation of Greater Mumbai
4	Mr. A. T. Tijane	Sanitary Inspector	Amravati Municipal Corporation
5	Mr. Y. S. Bure	Sanitary Inspector	Amravati Municipal Corporation
6	Mr. D. B. Shinde	Sr. Sanitary Inspector	Amravati Municipal Corporation
7	Mr. Sadanand R. Gupta	Jr. Engineer	Municipal Corporation of Greater Mumbai
8	Mr. Abhishek V. Bolelu	Jr. Engineer	Municipal Corporation of Greater Mumbai
9	Mr. Anit A. Kolhe	Jr. Engineer	Nagpur Municipal Corporation
10	Mr. W. S. Kailkar	Jr. Engineer	Nagpur Municipal Corporation
11	Mr. R. K. Fale	Jr. Engineer	Nagpur Municipal Corporation
12	Dr. Ketna A. Malkar	Project Head	Environmental Research Foundation
13	Dr. L. P. Gophare	Health Officer	Pimpri Chinchwad Municipal Corporation
14	Mr. M. M. Shinde	Sanitary Inspector	Pimpri Chinchwad Municipal Corporation
15	Mr. Vinod K. Bendarg	Asst. Health Officer	Pimpri Chinchwad Municipal Corporation
16	Mr. Jayant Patnaik	Chief Sanitary Inspector	Thane Municipal Corporation
17	Mr. G. B. Khilare	Chief Sanitary Inspector	Thane Municipal Corporation
18	Dr. Vijay Khatriya	Chief Sanitary Inspector	Thane Municipal Corporation
19	Mr. Sumit Jadhav	Sanitary Inspector	Thane Municipal Corporation
20	Mr. Sandeep Nalawade	Superintendent Engineer	Nashik Municipal Corporation
21	Mr. Manoj Patil	Sanitary Inspector	Navi Mumbai Corporation
22	Mr. Ajay K. Pawar	Desk Officer	Pune Municipal Corporation
23	Mr. Vaibhav K. Kamble	Health Inspector	Pune Municipal Corporation
24	Mr. Sunil U. Tanwar	Divisional Sanitary Inspector	Pune Municipal Corporation
25	Mr. J. W. Chandan	Sanitary Inspector	Pune Municipal Corporation
26	Mr. Sandesh H. Jadhav	Sanitary Inspector	Vasai-Virar City Municipal Corporation
27	Mr. G. M. Kore	Sanitary Inspector	Vasai-Virar City Municipal Corporation
28	Mr. Vasant R. Bhoir	Sanitary Inspector	Vasai-Virar City Municipal Corporation
29	Mr. D. R. Drna	Sanitary Inspector	Mantralaya

# Moving Towards ODF++ Cities

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Panaji, Goa

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.00 to 10.45 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Tea Break - 10.45 to 11.00 hrs.</b>		
<b>Session 1</b> 11:00 to 11.30 hrs.	Sustaining ODF status in cities	<b>Ms Aashima Parikh</b> Research Associate RCUES of AILSG Mumbai
<b>Session 2</b> 11.30 to 12.15 hrs.	Overview and planning of Faecal Sludge & Septage Management (FSSM) City level approach towards FSSM	<b>Ms Aashima Parikh</b> Research Associate RCUES of AILSG Mumbai
<b>Session 3</b> 12.15 to 13.00 hrs..	Technology Options for Faecal Sludge & Septage Management (FSSM)	<b>Dr. Milind Kulkarni</b> Director, Prachi Services, Environmental Engineering & Management, Mumbai
<b>Session 4</b> 12.15 to 13.00 hrs..	Case Study Presentation on best practice implemented for FSSM	<b>Dr. Milind Kulkarni</b> Director, Prachi Services, Environmental Engineering & Management, Mumbai
<b>Lunch Break- 14.00 to 15.00 hrs.</b>		
<b>Session 5</b> 15.00 to 17.00 hrs.	Site Visit to Co-treatment at Panaji STP & Discussion with STP Team	<b>RCUES, AILSG Team</b>

# Moving Towards ODF++ Cities

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Panaji, Goa

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Ms. Vijayalaxmi A. Dohe	President	Gadchandur Municipal Council
2	Mr. Harishbhau M. More	Municipal Councillor	Gadchandur Municipal Council
3	Mr. Madhukar N. Kowale	Municipal Councillor	Gadchandur Municipal Council
4	Ms. Shantabai N. Motewad	Municipal Councillor	Gadchandur Municipal Council
5	Mr. Nilesh S. Tajhe	Municipal Councillor	Gadchandur Municipal Council
6	Mr. Abdul Hafij Ab. Gaui	Municipal Councillor	Gadchandur Municipal Council
7	Ms. Aruna S. Betawar	Municipal Councillor	Gadchandur Municipal Council
8	Mr. Meghendra H. Kapgate	Municipal Councillor	Sakoli Municipal Council
9	Mr. Ravindra P. Trimbak	Municipal Councillor	Sakoli Municipal Council
10	Mr. Jagan K. Uikey	Municipal Councillor	Sakoli Municipal Council
11	Ms. Lata K. Kapgate	Municipal Councillor	Sakoli Municipal Council
12	Ms. Anita K. Pogade	Municipal Councillor	Sakoli Municipal Council
13	Mr. Tarun R. Mallani	Municipal Councillor	Sakoli Municipal Council
14	Ms. Dhanwanta I. Raut	President	Sakoli Municipal Council
15	Mr. Purushottam M. Kotangale	Municipal Councillor	Sakoli Municipal Council
16	Ms. Rajashri R. Mungulmave	Municipal Councillor	Sakoli Municipal Council
17	Mr. Shailesh R. Shahare	Municipal Councillor	Sakoli Municipal Council
18	Ms. Rohini H. Mungulmave	Municipal Councillor	Sakoli Municipal Council
19	Ms. Shailutai M. Borkar	Municipal Councillor	Sakoli Municipal Council
20	Ms. Vanita K. Doye	Municipal Councillor	Sakoli Municipal Council
21	Ms. Meena V. Lanjewar	Municipal Councillor	Sakoli Municipal Council
22	Mr. Sachin S. Domale	Clerk	Sakoli Municipal Council
23	Mr. Amar A. Rathod	Municipal Councillor	Jivati Nagar Panchayat
24	Ms. Pushpa M. Naitam	Chairman	Jivati Nagar Panchayat
25	Mr. Ashpak R. Shaikh	Vice-Chairman	Jivati Nagar Panchayat
26	Mr. Vikas Patil	Municipal Councillor	Ulhasnagar Municipal Corporation
27	Mr. A. A. Gosavi	Assistant Engineer	Bhavanagar Municipal Corporation
28	Mr. A. S. Rohit	Chief Sanitary Inspector	Bhavanagar Municipal Corporation
29	Mr. J. B. Garchar	Chief Sanitary Inspector	Bhavanagar Municipal Corporation
30	Mr. G. M. Bariya	Sanitary Inspector	Bhavanagar Municipal Corporation
31	Mr. P. G. Dhoriya	Sanitary Inspector	Bhavanagar Municipal Corporation
32	Mr. Girishbhai B. Desai	Municipal Councillor	Valsad Municipal Council
33	Mr. Bharatbhai C. Patel	Municipal Councillor	Valsad Municipal Council
34	Mr. Pravinbhai S. Patel	Municipal Councillor	Valsad Municipal Council
35	Mr. Rameshbhai M. Patel	Municipal Councillor	Valsad Municipal Council

# Moving Towards ODF++ Cities

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Panaji, Goa

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
36	Mr. Vijaybhai S. Patel	Municipal Councillor	Valsad Municipal Council
37	Mr. Sanjay D. Chauhan	Municipal Councillor	Valsad Municipal Council
38	Mr. Dharmesh A. Patel	Municipal Councillor	Valsad Municipal Council
39	Mr. Rajubhai D. Rathod	Municipal Councillor	Valsad Municipal Council
40	Mr. Ravindra R. Mahakal	Municipal Councillor	Valsad Municipal Council
41	Mr. Dharmesh A. Patel	Municipal Councillor	Valsad Municipal Council
42	Mr. Vibhavar Rao	Chief Sanitary Inspector	Anand Municipal Council
43	Mr. Himesh J. Patel	Municipal Councillor	Anand Municipal Council
44	Mr. Dipen J. Patel	Municipal Councillor	Anand Municipal Council
45	Mr. Kantibhai Chavada	President	Anand Municipal Council
46	Mr. Jayantibhai Ranavav	President	Amreli Municipal Council
47	Mr. Shakilbhai Shahid	Vice-President	Amreli Municipal Council
48	Mr. Maulikbhai Upadhyay	Chairman (Town Planning)	Amreli Municipal Council
49	Mr. Pankajbhai Rokad	Chairman (Health Committee)	Amreli Municipal Council
50	Mr. Prakashbhai Kabariya	Municipal Councillor	Amreli Municipal Council
51	Mr. Nanjibhai Chavada	Asst. Sanitary Inspector	Amreli Municipal Council
52	Mr. Rajeshkumar R. Waghela	Food Safety Officer	Kalol Municipal Council
53	Mr. Shanti Lal	Municipal Councillor	Nimbahera Municipal Council
54	Mr. Mukesh Meghwal	Municipal Councillor	Nimbahera Municipal Council
55	Mr. Rajesh Lot	Municipal Councillor	Nimbahera Municipal Council
56	Mr. Shambhulal Mali	Municipal Councillor	Nimbahera Municipal Council
57	Mr. Mubarak Hussain	Municipal Councillor	Nimbahera Municipal Council
58	Ms. Liladevi Kumawat	Municipal Councillor	Nimbahera Municipal Council
59	Mr. M. S. Gokharu	Municipal Councillor	Nimbahera Municipal Council
60	Ms. Parvin Begam	Municipal Councillor	Nimbahera Municipal Council
61	Mr. Jawanmal Medtiya	Municipal Councillor	Sumerpur Municipal Council
62	Mr. Mehboob Khan	Municipal Councillor	Sumerpur Municipal Council
63	Mr. Shyamal Chavriya	Municipal Councillor	Sumerpur Municipal Council
64	Mr. Kishanlal Wachheta	Municipal Councillor	Sumerpur Municipal Council
65	Mr. Prakash Solanki	Municipal Councillor	Sumerpur Municipal Council
66	Mr. Ramesh Kumar Rathod	Municipal Councillor	Sumerpur Municipal Council
67	Mr. Ratanlal Ghachi	Municipal Councillor	Sumerpur Municipal Council
68	Mr. Subhash Mewada	Municipal Councillor	Sumerpur Municipal Council
69	Mr. Laxminarayan Malviya	Municipal Councillor	Sumerpur Municipal Council
70	Mr. Yashwant Parihar	Municipal Councillor	Sumerpur Municipal Council
71	Mr. Rajkumar Fanda	President	Pilibanga Municipal Council
72	Mr. Arvind Joshi	Municipal Councillor	Pilibanga Municipal Council
73	Mr. Diviz DeMelo	Municipal Engineer	Mapusa Municipal Council
74	Mr. Deepchand Tamahkar	Community Organizer	Mapusa Municipal Council
75	Mr. Vijaykumar P. Nateka	Municipal Councillor	Bicholim Municipal Council

# Moving Towards ODF++ Cities

27<sup>th</sup> - 28<sup>th</sup> June, 2019, Panaji, Goa

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
76	Mr. Nissar H. Shaikh	Municipal Councillor	Bicholim Municipal Council
77	Ms. Medha V. Bordekar	Municipal Councillor	Bicholim Municipal Council
78	Mr. Rajesh P. Fadte	Municipal Engineer	Bicholim Municipal Council
79	Ms. Aruna V. Porobvadakar	Community Organizer	Bicholim Municipal Council



# Moving Towards ODF++ Cities

20<sup>th</sup> - 21<sup>st</sup> Sept, 2019, Ahmedabad, Gujarat

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction - 10.00 to 10.15 hrs.</b>		<b>Mrs. Maleka Ansari</b> Sr. Research Officer RCUES of AILSG Mumbai
<b>Session 1</b> 11:00 to 11.30 hrs.	Overview and planning of Faecal Sludge & Septage Management (FSSM) city level approach towards FSSM	<b>Ms Aashima Parikh</b> Research Associate RCUES of AILSG Mumbai
<b>Session 2</b> 11.00 to 13.00 hrs.	Technology options for Faecal Sludge & Septage Management (FSSM)	<b>Mr. F. T. Kanpurwala</b> Sr. Faculty, AILSG & Consultant, Gujarat Institute of Civil Engineering & Architect, Ahmedabad
<b>Lunch Break- 13.00 to 14.00 hrs.</b>		
<b>Session 3</b> 14.00 to 17.00	Site Visit – Decentralized Waste Water Treatment System (DWATS) Gandhinagar	<b>Mr. V. K. Yadav</b> Plant Incharge, DWATS, Gandhinagar Mr. Vishnu Deth Plant Engineer DWATS, Gandhinagar

Day 2	Content	Faculty
09.30 to 10.00	Breakfast	
<b>Session 4</b> 10:00 to 11.00 hrs.	Case Study – Presentation on best practice implemented for FSSM	<b>Dr. Milind Kulkarni</b> Former Professor, IIT & Environmental Consultant Mumbai
11.00 to 12.30 hrs.	Preparing detailed action plan on FSSM for sanitation sustainability	<b>Dr. Milind Kulkarni &amp; RCUES of AILSG, Mumbai Team</b>
12.30 to 13.00 hrs.	Feedback & Summing up	<b>RCUES, AILSG, Mumbai Team</b>
<b>13.00 hrs. onwards Lunch &amp; Departure</b>		

