

सत्यमेव जयते

**REGIONAL CENTRE FOR URBAN &
ENVIRONMENTAL STUDIES, LUCKNOW**

(MINISTRY OF HOUSING & URBAN AFFAIRS, GOVT. OF INDIA)

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Regional Centre for Urban & Environmental Studies (RCUES) Lucknow is one of the four centers in the country established by the Ministry of Housing and Urban Affairs, Government of India at Lucknow in the year 1968. The Regional Centre provides expertise, advisory services & consultancy services to urban local bodies and Parastatals. The Centre has completed its 50 glorious years and continues to perform its activity as Centre of Excellence.

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ONLINE TRAINING ON INCLUSIVE HOUSING POLICY (PMAY)

BACKGROUND

Pradhan Mantri Awas Yojana (Urban), a flagship Mission of Government of India implemented by the Ministry of Housing and Urban Affairs (MoHUA), was launched on 25th June 2015. The Mission addresses urban housing shortage among the EWS/LIG and MIG categories including the slum dwellers by ensuring a pucca house to all eligible urban households by the year 2022, when nation completes 75 years of its Independence. PMAY (U) adopts a demand driven approach wherein the Housing shortage is decided based on demand assessment by States/UTs. All houses under PMAY(U) have basic amenities like toilet, water supply, electricity and kitchen. The Mission promotes women empowerment by providing the ownership of houses in name of female member or in joint name.

Preference is also given to differently abled persons, senior citizens, SCs, STs, OBCs, Minority, single women, transgender and other weaker & venerable sections of the society. A PMAY(U) house ensures dignified living along with sense of security and pride of ownership to the beneficiaries.

COVID-19 pandemic has resulted in reverse migration of urban migrants/ poor in the country. Urban migrants stay in slums/ informal settlements/ unauthorised colonies/ periurban areas to save cost on housing. They need decent rental housing at affordable rate at their work sites. In order to address this need, Ministry of Housing & Urban Affairs has

List of Online Training Programmes

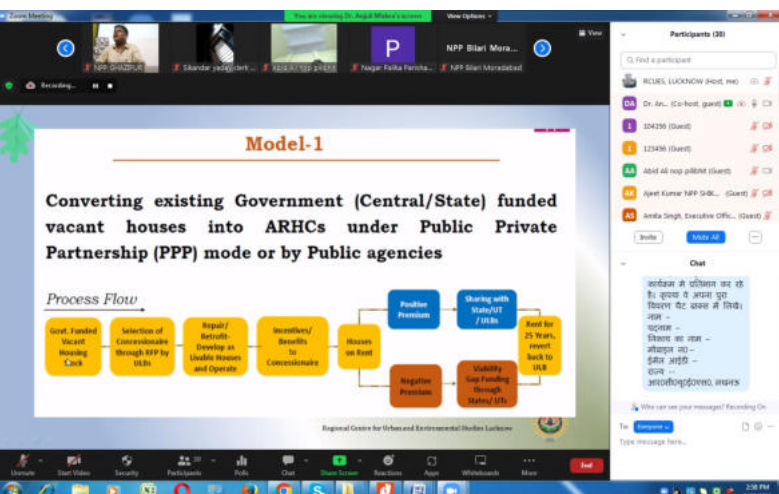
Date	No. of Participants
02 July 2022	17
06 July 2022	53
08 July 2022	26
23 August 2022	25
30 August 2022	25

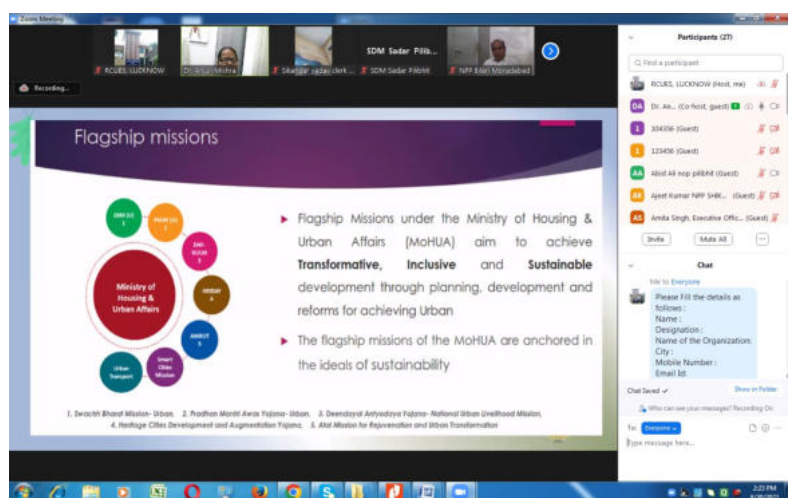
initiated Affordable Rental Housing Complexes (ARHCs), a sub-scheme under Pradhan Mantri Awas Yojana- Urban (PMAY-U).

This will provide ease of living to urban migrants/ poor in Industrial Sector as well as in non formal urban economy to get access to dignified affordable rental housing close to their workplace. In this context, five Online Training programmes on Inclusive Housing policy (PM Awas Yojana (Urban)).

OBJECTIVES

- To highlight the status of urban poverty and approaches for its alleviation;
- To discuss and deliberate upon the various provisions and procedures of the Pradhan Mantri Awas Yojana;
- To highlight the problems and challenges in implementation of Pradhan Mantri Awas Yojana and suggesting measures for its effective implementation.
- To highlight the main features and provisions





under Affordable Rental Housing Complexes (ARHCs), a sub-scheme under Pradhan Mantri Awas Yojana.

PARTICIPANTS

The online training was aimed at Municipal Commissioners /Additional Municipal Commissioners/ Deputy Municipal Commissioners / Assistant Municipal Commissioners, Executive Officers/ Chief Municipal Officers, Concerned Officials of City Level Technical Cell Under PMAY(U). In total 146 participants attended the training.

COORDINATOR:

The training programme was coordinated by Dr Anjali Mishra, Joint Director, RCUES, Lucknow.

ONLINE TRAINING ON WATER BODIES REJUVENATION & CREATION OF GREEN SPACES IN ULBS

BACKGROUND

Water is the most prime factor for sustenance of life. It exists in different forms such as rainfall, river water, ground water, ponds and lakes etc. Therefore management of water resources call for integrated management of all these components as a system. As per the information available with the Ministry of Water Resources, River Development and Ganga Rejuvenation about 2.7 per cent of the total water available on the earth is fresh water, of which about 75.2 per cent lies frozen in polar regions and another 22.6 per cent is present as ground water. The rest is available in lakes, rivers, atmosphere, moisture, soil and vegetation.

Water Bodies serve as storage reservoirs in the monsoon-dependent areas of the economy where there exist a shorter period of rainfall and a long dry spell with very high deviation of annual rainfall. The small storage tanks are called ponds or bundhis which are mostly community owned. The large storage tanks whose command varies from 20 to 2000 hectares are generally constructed by the Government Departments or local bodies.

The Government of India launched the scheme of Repair, Renovation and Restoration (RRR) of water bodies during X Plan to revive and restore vanishing water bodies resulting in major loss of irrigation potential. The scheme was launched as pilot scheme and based on its success, a full scale scheme was implemented during XI Plan. Keeping in view the benefits arising out of the implementation of the scheme, it was extended to XII Plan as well. During XII Plan, the planned outlay of the scheme is Rs 10,000 crore and is envisaged to provide Central Assistance for restoration of about 10,000 water bodies (9000 water bodies in rural areas and 1000 water bodies in urban areas) with an earmarked Central outlay of Rs. 6,235 crore and respective State share of Rs 3,765 crore for the scheme with likely restoration of 6.235 lakh hectare.

