

ANNUAL REPORT

2022-23



**Regional Centre for Urban & Environmental Studies, Lucknow
(Ministry of Housing and Urban Affairs, Government of India)**

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2022 - 23



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(Ministry of Housing and Urban Affairs, Government of India)**

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Regional Centre for Urban & Environmental Studies (RCUES) Lucknow is one of premiere Centres in the country in the field of Urban Management. It was established by the Ministry of Housing and Urban Affairs, Government of India at University of Lucknow in the year 1968. The Centre provides expertise, advisory services & consultancy services to urban local bodies and parastatals.

Vision

To help urban local governments in achieving sustainable Urban Development through a holistic approach.

Mission

Building Capacities Of City Managers For Achieving Good Urban Governance.

Target Group

The RCUES provides training and consultancy services to functionaries of Urban Local Bodies which includes the Executives and Elected Representatives and Officials of Parastatals.

Major Activities

The key activities of the Centre include Training, Capacity Building, Research, Consultancy Services and Dissemination of Information relating to the Urban Sector.

Resources

The Centre is located in the heart of Lucknow. It has three conference halls cum lecture halls, all equipped with updated teaching aids and communication facilities, a computer lab with the latest hardware and relevant softwares and a library rich in collection and subscription. The Centre has its own well-furnished trainee's hostel with AC rooms. A core team of qualified and experienced faculty and researchers. Program based dedicated cells are also created from time to time. Expert team comprising of trainers on Social Development, Urban Planning, Municipal Finance, Livelihood Development, GIS/MIS are created from time to time to cater the needs of various programs organized under the auspices of the Ministry of Housing & Urban Poverty Alleviation.

Funding

The RCUES receives regular financial support in the form of grants-in-aid from the Ministry of Housing and Urban Affairs, Government of India and Government of Uttar Pradesh.

MANAGEMENT

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 more than 55 years and continues to perform its activity as Centre of Excellence.

The Centre is governed by three bodies, viz. National Review & Monitoring Committee, Headed by Secretary, Ministry of Housing and Urban Affairs, Government of India; Governing Council Headed by Additional Chief Secretary, Department of Urban Development, Government of Uttar Pradesh and State Advisory Councils headed by Secretary/Principal Secretary (UD)/LSG of concerned State.



Sri Manoj Joshi IAS,
*Secretary, Ministry of
Housing and Urban Affairs,
Government of India and
Chairman National Review &
Monitoring Committee,
RCUES Lucknow*



Shri Amrit Abhijat, IAS
*Principal Secretary,
Department of Urban
Development, Government of
Uttar Pradesh and
Chairman, Governing
Council & State Advisory
Council, RCUES Lucknow*

Heads of State Advisory Councils of each constituent State of RCUES Lucknow

Principal Secretary,
Urban Administration & Development Department,
Government of Madhya Pradesh,

Principal Secretary
Urban Administration & Development Department,
Government of Chhattisgarh

Principal Secretary
Department of Housing & Urban Development,
Government of Odisha

Director,
Urban Development Directorate,
Government of Uttarakhand.

Principal Secretary (UD & Housing)
Urban Development and Housing Department,
Government of Bihar
Secretary

Urban Development and Housing Department,
Government of Jharkhand

Principal Secretary
Department of Urban Development and Housing
Government of Sikkim
Secretary
Dept. of Municipal Administration,
Housing & Urban Development
Government of Manipur
Imphal

Secretary (Finance & Urban Planning)
Dept. of Urban Development & Housing (UD&H)
Chandigarh

RCUES BOARD

NATIONAL REVIEW & MONITORING COMMITTEE

| | |
|---|------------------|
| Secretary, Ministry of Housing and Urban Affairs, Govt. of India | Chairman |
| Vice Chancellor, Lucknow University, Osmania University, Hyderabad, Director IIPA, New Delhi, Director General of AILSG, Mumbai or Senior Level representative. | Member |
| Joint Secretary, Ministry of Housing and Urban Affairs, Govt. of India | Member |
| Joint Secretary & FA, Ministry of Housing & Urban Affairs, Govt. of India | Member |
| Secretary (UD) of the concerned State i.e. Uttar Pradesh, Telengana, Maharashtra and New Delhi where the RCUES is Located. | Member |
| Director, RCUES, Mumbai, Lucknow, Hyderabad, and Director, Centre for Urban Studies (CUS), IIPA, New Delhi | Member |
| DS/ Director, Local Self Government, Ministry of Housing & Urban Affairs, Govt. of India | Member Secretary |

GOVERNING COUNCIL

| | |
|--|------------------|
| Additional Chief Secretary (UD), Govt. of Uttar Pradesh | Chairman |
| Vice Chancellor of any University in the State of Uttar Pradesh, as decided by the State Government of Uttar Pradesh | Member |
| Joint Secretary, Ministry of Housing and Urban Affairs, Govt. of India or his nominee | Member |
| One nominee each from two State Govt. in the RCUES's jurisdiction on rotation basis to be nominated by Ministry of Housing and Urban Affairs, Govt. of India | Member |
| Director, RCUES, Lucknow | Member Secretary |

STATE ADVISORY COUNCIL

| | |
|---|------------------|
| Secretary/Principal Secretary (UD)/LSG of concerned State | Chairman |
| JS (MoHUA) or his nominee | Member |
| Director, RCUES, Lucknow | Member |
| Sr. Representative of Water Supply Board | Member |
| Commissioner of State Transport | Member |
| Director, Town & Country Planning | Member |
| Sr. Member/Faculty of RCUES Lucknow | Member |
| Commissioner, Municipal Administration of respective Government | Member Secretary |

OUR CORE TEAM

The RCUES has a core team of qualified and experienced faculty and researchers. Programme based dedicated cells are also created from time to time. Expert team comprising of trainers on Social Development, Urban Planning, Municipal Finance, Livelihood Development, GIS/MIS are involved in projects and programmes undertaken by the Centre from time to time.