# Moving Towards ODF++ Cities

20<sup>th</sup> - 21<sup>st</sup> Sept, 2019, Ahmedabad, Gujarat

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. R. C. Solanki	Supervisor	Dhanera Municipal Council
2	Mr. Jaydip Algotar	Sanitary Inspector	Ahmedabad Municipal Corporation
3	Mr. Tejasgar R. Goswami	Sanitary Inspector	Ahmedabad Municipal Corporation
4	Mr. Durgesh Solanki	Sanitary Inspector	Ahmedabad Municipal Corporation
5	Mr. Parth Prajapati	Sanitary Inspector	Ahmedabad Municipal Corporation
6	Mr. Narendra Makwana	Sanitary Inspector	Ahmedabad Municipal Corporation
7	Mr. Christian Denis	Sanitary Inspector	Ahmedabad Municipal Corporation
8	Mr. Bhaumik Panchal	Sanitary Inspector	Ahmedabad Municipal Corporation
9	Mr. Rupesh Patani	Sanitary Inspector	Ahmedabad Municipal Corporation
10	Mr. Saurabh Parmar	Sanitary Inspector	Ahmedabad Municipal Corporation
11	Mr. Nishant Parmar	Sanitary Inspector	Ahmedabad Municipal Corporation
12	Mr. Bhavesh Parmar	Sanitary Inspector	Ahmedabad Municipal Corporation
13	Ms. Shyara Bhavik	Sanitary Inspector	Ahmedabad Municipal Corporation
14	Mr. Dinesh Parmar	Sanitary Inspector	Ahmedabad Municipal Corporation
15	Mr. Gautam Purabiya	Sanitary Inspector	Ahmedabad Municipal Corporation
16	Mr. Gunwant Rai Khatri	Sanitary Inspector	Ahmedabad Municipal Corporation
17	Mr. Kamaraj Movadiya	Sanitary Inspector	Ahmedabad Municipal Corporation
18	Mr. Jaydeep M. Panara	Sanitary Inspector	Ahmedabad Municipal Corporation
19	Mr. Shambhubhai D. Vasukiya	Sanitary Inspector	Ahmedabad Municipal Corporation

# Moving Towards ODF++ Cities

20<sup>th</sup> - 21<sup>st</sup> Sept, 2019, Ahmedabad, Gujarat

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
20	Mr. Vipul R. Chihla	Sanitary Inspector	Ahmedabad Municipal Corporation
21	Mr. Bhavesh K. Chavada	Sanitary Inspector	Ahmedabad Municipal Corporation
22	Mr. Hareshkumar P. Turi	Sanitary Inspector	Ahmedabad Municipal Corporation
23	Mr. Ajaykumar C. Patani	Sanitary Inspector	Ahmedabad Municipal Corporation
24	Mr. Paresh Shubham	Sanitary Inspector	Ahmedabad Municipal Corporation

# Moving Towards ODF++ Cities

26<sup>th</sup> - 27<sup>th</sup> Sept, 2019, Agartala, Tripura

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction - 10.00 to 10.15 hrs.</b>		<b>Mrs. Maleka Ansari</b> Sr. Research Officer RCUES of AILSG Mumbai
<b>Inauguration &amp; Special Address – 10.15 to 10.30</b>		<b>Dr. Milind Ramteke, IAS</b> Director, Urban Development Department, Government of Tripura, Agartala, Tripura  <b>Mr. Nripendra Sharma</b> Additional Director, Urban Development Department Government of Tripura, Agartala, Tripura
<b>Session 1</b> 10:20 to 11.30 hrs.	ODF sustainability & moving towards ODF++ in cities	<b>Mr. Chinmoy Chakraborty</b> Assist. Engineer Agartala Municipal Corporation
<b>Session 2</b> 11.30 to 12.30 hrs.	Overview and planning of Faecal Sludge & Septage Management (FSSM) City level approach towards FSSM	<b>Mr. Chinmoy Chakraborty</b> Assist. Engineer Agartala Municipal Corporation
<b>Session 3</b> 12.30 to 13.30 hrs.	Technology Options for Faecal Sludge & Septage Management (FSSM)	<b>Mr. Chinmoy Chakraborty</b> Assist. Engineer Agartala Municipal Corporation
<b>Lunch Break- 13.30 to 14.30 hrs.</b>		
<b>Session 4</b> 14.30 to 15.30	Overview of Solid Waste Management in Indian Cities	<b>Dr. Amar Jyoti Kashyap</b> Environmental Scientist, Environ, Guwahati, Assam
<b>Session 5</b> 15.30 to 16.30 hrs.	Solid Waste Management segregation technologies	<b>Dr. Amar Jyoti Kashyap</b> Environmental Scientist, Environ, Guwahati, Assam
<b>Session 6</b> 16.30 to 17.30 hrs.	Case Study Presentation on Best Practices under SWM	<b>Dr. Amar Jyoti Kashyap</b> Environmental Scientist, Environ, Guwahati, Assam

# Moving Towards ODF++ Cities

26<sup>th</sup> - 27<sup>th</sup> Sept, 2019, Agartala, Tripura

## Programme Outline

Day 2	Content	Faculty
<b>Session 7</b> 10.00 to 12.00 hrs.	Group Exercise on preparation of detailed action plan on “moving towards ODF++	<b>Dr. Amar Jyoti Kashyap</b> Environmental Scientist, Environ, Guwahati, Assam
12.00 to 13.00 hrs.	Feedback & Summing up	<b>RCUES, AIILSG Team</b>
<b>13.00 hrs. onwards Lunch &amp; Departure</b>		

# Moving Towards ODF++ Cities

26<sup>th</sup> - 27<sup>th</sup> Sept, 2019, Agartala, Tripura

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Tanuj Kumar Saha	Sanitary Inspector	Agartala Municipal Corporation
2	Mr. Bibekananda Majumdar	Sanitary Inspector	Agartala Municipal Corporation
3	Mr. Subrata Chakrabarty	Jr. Engineer	Mohanpur Municipal Council
4	Mr. Richard Chakma	Jr. Engineer	Mohanpur Municipal Council
5	Mr. Jay Ch. Das	Jr. Engineer	Amarpur Municipal Council
6	Mr. Achindra Reang	Jr. Engineer	Santirbazar Municipal Council
7	Mr. Dipankar Sharma	Jr. Engineer	Ambassa Municipal Council
8	Mr. Gautam Goswami	Computer Operator	Ambassa Municipal Council
9	Mr. Dibyendo Paul	Jr. Engineer	Belonia Municipal Council
10	Ms. Namita Debbarma	Jr. Engineer	Udaipur Municipal Council
11	Mr. Pradip Pal	Jr. Engineer	Udaipur Municipal Council
12	Mr. Babu Basfore	Special Officer (SWM)	Agartala Municipal Corporation
13	Mr. Bijuban Debbarma	Jr. Engineer	Teliamura Municipal Council
14	Ms. Padma Mani Kalo	Computer Assistant	Teliamura Municipal Council
15	Ms. Gaur Chandra Paul	Jr. Engineer	Khowai Municipal Council
16	Mr. Soumen Das	Assist. Town Supervisor	Khowai Municipal Council
17	Mr. Rambabu Chaudhary Reang	Tax – Collector	Santirbazar Municipal Council
18	Mr. Tanmayjit Sen	Jr. Engineer	Panisagar Municipal Council
19	Mr. Ratish Ch. Debarma	Jr. Engineer	Bishalgarh Municipal Council
20	Mr. Jivan Krishna Tripura	Town Supervisor	Belonia Municipal Council
21	Mr. Karnumay Biswas	Jr. Engineer	Agartala Municipal Corporation
22	Mr. Dinesh Debbarma	Jr. Engineer	Agartala Municipal Corporation
23	Mr. Susanta Debbarma	Assist. Town Supervisor	Sabroom Municipal Council
24	Mr. Subal Debbarma	Lower Divisional Clerk	Ranirbazar Municipal Council
25	Mr. Diplas Das	Assist. Town Supervisor	Ranirbazar Municipal Council
26	Mr. Bikash Noatia	Jr. Engineer	Melaghar Municipal Council
27	Mr. Subrata Majumdeh	Assist. Professor	MBB College
28	Mr. Rupak Chakraborty	Jr. Engineer	Kailasahar Municipal Council
29	Mr. Manish Ch. Das	Asst. Town Supervisor	Kailasahar Municipal Council
30	Mr. Shekhar Bhattachary	Jr. Engineer	Dharmanagar Municipal Council
31	Mr. Santosh Bhattachary	Jr. Engineer	Dharmanagar Municipal Council

# Moving Towards ODF++ Cities

29<sup>th</sup> - 30<sup>th</sup> January, 2020, Diu, UT

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.00 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.00 to 11.00 hrs.</b>		<b>Dr. Chandan Karakare</b> Regional Director AILSG,  <b>Ms. Rasilaben Pathar</b> President Bagasara Municipal Council  <b>Ms. Charu Mori</b> Chief Officer Jafrabad Municipal Council  <b>Ms. Bhavanaben Goswami</b> Chief Officer Bagasara Municipal Council
<b>Session 1</b> 10:20 to 11.30 hrs.	Sustaining ODF status in cities	<b>Dr. Chandan Karakare</b> Regional Director AILSG,
<b>Session 2</b> 11.30 to 12.15 hrs.	<ul style="list-style-type: none"> <li>➤ Overview and planning of Faecal Sludge &amp; Septage Management (FSSM)</li> <li>➤ City level approach towards FSSM</li> </ul>	<b>Dr. Milind Kulkarni</b> Former Professor IIT, Mumbai
<b>Session 3</b> 12.15 to 13.00 hrs.	Technology options for Faecal Sludge & Septage Management (FSSM)	<b>Dr. Milind Kulkarni</b> Former Professor IIT, Mumbai
<b>Session 4</b> 13.00 to 14.00 hrs.	Case Study Presentation on best practice implemented for FSSM	<b>Dr. Milind Kulkarni</b> Former Professor IIT, Mumbai
<b>Lunch Break- 14.00 to 15.00 hrs.</b>		
<b>Session 5</b> 15.00 to 17.00 hrs.	Exercise on Technology option for Faecal Sludge & Septage Management (FSSM)	<b>Dr. Milind Kulkarni</b> Former Professor IIT, Mumbai
Day 1	Content	Faculty
09.30 to 10.00 hrs.	Breakfast	
10.00 to 11.30 hrs.	Preparing detailed action plan on FSSM for sanitation sustainability	<b>Dr. Milind Kulkarni &amp; RCUES of AILSG, Mumbai Team</b>
11.30 to 12.30 hrs.	Exercise on FSSM & Sustainable Sanitation	<b>Dr. Milind Kulkarni</b> Former Professor IIT, Mumbai
12.30 to 13.30 hrs.	Feedback & Summing up	<b>RCUES of AILSG, Mumbai Team</b>
<b>13.30 hrs. onwards Lunch &amp; Departure</b>		

# Moving Towards ODF++ Cities

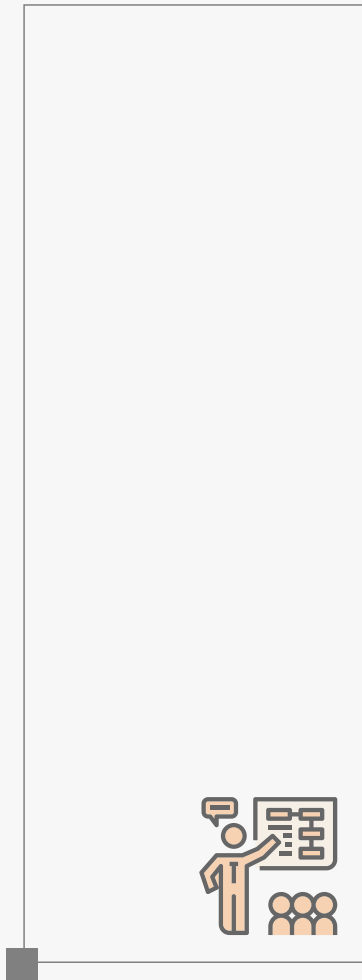
29<sup>th</sup> - 30<sup>th</sup> January, 2020, Diu, UT

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Charu G. Mori	Chief Officer	Jafrabad Municipal Council
2	Mr. V. B. Rafaliya	Surveyor	Bagasara Municipal Council
3	Mr. Bhavna Goswami	Chief Officer	Bagasara Municipal Council
4	Ms. Rasilaben Pathar	President	Bagasara Municipal Council
5	Mr. Chetan Devluk	Sanitary Inspector	Bagasara Municipal Council
6	Mr. Kamleshbhai J. Senjaliya	Auditor	Bagasara Municipal Council
7	Mr. Jasaliya Kaushik	Municipal Engineer	Bagasara Municipal Council
8	Mr. Nikhil B. Dhaduk	Municipal Engineer	Chalala Municipal Council
9	Mr. Sanjay V. Trivedi	Head Clerk	Chalala Municipal Council
10	Mr. Himanshu Joshi	Sanitary Inspector	Chalala Municipal Council
11	Mr. Bhagirathbhai Vala	Municipal Councillor	Chalala Municipal Council
12	Mr. Vipul V. Joshi	Sanitary Inspector	Kutiyana Municipal Council
13	Mr. Bhavesh Rathod	Clerk	Kutiyana Municipal Council
14	Mr. Bhogesara Nagajan	Clerk	Kutiyana Municipal Council
15	Mr. K. K. Bhatta	Accountant	Vallabhipur Municipal Council
16	Mr. K. D. Gohil	MIS IT Expert	Vallabhipur Municipal Council
17	Ms. Rekha Mandaliya	Social Mobilization	Jafrabad Municipal Council