List of Online Training Programmes	
Date	No. of Participants
08 July 2022	22
18 July 2022	33
20 July 2022	28
22 July 2022	18
25 July 2022	31
27 July 2022	30
29 July 2022	30
02 August 2022	45
02 August 2022	28
04 August 2022	19
06 August 2022	17
22 August 2022	18
24 August 2022	25
26 August 2022	30
29 August 2022	24
23-Sep-22	15
24-Sep-22	15

In the context of increasing water scarcity competitive demands and widespread pollution, water resources have become one of the critical imperatives for livelihood. Drinking and Domestic water needs get the first priority among the various demands of water. Recently, the Government of India approved Phase II of Swachh Bharat Mission-Urban (SBM-U 2.0). Alongside the urban component of Jal Jeevan Mission (JJM-U), SBM-U 2.0 goes beyond the aim of eliminating open defecation in the country, by focusing on ODF+, ODF++ and Water+ protocols as laid down by the Ministry of Housing and Urban Affairs, Government of India. Government of India in Fifteenth Finance Commission, with a theme of water conservation drafted the policy for pond and water bodies rejuvenation making use of waste water and beautification of the pond as tourist spot as well as place for cultural activities decided to take up the pledge to transform degraded ponds in to lively water bodies with restored aquatic ecology and saving the environment of the town. In this context RCUES Lucknow organized 17 online training programmes on Water Bodies Rejuvenation & Creation of Green

spaces in ULBs.

OBJECTIVES

The training programme is the capacity building programme under the Sanitation Capacity Building Platform. Through experience sharing, participants are expected to:

- have a overview of various waste water treatment technologies and methods.
- Understand the regulatory framework and enforcement mechanism to strengthen the implementation of wastewater treatment and disposal.
- Selection of suitable treatment technology for the treatment and development of green area and recreational activities around the water body.
- Understand the operation and maintenance model of the treatment plant and allied services.
- Develop the understanding of the making of Detailed Project report by themselves.

PARTICIPANTS

The programme was organized for senior officials from 4 States Urban Development Departments, SBM/AMRUT Mission Directorates and Parastatal Bodies. In total 428 participants attended the online training.

EXPECTED OUTCOME

Through this programme, participants are expected to understand the various planning and implementation aspects of waste water treatment and its reuse for pond/water body rejuvenation, and take back learnings from various related case studies.

METHODOLOGY AND SESSIONS:

The training programme was conducted on online mode which included:

- understanding of the present scenario,
- the fundamentals of waste water treatment technologies,
- methodologies for waste water treatment,
- development of green area and recreational activities,
- institutional support and linkages for planning and implementation.

RESIDENTIAL TRAINING PROGRAMME ON OPERATION AND MAINTENANCE OF FAECAL SLUDGE AND CO-TREATMENT

BACKGROUND

Regional Centre for Urban and Environmental Studies (RCUES) in collaboration with CSE - School of Water and Waste (SWW) organized a training programme from 19-22 July at Anil Agarwal Environment Training Institute (AAETI), Neemli, Rajasthan on 'Decentralized Operation and Maintenance of Faecal Sludge Treatment and Co-Treatment Plants'. The aim of the training was to build the Capacity of State/Municipal functionaries involved in Implementation and Operation & Maintenance of Faecal Sludge and Co-Treatment plants.

OBJECTIVES

The objectives of the training are as follows:

- Fundamentals of FSSM and UP's journey in FSSM
- Overview of different FSSM technologies
- Operating guidelines and O&M of different de-sludging vehicles

- Need and strategies for effective O&M
- Health and Safety in FSTP operations and maintenance
- O&M protocols of different FSSM technologies used in UP
- Laboratory aspects of FSSM

SESSIONS

The training methodology was a mix approach involving lectures, exercises, interactive discussions, video documentaries, exposure visits etc. The participants also got an opportunity to learn developing Operation and Maintenance module, Action Plan for the operations of the plant etc as part of group exercise.

The day one of the training started with room mapping exercise followed by a context setting and keynote address by Mr. Depinder Singh Kapur, Programme Director at CSE. Mr. Dhawal Patil- Saniverse and Dr. Smitha Singh- KAM Foundation were the external speakers on Day 1. The first half of the day focused on the context setting on the importance of O&M,





Visit to the Laboratory



Session on O&M by Mr. Dhawal Patil

defining issues and challenges during the implementation of a FSSM project, UP journey in FSSM, Fundamentals and overview of FSSM, overview of different FSSM technologies, Occupational health and safety in FSSM. The second half of the day focussed on Overview of different de-sludging techniques and machineries, De-Sludging experiences in Chunar, Municipal Byelaws and De-Sludging in Bijnor and risks in FSTP operations.

On day two, three external speakers from reputed organisations like Mr. Dhawal Patil- Saniverse, Mr. Swastik Pandey- Blue Water Company and Mr. K C Rao- Wash I. The first half of the day 2 covered the sessions on improving safety in FSSM, Overview of reuse and resource recovery models, Planning for O&M in FSSM, Case studies in Leh, Dhenkanal and Sircilla. The second half of the day 2 covered a session on the Operation and Maintenance of different modules, session on the laboratory followed by the visit to the laboratory. Post the completion of sessions, participants were taken around the AAETI campus tour where participants were taken to the various wastewater treatment systems (DWWTs, SBT, Improved Septic Tank) as well as rainwater harvesting system to showcase the example of wastewater treatment and RWH at institutional scale.

Day three started with the exercise on the action plan from the participants to manage the septage efficiently in their cities and the training concluded by the certificate distribution.

PARTICIPANTS

A total of 34 participants from diverse background attended the training programme, which comprises the Engineers (Civil / Mech./Envn.) working with UP Jal Nigam, Urban Local Bodies under state FSSM initiative, Contractor representatives involved in Operation and Maintenance of FSTP and co-treatment plants and Other technical officials dealing with FSSM under AMRUT & Swachh Bharat Mission (U).

COORDINATION

The programme was coordinated by Dr. Nasruddin, Assistant Director, RCUES, Lucknow

EXPOSURE VISIT TO ODISHA TO SHOWCASE BEST FSSM PRACTICES

BACKGROUND

Regional Centre for Urban and Environmental Studies (RCUES) in collaboration with Centre for Science and Environment (CSE) organized an Exposure visit to Odisha Water Academy from 04-06 August 2022, to showcase best FSSM practices incorporated by state of Odisha in their structure of sanitation reforms.

OBJECTIVES

The objectives of the training are as follows:

- Fundamentals of FSSM and UP's journey in FSSM
- Overview of different FSSM technologies
- Operating guidelines and O&M of different de-sludging vehicles
- Need and strategies for effective O&M
- Health and Safety in FSTP operations and maintenance
- O&M protocols of different FSSM technologies used in UP
- Laboratory aspects of FSSM

SESSIONS

The exposure visit was hosted by Odisha Water Academy (OWA) and PMU Ernst & Young (EY) in Odisha. On day 1- Shri R N Mallik, Chief Engineer-Housing and Urban Development Department Govt. of Odisha, helped the participants to understand the background, current status and future of the FSSM journey in his session. Mr Sandipan Sarangi, from

E&Y, Ms Suryabarti Majhi, Project Engineer OWSSB; Shri Santanu Rath-Director OWA, Shibabrata Kar from EY and Manu from EY also facilitated the learning in their respective sessions at OWA premises. Overall, in the first half of the day 1 participants were given sessions policy, legal & regulatory framework, low cost technologies, inclusive approach-women SHG, Trans-gender (TG) in FSTP Management and issues, challenges in O&M of FSTPs.

In the second half of the day 1, participants were taken to Basughai FSTP where MsSuryabarti Majhi facilitated the visit and explained various treatment stages on the plant. The participants were also introduced to the TG community involved in the O&M of the Basughai FSTP. Meghna Sahu, Team Lead of the TG showed the gratitude towards government of Odisha for giving them the opportunity to raise in their lives and greeted the participants for visiting the plant and appreciating their efforts. In the later end of the day the participants travelled to Puri city to observe the setup of a 50 KLD Co-treatment unit at 15 MLD Sewage Treatment Plant (STP). Mr Bhabani Mohanty, Manager at WATCO Puri explained the about the treatment unit on the field. Mr Saroj Kumar Swain Executive Officer, Puri Municipality, explained the participants about the reforms they brought for regular safe desludging and transport of faecal sludge. He gave idea about how they have introduced *Jal Sathi* incentive system to improve tax collection for FSSM.