Dr. Nishith Rai,
Director



Er. A K Gupta,
Additional Director



Dr. Anjuli Mishra,
Joint Director



Dr. Rajeev Narayan,
Deputy Director



Dr. Alka Singh,
Deputy Director



Dr. A.K. Singh,
Assistant Director



Mr. Ajit Kumar Mishra,
Assistant Director



Mr. Himanshu Chandra,
Assistant Director



Dr. Nasruddin,
Assistant Director



Mr. Indu Shekhar,
Administrative Officer



Mr. D K Rai,
Management Officer



Mrs. Rachna Rishi,
Publication Officer



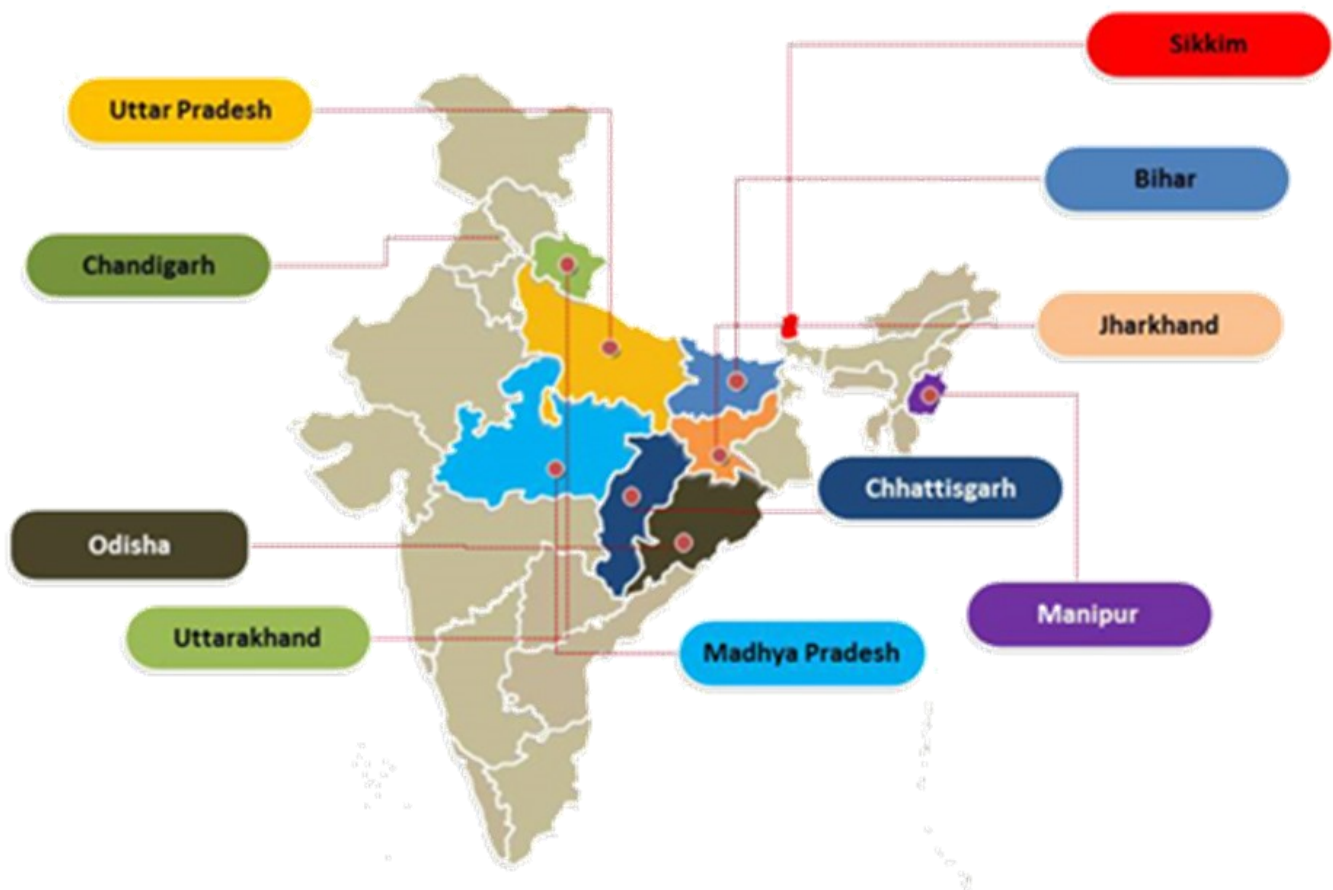
Mr. Tushar Gupta,
Assistant Accounts
Officer



Mr. Birendra Pandey,
Hostel Manager

OUR REACH

The key activities of the Centre includes Training, Capacity building, Research, Teaching, Consultancy Services and dissemination of information relating to the Urban Sector in the states of Uttar Pradesh, Madhya Pradesh, Bihar, Odisha, Uttarakhand, Jharkhand, Chhattisgarh, UT Chandigarh, Manipur, Sikkim. The centre provides its expertise, advisory services & consultancy services to urban local bodies all over the country.



OVERVIEW AND STRATEGY



Dr. Nishith Rai
Director,
RCUES Lucknow

Regional Centre for Urban and Environmental Studies was created with an aim to boost the implementation of Urban policies by the Ministry of Housing and Urban Affairs, Government of India. Keeping in view the liberalization of economy, rapid economic growth, devolution of funds and functions to Panchayat and Urban Local Body level, enhanced transparency, globalization etc., the Regional Centre continues to play a vital role in nurturing the Human Resource in the urban municipal sector. The Centre undertakes research studies on substantive and contemporary issues as well as in specific areas as sponsored by the governments, national organisations and international agencies. It also offers advisory services in operational areas to the government and public sector enterprises. Besides, it conducts a large number of training programmes on various aspects and facets of the study and practice of urban development, administration and management. It also publishes and disseminates literature on urban development including journals.

The year round activity of RCUES Lucknow includes an exhaustive preparation of Training Plans at Regional, State and City levels which are approved by the Governing Bodies of the Centre. This report comprises of the details of activities conducted by the centre during the FY 2022-23.

The core team of RCUES Lucknow engages in Training Needs Assessment, preparation of training material, identification and conducting Research projects, conferences, symposiums as well as conducting in-house training courses.

I'm delighted to share that RCUES Lucknow has achieved more than double the targets set for the FY 2022-23, during which different programmes and activities were conducted under the SMART CITY Mission, Swachh Bharat Mission, AMRUT, DAY-NULM, Faecal Sludge and

Septage Management, Urban Sanitation, Programmes under the Ministry of Women and Child Development and other specialized programmes conducted for different parastatal agencies like cantonment boards and MES.

I appreciate the efforts made by RCUES Team and our associated partners.

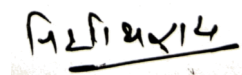
This Report of the Regional Centre for Urban and Environmental Studies, Lucknow pertains to the year 2022-23. The Report presents the activities of the Centre under the following major heads:

- Training
- Dissemination of Information related to Urban Development Sector
- Associational and Outreach Activities.

Besides, the Report includes information about the:

- Centre's Finances
- Academic Events like Seminars, Conferences, Lectures, Visits, etc.
- Academic Activities of Faculty
- Administrative and Personnel Matters.

Various initiatives have been taken in the field of capacity building activities as well as Outreach activities by the Centre.



(Dr. Nishith Rai)

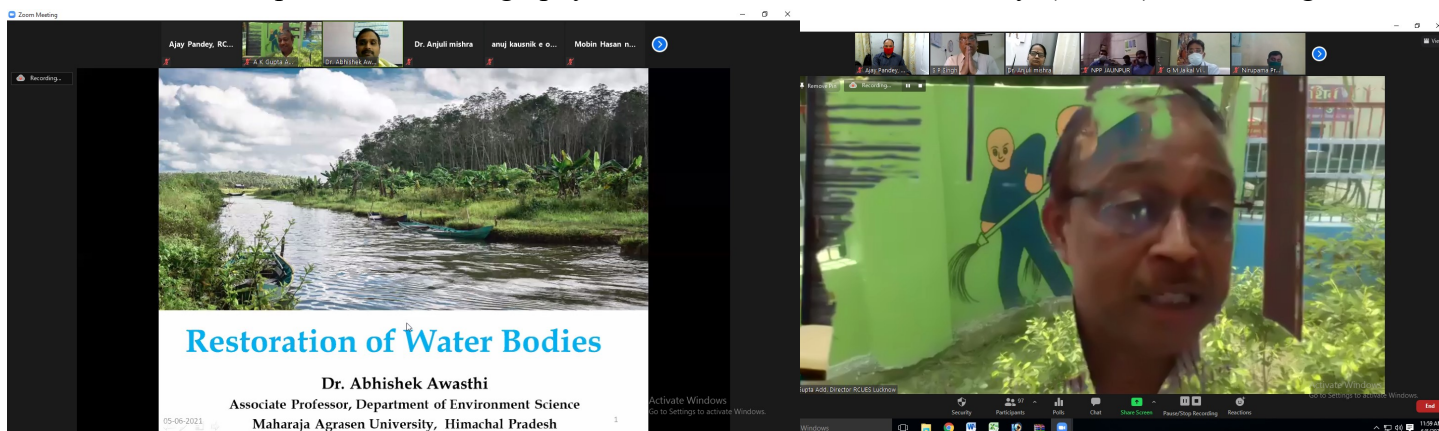
| Training Activities in FY 2022-23 | | | |
|--|---|----------------------------|----------------------------|
| Training Programmes/Workshops/Exposure Visits Conducted by RCUES Lucknow in FY 2022-23 | | | |
| S.N. | Head | Total Programmes Conducted | Total Participants Trained |
| 1 | Training Programmes Conducted under MoHUA, GoI | 105 | 3775 |
| 2 | Training Programmes conducted under different Ministries/ Department | | |
| a | Training Programmes conducted under Ministry of Jal Shakti, GoI | 6 | 271 |
| b | Workshops Conducted under Swachh Bharat Mission 2.0 | 33 | 630 |
| c | Training Programme conducted under Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) | 1 | 31 |
| d | District Level Training Programmes Conducted for Department of Urban Development, Government of Uttar Pradesh | 75 | 2303 |
| e | Training Programmes conducted under Department of Panchayati Raj, Government of Uttar Pradesh | 39 | 1278 |
| 3 | Specialized Collaborative Training Programmes | | |
| a | Specialized Training on Integrated Waste Water and Septage Management (IWSM) | 8 | 260 |
| b | Orientation Programme on SBM 2.0 | 4 | 113 |
| c | Specialized Training on Faecal Sludge and Used Water Management | 1 | 30 |
| d | Specialized Training on Operation and Maintenance of Faecal Sludge and Co-Treatment | 1 | 34 |
| e | Specialized Training on City Sanitation Action Plan under SBM 2.0 | 1 | 48 |
| f | Programmes conducted under Infant Toddler and Caregiver-friendly Neighbourhoods (ITCN) | 2 | 70 |
| 4 | Training cum Exposure Visits | 5 | 119 |
| Total | | 281 | 8962 |