# National Urban Livelihoods Mission (NULM)



# National Urban Livelihoods Mission (NULM)

17<sup>th</sup> - 18<sup>th</sup> July, 2019, Daman, UT

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.00 to 10.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Session 1</b> 10.30 to 11.15 hrs.	Overview of NULM, its strategies & Components	<b>Mr. Hardik Desai</b> Project Manager , NULM Navsari Municipal Council Gujarat
<b>Session 2</b> 11.15 to 13.00 hrs.	Convergence of SBM and NULM and livelihood opportunities through SHG's, ALF & CLF	<b>Dr. Milind Kulkarni</b> Former Professor, IIT, Mumbai Faculty, AILSG, Mumbai, Maharashtra
<b>Session 3</b> 13.00 to 14.45 hrs.	Presentation on Good Practices - NULM - Employment opportunities in Sanitation and Waste Management Sector	<b>Mr. Janak Prajapati</b> Project Director Shraddha Foundation Anand, Gujarat  <b>Mr. Kartik Patel</b> President, Jan Mangal Foundation, Anand, Gujarat
<b>Lunch Break- 14.45 to 15.30 hrs.</b>		
<b>Session 4</b> 15.30 to 18.00 hrs.	Site visit to Self-Employment Training Centre (SETC) at Khanvel, Dadra & Nagar Haveli (UT)	<b>Mr. Sunil Mali,</b> Director, SETC, Khanvel, Dadra & Nagar Haveli (UT)

Day 2	Content	Faculty
<b>Session 5</b> 10.00 to 11.30 hrs.	<b><u>ULB's Presentation</u></b>  • Urban Poor & Sustainable Livelihoods  • PPP in NULM convergence for livelihoods opportunities & sustainability	<b>Mrs. Sonal Solanki Jain</b> Former President, Valsad Municipal Council, Gujarat <b>Mr. Hardik Desai</b> Project Manager, NULM Navsari Municipal Council Gujarat
<b>Session 6</b> 11.30 to 12.30 hrs.	Group Exercise on issues & challenges AND Measures for effective implementation of NULM	<b>RCUES, AILSG, Mumbai Team</b>
12.30 to 13.30 hrs.	Feedback & Summing up	<b>RCUES, AILSG, Mumbai Team</b>
<b>13.30 hrs. onwards Lunch &amp; Departure</b>		

# National Urban Livelihoods Mission (NULM)

17<sup>th</sup> - 18<sup>th</sup> July, 2019, Daman, UT

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Ms. Sonal Solanki-Jain	President	Valsad Municipal Council
2	Ms. Urmi A. Desai	Vice- President	Valsad Municipal Council
3	Ms. Chhaya U. Patel	Municipal Councillor	Valsad Municipal Council
4	Mr. Pravind S. Patel	Municipal Councillor	Valsad Municipal Council
5	Ms. Varsha A. Panwala	Municipal Councillor	Valsad Municipal Council
6	Ms. Manisha V. Patel	Municipal Councillor	Valsad Municipal Council
7	Ms. Bharati M. Patel	Municipal Councillor	Valsad Municipal Council
8	Ms. Hetal J. Patel	Municipal Councillor	Valsad Municipal Council
9	Mr. MehmuduI. Rana	Municipal Councillor	Valsad Municipal Council
10	Ms. Divya K. Patel	Municipal Councillor	Valsad Municipal Council
11	Ms. Kalpanaben G. Patel	NULM Project Manager	Valsad Municipal Council
12	Ms. Kaushika D. Tandalekar	Project Manager	Valsad Municipal Council
13	Ms. Chetana R. Rajane	Municipal Councillor	Valsad Municipal Council
14	Ms. Kamlaben T. Sing	Municipal Councillor	Valsad Municipal Council
15	Ms. Seema Gala	Municipal Councillor	Vapi Municipal Council
16	Ms. Yamini G. Desai	Municipal Councillor	Vapi Municipal Council
17	Ms. Manisha Dayama	Municipal Councillor	Vapi Municipal Council
18	Mr. Jignesh Patel	NULM Project Manager	Vapi Municipal Council
19	Ms. Ketna Chahawala	Municipal Councillor	Vapi Municipal Council
20	Ms. Parul P. Desai	Municipal Councillor	Vapi Municipal Council
21	Ms. Tinaben B. Halpati	Municipal Councillor	Vapi Municipal Council
22	Ms. Jasodha R. Patel	Municipal Councillor	Vapi Municipal Council
23	Ms. Nainaben K. Patel	Municipal Councillor	Vapi Municipal Council
24	Ms. Mukunda D. Patel	Vice-President	Vapi Municipal Council
25	Mr. N. B. Barot	Chief Officer	Ranavav Municipal Council
26	Mr. S. S. Khira	Incharge Clerk	Ranavav Municipal Council
27	Mr. A. O. Nayee	Incharge Clerk	Ranavav Municipal Council
28	Mr. Rajabhai J. Pandavadra	Municipal Councillor	Ranavav Municipal Council
29	Mr. Deepak Baraiya	Co-ordinator	Anand Municipal Council
30	Mr. Arvindhbai Chachan	Co-ordinator	Anand Municipal Council
31	Ms. Manjusha Mutha	Dy. Commissioner	Aurangabad Municipal Corporation
32	Ms. Jyoti B. Rathod	President	Hadgaon Municipal Council
33	Mr. Vinod B. Rathod	Municipal Councillor	Hadgaon Municipal Council
34	Mr. Feroz Khan	Municipal Councillor	Hadgaon Municipal Council
35	Mr. Amit U. Arsul	Municipal Councillor	Hadgaon Municipal Council
36	Mr. Sachin G. Suryavanvashi	Municipal Councillor	Hadgaon Municipal Council
37	Mr. Shankar A. Chandel	Municipal Councillor	Hadgaon Municipal Council
38	Mr. Suryakant A. Malode	Municipal Councillor	Hadgaon Municipal Council
39	Ms. Vidhya K. Bhoskar	Municipal Councillor	Hadgaon Municipal Council
40	Ms. Aruna G. Kale	Municipal Councillor	Hadgaon Municipal Council

# National Urban Livelihoods Mission (NULM)

17<sup>th</sup> - 18<sup>th</sup> July, 2019, Daman, UT

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
41	Ms. Nilabai N. Gaikawad	Municipal Councillor	Hadgaon Municipal Council
42	Ms. Rukminabai R. Hulkane	Municipal Councillor	Hadgaon Municipal Council
43	Ms. Mangal D. Mudnalkar	Municipal Councillor	Hadgaon Municipal Council
44	Ms. Sunandbai V. Bhole	Municipal Councillor	Hadgaon Municipal Council
45	Mr. Satish U. Deshmukh	Clerk	Hadgaon Municipal Council
46	Mr. Suresh Girbide	Former Municipal Councillor	Hadgaon Municipal Council
47	Mr. Deepak A. Mudholkar	Municipal Councillor	Hadgaon Municipal Council
48	Mr. Kishor M. Bhoskar	Former Municipal Councillor	Hadgaon Municipal Council
49	Mr. K. S. Malode	Office Superintendent	Hadgaon Municipal Council
50	Mr. Gunwant P. Kale	Office Head Clerk	Hadgaon Municipal Council
51	Mr. R. B. Pichakumar	Former Municipal Councillor	Hadgaon Municipal Council
52	Mr. N. N. Gaikwad	Municipal Councillor	Hadgaon Municipal Council
53	Mr. R. C. Hulkane	Clerk	Hadgaon Municipal Council
54	Mr. Vilas B. Bhole	P. A. to President	Hadgaon Municipal Council

# National Urban Livelihoods Mission (NULM)

28<sup>th</sup> - 29<sup>th</sup> August, 2019, Udaipur, Rajasthan

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction - 10.00 to 10.15 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Inauguration &amp; Keynotes address</b>		<b>Mr. Chandrakantsingh Kothari</b> Hon'ble Mayor Udaipur Municipal Corporation
<b>Tea Break – 10.45 to 11.00 hrs.</b>		
<b>Session 1</b> 11.00 to 12.00 hrs.	Overview of NULM, its strategies Components	<b>Mr. Shail Singh Solanki</b> District Project Officer, NULM Udaipur, Rajasthan
<b>Session 2</b> 12.00 to 12.30 hrs.	Convergence of SBM and NULM and livelihood opportunities through SHG's, ALF & CLF	<b>Mr. Bhupendra Sisodiya</b> Project Manager, International Council for Local Environmental Initiatives (ICLEI), South Asia, Udaipur
<b>Session 3</b> 12.30 to 13.00 hrs.	Presentation on Good Practices - NULM - Employment opportunities in Sanitation and Waste Management Sector	<b>Mr. Bhupendra Sisodiya</b> Project Manager, International Council for Local Environmental Initiatives (ICLEI), South Asia, Udaipur
<b>Lunch Break- 13.00 to 14.00 hrs.</b>		
<b>Session 4</b> 14.00 to 15.00 hrs.	Presentation on skill training programme & livelihood related activities conducted under City Livelihood Centre (CLC) developed by Udaipur Municipal Corporation	<b>Mr. Bhupendra Sisodiya</b> Project Manager, International Council for Local Environmental Initiatives (ICLEI), South Asia, Udaipur
<b>Session 5</b> 15.00 to 16.30 hrs.	Site visit to City Livelihood Centre (CLC), Check circle, Udaipur	<b>RCUES of AILSG Mumbai team &amp; Mr. Bhupendra Sisodiya</b> Project Manager, International Council for Local Environmental Initiatives (ICLEI), South Asia, Udaipur
Day 2	Content	Faculty
<b>Session 5</b> 10.00 to 11.00 hrs.	<b><u>ULB's Presentation</u></b> Best Practices under NULM implementation in Surat City	<b>Ms. Gayatri Jariwala</b> Asst. Commissioner Surat Municipal Corporation Gujarat
<b>Session 6</b> 11.30 to 12.30 hrs.	Group exercise on issues & challenges and measures for effective implementation of NULM	<b>RCUES of AILSG, Mumbai Team &amp; Ms. Gayatri Jariwala</b> Asst. Commissioner Surat Municipal Corporation Gujarat
12.30 to 13.30 hrs.	Feedback & Summing up	RCUES, AILSG, Mumbai Team
<b>13.30 hrs. onwards Lunch &amp; Departure</b>		

# National Urban Livelihoods Mission (NULM)

28<sup>th</sup> - 29<sup>th</sup> August, 2019, Udaipur, Rajasthan

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Dr. Gayatri Jariwale	Assist. Commissioner	Surat Municipal Corporation
2	Ms. Rashila B. Panasusiy	Municipal Corporator	Surat Municipal Corporation
3	Ms. Sonuben A. Ambaliya	Municipal Corporator	Surat Municipal Corporation
4	Ms. Anita Y. Desai	Municipal Corporator	Surat Municipal Corporation
5	Ms. Kishoriben R. Kapadia	Municipal Corporator	Surat Municipal Corporation
6	Ms. Hemlataben A. Rana	Municipal Corporator	Surat Municipal Corporation
7	Ms. Geetaben H. Patel	Municipal Corporator	Surat Municipal Corporation
8	Ms. Urvashiben A. Ramimali	Municipal Corporator	Surat Municipal Corporation
9	Ms. Ushaben M. Patel	Municipal Corporator	Surat Municipal Corporation
10	Ms. Manjuben B. Dudhat	Municipal Corporator	Surat Municipal Corporation
11	Ms. Purnima H. Davle	Municipal Corporator	Surat Municipal Corporation
12	Ms. Kailashben V. Bhaliya	Municipal Corporator	Surat Municipal Corporation
13	Ms. Jashuben K. Rathod	Municipal Corporator	Surat Municipal Corporation
14	Ms. Asmitaben P. Shiroya	Ex. Mayor	Surat Municipal Corporation
15	Ms. Pushpaben G. Patel	Municipal Corporator	Surat Municipal Corporation
16	Ms. Ramilaben Y. Patel	Municipal Corporator	Surat Municipal Corporation
17	Ms. Bhartiben K. Tiwari	Municipal Corporator	Surat Municipal Corporation
18	Ms. Jyotiben C. Sojitra	Municipal Corporator	Surat Municipal Corporation
19	Ms. Suchitra Patel	Municipal Corporator	Surat Municipal Corporation
20	Ms. Urvashi D. Thakor	Clerk II	Surat Municipal Corporation
21	Ms. Hetal D. Upadhyay	Clerk II	Surat Municipal Corporation
22	Mr. Arikumar D. Vasava	Community Organizer	Surat Municipal Corporation
23	Mr. Aashish C. Khatra	Community Organizer	Surat Municipal Corporation
24	Mr. R. C. Patel	Project Officer	Surat Municipal Corporation
25	Ms. Kavita Desai	Dy. Project Officer	Surat Municipal Corporation
26	Mr. S. M. Ansari	Chief Officer	Dhanera Municipal Council
27	Mr. R. C. Solanki	Supervisor	Dhanera Municipal Council
28	Ms. Pushpa Devi	Municipal Councillor	Shivaganj Mandal Municipal Council
29	Ms. Indra Ahir	Municipal Councillor	Shivaganj Mandal Municipal Council
30	Mr. Abbas Ali	Municipal Councillor	Shivaganj Mandal Municipal Council
31	Mr. Prakashraj Meena	Municipal Councillor	Shivaganj Mandal Municipal Council
32	Mr. Manish Sarraf	Dy. President	Shivaganj Mandal Municipal Council
33	Mr. Alpesh Mali	Municipal Councillor	Shivaganj Mandal Municipal Council