On day- 2 Participants travelled back to Bhubaneswar at OWA where Mr. Sangramjit Nayak, DMA, Housing and Urban Development,



Co-treatment Plant at Puri-participants observing the process



Participants exploring the Basughai FSTP, Bhubaneswar



Participants exploring Planted Gravel Filter at Basughai, FSTP, Bhubaneswar



Group picture at Puri Co-treatment Unit

Government of Odishagave us a tour of Odisha FSSM journey and challenges faced at the administrative level. It was followed by a small feedback session through google forms. It was a fruitful visit and concluded with a high note with excellent feedback from the participants. Couple of important things we have learnt from Odisha -

- Strong political and administrative will. The PS and DMA have been in the same department for the past nine years.
- Flexible to experiment, learn and adopt. They are not scared to fail.
- Taking conscious decision. They have visited places, seen technologies, reviewed guidelines and then drafted their own journey. They are pursuing their own journey, even though it is in conflict with national guideline, as they have conviction. Partnership with transgender group and Mission Shakti SHGs across the FSSM value chain.

PARTICIPANTS

A total of 18 participants from diverse background attended the training programme, which comprised of Municipal Commissioners (MC), Additional MC, Asst. MC, Executive Officers of various ULBs, and Additional Mission Director, AMRUT.

COORDINATION

The programme was coordinated by Dr. Anjali

Mishra, Joint Director, RCUES, Lucknow

ONLINE TRAINING ON RAIN WATER HARVESTING

BACKGROUND

India is experiencing rapid urbanization and consequently water demand in urban areas is escalating.

Due to shortage of surface water sources in many urban centers, ground water is now increasingly tapped for water supplies. As a result, there is lot of pressure on underlying aquifers for fulfilling the domestic water demand. Inadequate access to improved water has been a persistent challenge for many Indian cities. Urban water resources are overstressed due to increase in urban population, pollution and unplanned as well as un-sustainable urban growth. Moreover, over exploitation of ground

water resources in urban centers for quenching the thirst of increasing urban population, changing lifestyle, and water uses for various purposes is cause of concern. Thus, management of water resources is imperative rather than development of the resources. In order to address water scarcity, it is important to undertake efforts for conservation, restoration, recharge and reuse of water. In this pursuit, Ministry of Jal Shakti, Government of India has launched Jal Shakti Abhiyan from 1 July, 2019 for effective management of water resources and increasing its

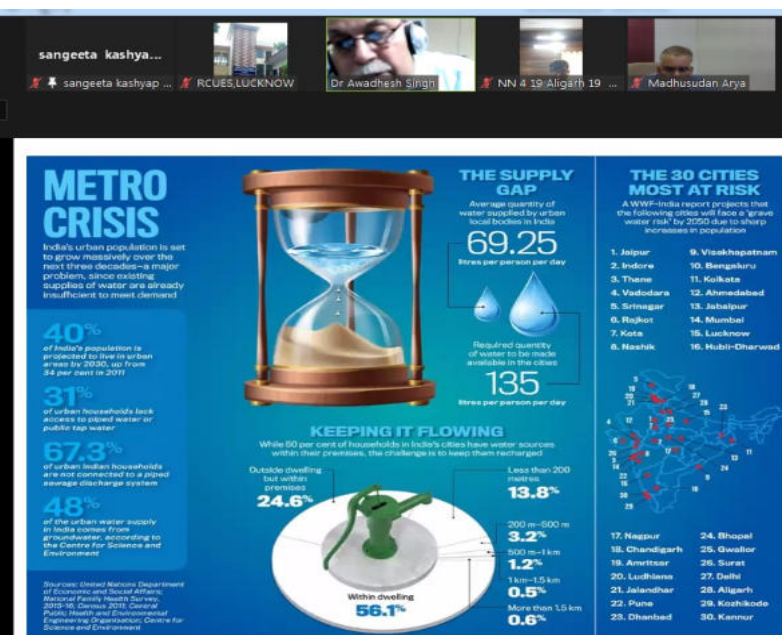
List of Online Training Programmes

Date	No. of Participants
19 July 2022	44
26 July 2022	26
29 July 2022	27
02 August 2022	40
05 August 2022	20

access to population. Rain Water Harvesting (RWH) is collection and storage of rainwater from roof tops, roadside, open areas, etc. which can be stored for further usage or recharged into ground water to augment water resources. RWH needs to be implemented as per the provisions of MBBL, 2016 shared with all States/UTs for adoption. Most of the States/UTs have incorporated RWH in their respective Building Bye-Laws. Cities need to ensure that the RWH provisions are incorporated in their or State Building Bye-Laws (BBLs), as may be applicable.

Against this backdrop, RCUES, Lucknow organized five, Online training programmes on “**Rain Water Harvesting**” to deliberate upon the pertinent issues and dimensions of water resources management and RWH in urban centres.

OBJECTIVES



Integrated Water Management

Cities require a comprehensive review and understanding of various elements of urban water balance and the water budget to transition to the IUWM framework.

- Augmentation of Surface Storage
- Augmentation of Groundwater Storage
- Wastewater Treatment and Reuse
- Rainwater Harvesting
- Modernisation of Water Supply Infrastructure
- Urban Water Demand Optimisation
- Urban Water Balance in a Circular Resource Management Framework

- To discuss the need and importance of conservation of water resources ;
- To highlight the policy perspective and theoretical framework of rain water harvesting in urban centres ;
- To examine the role of urban local governments in conservation of water resources and rejuvenating water bodies ;
- To highlight the initiatives and best practices in rain water harvesting in urban centres .

SESSIONS

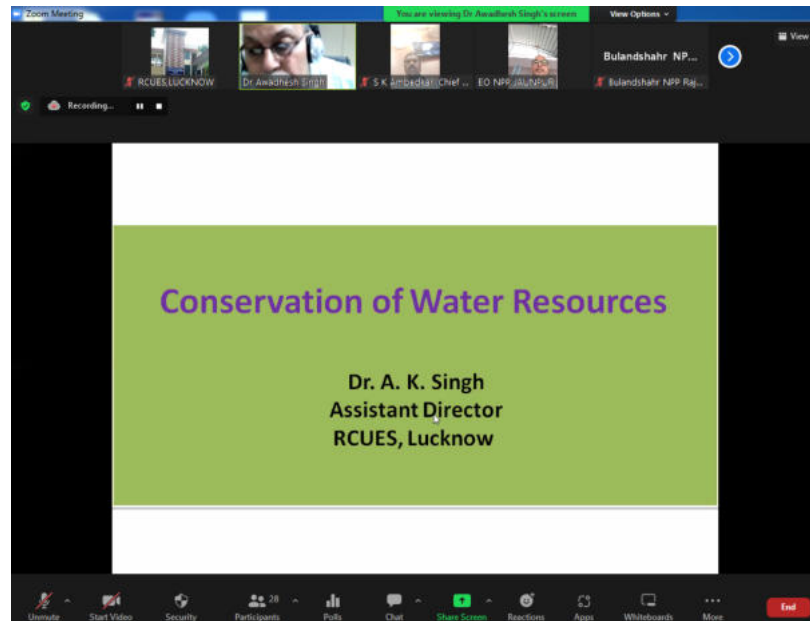
The sessions included Conservation of Water Resources and Rain Water Harvesting in Urban Areas.