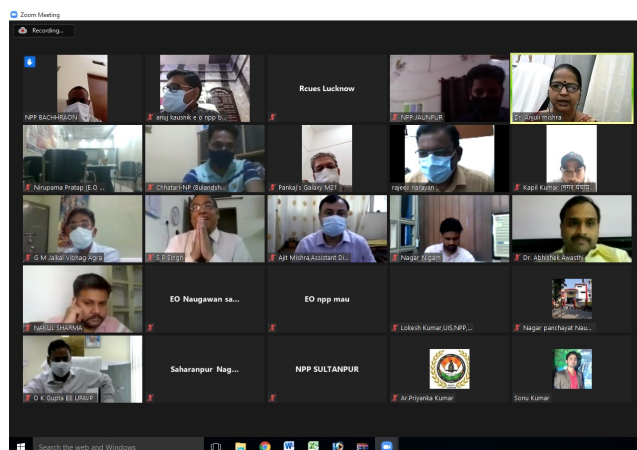
ONLINE WORKSHOP ON “URBAN TRANSFORMATION TOWARDS SUSTAINABLE LIFESTYLE AND CLIMATE RESILIENCE” ON THE OCCASION OF WORLD ENVIRONMENT

The environmental degradation and serious ecological imbalances are posing threat to mankind. The present development paradigms have posed a serious threat to environment and ecology, thus causing concern for sustainability of development. The environmental problems viz. Global warming, destruction of ozone layer, extinction of species, loss of genetic diversity, deforestation, land degradation, acid rain, and deteriorating quality of urban environment are growing rapidly. Deforestation, un- sustainable agricultural practices, tourists’ inflow beyond carrying capacity and also development of infrastructure on the cost of environment and ecology are causing environment crisis. Growing urban population and anthropogenic activities have widely affected the urban environment and sustainability of natural resources. The changing lifestyle of humankind has caused concern as resources are depleting, degrading and adverse towards harmony with nature. Rapid expansion of urban areas present fundamental challenges but there are also opportunities to restore ecological functions to design more liveable, healthy and resilient cities. Thus, it is imperative to bring transformative changes through policies, action and sustainable lifestyles towards clean, green and climate resilient cities. Against this backdrop, RCUES, Lucknow in collaboration with Council on Energy, Environment and Water (CEEW) New Delhi, jointly organized a workshop on **“Urban Transformation towards a Sustainable Lifestyle and Climate Resilience”** on the occasion of World Environment Day on 6th June, 2022. The Main Objectives of the workshop were:

- To highlight the dynamics of urban environment, ecology and climate change;
- To highlight the need for transformative changes through policies and actions towards greener and cleaner lifestyles;
- To discuss the sustainability of natural resources, urban sanitation, water resources, climate and need for resilience;
- To examine the emerging situation, crisis, and challenges in management of urban environment;
- To make familiar the participants regarding urban resilience and environmental sustainability.

In view of the objectives of workshop, four technical sessions were organised. First session on “Environmental Sustainability on Planet Earth” was delivered by Prof D.S. Singh, Department of Geology, University of Lucknow who highlighted the theme of workshop and raised the pertinent issues of environmental sustainability in Indian perspective. The second session on “Planning for Making Cities Resilient towards Climate Change” was delivered by Dr. Amit Chatterjee, Associate Professor, Department of Geography Sidho-Kanho, Birsha University (SKBU) West Bengal. He





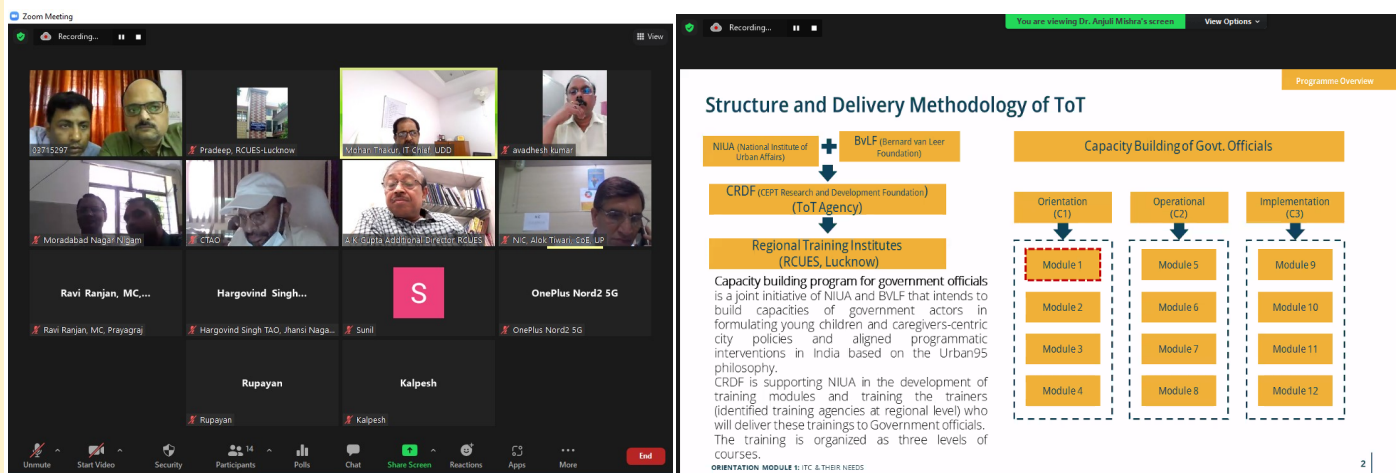
highlighted the planning perspective to make cities climate resilient . The third session on “Planning for Low Emission Zones in Urban Centers” was delivered by Dr Himani Jain, Senior Programme Lead, CEEW New Delhi. She presented the rationale and need of making low emission zones in urban centres. Fourth session was taken by Mr Karthik Ganesan, Fellow & Director, Research Coordination, CEEW New Delhi who delivered his presentation on “Catalyzing Clean Air Action in Urban Areas”. He highlighted action plan to address the climate change and reducing carbon emissions in urban centres. Prior to it, Dr. A. K. Singh, Assistant Director, RCUES, Lucknow, in his brief presentation, highlighted the dynamics of urban environment, climate change and imperative need for making cities climate and disasters resilient. He also focused on environmental sustainability and dynamics of lifestyle of humankind as anthropogenic activities have increased the level of environmental pollution and stress on national resources. Mr. Himanshu Chandra, Assistant Director, RCUES, Lucknow presented vote of thanks to resource persons and participants of the programme.

Overall, 100 participants from ULBs and parastatal organisations of Uttar Pradesh, Uttarakhand and Bihar state as well as academicians and other officials from Madhya Pradesh and Delhi joined the workshop.

The workshop was jointly coordinated by Dr. A. K. Singh and Mr. Himanshu Chandra, Assistant Director, Lucknow.