# National Urban Livelihoods Mission (NULM)

28<sup>th</sup> - 29<sup>th</sup> August, 2019, Udaipur, Rajasthan

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council
34	Ms. Seema Devi	Municipal Councillor	Shivaganj Mandal Municipal Council
35	Mr. Suresh Parihar	Municipal Councillor	Shivaganj Mandal Municipal Council
36	Ms. Barkha Arya	Municipal Councillor	Shivaganj Mandal Municipal Council
37	Mr. Narottamlal Ghanchi	Clerk I	Shivaganj Mandal Municipal Council
38	Mr. Naresh Kumar	Clerk II	Shivaganj Mandal Municipal Council
39	Mr. Kishore Arya	Municipal Councillor	Shivaganj Mandal Municipal Council
40	Mr. Mahendra Parmar	Municipal Councillor	Shivaganj Mandal Municipal Council
41	Mr. M. S. Gokhru	Municipal Councillor	Nimbahera Municipal Board
42	Mr. Mubarak Khan	Municipal Councillor	Nimbahera Municipal Board
43	Ms. Parveen Uha	Municipal Councillor	Nimbahera Municipal Board
44	Mr. Ranchodbhai Sen	Municipal Councillor	Shivaganj Mandal Municipal Council
45	Mr. Shankarlal Parihar	Municipal Councillor	Shivaganj Mandal Municipal Council
46	Mr. Laxman Arya	Municipal Councillor	Shivaganj Mandal Municipal Council
47	Ms. Neelam Parihar	Municipal Councillor	Shivaganj Mandal Municipal Council
48	Mr. Jesaram Mauli	Municipal Councillor	Shivaganj Mandal Municipal Council
49	Mr. Manish Gaur	Executive Officer	Anta Municipal Board

# National Urban Livelihoods Mission (NULM)

14<sup>th</sup> - 15<sup>th</sup> November, 2019, Jaisalmer, Rajasthan

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 12.00 to 12.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Lunch Break- 12.30 to 13.30 hrs.</b>		
<b>Introduction - 13.30 to 14.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Inauguration &amp; Keynotes address – 14.00 to 14.30 hrs.</b>		<b>Mr. Bhagirath Bishnoi, RAS,</b> Additional District Magistrate (ADM) Collectorate, Jaisalmer, Rajasthan
<b>Tea Break – 10.45 to 11.00 hrs.</b>		
<b>Session 1</b> 14.30 to 15.30 hrs.	Overview of NULM, its strategies Components	<b>Mr. Bhanwar Khan,</b> State Mission Manager (SMM SM & ID), NULM, Jaipur, Rajasthan
<b>Session 2</b> 15.30 to 16.30 hrs.	<ul style="list-style-type: none"> <li>➤ Convergence of SBM and NULM and livelihood opportunities through SHG's, ALF &amp; CLF</li> <li>➤ Presentation on Good Practices - NULM - Employment opportunities in Sanitation and Waste Management Sector</li> </ul>	<b>Mr. Nitin Pareek,</b> State Mission Manager (SMM SEP FI & ME) Jaipur, Rajasthan
<b>Session 3</b> 16.30 to 17.30 hrs.	An approach to change identity of homeless vulnerable to valuable through city's inclusive growth planning	<b>Ms. Gayatri Jariwala</b> Asst. Commissioner, Surat Municipal Corporation Gujarat



# National Urban Livelihoods Mission (NULM)

14<sup>th</sup> - 15<sup>th</sup> November, 2019, Jaisalmer, Rajasthan

## Programme Outline

Day 2	Content	Faculty
<b>Session 4</b> 10.00 to 12.00 hrs.	Group exercise on issues & challenges and measures for formation of sustainable SHG's and NULM	<b>Mr. Bhanwar Khan and Mr. Nitin Pareek</b>
<b>Session 5</b> 12.00 to 12.45 hrs.  12.45 to 13.30 hrs.	<b><u>ULBs Presentation</u></b> ➤ Presentation on Good Practices under NULM – Jaisalmer Municipal Council  ➤ Statewise analysis on support to urban street vendors under NULM	<b>Mr. Lalit Lodha, District Mission Manager, Jaisalmer, Rajasthan</b>  <b>Mr. Bhanwar Khan, State Mission Manager (SMM SM &amp; ID), NULM, Jaipur, Rajasthan</b>
<b>Lunch Break- 13.30 to 14.30 hrs.</b>		
14.30 to 16.30 hrs.	Group exercise on issues & challenges and measures for formation of sustainable SHG's and NULM	<b>Mr. Bhanwar Khan and Mr. Nitin Pareek</b>
16.30 to 17.00 hrs.	Feedback & Summing up	<b>RCUES, AILSG, Mumbai Team</b>
<b>17.00 hrs. onwards Lunch &amp; Departure</b>		

# National Urban Livelihoods Mission (NULM)

14<sup>th</sup> - 15<sup>th</sup> November, 2019, Jaisalmer, Rajasthan

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Lajpal Singh	Executive Officer	Bali Municipal Council
2	Mr. Narendra Singh Kaba	Executive Officer	Khudala Falna Municipal Council
3	Mr. Pratap Singh	Executive Officer	Rani Municipal Council
4	Mr. Himanshu Agrawal	Executive Officer	Choti Sadari Municipal Council
5	Mr. Lalit Lodha	Mission Manager	Jaisalmer Municipal Council
6	Mr. Mangalram Jat	Mission Manager	Jaisalmer Municipal Council
7	Mr. Dilip M. Joshi	Clerk	Ranavav Municipal Council
8	Mr. Jitendra D. Joshi	Clerk	Ranavav Municipal Council
9	Mr. Atmaram O. Nai	Municipal Councillor	Ranavav Municipal Council
10	Mr. Rajabhai J. Pandaradra	Municipal Councillor	Ranavav Municipal Council
11	Ms. Jayashree Mehta	Municipal Councillor	Anjar Municipal Council
12	Ms. Pushpaben J. Tank	Ex. President	Anjar Municipal Council
13	Ms. Lilavatiben Prajapati	Municipal Councillor	Anjar Municipal Council
14	Ms. Jayshree D. Thakkar	Municipal Councillor	Anjar Municipal Council
15	Mr. Ramesh P. Masuriya	Shop Establishment Inspector	Anjar Municipal Council
16	Ms. Rashmin G. Bhide	Marrise Register	Anjar Municipal Council
17	Mr. Deepak R. Ahir	Municipal Councillor	Anjar Municipal Council
18	Mr. Khimji P Sindhav	Municipal Councillor	Anjar Municipal Council
19	Ms. Shardaben J. Patel	President	Kadi Municipal Council
20	Ms. Mitaben K. Patel	Municipal Councillor	Surat Municipal Corporation
21	Ms. Mamtaben H. Savani	Municipal Councillor	Surat Municipal Corporation
22	Ms. Vasantiben G. Vaghavi	Municipal Councillor	Surat Municipal Corporation
23	Ms. Dakshaben B. Bhuva	Municipal Councillor	Surat Municipal Corporation
24	Ms. Ranjanben S. Sartanpara	Municipal Councillor	Surat Municipal Corporation
25	Ms. Nitaben M. Savaliya	Municipal Councillor	Surat Municipal Corporation
26	Ms. Sadhanaben H. Raval	Municipal Councillor	Surat Municipal Corporation
27	Ms. Ratnaben S. Fale	Municipal Councillor	Surat Municipal Corporation
28	Ms. Dakshaben C. Jariwala	Municipal Councillor	Surat Municipal Corporation
29	Ms. Aartiben H. Patel	Municipal Councillor	Surat Municipal Corporation
30	Ms. Arunaben S. Davra	Municipal Councillor	Surat Municipal Corporation
31	Ms. Rashmikaben D. Patel	Municipal Councillor	Surat Municipal Corporation
32	Ms. Rupal K. Shah	Municipal Councillor	Surat Municipal Corporation
33	Ms. Reshmaben R. Lapsiwala	Municipal Councillor	Surat Municipal Corporation
34	Ms. Sudha M. Nahata	Municipal Councillor	Surat Municipal Corporation
35	Ms. Kantaben P. Valkodikar	Municipal Councillor	Surat Municipal Corporation
36	Ms. Minaben D. Rathod	Municipal Councillor	Surat Municipal Corporation
37	Ms. Gitaben T. Rabari	Municipal Councillor	Surat Municipal Corporation

# National Urban Livelihoods Mission (NULM)

14<sup>th</sup> - 15<sup>th</sup> November, 2019, Jaisalmer, Rajasthan

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
38	Ms. Ujjwalaben S. Nikam	Municipal Councillor	Surat Municipal Corporation
39	Mr. Rajvirsingh Khot	Clerk	Surat Municipal Corporation
40	Mr. Avinash Barandwal	Clerk	Aurangabad Municipal Corporation
41	Mr. Surendra Patil	City Mission Manager	Aurangabad Municipal Corporation
42	Mr. Umesh Kathade	Assitt. Project Officer	Varora Municipal Council
43	Mr. Nilesh V. Sarage	Community Organizer	Varora Municipal Council

# National Urban Livelihoods Mission (NULM)

4<sup>th</sup> - 5<sup>th</sup> December, 2019, Silvassa, UT

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration – 10.30 to 10.45 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Tea Break – 10.45 to 11.00 hrs.</b>		
<b>Session 1</b> 11.00 to 12.00 hrs.	Overview of NULM, its strategies Components	<b>Ms. Gayatri Jariwala</b> Asst. Commissioner Surat Municipal Corporation
<b>Session 2</b> 12.00 to 13.00 hrs.	➤ Convergence of SBM and NULM and livelihood opportunities through SHG's, ALF & CLF	<b>Mr. Kartik Patel</b> President Jan Mangal Foundation Anand
<b>Session 3</b> 13.00 to 14.00 hrs.	Presentation on Good Practices under NULM – Employment opportunities in sanitation and waste management sector	<b>Mr. Janak Prajapati</b> Project Director Shraddha Foundation Anand
<b>Lunch Break- 13.30 to 14.30 hrs.</b>		
<b>Session 4</b> 15.00 to 16.00 hrs.	<b>ULBs Presentation</b> ➤ Urban poor & sustainable livelihoods ➤ PPP in NULM convergence for livelihoods opportunities & sustainability	<b>Ms. Gayatri Jariwala</b> Asst. Commissioner Surat Municipal Corporation
<b>Session 5</b> 16.00 to 18.00 hrs.	<b>Site Visit</b> - Dena Self Employment Training Institute, Khanvel	<b>RCUES of AILSG Mumbai team</b>
Day 2	Content	Faculty
10.00 to 12.00 hrs.	Group exercise on issues & challenges and measures for effective implementation of NULM	<b>RCUES of AILSG Mumbai team</b>
12.00 to 13.00 hrs.	Feedback & Summing up	<b>RCUES of AILSG Mumbai team</b>
<b>13.00 hrs. onwards Lunch &amp; Departure</b>		

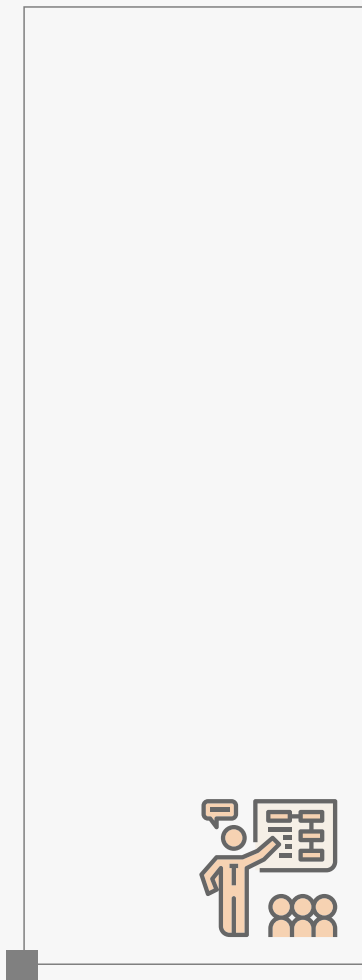
# National Urban Livelihoods Mission (NULM)

4<sup>th</sup> - 5<sup>th</sup> December, 2019, Silvassa, UT

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Ms. Abhilasha Patel	Community Organizer	Surat Municipal Corporation
2	Ms. Nisha Joshi	President	ALF, Surat
3	Ms. Ankita D. Mevawala	Treasure	ALF, Surat
4	Ms. Avani Pawar	President	ALF, Surat
5	Ms. Jayashri D. Shelar	President	SHG, Surat
6	Ms. Sunita K. Chaudhary	President	SHG, Surat
7	Ms. Niki Christie	Secretary	City Level Federal, Surat
8	Ms. Sonal Patel	President	City Level Federal, Surat
9	Ms. Neeta Patel	Secretary	City Level Federal
10	Ms. Indrani Rajpur	Secretary	City Level Federal
11	Ms. Kirti B. Patel	Secretary	ALF, Surat
12	Ms. Anita Gamita	Municipal Corporator	Surat Municipal Corporation
13	Ms. Kavita Thorat	Member	Surat Municipal Corporation
14	Ms. Jagruti Baria	CLTC, NULM	Khanvel Municipal Council
15	Ms. Vira Jadhav	CLTC, NULM	Khanvel Municipal Council
16	Ms. Laxmi Bhoje	CLTC, NULM	Khanvel Municipal Council
17	Ms. Swapnil P. Bhoje	CLTC, NULM	Khanvel Municipal Council
18	Mr. Rajesh Jariwala	Executive Engineer	Surat Municipal Corporation
19	Ms. Kanchan M. Sapata	CLTC, NULM	Khanvel Municipal Council
20	Ms. Vanita V. Sapta	CLTC, NULM	Khanvel Municipal Council
21	Ms. Megha S. Sapta	CLTC, NULM	Silvassa Municipal Council
22	Ms. Shanti L. Kurkute	CLTC, NULM	Silvassa Municipal Council