PARTICIPANTS

A total of 157 participants from diverse background attended the training programme, which comprised of Additional/ Deputy / Assistant, Municipal Commissioners, Executive Officers, Engineers, Urban Planners, Specialists of Environment, Specialist Infrastructure Development, Chief Sanitary Inspectors and Zonal Officers.

COORDINATOR

The programmes were coordinated by Dr. A K Singh, Assistant Director, RCUES, Lucknow



ORIENTATION TRAINING PROGRAMME ON SWACHH BHARAT MISSION 2.0 IN COLLABORATION WITH RCUES LUCKNOW & WASH INSTITUTE

BACKGROUND

On October 1, 2021 the Ministry of Housing and Urban Affairs (MoHUA), Government of India launched Swachh Bharat Mission-Urban 2.0. The aim of this mission is to make ODF sustainable (ODF++) and ensure 100% used water (wastewater) is treated for reuse. The new program mandates urban local bodies with population less than 1 lakh (2011 census) to adopt a multidimensional approach towards used water management by adopting and implementing sewerage, FSSM, decentralised wastewater and grey water management solutions.

To aid states and ULBs in implementing this, MoHUA has published guidelines with information about the program, funding pattern and planning methodology. Nonetheless, stakeholders from ULBs may need help in deciphering the technical aspects of these guidelines.

To overcome the above issues, WASH Institute has initiated a program with objective to build capacity of officials and executives of ULBs across India on SBM-U 2.0 guidelines through classroom training/online training.

With the above objective, WASH Institute with the support of USAID, Bill & Melinda Gates Foundation, Regional Centre for Urban & Environmental Studies (RCUES) Lucknow conducted two three-day

List of Online Training Programmes	
Date	No. of Participants
28-30 July, 2022	27
01-03 August, 2022	28

orientation programme on operational guidelines of SBM-U 2.0, for ULB officials from Jharkhand and Uttar Pradesh.

The program was aimed to disseminate and explain SBM-U 2.0 guidelines, exclusively to officials, executives of urban local bodies and other key stakeholders, in simple terms to understand terminologies and concepts.

The training elaborated the role of officials and executives of urban local bodies for preparing city sanitation action plan (CSAP) for implementation of SBM-U 2.0.

SESSIONS

The training elaborated the role of officials and executives of urban local bodies for preparing city sanitation action plan (CSAP) for implementation of SBM-U 2.0. Basic introduction to the training and objective setting for SBM Urban 2.0 Guidelines. A detailed 360-degree approach covering all aspects of SBM-U- 2.0. guidelines, its objectives, explanation of its mission & vision, etc. Detailed study on used water management, its implementation, planning &





operation & maintenance with case studies. Planning & zoning of ULBs with Case studies Understanding & preparation CSAP in the detailed format specified in the SBM-U 2.0 Guidelines. A detailed session on FSM and need for FSM for implementation of SBM-U 2.0 Guidelines. Estimating investment for FSM. Case studies on Reuse models were shared. Drain based conveyance models with case studies, estimating investment for drain based systems and I&D infrastructure were shared. Sensitizing the officials on roles of all genders in the society, especially women and in work space and in planning of projects.

The training programme was coordinated by Mr Ajit Kumar Mishra, Assistant Director, RCUES, Lucknow

PARTICIPANTS

The training was aimed at Sanitary and Food Inspectors, Executive Officer, Tax Collector/in-charge SBM, Junior Engineer, Assistant Engineer, Divisional Program Managers and Divisional Managers, District Co-coordinators, Clerk and Safai Nayak. Overall 55 participants attended the training programmes.

COURSE COORDINATOR



TRAINING ON INTERMEDIATE PUBLIC TRANSPORT (IPT) SYSTEMS IN URBAN AREAS

BACKGROUND

The urban areas of Uttar Pradesh are heavily dependent on the Intermediate Public Transport (IPT) systems for daily commuting within cities. These IPT modes include auto rickshaws, tempos, e-rickshaws, cycle rickshaws etc. IPT modes carry 15-20% of passengers in all the million plus cities of Uttar Pradesh and this share is even higher than that of the buses. With rapid urbanisation and increasing infrastructure upgrades, there has been tremendous demand for transportation services. Limited bus availability and the compact urban form of the cities in UP suits the market of these IPT services.

Against this backdrop, RCUES, Lucknow organized a Training Programmes on Intermediate Public Transport (IPT) systems in urban areas on 04 August 2022 at RCUES Lucknow.

SESSION

In view of the objectives of the workshop, five technical sessions and two interactive sessions were organized. The first interactive session “From the lens of city practitioners - Issues and Challenges within IPT services”, moderated by Mr Himanshu Chandra,

Assistant Director RCUES Lucknow. During this session, the participants and experts shared their views on the IPT services in their respective areas and their importance as per their ideology.

The **technical session** on “Smart Mobility Zone Planning including IPT” was delivered by Dr Arpan Patra, Consultant, CEEW and Mr Apaar Srivastava, Consultant, CEEW Lucknow. They presented a case of planning Low Emission Zone (LEZ) in urban centres with a major focus on linking the IPT and PT systems in these areas.

The workshop concluded with an interactive session on “Mapping the learnings” moderated by Ms Shreya Jaiswal and Mr Samradh Singh Chauhan, CEEW. During this session, the participants were posed with specific contexts to react in terms of their responsibilities towards enhancing the IPT systems. This helped in creating a framework and understanding the level of integration required at different levels in solving the current problems of the IPT segment.

At the end, Ms Alka Singh, Deputy Director, RCEUS, Lucknow presented vote of thanks to the resource persons and participants of the programme.





CONCLUSION

The workshop highlighted various immediate and long term concerns of the city authorities with regard to the operations and planning of the Intermediate Public Transport System in the cities of Kanpur and Lucknow. There is a need for supporting infrastructure for the IPT services in form of stands, stops, parking etc. to curb the on street traffic congestion. Multimodal integration is another key requirement to ease the connectivity of public transport users of a city. Electric mobility is evident in this commercial space of medium sized transport operations of IPT. Various cities in India are gearing up for this transition through city level planning and policy measures; and thus should the cities of UP.

PARTICIPANTS

Overall 30 participants came from ULB's, Smart city, Transport Department, Nagar Panchayats and Cantonment Board of Lucknow, Kanpur .

COORDINATION

The workshop was jointly coordinated by Mr. Himanshu Chandra, Assistant Director, RCUES Lucknow.

TRAINING PROGRAMME ON SANITATION & SOLID WASTE MANAGEMENT IN URBAN LOCAL BODIES

BACKGROUND

The Sustainable Development Goals (SDGs) place significant emphasis on sanitation, cleanliness and hygiene. Decades ago, Mahatma Gandhi said that ‘sanitation is more important than political freedom’. The management of municipal solid waste in India has surfaced or continued to be a severe problem not only because of environmental and aesthetic concerns but also because of the enormous quantities generated every day. Even though only 31% of Indian population resides in urban areas, this population of 377 million (Census of India, 2011) generates a gigantic 1,43,449 metric tonnes per day of municipal solid waste, as per the Central Pollution Control Board (CPCB), 2014-15 and these figures increase every day with an increase in population. To further add to the problem, the total number of towns (statutory and census) in the country have also increased from 5,161 in 2001 to 7,936 in 2011, thus increasing the number of municipal waste generation by 2,775 within a decade. The management of municipal solid waste is one of the main functions of all Urban Local Bodies (ULBs) in the country. All ULBs are required to meticulously plan, implement and monitor all systems of urban service delivery especially that of municipal solid waste. With limited financial resources, technical capacities and land availability, urban local bodies are constantly striving to meet this challenge.