KNOWLEDGE SHARING AND ASSESSMENT FOR ORIENTATION TRAINING PROGRAMME UNDER ITCN

More than a billion children live in cities, yet most of them are not able to fulfil the requirements as infants, toddlers, and their caregivers do not find inclusive infrastructure, built up environment and neighbourhoods as well as adequate and effective child care services. Cities could work better for babies, toddlers, and caregivers by integrating land use and transportation, improving their local environment, and providing access to the specific requirements and destinations they require for everyday living. The National Institute of Urban Affairs (NIUA), Government of India, New Delhi, established the 'Infant Toddler and Caregiver-friendly Neighborhoods (ITCN) Training and Capacity Building Programme' in collaboration with the Bernard van Leer Foundation (BvLF). The programme was created to assist in the development of city authorities' and young professionals' capacities for the development of young children and family-friendly communities in Indian cities. The task of



There were four modules in the Orientation Programme. Module wise major points of discussions

| | |
|--|--|
| <p>Module I</p> <ul style="list-style-type: none"> • Early Childhood Development • ITCN • Social and Behavior Change Communication • ITCN Framework | <p>Module 2</p> <ul style="list-style-type: none"> • Play and Play Spaces • Understanding Guidelines • Guidelines for ITCN • Guidelines for ITC Friendly Streets |
| <p>Module: 3</p> <ul style="list-style-type: none"> • Background • Policy Framework Review • Guidelines Review • Possible Policy Proposals for ITCN | <p>Module; 4</p> <ul style="list-style-type: none"> • Urban Data and Decision Making • Using Data for Performance Measurement and Improvements: Key Concepts • Performance Measurement |

conducting training and capacity building for ULB officials and State Government officials has been assigned to RCUES, Lucknow.

The objective of the initiative is to ensure that cities scale the opportunities of safe, healthy and stimulating places—with opportunities to learn, create, imagine, play and grow—across all neighborhoods to reach as many families as possible. Against this backdrop, an orientation programme was organized by the Regional Centre for Urban and Environmental Studies, Lucknow on April 19-22, 2022.

Overall, 39 Municipal Officials from ULBs, Department of Urban Development, and Town

Planners, Department of Urban Planning, Government of Uttar Pradesh participated in the programme. The participants appreciated the theme of workshop and government initiative as it will ensure inclusive urban planning and creation of child friendly urban built up environment and infrastructure development. The programme is likely to contribute significantly in improving well being and mental health of young children and child care givers in urban centres.

The programme was jointly coordinated by Dr. Anjali Mishra, Joint Director, Dr. A. K. Singh, Assistant Director and Mr. Himanshu Chandra, Assistant Director, RCUES, Lucknow

TRAINING ON FAECAL SLUDGE AND USED WATER MANAGEMENT COLLABORATION WITH CSE, NEW DELHI

RCUES Lucknow is supporting Department of Urban Development (DoUD), Government of Uttar Pradesh. This includes technical support and capacity building of state / municipal agencies as well as functionaries. Various policy, plan, programme and project level interventions have been initiated in Uttar Pradesh. Under AMRUT and SBM-U (2.0) programme several faecal sludge treatment plants and co-treatment facilities are coming up as well as Uttar Pradesh has also prepared a State policy on FSSM. Also NMCG under its Namami Gange Mission has funded two pilot interventionism– first FSTP at Chunar and a co-treatment of FS at STP Bijnor. SBM 2.0 as well as Swachh Survekshan 2022 has identified integrated used water and effective faecal sludge management as key indicator for mapping improved sanitation. In order to strengthen the people working in the field of sanitation and used water management at the urban local body level, the training is tailor made to enlighten them about the changes according to the new guidelines.

Capacity building of State/Municipal functionaries involved in sanitation and used water management.

In this context RCUES Lucknow in collaboration with CSE New Delhi, organized a training





programme on Faecal Sludge and Used Water Management on 27-30 April, 2022 at its campus. The main objectives of the training were:

- Introduction to FSM and key urban sanitation issues and challenges.
- Sensitization on Sanitation Value Chain and City Wide Inclusive Sanitation (CWIS) principles
- FSM regulatory, planning and institutional aspects.
- Introduction to different FSSM technologies
- Soft commissioning protocols.
- SOPs for Operation & Maintenance.
- Overview of tools and approaches for effective FSM – SFD, FSM Tool Box, SaniPath, SaniKit, CWIS, WSP, Sanitation Safety Plan, CSP, CSAP.
- Resource recovery and reuse of treated water and dried faecal sludge
- Overview of SBM-U 2.0 and AMRUT 2.0 Guidelines

Overall, 30 Municipal Officials from State/ Municipal functionaries/ Engineers, Engineers (Civil/ Mech./ Envtn.) or Planners working with Water Supply and Sewerage Boards/ Jal Nigam or Jal Sansthan etc. Any other functionaries dealing with: AMRUT, Smart Cities Mission, Jal Jeevan Mission (Urban), Swachh Bharat Mission (U).

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

ONLINE TRAINING ON IMPROVEMENT OF AIR QUALITY IN URBAN AREAS

Urban air pollution is generally poorly dispersed, particularly on busy roads in built-up areas where road canyons retain the vehicle combustion products. This results in pollution hot-spots where the levels of key pollutants significantly exceed WHO guideline levels. Globally, around 3.8 million

premature deaths are attributed to ambient air pollution every year, 80% of which, according to the WHO, are due to heart disease and strokes. A further 20% are from respiratory illnesses and cancers related to exposure to fine particulate matter (PM_{2.5}). Gases also represent a significant risk to human health; these include nitrogen dioxide (NO₂), ozone (O₃), sulfur dioxide (SO₂) and carbon monoxide (CO), as well as volatile organic compounds (VOCs). Most of these pollutants are not visible, so monitoring is essential.

| List of Training Programmes | |
|-----------------------------|--------------------|
| Date | No of Participants |
| 07 May 2022 | 39 |
| 22 June 2022 | 53 |
| 23 June 2022 | 47 |

India experiences levels of ambient fine particles (PM_{2.5} & PM₁₀) and ozone (O₃) amongst the highest globally, where exposure is a leading risk factor for human health. Air pollutant emissions are predicted to increase in India. Ambient PM_{2.5} exposure causes 1 million premature deaths each year in India, where large reductions in emissions will be required to reduce the health burden due to the non-linear exposure-response relationship causing health effects to saturate at high exposures. The disease burden from air pollution exposure in India is substantial and likely to increase unless stringent air pollution management provides large emission reductions. Also focus should be to reduce solid fuel combustion. Ambient air quality is critical not only for the health and well-being of those living in the Million-Plus cities but also for attracting investment. A city with great 'ease of doing business' is unlikely to attract investments if the ambient air quality makes breathing both hazardous to health and difficult. Particulate matter has been identified as one of the most critical environmental risks globally and poor air quality has been associated with morbidity and mortality due to respiratory, cardiovascular and cerebrovascular diseases.



Under 15th Finance Commission the fund release to million plus cities is linked with improvement in ambient air quality in cities. For monitoring ambient air quality and disbursing grants to Million-Plus cities, the MoEF&CC shall act as a nodal ministry. In consultation with the respective State Governments, the Ministry shall develop city-wise and year-wise targets on ambient air quality, based on measurable indicators and outcomes. These will be made available in the public domain. The MoEF&CC shall evaluate the improvement in average annual concentrations of PM 2.5 and PM 10. The assessment of city performance on air quality may be based on four parameters: (a) strengthening of the pollution monitoring mechanism; (b) source-wise cause analysis for air pollution; (c) progress on action plans and compliance of statutory guidelines; and (d) quantification of air quality improvement and also management of open waste burning and combustion at landfill sites by the concerned urban local bodies. Each State Government and urban agglomeration shall sign a memorandum of understanding (MoU) with the Ministry MoEF&CC for a year-wise action plan, agreed outcomes to be achieved and the quantum of funds to be released. Such action plans shall contain the city-wise details of sources of air pollution and the proposed measures to be taken by the cities.