# Pradhan Mantri Awas Yojana (PMAY)



# Pradhan Mantri Awas Yojana (PMAY)

3<sup>rd</sup> - 4<sup>th</sup> July, 2019, Mumbai, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.00 to 10.15 hrs.</b>		<b>Ms. Maleka Ansari</b> Sr. Research Officer RCUES of AILSG, Mumbai
<b>Session 1</b> 10.15 to 11.00 hrs.	Administrative reforms under Urban Development Mission	<b>Dr. Jairaj Pathak</b> Honorary Visiting Professor AILSG, Mumbai
<b>Session 2</b> 11.00 to 12.00 hrs.	Review on PMAY implementation & its status in various states	<b>Mr. Dhirajkumar Jain</b> Executive Engineer, MHADA, Mumbai
<b>Session 3</b> 12.00 to 13.00 hrs.	Urban sector overview with reference to PMAY • Issues and challenges in the urban sector • Introduction to various missions and their convergence with PMAY with a focus on Affordable Housing	<b>Ms. Alinda Saikia</b> & <b>Ms Pranjal Kansare</b> Urban Planner, Mumbai Parking Authority, Municipal Corporation of Greater Mumbai (MCGM)
<b>Session 4</b> 13.00 to 14.00 hrs.	Pradhan Mantri Awas Yojana (PMAY) Centrally sponsored schemes(CSS) • In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation (ISSR) • Affordable Housing in Partnership (AHP) • Subsidy for Beneficiary-led individual house construction/enhancement (BLC)	<b>Ms. Alinda Saikia</b> & <b>Ms Pranjal Kansare</b> Urban Planner, Mumbai Parking Authority, Municipal Corporation of Greater Mumbai (MCGM)
<b>Lunch Break- 14.00 to 15.00 hrs.</b>		
<b>Session 5</b> 15.00 to 16.00 hrs.	<b>Central Sector Scheme (PMAY)</b> Credit linked subsidy scheme (CLSS)	<b>Mr. Kishor Kumbhare</b> Dy. General Manager National Housing Bank (NHB) Mumbai
<b>Session 6</b> 16.00 to 17.30 hrs.	Financial Interventions through HFI for successful implementation of PMAY	<b>Mr. Kishor Kumbhare</b> Dy. General Manager National Housing Bank (NHB) Mumbai

# Pradhan Mantri Awas Yojana (PMAY)

3<sup>rd</sup> - 4<sup>th</sup> July, 2019, Mumbai, Maharashtra

## Programme Outline

Day 2	Content	Faculty
09.30 to 10.00 hrs.	Breakfast	
<b>Session 7</b> 10.00 to 11.00 hrs..	<b><u>ULBs Presentation</u></b> Effective implementation of PMAY in cities	<b>Mr. Samir Shah</b> Social Development Specialist, PMAY Thane Municipal Corporation, Maharashtra <b>Mr. Gyanesh Patel</b> Municipal Engineer, PMAY Anand Municipal Council Gujarat
<b>Session 8</b> 11.00 to 12.30 hrs.	Preparing of action plan on “Effective implementation of PMAY with a focus on housing for all”	<b>PMAY Experts &amp; RCUES, AILSG Team</b>
12.30 to 13.30 hrs.	Feedback & Summing up	<b>RCUES, AILSG, Mumbai Team)</b>
<b>13.30 hrs. Lunch &amp; Departure</b>		



# Pradhan Mantri Awas Yojana (PMAY)

3<sup>rd</sup> - 4<sup>th</sup> July, 2019, Mumbai, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Ms. Alka D. Gondaliya	Ex. President	Amreli Municipal Council
2	Ms. Padmaben C.Gosai	Municipal Councillor	Amreli Municipal Council
3	Mr. Baman Kunjan	Town Planner	Devgarh Baria Municipal Council
4	Mr. Rishikesh Sathwara	Sr. Clerk	Devgarh Baria Municipal Council
5	Mr. Dhyanes Patel	Municipal Engineer	Anand Municipal Council
6	Mr. Chirag Pathak	Municipal Engineer	Anand Municipal Council
7	Mr. Jugal Prajapati	Municipal Engineer	Anand Municipal Council
8	Mr. Sudesh K. Rathod	Superintendent	Vasai -Virar Municipal Corporation
9	Mr. Bhagawan Mire	Capacity Building Specialist	Thane Municipal Corporation
10	Ms. Shweta Sorjine	MIS Specialist	Thane Municipal Corporation
11	Mr. Samir Shah	Social Development Specialist	Thane Municipal Corporation
12	Mr. Diniz Demelo	Executive Engineer	Mapusa Municipal Council

# Pradhan Mantri Awas Yojana (PMAY)

7<sup>th</sup> - 8<sup>th</sup> August, 2019, Ajmer, Rajasthan

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AIILSG team</b>
<b>Introduction &amp; Inauguration – 10.00 to 11.00 hrs.</b>		<b>Mr. Ashish Deosthali</b> Sr. Dy. Director General AIILSG
<b>Session 1</b> 11.00 to 12.00 hrs.	Urban sector overview with reference to PMAY <ul style="list-style-type: none"> <li>• Issues and challenges in the urban sector</li> <li>• Introduction to various missions and their convergence with PMAY with a focus on Affordable Housing</li> </ul>	<b>Mr. Ramesh Yadawar</b> Sr. Programme Officer Participatory Research in Asia (PRIA) Ajmer, Rajasthan
<b>Session 2</b> 12.00 to 13.00 hrs.	Pradhan Mantri Awas Yojana (PMAY) Centrally sponsored schemes(CSS) <ul style="list-style-type: none"> <li>• In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation (ISSR)</li> <li>• Affordable Housing in Partnership (AHP)</li> <li>• Subsidy for Beneficiary-led individual house construction/enhancement (BLC)</li> </ul>	<b>Mr. R. K. Agarwal</b> Consultant, Affordable Housing Jaipur, Rajasthan
<b>Session 3</b> 13.00 to 14.00 hrs..	Review on PMAY implementation & its status in various states	<b>Mr. R. K. Agarwal</b> Consultant, Affordable Housing Jaipur, Rajasthan
<b>Lunch Break- 14.00 to 15.00 hrs.</b>		
<b>Session 4</b> 15.00 to 16.00 hrs.	Beneficiary validation mechanism for PMAY (Urban) scheme – best practices	<b>Mr. Ashish Deosthali</b> Sr. Dy. Director General, AIILSG
<b>Session 5</b> 16.00 to 16.30 hrs.	Financial Interventions through HFI for successful implementation of PMAY	<b>Mr. R. K. Agarwal</b> Consultant, Affordable Housing Jaipur, Rajasthan

# Pradhan Mantri Awas Yojana (PMAY)

7<sup>th</sup> - 8<sup>th</sup> August, 2019, Ajmer, Rajasthan

## Programme Outline

Day 2	Content	Faculty
09.30 to 10.00 hrs..	Breakfast	
<b>Session 1</b> 10.00 to 12.00 hrs.	<b><u>ULBs Presentation</u></b> Implementation of PMAY in Ajmer, Rajasthan  Implementation of PMAY in Vanthali, Gujarat	<b>Mr. Sugandhi Mehra</b> Senior Superintendent Ajmer Development Authority (ADA), Rajasthan <b>Mr. Gyanesh Patel</b> President, Vanthali Municipal Council Gujarat
<b>Session 2</b> 12.00 to 13.00 hrs.	Group Work	<b>PMAY Experts &amp; RCUES, AIIILSG Team</b>
13.00 to 13.30 hrs.	Feedback & Summing up	<b>RCUES, AIIILSG, Mumbai Team</b>
<b>13.30 hrs. Lunch &amp; Departure</b>		

# Pradhan Mantri Awas Yojana (PMAY)

7<sup>th</sup> - 8<sup>th</sup> August, 2019, Ajmer, Rajasthan

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Rajeev K. Meena	Jr. Engineer	Ajmer Development Authority
2	Mr. Manoj Kumar	Jr. Engineer	Ajmer Development Authority
3	Mr. Amit Bajaj	Jr. Engineer	Ajmer Development Authority
4	Mr. Raghunandan Singh	Jr. Engineer	Ajmer Development Authority
5	Mr. Sandeep Gupta	Jr. Engineer	Ajmer Development Authority
6	Mr. Anshul Airun	Jr. Engineer	Ajmer Development Authority
7	Mr. Sanjay Meena	Jr. Engineer	Ajmer Development Authority
8	Mr. Laxminarayan Rawat	Jr. Engineer	Ajmer Development Authority
9	Mr. Avtar Rawat	Jr. Engineer	Ajmer Development Authority
10	Ms. Sugandhi Mehara	Sr. Superintendent	Shilk & Shine , ADA
11	Mr. Sandeep Gupta	Jr. Engineer	Ajmer Development Authority
12	Mr. Kuldeep Jorwal	Jr. Engineer	Tonk Municipal Council
13	Mr. Vijay B. Sawant	President	Tasgaon Municipal Council
14	Ms. Rohini V. Shirtode	Member	Tasgaon Municipal Council
15	Ms. Punam Y. Suryavyanshi	Member	Tasgaon Municipal Council
16	Mr. Anil G. Kutte	Member	Tasgaon Municipal Council
17	Mr. Santosh P. Bele	Member	Tasgaon Municipal Council
18	Ms. Sunanda V. Patil	Member	Tasgaon Municipal Council
19	Mr. Subhash M. Devkule	Member	Tasgaon Municipal Council
20	Ms. Rupali S. Gavade	Member	Tasgaon Municipal Council
21	Mr. Sachin S. Gujar	Member	Tasgaon Municipal Council
22	Mr. B. K. Patil	Member	Tasgaon Municipal Council
23	Mr. S. H. Vaja	President	Vanthali Municipal Council
24	Mr. Rajabhai J. Pundavadra	Municipal Councillor	Ranavav Municipal Council
25	Mr. Hemantbhai P. Rathod	Clerk	Ranavav Municipal Council
26	Mr. P. A. Bachumiya	Municipal Councillor	Ranavav Municipal Council
27	Mr. U. A. Nai	President	Ranavav Municipal Council
28	Mr. Amand Alibhai Bhatti	Clerk	Ranavav Municipal Council

# Pradhan Mantri Awas Yojana (PMAY)

12<sup>th</sup> - 13<sup>th</sup> December, 2019, Surat, Gujarat

## Programme Outline

Day 1	Content	Faculty
<b>Registration</b> -09.30 to 10.00 hrs.		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration</b> -10.00 to 10.30 hrs.		<b>Ms. Maleka Ansari</b> Sr. Research Officer RCUES of AILSG Mumbai  Mr. Jagdishbhai Patel Hon'ble Mayor Surat Municipal Corporation Gujarat
<b>Session 1</b> 10.30 to 11.30 hrs.	Urban sector overview with reference to PMAY <ul style="list-style-type: none"> <li>• Issues and challenges in the urban sector</li> <li>• Introduction to various missions and their convergence with PMAY with a focus on Affordable Housing</li> </ul>	<b>(Prof) Dr. Shashikant Kumar</b> Principal, Parul University, Vadodara, Gujarat
<b>Session 2</b> 11.30 to 13.00 hrs.	Pradhan Mantri Awas Yojana (PMAY) Centrally sponsored schemes (CSS) <ul style="list-style-type: none"> <li>• In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation (ISSR)</li> <li>• Affordable Housing in Partnership (AHP)</li> <li>• Subsidy for Beneficiary-led individual house construction/enhancement (BLC)</li> </ul>	<b>(Prof) Dr. Shashikant Kumar</b> Principal, Parul University, Vadodara, Gujarat
<b>Session 3</b> 13.00 to 14.00 hrs.	Review on PMAY implementation & its status in various states	<b>Ms. Gayatri Jariwala</b> Asst. Commissioner Surat Municipal Corporation Gujarat
<b>Lunch Break</b> 14.00 to 15.00 hrs.		
<b>Session 4</b> 15.00 to 17.30 hrs.	Site Visit– Awas Project developed under PMAY at VIP (Vesu) area & discussion with resident welfare association	<b>RCUES of AILSG Mumbai team</b>

# Pradhan Mantri Awas Yojana (PMAY)

12<sup>th</sup> - 13<sup>th</sup> December, 2019, Surat, Gujarat

## Programme Outline

Day 2	Content	Faculty
09.30 to 10.00 hrs.	Breakfast	
<b>Session 1</b> 10.00 to 11.30 hrs.	Best practices on Housing for All (HFA) - Geo tagging & Beneficiary Validation Mechanism for PMAY (Urban) Scheme	<b>Mr. Kaushik Mehta</b> Former Town Planner Government of Gujarat Ahmedabad, Gujarat
<b>Session 2</b> 11.30 to 12.30 hrs.	Implementation of BLC component of PMAY in Surat City	<b>Mr. Mehul Rana</b> Urban Planner & Consultant South Zone of Gujarat
12.30 to 13.30 hrs.	Group work Preparation of action plan on Housing for all under PMAY	<b>Mr. Kaushik Mehta</b> Former Town Planner Government of Gujarat Ahmedabad, Gujarat
13.30 to 14.00 hrs.	Feedback & Summing up	<b>RCUES, AILSG, Mumbai</b>  <b>Team</b>
<b>14.00 hrs. onwards Lunch &amp; Departure</b>		

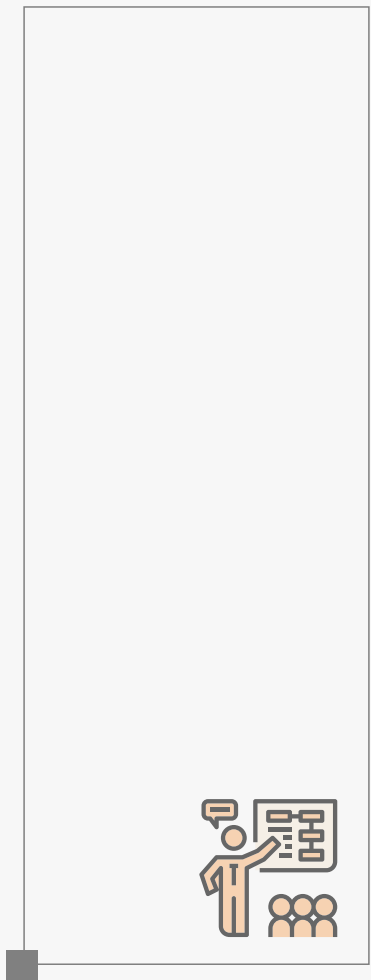
# Pradhan Mantri Awas Yojana (PMAY)