The launch of Swachh Bharat Mission on 2nd October 2014 by the Hon’ble Prime Minister Shri Narendra Modi was a historic moment for India that aims to provide basic infrastructural and service delivery with respect to sanitation facilities to every family, including toilets and adopting the scientific methods to collect, process and disposal of municipal solid waste. The mission focuses on quality and sustainability of the service provision as well as emphasizing on the commitment on every stakeholder to bring about a visible change in society. Now the mission is being extended for a period of 5 (five) years from 1st October 2021 to 1st October 2026, as Swachh Bharat Mission (Urban) 2.0 (SBM-U 2.0), for completing the work

List of Online Training Programmes	
Date	No. of Participants
06 August 2022	30
08 August 2022	24
10 August 2022	15

remaining, institutionalizing ‘swachh’ behavior and making it sustainable. The Government of India in partnership with States/ UTs and ULBs is committed to make all cities ‘Garbage Free’ under SBM-Urban 2.0 in order to contribute to the achievement of the Sustainable Development Goals (SDG) 2030, which will ultimately improve the quality of life and ease of living of urban populations, thus leading to urban transformation. SBM-U 2.0 will be implemented by MoHUA through States/ UTs in all statutory towns.

Solid waste is defined as discarded solid fractions, generated from domestic units, trade centres, commercial establishments, industries, and agriculture, institutions, public services and mining activities. Characteristics of waste vary based on place of generation and season in which it is generated. The Central Public Health and Environmental Engineering Organisation, the technical wing of Ministry of Urban Development has classified solid waste in fourteen categories based on source, origin and type of waste.

These include domestic waste, municipal waste, commercial waste, institutional waste, garbage, rubbish, ashes, bulky waste, street sweepings, dead animals, construction and demolition waste, industrial waste, hazardous waste and sewage waste (CPHEEO, 2000). A solid waste management (SWM) system includes collection, segregation, transportation, processing and disposal of waste. Against this backdrop, RCUES, Lucknow organized three, one day workshops on “Sanitation & Solid Waste Management in Urban Local Bodies with the following objectives:

OBJECTIVES

- To acquaint the participants with the need, importance, and objectives of SBM 2.0.

- To acquaint the participants with the need, importance, and objectives of Solid Waste Management & Garbage Free City under SBM 2.0.
- To acquaint the participants with the need, importance, and objectives of Faecal Sludge & Septage Management as new component of SBM 2.0.
- To aware the participants with different types of Treatment and Reuse of Used Water
- To aware the participants with the concept of Participatory Planning and IEC

PARTICIPANTS

The participants of the training programme were Executive Officers, Sanitary & Food Inspector etc. In total 69 participants attended the trainings.

COORDINATION

The programme were coordinated by Dr. Rajeev Narayan, Deputy Director and Dr. Nasruddin, Assistant Director, RCUES, Lucknow.

TRAINING ON UTTAR PRADESH STATE SEPTAGE POLICY & USED WATER MANAGEMENT

BACKGROUND:

As a step towards achieving improved sanitation in urban areas of the state, the Urban Development Department of the GoUP has formulated “Uttar Pradesh State Septage Management Policy” (UPSSMP) which was approved by the Cabinet on 23 October 2019 in line with the National Policy on Faecal Sludge and Septage Management, 2017. This is a landmark resolve of the Government to improve the urban sanitation so as to achieve outcome levels impact on public health, environment quality and human dignity. The policy addresses much required guidance and directions to achieve the targets as laid out in the ODF++ and lends sustainability to the ODF status achieved under Swachh Bharat Mission (SBM) – Urban 2.0. On October 1, 2021 the Ministry of Housing and Urban Affairs (MoHUA), Government of India launched Swachh Bharat Mission-Urban 2.0. The aim of this mission is to make ODF sustainable (ODF++) and ensure 100% used water (wastewater) is treated for reuse. The SBM 2.0 emphasizes on Used Water Management with special focus of Faecal Sludge & Septage Management as a new component.

Nonetheless, stakeholders from ULBs may need help in deciphering the technical aspects of these Policy and operational guidelines. The referred Septage Policy and the Used Water Management component under SBM 2.0 have laid out clearly the implementation plan with time bound achievement of the targets. The workshops on Septage Management Policy and Used Water Management are a first step towards capacity building of all ULBs of Uttar Pradesh and implementation of this policy and SBM

2.0 guidelines. These workshops will inform all Municipal Bodies about the newly introduced policy and encourage them to prepare City Sanitation Plan for each of the ULBs and actively implement policy and SBM 2.0 initiatives in a timely and innovative manner.

Against this backdrop, RCUES, Lucknow organized nine, one day workshops on “Uttar Pradesh Septage Policy and Used Waste Management sponsored by Department of Urban, Government of Uttar Pradesh

OBJECTIVES:

- To acquaint the participants with the need, importance, and objectives of Used Water Management with special focus of Faecal Sludge & Septage Management as new component of SBM 2.0.
- To acquaint the participants with the need, importance, and objectives of Uttar Pradesh State Septage Management Policy-2019.
- To aware the participants with City Sanitation Action Plan.
- To aware the participants with different types of Used Water Management System - On-site & Off-Site.
- To aware the participants with the Used Water Management Process – Containment/ Collection, Conveyance/Transportation, Treatment, and Disposal/Reuse.
- To highlight different technologies for Used Water Treatment with a comparative study of different





technologies.

- To aware the participants with Faecal Sludge & Septage Management with special focus on Co-Treatment and additional methods.

- To aware the participants with Participatory Planning & IEC for effective Faecal Sludge & Septage Management.

List of Training Programmes

Date	No of Participants	Venue	Coordinators
25 August 2022	38	Agra	Dr. Rajeev Narayan & Dr. Nasruddin
26 August 2022	33	Aligarh	Dr. Rajeev Narayan & Dr. Nasruddin
27 August 2022	24	Ghaziabad	Dr. Rajeev Narayan & Dr. Nasruddin
14-Sep-22	29	Fatehpur	Dr. Anjuli Mishra & Dr. A.K. Singh
15-Sep-22	25	Banda	Dr. Anjuli Mishra & Dr. A.K. Singh
16-Sep-22	31	Chitrakoot	Dr. Anjuli Mishra & Dr. A.K. Singh
20-Sep-22	25	Kanpur Nagar	Dr. Rajeev Narayan & Dr. Nasruddin
21-Sep-22	18	Kanpur Dehat	Dr. Rajeev Narayan & Dr. Nasruddin
22-Sep-22	45	Unnao	Dr. Rajeev Narayan & Dr. Nasruddin

ONLINE TRAINING PROGRAMME ON DISASTER MANAGEMENT AND CLIMATE CHANGE

BACKGROUND:

Growing urbanization is posing serious environmental concerns in India in terms of changing land use pattern, increasing carbon emissions, solid waste generation and disposal, air and water pollution and poor sanitation amenities. A large segment of urban population in India resides in slums, squatters and informal settlement. These settlements are often located in low laying areas prone to direct and indirect risks due to environmental degradation including changes in the climate and lack of basic urban services.