Keeping in view the importance of the above subject, RCUES Lucknow organized three online training programmes on Improving Air Quality in Urban Areas. The main objectives of the training were:

- To aware participants about issue of air pollution and degradation of ambient air quality in the urban centres
- To discuss major Air Quality Parameters and sources of air pollution in cities
- To aware the participants about Clean Air Planning Initiatives in India
- To discuss provisions of National Air Quality Monitoring Programme (NAMP) and its compliance in cities
- To acquaint the participants with provisions of National Ambient Air Quality Standards (NAAQS) and National Air Quality Index (AQI)
- To aware the participants with National Clean Air Programme (NCAP) and its implementation in cities.
- To aware and discuss the Assessment parameters of city performance on air quality and actions points for compliance
- To discuss and aware the participants with Dust control measure mechanized cleaning techniques for reducing PM2.5 and PM10 in cities.
- To discuss and aware the participants about Air Pollution control through proper waste management practices.
- To discuss the actions points and way forward for Urban Local Bodies to control and management air pollution in cities.

Three online training programmes were conducted in which 139 ULB functionaries were trained.

The Participants included Additional and Assistant Municipal Commissioner, Executive officers, Engineers, Urban Planners, Urban Infrasture Specialist, City Health Officers, District Coordinators, District Programme Managers, Air quality Consultants and IT & MIS Experts,

The programme was coordinated by Dr. Alka Singh, Deputy Director, RCUES Lucknow.

TRAINING ON UTTAR PRADESH STATE SEPTAGE POLICY & USED WATER MANAGEMENT

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



Academic Activities

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 75 one day workshops on “Uttar Pradesh Septage Policy and Used Waste Management sponsored by Department of Urban, Government of Uttar Pradesh The main objectives of the training were:

- 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.

List of Training Programmes

| Date | No. of Participants | Venue |
|-------------------|---------------------|---------------------|
| 10 May 2022 | 33 | Lucknow |
| 19 May 2022 | 26 | Sitapur |
| 20 May 2022 | 32 | Lakhimpur |
| 21 May 2022 | 31 | Pilibhit |
| 26 May 2022 | 30 | Farrukhabad |
| 27 May 2022 | 27 | Kannauj |
| 28 May 2022 | 41 | Hardoi |
| 15 June 2022 | 47 | Azamgarh |
| 16 June 2022 | 34 | Mau |
| 17 June 2022 | 25 | Ghazipur |
| 28 June 2022 | 24 | Rae Bareilly |
| 29 June 2022 | 34 | Pratapgarh |
| 30 June 2022 | 37 | Prayagraj |
| 25 August 2022 | 38 | Agra |
| 26 August 2022 | 33 | Aligarh |
| 27 August 2022 | 24 | Ghaziabad |
| 06 September 2022 | 49 | Bulandshahar |
| 07 September 2022 | 27 | Bulandshahar |
| 08 September 2022 | 16 | Bulandshahar |
| 09 September 2022 | 50 | Baghpat |
| 12 September 2022 | 40 | Shahjahanpur |
| 13 September 2022 | 29 | Shahjahanpur |
| 14 September 2022 | 29 | Fatehpur |
| 14 September 2022 | 23 | Bareilly |
| 15 September 2022 | 17 | Bareilly |
| 15 September 2022 | 25 | Banda |
| 16 September 2022 | 31 | Chitrakoot |
| 16 September 2022 | 30 | Bareilly |
| 17 September 2022 | 28 | Bareilly |
| 19 September 2022 | 24 | Badaun |
| 20 September 2022 | 25 | Badaun |
| 20 September 2022 | 25 | Kanpur Nagar |
| 21 September 2022 | 18 | Kanpur Dehat |
| 21 September 2022 | 20 | Badaun |
| 22 September 2022 | 24 | Badaun |
| 22 September 2022 | 45 | Unnao |
| 23 September 2022 | 38 | Sambhal |
| 24 September 2022 | 44 | Amroha |
| 26 September 2022 | 38 | Bijnor |
| 27 September 2022 | 32 | Bijnor |
| 28 September 2022 | 29 | Bijnor |
| 25 November 2022 | 30 | Meerut |
| 26 November 2022 | 28 | Meerut |
| 28 November 2022 | 28 | Meerut |
| 29 November 2022 | 26 | Gautam Buddha Nagar |





| List of Training Programmes | | |
|-----------------------------|---------------------|--------------------|
| Date | No. of Participants | Venue |
| 30 November 2022 | 27 | Hapur |
| 06 December 2022 | 39 | Firozabad |
| 12 December 2022 | 31 | Mainpuri |
| 13 December 2022 | 23 | Mainpuri |
| 14 December 2022 | 30 | Etah |
| 15 December 2022 | 24 | Etah |
| 16 December 2022 | 26 | Kasganj |
| 17 December 2022 | 25 | Kasganj |
| 19 December 2022 | 33 | Saharanpur |
| 20 December 2022 | 23 | Saharanpur |
| 21 December 2022 | 25 | Muzaffarnagar |
| 22 December 2022 | 26 | Muzaffarnagar |
| 23 December 2022 | 19 | Shamli |
| 24 December 2022 | 36 | Shamli |
| 26 December 2022 | 32 | Moradabad |
| 27 December 2022 | 19 | Moradabad |
| 28 December 2022 | 30 | Rampur |
| 29 December 2022 | 44 | Hathras |
| 30 January 2023 | 34 | Mathura |
| 14 February 2023 | 40 | Barabanki |
| 23 February 2023 | 26 | Sant Ravidas Nagar |
| 24 February 2023 | 29 | Mirzapur |
| 25 February 2023 | 25 | Varanasi |
| 02 March 2023 | 34 | Ayodhya |
| 03 March 2023 | 31 | Sultanpur |
| 15 March 2023 | 42 | Gorakhpur |
| 16 March 2023 | 25 | Kushinagar |
| 27 March 2023 | 39 | Deoria |
| 28 March 2023 | 40 | Sant Kabir Nagar |
| 29 March 2023 | 42 | Ambedkar Nagar |

- 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.

The programme was coordinated by Dr. Anjuli Mishra, Joint Director, Dr. Rajeev Narayan, Deputy Director, Dr A K Singh, Assistant Director and Dr Nasruddin, Assistant Director, Mr Himanshu Chandra, Assistant Director, RCUES Lucknow.

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

List of Training Programmes

| Date | No. of Participants | Venue |
|--------------------------------|---------------------|--------------------------|
| 25-27 May, 2022 | 28 | RCUES, Lucknow |
| 05-07 September, 2022 | 27 | Uttar Pradesh |
| 12-14 September, 2022 | 35 | Jharkhand |
| 19-21 September, 2022 | 35 | Jharkhand |
| 19-21 January, 2023 | 26 | Jabalpur, Madhya Pradesh |
| 30 January - 01 February, 2023 | 40 | Raipur, Chhattisgarh |
| 02-04 February, 2023 | 31 | Raipur, Chhattisgarh |
| 08-10 February, 2023 | 38 | Gwalior, Madhya Pradesh |

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 8, Training Programmes on Integrated Waste Water and Septage Management.

- 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)?
- 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

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.

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 260 participants attended the online programme.

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

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

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.