12<sup>th</sup> - 13<sup>th</sup> December, 2019, Surat, Gujarat

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Jugal H. Prajapati	Urban Planner	Anand Municipal Council
2	Mr. Dhyanesh Patel	Municipal Civil Engineer	Anand Municipal Council
3	Mr. Keyurkumar P. Patel	MIS Expert	Anand Municipal Council
4	Mr. Paramveer Singh Rathore	CLTC Engineer	Bhandara Municipal Council
5	Mr. Aniket Durgavale	Planning Assistant	Bhandara Municipal Council
6	Ms. Manisha P. Kathane	City Engineer	Bhandara Municipal Council
7	Ms. Sayali Dilip Rathi	Town Planning Specialist	Malegaon Municipal Corporation
8	Mr. Nitish D. Katharia	Assistant Engineer	Ankaleshwar Municipal Council
9	Mr. V. B. Rafaliya	Surveyor	Bagasara Municipal Council
10	Mr. Mukeshbhai B. Patel	Municipal Councillor	Surat Municipal Corporation
11	Ms. Nitanben M. Savaliya	Municipal Councillor	Surat Municipal Corporation
12	Ms. Gitaben H. Patel	Municipal Councillor	Surat Municipal Corporation
13	Ms. Ramilaben Y. Patel	Municipal Councillor	Surat Municipal Corporation
14	Ms. Vasantben G. Vaghani	Municipal Councillor	Surat Municipal Corporation
15	Ms. Gitaben T. Rabari	Municipal Councillor	Surat Municipal Corporation
16	Ms. Trupti Kalthia	Executive Engineer	Surat Municipal Corporation
17	Mr. Sanjay P. Patel	Dy. Engineer	Surat Municipal Corporation
18	Mr. Yogesh M. Patel	Assist. Engineer	Surat Municipal Corporation
19	Mr. Chirag G. Limbachiya	Assist. Engineer	Surat Municipal Corporation
20	Mr. Hardik Lokhandawala	Municipal Engineer	Surat Municipal Corporation
21	Mr. Kishan V. Gajesa	Supervisor	Surat Municipal Corporation
22	Mr. Mo. Sohel Shaikh	Supervisor Civil	Surat Municipal Corporation
23	Mr. Ashif Mansori	Supervisor	Surat Municipal Corporation
24	Mr. Henil K. Chauhan	Supervisor Civil	Surat Municipal Corporation
25	Mr. Sumeet I. Palan	Supervisor Civil	Surat Municipal Corporation
26	Mr. Nehal A. Vohra	Supervisor Civil	Surat Municipal Corporation
27	Ms. Sushmita H. Pansare	M. Planner	Parul University Vadodara
28	Mr. Akshaykumar Limbachiya	M. Planner	Parul University Vadodara
29	Mr. Abhijit Jagtap	M. Planner	Parul University Vadodara
30	Ms. Nikita Thorat	M. Planner	Parul University Vadodara
31	Ms. Mukta S. Nikam	M. Planner	Parul University Vadodara
32	Mr. Divyesh Jariwala	Urban Planner	Parul University Vadodara
33	Mr. Pathan Faizan Khan	Urban Planner	Parul University Vadodara
34	Ms. Rasika Lanjewar	Accountant	Bhandara Municipal Council

## Development of Green Spaces & Parks under AMRUT





# Development of Green Spaces & Parks under AMRUT

5<sup>th</sup> - 6<sup>th</sup> November, 2019, Pune, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction - 10.30 to 10.40 hrs.</b>		<b>Ms. Maleka Ansari</b> Sr. Research Officer RCUES of AILSG, Mumbai
<b>Inauguration – 10.40 – 11.00 hrs.</b>		<b>Shri. Dnyaneshwar Molak,</b> Jt. Municipal Commissioner, Pune Municipal Corporation
<b>Session 1</b> 11.00 to 12.00 hrs.	Development process of Green Space under AMRUT	<b>Ms. Priya Deshpande,</b> Partner Engarch, Kolhapur
<b>Session 2</b> 12.00 to 13.00 hrs.	Case study presentation on Development of Green Space under AMRUT	<b>Ms. Priya Deshpande,</b> Partner Engarch, Kolhapur
<b>Lunch Break- 13.00 to 14.00 hrs.</b>		
<b>Session 3</b> 14.00 to 15.00 hrs.	ULB efforts in Development of Green Spaces & Parks – case of PCMC	<b>Ms. Neha Singh</b> Founder & Director, Forrest, Pune
<b>Session 4</b> 15.00 to 16.30 hrs.	Group exercise on developing action plan Green Spaces Development in cities	<b>RCUES of AILSG, Mumbai team</b>
16.30 to 17.00 hrs.	Stress Buster	<b>RCUES of AILSG, Mumbai team</b>

Day 2	Content	Faculty
<b>Session 5</b> 10.00 to 11.00 hrs.	Overview of Green Spaces & Parks under AMRUT	Ms. Aditi Navgire Director, Samakalin Design & Infrastructure Pvt. Ltd., Pune
11.00 to 13.30 hrs.	Site visit to AMRUT Sites	<b>RCUES of AILSG Mumbai team</b>
13.30 to 14.30 hrs.	Feedback & Summing up	<b>RCUES of AILSG Mumbai team</b>
<b>14.30 hrs. onwards Lunch &amp; Departure</b>		

# Development of Green Spaces & Parks under AMRUT

5<sup>th</sup> - 6<sup>th</sup> November, 2019, Pune, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Vaibhav L. Kale	CLTC Engineer	Madha Nagar Panchayat
2	Mr. Shridhar C. Dubule	Civil Engineer	Ashta Municipal Council
3	Ms. Prajakta B. Gavhane	Jr. Engineer	Pimpri Chinchwad Municipal Corporation
4	Mr. Bhagyavan J. More	Jr. Engineer	Pimpri Chinchwad Municipal Corporation
5	Mr. Chandrakant More	Dy. Engineer	Pimpri Chinchwad Municipal Corporation
6	Mr. Pandit Bhore	WS & Sanitation Engineer	Jat Municipal Council
7	Mr. Tukaram B. Patil	Tax Admin Officer	Rajgurunagar Municipal Council
8	Mr. Rajesh S. Gaikwad	Clerk	Rajgurunagar Municipal Council
9	Mr. G. R. Tummale	Asst. Garden Superintendent	Pune Municipal Corporation
10	Mr. Yogesh Badhe	Garden Caretaker	Pune Municipal Corporation
11	Mr. Girish V. Maral	Garden Contractor	Pune Municipal Corporation
12	Mr. Ashok Maral	Garden Contractor	Pune Municipal Corporation
13	Mr. Piyush Kuhikar	Programme Co-ordinator	Pune Municipal Corporation
14	Mr. Amol Rudrake	Dy. Engineer	Pimpri-Chinchwad Municipal Corporation
15	Mr. Nilesh Pasalkar	Garden Contractor	Pimpri-Chinchwad Municipal Corporation

# Development of Green Spaces & Parks under AMRUT

21<sup>st</sup> - 22<sup>nd</sup> November, 2019, Vadodara, Gujarat

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 09.45 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration – 09.45 to 10.00 hrs.</b>		<b>Welcome Address by Shri. Ranjit Chavan</b> President, AILSG & Former Mayor of Vadodara  <b>Ms. Hansa Patel</b> Executive Advisor, AILSG  <b>Dr. Jigishaben Sheth</b> Hon'ble Mayor, Vadodara <b>Shri. Yogeshbhai Patel</b> State Minister Narmada & Urban Development, Gujarat
<b>Session 1</b> 10.45 to 11.45 hrs.	Overview of Green spaces in cities under AMRUT	<b>Mr. Rohit Prajapati</b> Environmental Consultant Vadodara
<b>Session 2</b> 11.45 to 12.45 hrs.	Development process of Green Space under AMRUT	<b>Ms. Priya Deshpande,</b> Partner Engarch, Kolhapur
<b>Session 3</b> 12.45 to 13.45 hrs.	Importance of biodiversity in urban areas	<b>Ms. Deepa Maheshwari</b> Head of Department & Professor Landscape Architecture, CEPT, Ahmedabad
<b>Lunch Break- 13.45 to 14.45 hrs.</b>		
<b>Session 4</b> 14.45 to 16.00 hrs.	Group exercise on developing action plan Green Spaces Development in cities	<b>Mr. Kiran Shah</b> Environmental Consultant Vadodara
Day 2	Content	Faculty
09.30 to 10.00 hrs.	Keynote address	<b>Dr. J. V. Modi</b> President, Emirates AILSG & Former Mayor of Vadodara
<b>Session 5</b> 10.00 to 11.00 hrs.	Sustainability of Green Spaces & Parks under AMRUT	<b>Mr. Gopalbhai Shah</b> Environmental Consultant, Vadodara
<b>Session 6</b> 11.00 to 12.00 hrs.	Status of Green spaces in Gujarat State under AMRUT	<b>Mr. Bhupendra Seth</b> Environmental Consultant, Vadodara
<b>Session 7</b> 12.00 to 13.00 hrs.	ULB efforts in Development of Green Spaces & Parks – case of PCMC	<b>Ms. Neha Singh</b> Founder & Director, Forrest, Pune
13.00 to 14.00 hrs.	Feedback & Summing up	<b>RCUES, AILSG, Mumbai Team</b>
<b>14.00 hrs. onwards Lunch &amp; Departure</b>		

# Development of Green Spaces & Parks under AMRUT

21<sup>st</sup> - 22<sup>nd</sup> November, 2019, Vadodara, Gujarat

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Shailesh Panchal	Municipal Corporator	Vadodara Municipal Corporation
2	Mr. Suresh S. Tuver	Municipal Corporator	Vadodara Municipal Corporation
3	Mr. Rajendra H.	Municipal Corporator	Vadodara Municipal Corporation
4	Mr. Pramod C. V	Executive Engineer	Vadodara Municipal Corporation
5	Ms. Kanchanben Ray	Municipal Corporator	Vadodara Municipal Corporation
6	Mr. B. M. Sheth	Municipal Corporator	Vadodara Municipal Corporation
7	Mr. Dharmendra Panchal	Municipal Corporator	Vadodara Municipal Corporation
8	Mr. Prakas J. Brahmabhatt	Executive Engineer	Vadodara Municipal Corporation
9	Mr. Bharat More	City Mission Manager	Aurangabad Municipal Corporation
10	Dr. Ashutosh Mehta	Homeopathic Physician	Vadodara Municipal Corporation
11	Mr. Jitesh R. Trivedi	Municipal Engineer	Vadodara Municipal Corporation
12	Ms. Shankuntalaben Shinde	Municipal Corporator	Vadodara Municipal Corporation
13	Ms. Shakuntalaben Mehta	Municipal Corporator	Vadodara Municipal Corporation
14	Ms. Sangita Uter	Municipal Corporator	Vadodara Municipal Corporation
15	Mr. Bhavesh R. Patanwadiya	Municipal Corporator	Vadodara Municipal Corporation
16	Mr. Manish D. Pagar	Municipal Corporator	Vadodara Municipal Corporation
17	Ms. Radhika Bhatt	Municipal Corporator	Vadodara Municipal Corporation
18	Mr. J. R. Chokshi	Municipal Corporator	Vadodara Municipal Corporation
19	Ms. Dipika Putni	Municipal Corporator	Vadodara Municipal Corporation
20	Dr. Jivraj Chauhan	Dy. Mayor	Vadodara Municipal Corporation
21	Mr. Ketan Brahmabhatt	Municipal Corporator	Vadodara Municipal Corporation
22	Ms. Jagruti Dixit	Municipal Corporator	Vadodara Municipal Corporation
23	Ms. Alkaben Patel	Municipal Corporator	Vadodara Municipal Corporation
24	Mr. L. G. Huri	Municipal Corporator	Amreli Municipal Council
25	Mr. Girish S. Bhojgurke	Municipal Corporator	Veraval Municipal Council
26	Mr. V. K. Rathod	Municipal Corporator	Veraval Municipal Council
27	Ms. Shakuntalaben Solanki	Municipal Corporator	Vadodara Municipal Corporation
28	Mr. Rohit Prajapati	Municipal Corporator	Vadodara Municipal Corporation
29	Ms. Jyoti	Municipal Corporator	Vadodara Municipal Corporation
30	Ms. Poonamben Shah	Municipal Corporator	Vadodara Municipal Corporation
31	Ms. Dharmisthaben Macchi	Municipal Corporator	Vadodara Municipal Corporation
32	Ms. Jayashree Shah	Municipal Corporator	Vadodara Municipal Corporation
33	Ms. Tejal Vyas	Municipal Corporator	Vadodara Municipal Corporation
34	Mr. Kalpana M. Patel	Municipal Corporator	Vadodara Municipal Corporation
35	Ms. Rashmika	Municipal Corporator	Vadodara Municipal Corporation
36	Ms. Manorama Kharade	Municipal Corporator	Vadodara Municipal Corporation