India has been major centre of natural and human induced disasters in South Asia. Earthquakes, flood, drought, climate change, land sliding and cyclones are frequently occurring in India while naxalism, ethnic unrest, insurgency, fire, stampede, accidents etc. cause concern. In most of the cities, damage to vital infrastructure has wider implications on urban local governments in terms of sustainability of civic services and municipal resources management. The management of disasters include prevention, mitigation, preparedness, disaster response and rehabilitation of disasters victims as well as reconstitution of disaster affected areas. As we cannot predict disasters and control them, hence strategies for

prevention and mitigation of potential loss of disasters are best suited while community based approaches for

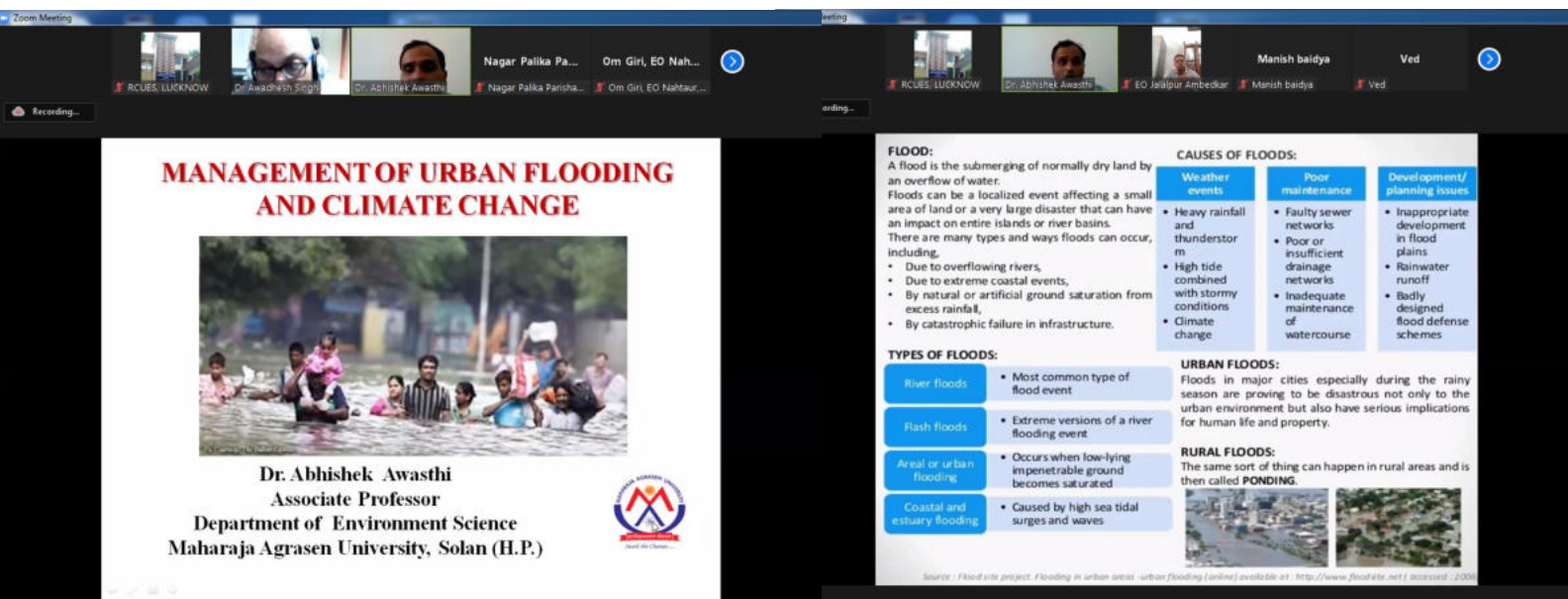
List of Online Training Programmes	
Date	No. of Participants
27 August 2022	26
31 August 2022	28

disaster response and rehabilitation has to be accorded top priority.

Against this backdrop, RCUES, Lucknow organized two online training programmes on Disaster Management and Climate Change to deliberate upon the pertinent issues and dimensions of prevention and mitigation of urban disasters and its effective management.

OBJECTIVES

- To discuss the national and state perspective of disasters and its management;
- To highlight the policy perspective and theoretical framework of prevention and mitigation of disasters;
- To examine the role of urban local governments in managing disasters in urban centres;



- To highlight the initiatives and best practices in prevention, response and mitigating disasters in urban areas;
- To highlight the importance of urban resilience in the context of climate change, disasters, and environmental sustainability;

PARTICIPANTS

The online training was aimed at Additional/ Deputy / Assistant Municipal Commissioners, Executive Officers, Engineers, Urban Planners, Specialists of Environment, Sanitation and Pollution Control, Chief Sanitary Inspectors and Zonal Officers. In total 54 participants attended the training.

COORDINATOR:

The training programme was coordinated by Dr A K Singh, Assistant Director, RCUES, Lucknow.

TRAINING OF ULB OFFICIALS ON PREPARATION OF CITY SANITATION ACTION PLAN UNDER SBM 2.0

BACKGROUND:

The Swachh Bharat Mission 1.0 and 2.0 (launched in 2014) have spurred rapid development of sanitation services and infrastructure in Urban India since 2014. Faecal sludge and Septage Management (FSSM) is an affordable and easy approach considered vital to reach the ODF++ status that Indian towns and cities aspire to. The demand for FSSM services has increased, but the gaps in the skillset among government officials and sector professionals are still considerable.

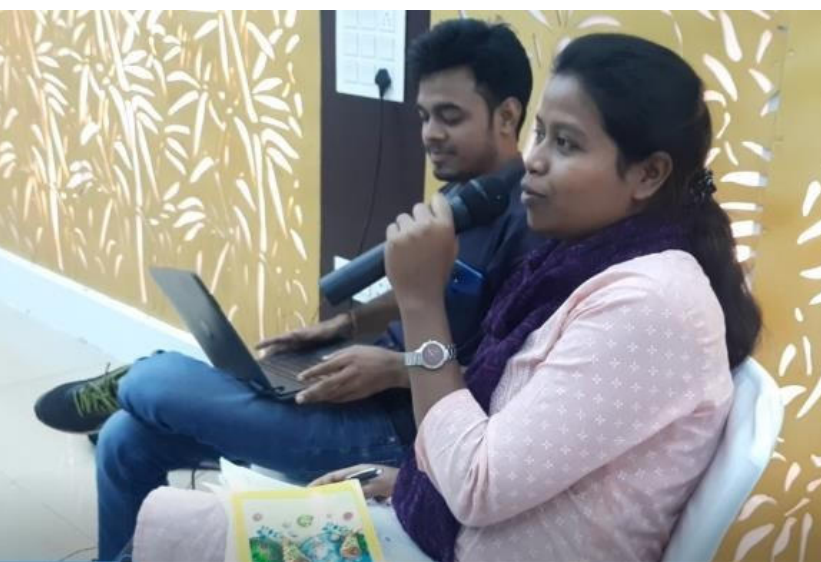
To bridge this knowledge gap, WASH Institute, with support from USAID and in collaboration with BMGF is anchoring a three-year program intended at Skill Building in FSSM in Indian towns and cities. The “Skill Development in Fecal Sludge and Septage Management (FSSM) sector in Indian Towns and Cities”, project aims to increase the number of skilled professionals in the Water, Sanitation and Hygiene sector at state, city and town levels across India and enhance access to people in safely managed disposal services through FSSM. In order to achieve this, WASH Institute is conducting various capacity building trainings/ certificate courses on FSSM across India through classroom training/ online training. This program was conceived with the vision of empowering more than 7000 urban local bodies in India. Eventually, we hope to see every town or city

equipped with basic sanitation services and systems to manage their Faecal sludge, Septage and wastewater independently. India’s progress has been slow with respect to SDG 6, largely because sanitation systems are not catching up with the pace at which Urban India is developing, and this program gets the country a step closer to the promise of providing 100% sanitation for everyone. This particular training aimed to build the capacity of the ULB representatives on the preparation of City Sanitation Action Plan (CSAP) in Ranchi, Jharkhand and was delivered in collaboration with RCUES, Lucknow who has been supporting SUDA to address the challenges related to capacity building of ULBs and ensure participants are acquainted with the new operational guidelines.

Against this backdrop, RCUES, Lucknow organized a Training programmes for the ULB Officials on preparation of City Sanitation Action Plan on 01-03 September 2022.

OBJECTIVES

- To review CSTF formation /meetings and assess compiled status assessment reports of cities.
- To develop strategies of each technical sector (water supply, sewerage/ septage, storm water, solid waste and access to toilets) including governance and municipal finance) from identified issues.





- identify, formulate, and prioritize key issues and vision of the for an effective action plan.
- Application of specialized tools for the selection of appropriate projects sites

PARTICIPANTS

The training was aimed at Additional/ Deputy / Assistant Municipal Commissioners, Executive Officers, Engineers, Urban Planners, Specialists of Environment, Sanitation and Pollution Control, Chief Sanitary Inspectors and Zonal Officers. In total 54 participants attended the training.