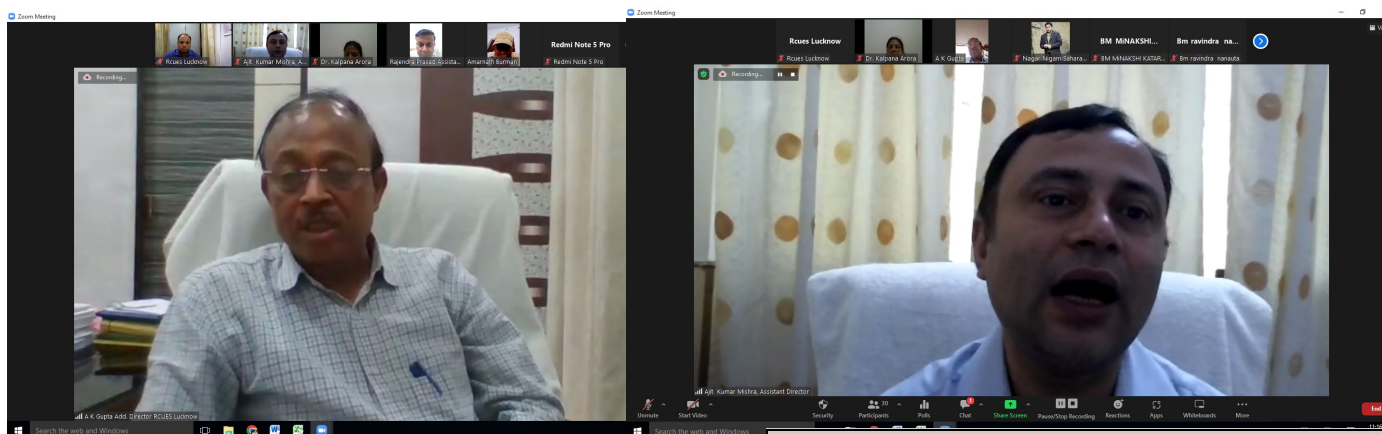
The Government of India launched the scheme of Repair, Renovation and Restoration (RRR) of water bodies during X Plan to revive and restore vanishing water bodies resulting in major loss of irrigation potential. The scheme was launched as pilot scheme and based on its success, a full scale scheme was 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

The screenshot displays a Zoom meeting in progress. On the left, a presentation slide titled 'PROJECT ACTIVITIES' is visible, featuring a table of activities and images of park and play area developments.

| S.No | Activities |
|------|---|
| 1 | Desilting and Embankment |
| 2 | Waste water Treatment System |
| 3 | Installation and Operation of Aerator Fountains |
| 4 | Installation and commissioning of kids play area with soft matting |
| 5 | Old age park, open gym, meditation hall, Yoga hall, Jogging track etc |
| 6 | Operation and Maintenance |

Below the table, there are three images: a covered walkway, a landscaped garden area, and a person standing in a park. Captions include 'Kids play zone with soft matting' and 'Track for Old age people inspired by the Panchtatvas or 5 elements of nature - Pritthvi, Jal, Agni, Vayu, Akash'.

On the right, a grid of participants is shown, including names like 'Rcues Lucknow', 'Ajit Kumar Mishra', 'NP Titron, Saha...', 'Krishan Murari...', 'Naushad ansari...', 'BM MINAKSHI...', 'Brajendra Kuma...', and 'realme narzo 20'.



3,765 crore for the scheme with likely restoration of 6.235 lakh hectare.

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 4 online training programmes on Water Bodies Rejuvenation & Creation of Green spaces in ULBs.

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

| List of Training Programmes | | |
|-----------------------------|---------------------|------|
| Date | No. of Participants | Par- |
| 30 May 2022 | 31 | |
| 04 June 2022 | 24 | |
| 28 June 2022 | 29 | |
| 30 June 2022 | 21 | |
| 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 | |
| 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 September 2022 | 15 | |
| 24 September 2022 | 15 | |
| 16 March 2023 | 34 | |
| 18 March 2023 | 26 | |
| 20 March 2023 | 56 | |
| 22 March 2023 | 27 | |
| 24 March 2023 | 28 | |
| 28 March 2023 | 25 | |

- 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.

The programme was organized for senior officials from 4 States Urban Development Departments, SBM/AMRUT Mission Directorates and Parastatal Bodies. In total 105 participants attended the online training.

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.

The training programme was conducted on online mode which included:

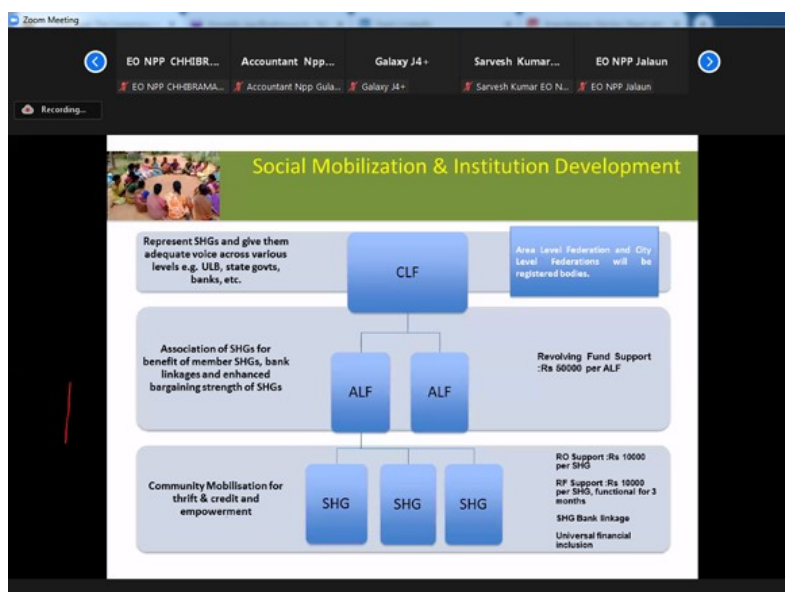
- understanding of the present scenario,
- the fundamentals of waste water treatment technologies,
- methodologies for waste water treatment,
- development of green area and recreational activities,
- institutional support and linkages for planning and implementation.

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

ONLINE TRAINING PROGRAMME ON SOCIAL MOBILIZATION OF URBAN POOR UNDER DAY-NULM

Deendayal Antyodaya Yojana- National Urban Livelihoods Mission (DAY-NULM), a flagship Mission of Government of India implemented by the Ministry of Housing and Urban Affairs (MoHUA) with the objective to reduce poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment and skilled wage employment opportunities, resulting in an appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots level institutions of the poor. The mission aims at providing shelters equipped with

[illegible]



| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 18 June 2022 | 40 |
| 23 June 2022 | 32 |
| 25 June 2022 | 19 |
| 08 February 2023 | 209 |
| 21 February 2023 | 82 |

essential services to the urban homeless in a phased manner. In addition, the mission also address livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security and skills to the urban street vendors for accessing emerging market opportunities.

Against this view point, Regional Centre for Urban and Environmental Studies (RCUES), Lucknow, under the auspices of Ministry of Housing and Urban Affairs, Government of India, New Delhi organized five, One day Online workshop on Social Mobilization of Urban Poor under DAY-National Urban Livelihoods Mission. The main objectives of the trainings were;

- To highlight the status of urban poverty and approaches for its alleviation;
- To discuss and deliberate upon the various provisions and procedures of the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission;
- Implementation Process of Deendayal Antyodaya Yojana- National Urban Livelihoods Mission;
- To highlight the problems and challenges in implementation of Deendayal Antyodaya Yojana National Urban Livelihoods Mission and suggesting measures for its effective implementation.

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 382 participants attended the training.

The programmes were coordinated by Dr Anjali Mishra , Joint Director RCUES, Lucknow.



ONLINE TRAINING ON INCLUSIVE HOUSING POLICY (PMAY)

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

| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 29 June 2022 | 20 |
| 02 July 2022 | 17 |
| 06 July 2022 | 53 |
| 08 July 2022 | 26 |
| 23 August 2022 | 25 |
| 30 August 2022 | 25 |
| 24 February 2023 | 51 |
| 28 February 2023 | 62 |
| 03 March 2023 | 67 |

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.

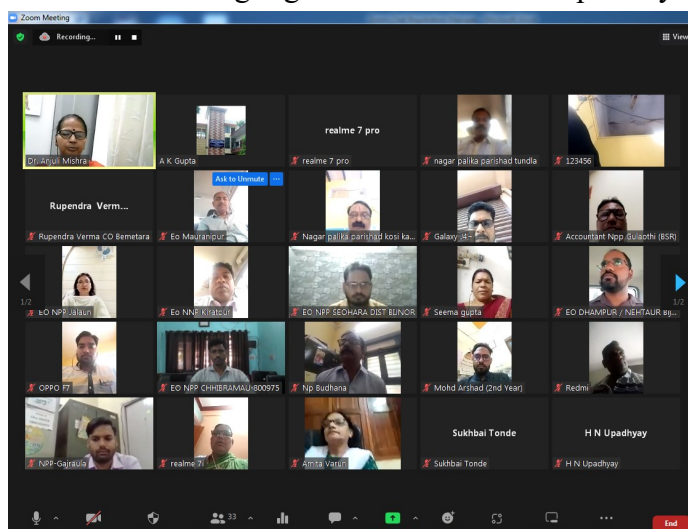
Preference is also given to differently abled persons, senior citizens, SCs, STs, OBCs, Minority, single women, transgender and other weaker & venerable sections of the society. A PMAY(U) house ensures dignified living along with sense of security and pride of ownership to the beneficiaries.