# Development of Green Spaces & Parks under AMRUT

21<sup>st</sup> - 22<sup>nd</sup> November, 2019, Vadodara, Gujarat

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
37	Ms. Geeta Patel	Municipal Corporator	Vadodara Municipal Corporation
38	Ms. Gopal Gohil	Municipal Corporator	Vadodara Municipal Corporation
39	Mr. Tushar M. Patel	Municipal Corporator	Vadodara Municipal Corporation
40	Mr. Chintan R. Desai	Municipal Corporator	Vadodara Municipal Corporation
41	Ms. Gargi Dave	Municipal Corporator	Vadodara Municipal Corporation
42	Mr. Chaitanya Desai	Municipal Corporator	Vadodara Municipal Corporation
43	Mr. Rameshchandra Parmar	Municipal Corporator	Vadodara Municipal Corporation
44	Mr. Niteshkumar Gandhi	Municipal Corporator	Vadodara Municipal Corporation
45	Mr. Bhavna Y. Chauhan	Municipal Corporator	Vadodara Municipal Corporation
46	Mr. Tulsibhai Solanki	Sr. Sanitary Inspector	Vadodara Municipal Corporation
47	Mr. Hasmukhabhai N. Patel	Sr. Sanitary Inspector	Vadodara Municipal Corporation
48	Mr. Ravindra M. Joshi	Municipal Corporator	Vadodara Municipal Corporation
49	Mr. Maheshbhai Rabari	Municipal Corporator	Vadodara Municipal Corporation
50	Mr. Nitin Solanki	Municipal Corporator	Vadodara Municipal Corporation
51	Mr. Sanjaykumar Barot	Municipal Corporator	Vadodara Municipal Corporation
52	Mr. Devang Bhatt	Municipal Corporator	Vadodara Municipal Corporation
53	Mr. Riteshkumar Solanki	Municipal Corporator	Vadodara Municipal Corporation
54	Mr. Rajeshkumar K. Patel	Municipal Corporator	Vadodara Municipal Corporation
55	Mr. Sumanbhai K. Rathwa	Ward Officer	Vadodara Municipal Corporation
56	Mr. Maheshbhai M. Parnami	Ward Officer	Vadodara Municipal Corporation
57	Mr. Digneshkumar Damor	Ward Officer	Vadodara Municipal Corporation
58	Mr. Maganabhai Vanzara	Municipal Corporator	Vadodara Municipal Corporation
59	Mr. Shaileshbhai B. Patel	Sr. Sanitary Inspector	Vadodara Municipal Corporation
60	Mr. Chandrakant Vasava	Sr. Sanitary Inspector	Vadodara Municipal Corporation
61	Mr. Babubhai Sangada	Sr. Sanitary Inspector	Vadodara Municipal Corporation
62	Mr. Robins R. Katara	Sr. Sanitary Inspector	Vadodara Municipal Corporation
63	Mr. Ajitkumar A. Giri	Sr. Sanitary Inspector	Vadodara Municipal Corporation
64	Mr. Jagdish Parmar	Sr. Sanitary Inspector	Vadodara Municipal Corporation
65	Mr. Hemal Kesurkar	Field Assistant	Vadodara Municipal Corporation
66	Mr. G. M. Shah	Municipal Corporator	Vadodara Municipal Corporation
67	Mr. Ravindra J. Mistry	Social Worker	Vadodara Municipal Corporation

# Development of Green Spaces & Parks under AMRUT

25<sup>th</sup> - 26<sup>th</sup> November, 2019, Rajkot, Gujarat

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.30 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.30 to 10.40 hrs.</b>		<b>Ms. Maleka Ansari</b> Sr. Research Officer, RCUES of AILSG, Mumbai
		<b>Mr. Ashwin Bhai Mauliya</b> Dy. Mayor Rajkot Municipal Corporation
<b>Session 1</b> 10.30 to 11.30 hrs.	Overview of Green Spaces & Parks under AMRUT	<b>Mr. Hakimuddin Bharmal</b> Head of the Department Harsukhbhai K. Dhruv Centre of Planning, Rajkot, Gujarat
<b>Session 2</b> 11.30 to 12.30 hrs.	Development of Green Spaces under AMRUT	<b>Ms. Tithi Soladhara</b> Consultant, Centre for Advance Resource Management (CARM) Ahmedabad, Gujarat
<b>Session 3</b> 12.30 to 13.15 hrs.	Case study presentation of Green space under AMRUT – Ahmedabad city	<b>Ms. Tithi Soladhara</b> Consultant, Centre for Advance Resource Management (CARM) Ahmedabad, Gujarat
<b>Session 4</b> 13.15 to 14.00 hrs.	ULBs efforts in Development of Green Spaces under AMRUT	<b>Mr. Hakimuddin Bharmal</b> Head of the Department Harsukhbhai K. Dhruv Centre of Planning, Rajkot, Gujarat
<b>Lunch Break- 14.00 to 15.00 hrs.</b>		
<b>Session 5</b> 15.00 to 17.00 hrs.	Site visit – Praddum Park – Rajkot Geological Park developed under AMRUT	<b>Mr. R. K. Hirpara</b> Director, Parks & Gardens Rajkot Municipal Corporation
		<b>Mr. Ravi Chauhan</b> Biologist Praddum Park Rajkot

# Development of Green Spaces & Parks under AMRUT

25<sup>th</sup> - 26<sup>th</sup> November, 2019, Rajkot, Gujarat

## Programme Outline

Day 2	Content	Faculty
<b>Session 5</b> 10.00 to 11.00 hrs.	Promoting biodiversity, landscape & public gardens	<b>Mr. Shishir R. Raval</b> Architech (Landscape) Vadodara, Gujarat
<b>Session 6</b> 11.00 to 12.00 hrs.	Ecological planning, restoration & resource management	<b>Mr. Rutvik Tank</b> Civil Engineer & Urban Planner Vadodara, Gujarat
<b>Session 7</b> 12.00 to 12.45 hrs.	<b><u>ULBs Presentation</u></b> Case study presentation on ULB efforts in development of green spaces & parks under AMRUT	<b>Mr. Mehul Gusai</b> Superintendent Engineer, Urban Infrastructure Expert – AMRUT Bhuj Municipal Council Kachchh, Gujarat
	12.45 to 13.30 hrs. Case Study presentation on ULBs efforts in development of green spaces & parks under AMRUT	<b>Ms. Jyotsana Tilarla</b> Chairman Parks & Garden Rajkot Municipal Corporation Gujarat
13.30 to 14.30 hrs.	Group exercise on developing action plan on green space development in cities	<b>RCUES of AILSG, Mumbai team</b>
14.30 to 15.00 hrs.	Feedback & Summing up	<b>RCUES of AILSG, Mumbai team</b>
<b>15.00 hrs. onwards Lunch &amp; Departure</b>		

# Development of Green Spaces & Parks under AMRUT

25<sup>th</sup> - 26<sup>th</sup> November, 2019, Rajkot, Gujarat

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Ms. Kanchanaben R. Veagela	Municipal Councillor	Amreli Municipal Council
2	Ms. Alkaben Gondaliya	Ex. President	Amreli Municipal Council
3	Ms. Jayshriben Dabasara	Standing Committee Chairman	Amreli Municipal Council
4	Mr. lalmiya N. Malek	Sanitary Inspector	Thasara Municipal Council
5	Mr. Mehul J. Gusai	Municipal Councillor	Bhuj Municipal Council
6	Mr. Anitaben Goswami	Town Planning (Chairman)	Rajkot Municipal Corporation
7	Ms. Pritiben D. Panara	State Management Committee (Chairman)	Rajkot Municipal Corporation
8	Ms. Masuben Herabha	Municipal Corporation	Rajkot Municipal Corporation
9	Ms. Rupaben Shilu	Fire Chairman	Rajkot Municipal Corporation
10	Ms. Vijayaben Vachhani	Garden Chairman	Rajkot Municipal Corporation
11	Ms. Meenaben Parekh	Municipal Corporation	Rajkot Municipal Corporation
12	Ms. Bhadresh Vasoya	Urban Infra Expert	Amreli Municipal Council
13	Ms. Dhanani Nevil	Assitt. Engineer	Amreli Municipal Council
14	Ms. Anjana Mozaria	Municipal Corporation	Rajkot Municipal Corporation
15	Mr. Faizal G. Mahidu	CMMU	Veraval Municipal Council
16	Ms. Jyotsna Tilala	Chairman	Rajkot Municipal Corporation
17	Ms. Shilpaben Javia	Chairman	Rajkot Municipal Corporation
18	Ms. Sajuben Gelabhai	Municipal Corporation	Rajkot Municipal Corporation
19	Mr. Ravi Chauhan	Biologist	Rajkot Municipal Corporation
20	Dr. R. K. Hirpara	Zoo Superitendant	Rajkot Municipal Corporation
21	Mr. Amla Hassanlibhai	Accountant	Batava Municipal Council
22	Mr. Jayneel J. Dubhi	Sanitary Inspector	Rajkot Municipal Corporation
23	Mr. Krupesh Dudhraj	Sanitary Inspector	Rajkot Municipal Corporation
24	Mr. Hareish J. Bhagavat	Sanitary Inspector	Rajkot Municipal Corporation
25	Mr. Gabhabhai Kamaliya	Sanitary Inspector	Rajkot Municipal Corporation
26	Mr. Haju N. Kamaliya	Sanitary Inspector	Rajkot Municipal Corporation
27	Mr. Vishram Khambhala	Sanitary Inspector	Rajkot Municipal Corporation
28	Mr. Vrujaraj D. Lokhil	Sanitary Inspector	Rajkot Municipal Corporation
29	Mr. Vishal C. Lokhil	Sanitary Inspector	Rajkot Municipal Corporation
30	Mr. Moin S. Dodhiya	Sanitary Inspector	Rajkot Municipal Corporation
31	Mr. Jiyar H. Bambhumia	Sanitary Inspector	Rajkot Municipal Corporation



# Development of Green Spaces & Parks under AMRUT

22<sup>nd</sup> - 23<sup>rd</sup> January, 2020, Mount Abu, Rajasthan

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.00 to 10.30 hrs.</b>		<b>Ms. Maleka Ansari</b> Sr. Research Officer, RCUES of AILSG, Mumbai  <b>Mr. Jitendra Vyas</b> Chief Executive Officer Mount Abu Municipal Council Sirohi, Rajasthan
<b>Session 1</b> 10.30 to 11.30 hrs.	Overview of Green Spaces & Parks under AMRUT	<b>Dr. Ajit Salvi</b> Executive Engineer, Municipal Corporation of Greater Mumbai (MCGM) Maharashtra
<b>Session 2</b> 11.30 to 12.30 hrs.	Development of Green Spaces under AMRUT	<b>Mr. Kaushik Mehta</b> Former Town Planner Government of Gujarat Gujarat
<b>Session 3</b> 12.30 to 13.30 hrs.	Promoting biodiversity, landscape & public gardens Case study presentation of Green space under AMRUT – Ahmedabad city	<b>Dr. Ajit Salvi</b> Executive Engineer, Municipal Corporation of Greater Mumbai (MCGM) Maharashtra
<b>Lunch Break- 13.30 to 14.30 hrs.</b>		
<b>Session 4</b> 14.30 to 15.30 hrs.	Case Study presentation of Green spaces under AMRUT – Ahmedabad city	<b>Ms. Tithi Soladhara</b> Consultant Centre for Advance Resource Management (CARM), Ahmedabad, Gujarat
<b>Session 5</b> 15.30 to 16.30 hrs.	Ecological planning, restoration & resource management	<b>Mr. Kaushik Mehta</b> Former Town Planner Government of Gujarat Gujarat
<b>Session 6</b> 16.30 to 17.30 hrs.	ULBs efforts in Development of Green Spaces under AMRUT	<b>Ms. Neha Singh</b> Founder & Director Forest Regeneration & Environmental Sustainability Trust (FORREST), Pune, Maharashtra

# Development of Green Spaces & Parks under AMRUT

22<sup>nd</sup> - 23<sup>rd</sup> January, 2020, Mount Abu, Rajasthan

## Programme Outline

Day 2	Content	Faculty
<b>Session 1</b> 10.00 to 12.30 hrs.	Site visit – Janki garden adjacent to Nakki Lake developed under AMRUT	<b>Mr. Dashrath Gupta</b> Coordinator & Garden Incharge Mount Abu Hotel Association Sirohi, Rajasthan
12.30 to 13.30 hrs.	Group exercise on developing action plan on green spaces development in cities	<b>Dr. Ajit Salvi &amp; Ms. Maleka Ansari</b>
13.30 to 14.30 hrs.	Feedback & Summing up	<b>RCUES of AILSG, Mumbai team</b>
<b>14.30 hrs. onwards Lunch &amp; Departure</b>		

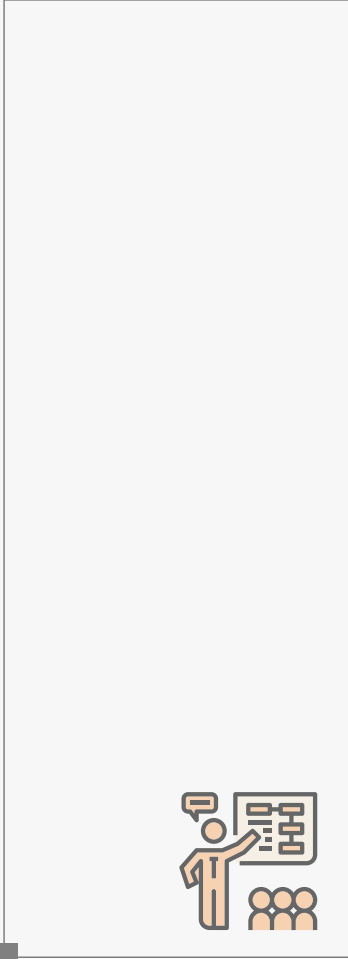
# Development of Green Spaces & Parks under AMRUT