COORDINATOR:

The training programme was coordinated by DrMr Ajit Kumar Mishra, Assistant Director, RCUES, Lucknow.

TRAINING ON INTEGRATED WASTEWATER AND SEPTAGE MANAGEMENT (IWSM) IN COLLABORATION WITH NIUA, NEW DELHI

BACKGROUND

The launch of Swachh Bharat Mission (SBM) in 2014 ensured access to toilets to 100% of the Indian population, including urban areas, and encouraged by this success, Phase II of the Mission called SBM-U 2.0 was launched by the Government of India. Alongside the urban component of the Jal Jeevan Mission (JJM-U), the mission goes beyond the aim of eliminating open defecation in the country, by focusing on ODF+, ODF++ and Water+ protocols as laid down by the Ministry of Housing and Urban Affairs, GoI.

Faecal sludge and septage management as a solution to sanitation issues got traction after the National Policy on FSSM was released in 2017. The SBM-U 2.0 and JJM-U supplement this policy by focusing on pollution abatement through Interception of Drain (I&D) projects to transfer the wastewater generated in cities to Sewage Treatment Plants (STP). Under the SBM-U 2.0 and JJM-U financing component, the wastewater treatment funds would be allocated for desludging vehicles, interception & diversion of drains and for STPs with co-treatment of faecal sludge and septage at the STP.

I&D projects linked to STPs have been implemented in India before and although it takes less time for project implementation, the approach has its own challenges. Understanding the city profile, drains and change in seasonal discharge of the drains and rivers

is quite critical.

Especially small and medium towns, with limited capacities and resources, face problems in planning and execution of projects. They do not have adequate capacities and technical know how on planning, executing and maintaining such projects. Moreover, there is a need to ensure that these projects are not treated merely as infrastructure building projects but as regional planning projects as well. Only then the economic feasibility and true benefits of such projects can be realized.

There are many I&D projects in India which should be studied diligently in order to avoid implementation challenges and mitigate the risks associated with the project planning and execution.

In this context RCUES Lucknow in collaboration with NIUA, New Delhi organized three, Training Programme on Integrated Waste Water and Septage Management.

OBJECTIVES

- To orient the participants about holistic Sanitation approaches on planning, implementation and management of wastewater and septage treatment solutions.
 - ◆ How to prepare feasibility plan?
 - ◆ How to select appropriate technology solutions (mechanized/ non mechanized)?



LIST OF ONLINE WORKSHOPS

Date	No. of Participants	Venue
05-07 September, 2022	27	Lucknow
12-14 September, 2022	35	Ranchi
19-21 September, 2022	35	Ranchi

- To orient the participants about eradication of hazardous entry into sewers and septic tanks, and sustaining elimination of manual scavenging, through mechanization of sewer and septic tank cleaning operations

SESSIONS

The training is designed to allow the officials to prepare/assess the wastewater management plans. This training is crucial for officials of cities to be able to achieve objectives under SBM-U 2.0.

The training focused on the SBM-U 2.0 program and IWSM component of the same. The training will provide a framework for feasibility and assessment, technology selection options, planning and implementation for the wastewater and septage treatment in towns. The participants of the training programme were given a brief introduction about Fecal Sludge and Septage Management. Participants were apprised about the Integrated Waste Water and Septage Management and Approaches for Waste Water Management. Approaches for Faecal Sludge and Septage Management.

The training comprised of case studies of various ULBs who have successfully implemented the systems based on Integrated wastewater management and septage management.

PARTICIPANTS

Training Program was organized for Municipal Commissioner, Executive Officer, Chief Engineers, Executive Engineers, Assistant Engineers, City

Managers, DPM, Urban Planner and Solid & Liquid Waste Management Experts etc. In total 97 participants attended the programme.

COURSE COORDINATOR

The training programme was coordinated by Mr Ajit Mishra, Assistant Director, RCUES, Lucknow.

कार्यक्रम शुक्रवार को जिले की सभी नगर निकायों की हुई एक दिवसीय कार्यशाला, लखनऊ से आए विशेषज्ञों ने नगर पालिका क्षेत्र में स्वच्छता पर की चर्चा

शहरी क्षेत्र में गिरते जल स्तर पर मंथन, बर्बादी रोकने पर जोर

कमनीज संवाददाता । शहरी क्षेत्र में जल-सम्पन्न क्षेत्रों के विकास, लोगों में जागरूकता जताने और पानी की बर्बादी रोकने पर मंथन हुआ। शहर के एक सेक्टर में हुए कार्यक्रम में जिले की सभी नगर पालिका व नगर पंचायत की टीम मौजूद रही। इस दौरान इस बात पर जोर दिया गया कि नगर-निकायों को साफ और सुदृढ़ बनाना है। सम्पूर्ण नगर पालिका, नगर पंचायत के अधिकारियों-कर्मचारियों के साथ शहर को साफ व निर्दम बनाए जाने की रणनीति बनानी।

शुक्रवार को नगर विकास विभाग उच्च ने क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र लखनऊ के लक्ष्यध्यान में एक दिवसीय कार्यशाला का आयोजन हुआ। कार्यशाला का



शुक्रवार को हुई कार्यशाला के दौरान एटीएम ने जरूरी जानकारी साझा की।



कार्यशाला में मौजूद जिले के सभी नगर निकायों के ईओ व अन्य अधिकारी।

प्रयोग किए पानी की बर्बादी रोकने की भी कवायद

नगर एवं पर्यावरण अध्ययन केंद्र का निदेशक राजीव नारायण ने कहा कि शहर जिले में बरसात कम होने से लगातार वाटर लेवल नीचे जा रहा है। लोग बिनाहतर जल की सीमा को नहीं समझ पा रहे हैं और उसकी अकसर बर्बादी कर रहे हैं। अपने काले समय में भीषण जल संकट उभरने होगा। उन संकट में लोगों को बचाने के लिए अभी उस पर काम करने व लोगों को जागरूक करने की जरूरत है। कहा कि शौचालय सहीर अन्य प्रयोग में आने वाले पानी को बिस जगह से दूसरी जगह प्रयोग में लया जा सकता है। उन पर हम सभी को ध्यान करने की जरूरत है। उस पानी को जब जगह प्रयोग में लया जा सकता है।

शुक्र बिंदु उच्च राज्य सेक्टर मैनेजमेंट व एस्टीमेट के उद्देश्यों पर विचार-विमर्श हुआ। शहर को किस तरह से साफ-सुथरा बनाया जा सकता है। टोप अर्थात् तकनीक को होकर मंथन चला। स्वच्छ भारत मिशन के तहत होने वाले प्रमुख कार्यों की प्रवर्तन समीक्षा हुई। लखनऊ से आए डॉ. नसरुद्दीन, एसटी सिंह ने प्रशिक्षण दिया। इस

मौके पर एटीएम प्रमोद कुमार, कमनी नगर पालिका की ईओ नीलम चौधरी, पुराहासपुरन की ईओ मीनू मिश्र, विभवाज के ईओ सुंदर कुमार, सम्पूर्ण नगर पंचायत की ईओ दीपिका शुक्ला, जलधाम, जिले के ईओ के अलावा सभी निकायों के सफाई निरीक्षक, टैक्स सुपरिटेण्ट के अलावा अन्य मौजूद रहे।

पर्यावरण अध्ययन केंद्र लखनऊ द्वारा एक दिवसीय कार्यशाला का आयोजन संदेश वाहक न्यूज

कन्नौज नगर विकास विभाग उत्तर प्रदेश ने क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र लखनऊ द्वारा जनपद कन्नौज की सभी नगर पालिका/पंचायत के अधिकारियों, कर्मचारियों के लिए एक दिवसीय कार्यशाला का आयोजन किया गया। कार्यशाला का मुख्य विषय उत्तर