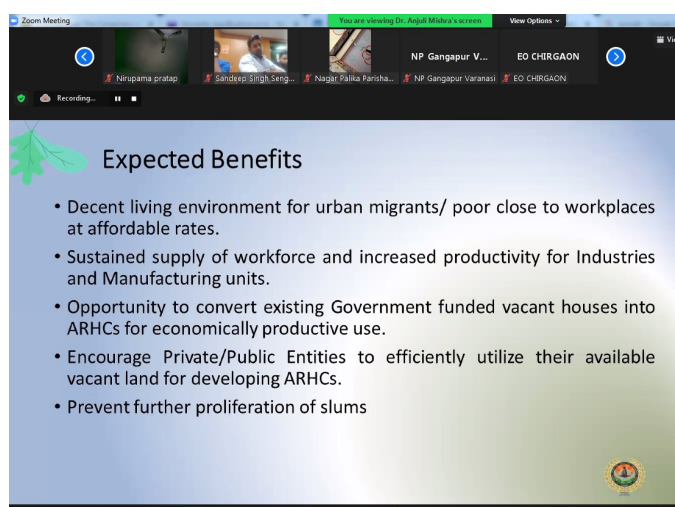
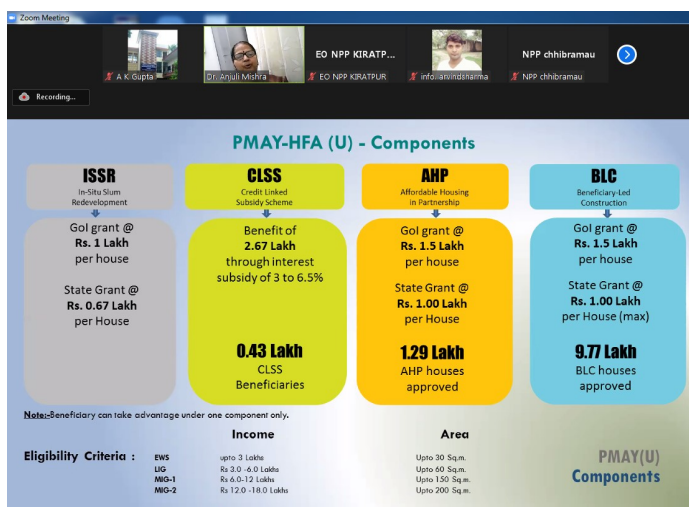
COVID-19 pandemic has resulted in reverse migration of urban migrants/ poor in the country. Urban migrants stay in slums/ informal settlements/ unauthorised colonies/ periurban areas to save cost on housing. They need decent rental housing at affordable rate at their work sites. In order to address this need, Ministry of Housing & Urban Affairs has 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 nine, Online Training programmes on Inclusive Housing policy (PM Awas Yojana (Urban)) were conducted. The main objectives of the training were:

- 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.

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 346 participants attended the trainings.

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

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

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 four, three-day 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.

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

| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 13-15 June, 2022 | 27 |
| 16-18 June, 2022 | 31 |
| 28-30 July, 2022 | 27 |
| 01-03 August, 2022 | 28 |

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 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 113 participants attended the training programmes.

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

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

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.

The objectives of the training were 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

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



Visit to the Laboratory



Session on O&M by Mr. Dhawal Patil



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, 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.

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).

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

EXPOSURE VISIT TO ODISHA TO SHOWCASE BEST FSSM PRACTICES

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. The main objectives of the training cum exposure visit were:

- 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

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.



Participants exploring Planted Gravel Filter at Basughai, FSTP, Bhubaneswar

Group picture at Puri Co-treatment Unit



Co-treatment Plant at Puri-participants observing the process



Participants exploring the Basughai FSTP, Bhubaneswar

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 Bhubaneshwar at OWA where Mr. Sangramjit Nayak, DMA, Housing and Urban Development, 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.

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.

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

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

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.

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.

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.

Overall 30 participants came from ULB's, Smart city, Transport Department, Nagar Panchayats and Cantonment Board of Lucknow, Kanpur. The workshop was jointly coordinated by Mr. Himanshu Chandra, Assistant Director, RCUES Lucknow.

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

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 Honb'le 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

| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 06 August 2022 | 30 |
| 08 August 2022 | 24 |
| 10 August 2022 | 15 |
| 23 March 2023 | 35 |
| 24 March 2023 | 29 |
| 25 March 2023 | 25 |
| 27 March 2023 | 31 |
| 28 March 2023 | 18 |
| 29 March 2023 | 29 |

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 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 nine, one day workshops on "Sanitation & Solid Waste Management in Urban Local Bodies with the following 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

The participants of the training programme were Executive Officers, Sanitary & Food Inspector etc.

In total 236 participants attended the trainings.

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

ONLINE TRAINING PROGRAMME ON DISASTER MANAGEMENT

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 disaster response and rehabilitation has to be accorded top priority.

Against this backdrop, RCUES, Lucknow organized five, 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. The main objectives of the training were;

- 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;

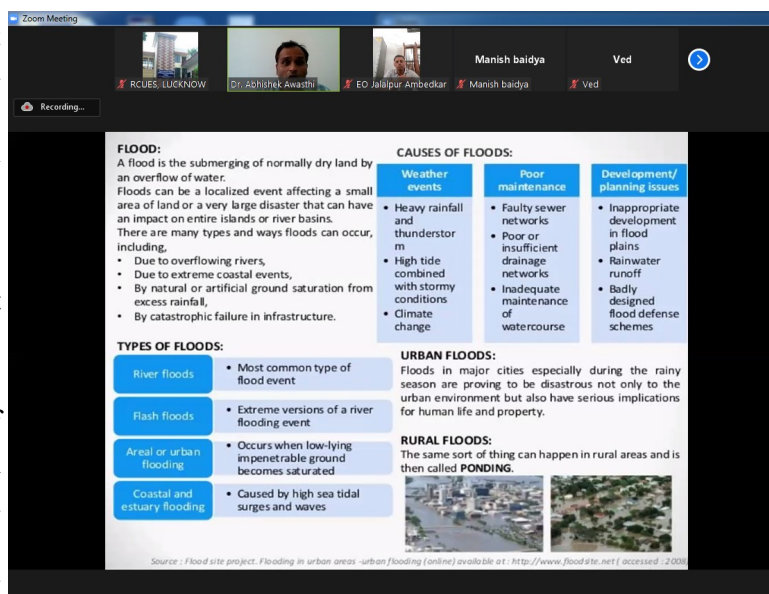
| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 27 August 2022 | 26 |
| 31 August 2022 | 28 |
| 19 October 2022 | 28 |
| 21 October 2022 | 58 |
| 17 November 2022 | 31 |

MANAGEMENT OF URBAN FLOODING AND CLIMATE CHANGE

Dr. Abhishek Awasthi
Associate Professor
Department of Environment Science
Maharaja Agrasen University, Solan (H.P.)