22<sup>nd</sup> - 23<sup>rd</sup> January, 2020, Mount Abu, Rajasthan

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Kantibhai Chavada	President	Anand Municipal Council
2	Mr. Himeshbhai Patel	Standing Committee Chairman	Anand Municipal Council
3	Mr. Dipenbhai Patel	Road Committee Chairman	Anand Municipal Council
4	Mr. Vijaybhai Soni	Municipal Engineer	Anand Municipal Council
5	Mr. Chirag A. Patel	Dy. Engineer	Kagal Municipal Council
6	Mr. Miskin Patel	Water Workers	Kagal Municipal Council
7	Mr. Bahadursinh D. Jadeja	Municipal Councillor	Anjar Municipal Council
8	Mr. Dipak Bhai Ahir	Municipal Councillor	Anjar Municipal Council
9	Mr. Ramesh P. Masuriya	Shop & Esta. Inspector	Anjar Municipal Council
10	Mr. Tejpal M. Lochani	Sanitary Inspector	Anjar Municipal Council
11	Mr. Gaurav Panchal	Asst. Director	Vadodara Municipal Corporation
12	Mr. Basant Kumar	Municipal Commissioner	Sujangarh Municipal Council
13	Mr. Shailendra Kumar	Municipal Commissioner	Hanumangarh Municipal Council
14	Mr. Mohan Lal	Jr. Engineer	Hanumangarh Municipal Council
15	Mr. Iqbal Lohar	Jr. Engineer	Mount Abu Municipal Council
16	Ms. Sangeeta Dharu	Sanitary Inspector	Mount Abu Municipal Council
17	Ms. Kamal Kant	Garden Superintendent	Mount Abu Municipal Council
18	Mr. Bhanwar Lal	Garden Superintendent	Mount Abu Municipal Council
19	Mr. Manish Berwal	Garden Superintendent	Mount Abu Municipal Council
20	Mr. Sagar Dodiya	Garden Committee Member	Mount Abu Municipal Council
21	Mr. Bharat Pardeshi	Garden Committee Member	Mount Abu Municipal Council
22	Mr. Roshan Gharu	Garden Committee Member	Mount Abu Municipal Council
23	Mr. Harshit Rai	Supervisor	Mount Abu Municipal Council
24	Mr. Vinay K. Shirodkar	Municipal Councillor	Madgaon Municipal Council
25	Mr. Damodar R. Naik	Municipal Councillor	Madgaon Municipal Council
26	Mr. Manoj Masurkar	Municipal Councillor	Madgaon Municipal Council
27	Mr. Ketan Kurtadkar	Municipal Councillor	Madgaon Municipal Council
28	Mr. Doris Texeria	Municipal Councillor	Madgaon Municipal Council
29	Mr. Arthur D'Silva	Municipal Councillor	Madgaon Municipal Council
30	Mr. Diniz De'Melo	Municipal Engineer	Madgaon Municipal Council
31	Mr. Ketan B. Gujar	Dy. Chief Officer	Ichalkaranji Municipal Council
32	Mr. Sampat Balwant Chavan	Garden Supervisor	Ichalkaranji Municipal Council
33	Mr. Mulsingh Guman Singh	Garden Committee Member	Mount Abu Municipal Council
34	Mr. Sanjay Bhil Dharmaram	Supervisor	Mount Abu Municipal Council

# Fire Prevention & Life Safety



# Fire Prevention & Life Safety

17<sup>th</sup> - 18<sup>th</sup> October, 2019, Mumbai, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.00 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction - 10.00 to 10.30 hrs.</b>		<b>Ms. Utkarsha Kavadi</b> Director, RCUES of AILSG, Mumbai
<b>Inauguration &amp; Special Address – 10.15 to 10.30</b>		<b>Shri. A. K. Jain, IAS (Retd.)</b> Director, CSG, AILSG
<b>Session 1</b> 10.30 to 11.15 hrs.	Fire Services and challenges	<b>Shri. P Rahangdale</b> Director, State Fire Services & CFO, Mumbai
<b>Session 2</b> 11.15 to 12.00 hrs.	Legal Framework of fire prevention and issues in enforcement	<b>Shri. Arvind Mandke,</b> Chief Fire Officer, CIDCO
<b>Session 3</b> 12.00 to 12.45 hrs.	Operational issues in Fire Prevention	<b>Shri. K. N. Mathur,</b> Sr. Consultant
Lunch Break- 13.00 to 14.00 hrs.		
<b>Session 4</b> 14.00 to 14.20 hrs.	Electrical Safety Regulation	<b>Shri. Nandkumar Mahajan</b> Electrical Inspector, GoM
<b>Session 5</b> 14.20 to 14.40 hrs.	Role of Electricity Distribution Companies in ensuring electrical safety	<b>Shri. Jitendrakumar Rathour,</b> Chief Engineer, Addl. Executive Engineer, MSEDCL
<b>Session 6</b> 14.40 to 15.00 hrs.	Public Awareness creation for electrical safety	<b>Shri. Sunil Kumar Borse,</b> Asst. Vice President O & M Safety, AEML Mumbai
<b>Session 7</b> 15.00 to 16.00 hrs.	Essentials of Electrical Safety Audits	<b>Shri. Prakash Kulkarni</b> Ex. Chief Electrical Inspector, Government of Maharashtra
16.00 to 17.00 hrs. - <b>Summing up by chair and Q &amp; A</b>		

# Fire Prevention & Life Safety

17<sup>th</sup> - 18<sup>th</sup> October, 2019, Mumbai, Maharashtra

## Programme Outline

Day 2	Content	Faculty
<b>Session 8</b> 10.30 to 11.00 hrs.	National Perspective on Fire Safety	<b>Shri. D. K. Shami,</b> Fire Advisor, Government of India
<b>Session 9</b> 11.00 to 11.30 hrs.	Implementation of National Building Code	<b>Shri. S. K. Dehari,</b> Fire Advisor
<b>Session 10</b> 11.30 to 12.00 hrs.	Financial Sustainability of Fire Services	<b>Shri. P Rahangdale</b> Director, State Fire Services & CFO, Mumbai
Lunch Break- 13.00 to 14.00 hrs.		
12.00 to 12.15 hrs.	Summing up by Chair and Q & A	<b>Shri. Nandkumar Mahajan</b> Electrical Inspector, GoM
12.15 to 13.15 hrs.	Presentation of Group Reports and Group Discussion	Chaired by <b>Shri. A. K. Jain,</b> <b>IAS (Retd.)</b> Director, CSG, AIILSG
13.15 to 13.30 hrs.	Summing up and Certificate distribution	
<b>Lunch Break- 13.30 to 14.30 hrs.</b>		
14.30 to 17.30 hrs.	Parallel discussions of the Resource Persons on the way forward on amendments for the Maharashtra Fire Act in line with the mandate of the NBC	<b>Chaired by Shri. A. K. Jain,</b> <b>IAS (Retd.)</b> Director, CSG, AIILSG

# Fire Prevention & Life Safety

17<sup>th</sup> - 18<sup>th</sup> October, 2019, Mumbai, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Manish P. Ranbhise	Station Officer	Kolhapur Municipal Corporation
2	Ms. Abha Beniwal	Dy. Commissioner	Jaipur Municipal Corporation
3	Mr. Prakash S. Borade	Chief Fire Officer	Mira Bhayandar Municipal Corporation
4	Mr. Prashant A. Gurav	Fire Officer	Mira Bhayandar Municipal Corporation
5	Mr. Doson A. Dholya	Station Officer	Mira Bhayandar Municipal Corporation
6	Mr. Santosh S. Warick	Chief Fire Officer & FA	MIDC
7	Mr. Umesh Palande	Fire Officer	Mumbai Fire Brigade
8	Mr. P. S. Shimpi	S. E (M & E) E. S	Municipal Corporation of Greater Mumbai
9	Ms. Mamta R. Bhoir	Dy. Law Officer	Municipal Corporation of Greater Mumbai
10	Mr. Arun Kumar	Fire Officer	Bharatapur Municipal Corporation
11	Mr. Devendra Meena	Fire Officer	Jaipur Municipal Corporation
12	Mr. Sujay P. Gaikwad	Divisional Fire Officer	MIDC
13	Mr. Tushar P. Chinchay	E.E (M & E) W. S.	Municipal Corporation of Greater Mumbai
14	Mr. Nandkishor G. Behalam	Fire Officer	CEI Office
15	Ms. Meenakshi Wathore	Fire Officer	IE & L
16	Mr. P. P Bhonde	Fire Officer	Mumbai Port Trust
17	Mr. S. J. Shah	Superintending Engineer	Mumbai Port Trust
18	Mr. A. G. Kanase	Electrical Inspector	IE & L
19	Mr. Sharad P Gatade	Sub Engineer	Municipal Corporation of Greater Mumbai
20	Mr. Mahesh Khandekar	AE (M & E)	Municipal Corporation of Greater Mumbai
21	Ms. Indrani Malkani	Fire Officer	V Citizens Action Network (VEAN)
22	Mr. I. A. Mulani	Chief Engineer	MSEDCL
23	Mr. Jitendrakumar H. Rathour	Additional Executive Engineer	MSEDCL
24	Mr. R. D. Sankhe	Ex. Electrical Inspector	Municipal Corporation of Greater Mumbai
25	Mr. V. T. Rathod	Electrical Inspector	WFTS
26	Mr. Rajendra Uchake	Chief Fire Officer	Nagpur Municipal Corporation
27	Mr. A. P. Mandke	Chief Fire Officer	CIDCO
28	Mr. H. D. Parab	Dy. Chief Fire Officer	Mumbai Fire Brigade
29	Mr. Shyam Kharbade	Dy. Chief Fire Officer	Mumbai Fire Brigade

# Fire Prevention & Life Safety

17<sup>th</sup> - 18<sup>th</sup> October, 2019, Mumbai, Maharashtra

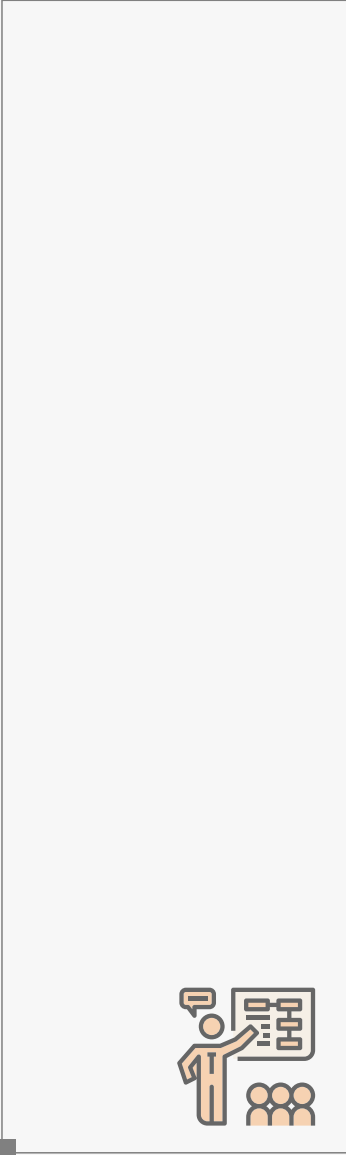
## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
30	Mr. S. K. Bandgar	ADFO	Mumbai Fire Brigade
31	Dr. Prabhat S. Rahangdale	Chief Fire Officer and Director	Mumbai Fire Brigade
32	Mr. Anil V. Parab	Divisional Fire Officer	Mumbai Fire Brigade
33	Mr. Utkarsh Y. Bobade	Station Officer	Mumbai Fire Brigade



# REGIONAL SEMINAR

## Faecal Sludge & Septage Management (FSSM)



# Faecal Sludge & Septage Management (FSSM)

28<sup>th</sup> January, 2020, Shirdi, Maharashtra

## Programme Outline

Day 1	Content	Faculty
<b>Registration- 09.30 to 10.00 hrs.</b>		<b>RCUES, AILSG team</b>
<b>Introduction &amp; Inauguration - 10.00 to 10.30 hrs.</b>		<b>Welcome Address</b> <b>Ms. Neha Hardikar</b> Sr. Research Officer RCUES of AILSG, Mumbai  <b>Inauguration Address</b> <b>Ms. Archana Kote Patil</b> President, Shirdi Municipal Council
<b>Session 1</b> 10.30 to 11.15 hrs.	Overview of FSSM	<b>Ms. Aashima Parikh</b> Research Associate RCUES of AILSG Mumbai
<b>Session 2</b> 11.15 to 12.00 hrs.	State perspectives for implementation of FSSM	<b>Ms. Dhanashree Zende</b> Independent Consultant (Sanitation, SWM, Urban Management, Climate Change)
<b>Session 3</b> 12.00 to 12.45 hrs.	Planning for emptying services	<b>Ms. Aashima Parikh</b> Research Associate RCUES of AILSG Mumbai
12.45 to 13.00 hrs.	Discussion	
<b>Lunch Break- 13.00 to 13.30 hrs.</b>		
<b>Session 4</b> 13.30 to 14.30 hrs.	Technology options for FSSM implementation	<b>Ms. Dhanashree Zende</b> Independent Consultant (Sanitation, SWM, Urban Management, Climate Change)
14.30 to 17.00 hrs.	UASB technology for STP with focus on implementation of Sinnar FSTP	<b>Mr. Umesh Panse/Prasad Gadekar</b> Director – Technical Head Panse Consultant
17.00 to 17.30 hrs.	Financing options for FSSM at city level	<b>Ms. Aashima Parikh</b> Research Associate RCUES of AILSG Mumbai
17.30 to 18.00 hrs.	Feedback & Summing up	<b>RCUES, AILSG, Mumbai Team</b>

# Faecal Sludge & Septage Management (FSSM)

28<sup>th</sup> January, 2020, Shirdi, Maharashtra

## List of Participants

Sr. No.	Name of the Participants	Designation	Municipal Corporation / Council / Organization
1	Mr. Tyas S. Shah	Technical Assistant	Sangali-Miraj Kupwad City Corporation
2	Mr. Rohan M. Magode	Mechanical Engineer	Sangli-Miraj Kupwad City Corporation
3	Ms. Sujata S. Telang	Municipal Councillor	Sinnar Municipal Council
4	Ms. Jyoti S. Wamole	Municipal Councillor	Sinnar Municipal Council
5	Ms. Mangala V. Shinde	Municipal Councillor	Sinnar Municipal Council
6	Ms. Sujata A. Bhagat	Municipal Councillor	Sinnar Municipal Council
7	Ms. Pratibha Narote	Municipal Councillor	Sinnar Municipal Council
8	Ms. Archana Kote-Patil	President	Shirdi Nagarpanchayat
9	Ms. Chaya Shinde	Municipal Councillor	Shirdi Nagarpanchayat

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All India Institute of Local Self Government, Mumbai**

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