स्वच्छ भारत मिशन के द्वारा होने वाले मुख्य कार्यों की प्रगति की समीक्षा की गई। कार्यक्रम के विशिष्ट अतिथि अपर जिलाधिकारी वि/रा. थे। क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र के उप निदेशक राजीव नारायण, नसीरुद्दीन, एस.डी. सिंह द्वारा प्रशिक्षण दिया गया।

यूसड वाटर प्रबंधन की कार्यशाला में दी गई जानकारी

नगर निकायों के अधिकारियों ने लिया भाग



यूसड वाटर प्रबंधन की कार्यशाला में मौजूद ईओ नगर पालिका मुदित सिंह

स्वतंत्र चेतना प्रतापगढ़। क्षेत्रीय नगर एवम पर्यावरण अध्ययन केंद्र लखनऊ की तरफ से प्रतापगढ़ की नगर निकायों हेतु कार्यशाला आयोजित किया गया, जिसका थीम उत्तर प्रदेश राज्य सेप्टेज पालिसी एवम यूसड वाटर प्रबंधन है। इस कार्यशाला में स्वच्छ भारत मिशन

2.0, यू0पी0 स्टेट सेप्टेज मैनेजमेंट पालिसी, सिटी सैनिटेशन एक्शन प्लान, ऑनसाइट मैनेजमेंट, ऑफसाइट मैनेजमेंट, ट्रीटमेंट ऑफ यूज वाटर आदि पर विस्तृत जानकारी डॉ एस डी सिंह हिमांशु चंद्र, डॉ नसरुद्दीन के द्वारा दी गयी, जिसमें प्रतापगढ़ नगर पालिका परिषद के अधिशासी अधिकारी मुदित सिंह, पट्टी के अधिशासी अधिकारी मनोज प्रियदर्शी,

अंतु की अधिशाषी अधिकारी पद्मजा मिश्रा, कटरा की अधिशाषी अधिकारी अंजु यादव, नगर पालिका के सफाई निरीक्षक संतोष कुमार सिंह, राजस्व निरीक्षक लालबहादुर एवम राजेश बिंद, स्वच्छ भारत मिशन के डी पी एम वरुण सिंह, डी सी आशीष मिश्रा, नगर निगम के जे ई और अन्य अधिकारी एवम कर्मचारीगण उपस्थित रहे।

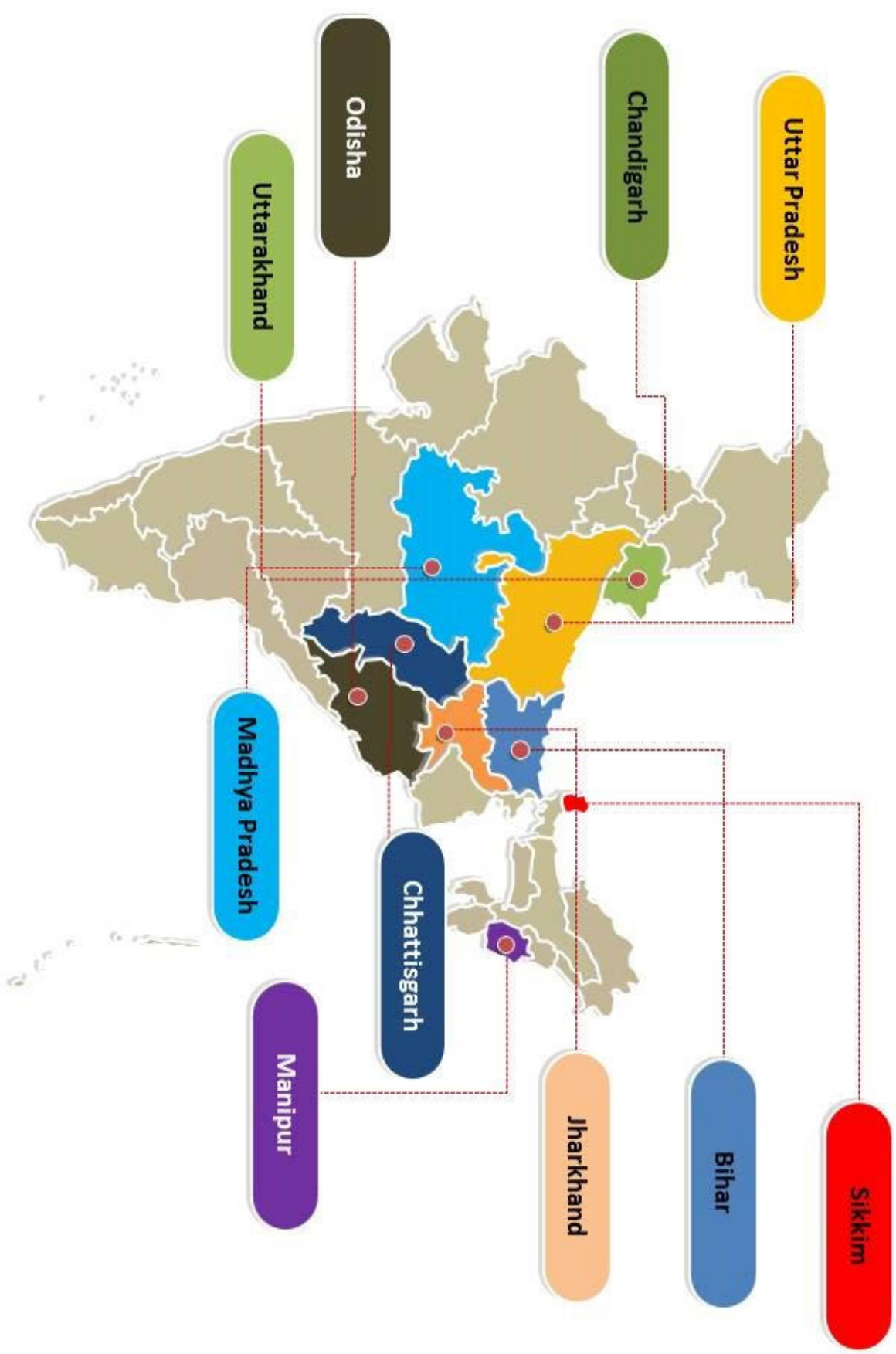
यूसड वाटर प्रबंधन की कार्यशाला

प्रतापगढ़। क्षेत्रीय नगर एवम पर्यावरण अध्ययन केंद्र लखनऊ की तरफ से प्रतापगढ़ की नगर निकायों हेतु कार्यशाला आयोजित किया गया, जिसका थीम उत्तर प्रदेश राज्य सेप्टेज पालिसी एवम यूसड वाटर प्रबंधन है। इस कार्यशाला में स्वच्छ भारत मिशन 2.0, यू0पी0 स्टेट सेप्टेज मैनेजमेंट पालिसी, सिटी सैनिटेशन एक्शन प्लान, ऑनसाइट मैनेजमेंट, ऑफसाइट मैनेजमेंट, ट्रीटमेंट ऑफ यूज वाटर आदि पर विस्तृत जानकारी डॉ एस डी सिंह हिमांशु चंद्र, डॉ नसरुद्दीन के द्वारा दी गयी, जिसमें प्रतापगढ़ नगर पालिका परिषद के अधिशासी अधिकारी मुदित सिंह, पट्टी के अधिशासी अधिकारी मनोज प्रियदर्शी, अंतु की अधिशाषी अधिकारी पद्मजा मिश्रा, कटरा की अधिशाषी अधिकारी अंजु यादव, नगर पालिका के सफाई निरीक्षक संतोष कुमार सिंह, राजस्व निरीक्षक लालबहादुर एवम राजेश बिंद, स्वच्छ भारत मिशन के डी पी एम वरुण सिंह, डी सी आशीष मिश्रा, नगर निगम के जे ई और अन्य अधिकारी एवम कर्मचारीगण उपस्थित रहे।

Upcoming Campus of RCUES at Indira Nagar, Lucknow



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