- 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;

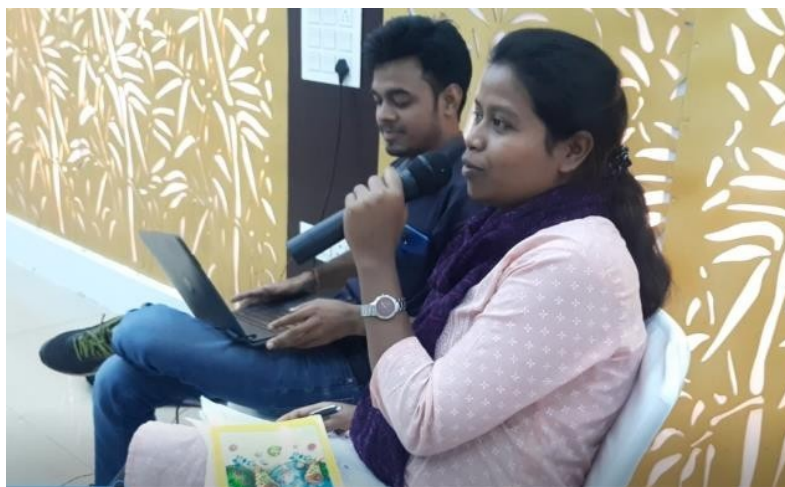
The online training was aimed at Additional/ Deputy / Assistant Municipal Commissioners, Executive Officers, Engineers, Urban Planners, Specialists of Environment, Sanitation and Pollution Control, Chief Sanitary Inspectors and Zonal Officers. In total 171 participants attended the training. The training programmes were 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

The Swachh Bharat Mission 1.0 and 2.0 (launched in 2020) 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. The main objectives of the training were:

- 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

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 48 participants attended the training. The training programme was coordinated by Mr Ajit Kumar Mishra, Assistant Director, RCUES, Lucknow.

WORKSHOP ON URBAN MOBILITY SYSTEMS

Indian cities are facing several urban mobility challenges, and the deficiency of bus transport is one of the prominent ones amongst them. Historically our cities were largely dependent on bus-based transport for daily commutes, but in recent decades there has been a decline in the share of people using buses as a regular transport means. This is primarily due to reasons such as increasing income levels and associated private vehicle usage, depleting/stagnant fleet of buses in our cities, poor operational performances of buses etc.

Cities of Uttar Pradesh are also facing similar issues, in fact, the share of bus transport usage in major cities of UP is very low compared to some other similar or large cities of India. Only 4% of people use city bus transport in Lucknow while the share stands at 16% for the city of Pune. Furthermore, the major million-plus cities of UP have buses only in the range of 10-15 buses per 1 lakh population. As per the Ministry of Housing and Urban Affairs (MoHUA) benchmarks, cities above a million plus population must have a bus fleet ranging between 40-60 per 1 lakh population. RCUES Lucknow, as part of its efforts in the field of sustainable mobility, has been working in key focus areas such as improving public transport, enhancing non-motorised transport infrastructure, fleet electrification of commercial vehicles, low emission zone planning etc. The current efforts are focused in Lucknow, Kanpur and adjoining regions in Uttar Pradesh. These sessions will include officials from departments/authorities looking at public transport planning, operations, policy making etc. In order to understand the priorities and key focus areas of these different departments/authorities, our team is organising a full day Needs Assessment in collaboration with Regional Centre for Urban & Environmental Studies (RCUES), Lucknow. The aim of the assessment is to identify key focus areas of capacity building and further develop a programme to meet the necessary training requirements in future.

The workshop was organized for Architect, Planner, Asst. Planner, Chief Engineer, DCP Traffic, Executive Engineer, General Manager, Junior





Engineer, Member, Senior Architect, Team Lead & UIS. Overall 21 participants attended the workshop. The programme was coordinated by Mr Himanshu Chandra, Assistant Director, RCUES, Lucknow .

WORKSHOP ON CITY BUS TRANSPORT SYSTEMS

Uttar Pradesh (UP) had an urban population of 4.45 Crores as per the Census of 2011, which is 22% of the total population of the state. Amongst the Indian states, UP has the second highest urban population, in absolute terms. However, the majority of Uttar Pradesh is still rural and agrarian in nature, with growing economic opportunities and educational ecosystem development in cities, a higher urbanisation rate is bound to trend in the coming years. The Government of Uttar Pradesh also has recently committed to become a 1 trillion dollar economy in next five years, and the growth





of cities in this massive transformation, will be even more evident so as to become the engines of growth.

However in the absence of a planned approach in the current systems, the cities are sprawling, and also face various urban mobility issues. For instance, the major million plus cities of UP have buses only in the range of 10-15 buses per 1 lakh population. As per the Ministry of Housing and Urban Affairs (MoHUA), Government of India, benchmarks, cities above a million plus population must have a bus fleet ranging between 40-60 per 1 lakh population. As per the master plans, the largest cities of the state such as Lucknow and Kanpur do not have footpaths on more than half of the city roads. A deficiency in the infrastructure for these sustainable modes of transport has created more reliance on private vehicles for meeting the daily mobility needs. This has resulted in various negative impacts. Cities of UP are amongst the most polluted in the country. The state also tops the list of road traffic fatalities in India. Moreover, there are regular issues of congestion, noise pollution etc. associated with urban mobility in Uttar Pradesh. Thus, managing travel demand in a systematic manner is a key concern to address all these issues.

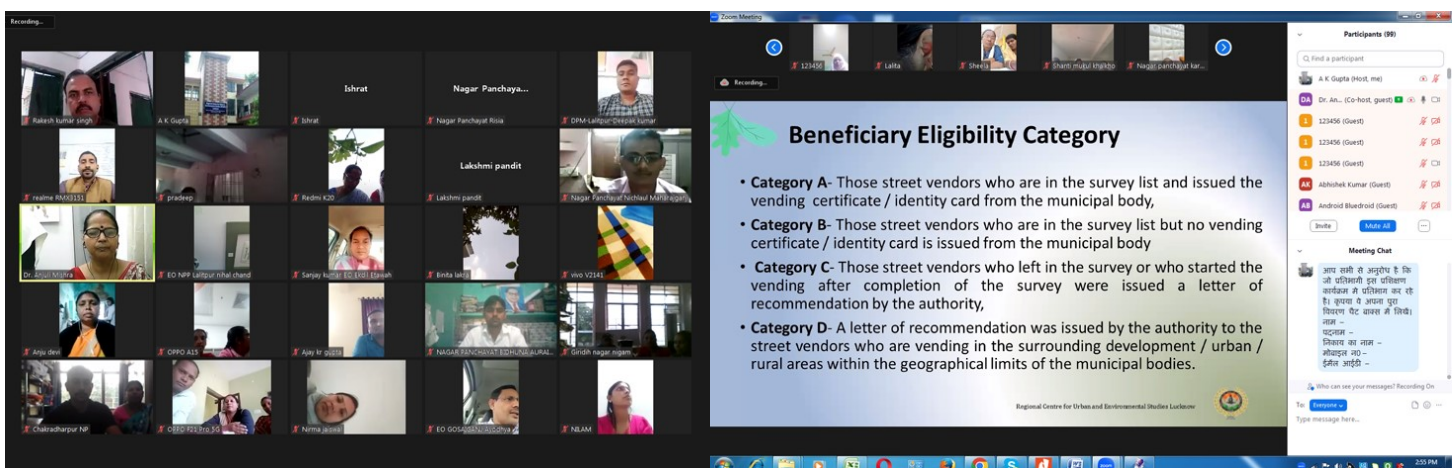
The Government of UP has started making efforts in this regard as well. Recently the state has introduced electric buses in all the million plus cities. Metro networks are also in running in some of these cities, while planning is underway in others. The cities have also invested in technology based solutions to manage traffic conditions. These efforts are commendable and the state must continue to upgrade the infrastructure. RCUES Lucknow as part of its efforts in the field of sustainable mobility, has been working in key focus areas such as improving public transport, enhancing non-motorised transport infrastructure, fleet electrification of commercial vehicles, low emission zone planning etc. The current efforts are focused in Lucknow, Kanpur and adjoining regions in Uttar Pradesh. These sessions will include officials from departments/authorities looking at street infrastructure, urban planning, transport planning, public transport, policy making etc. In order to understand the

priorities and key focus areas of these different departments/authorities in the urban mobility space, a full day Training Needs Assessment (TNA) session was organised. This is a closed door roundtable brainstorming session with the aim of identifying key focus areas of capacity building in the urban mobility sector in Uttar Pradesh. The inputs and suggestions from the TNA will be further used to develop a full fledged capacity building programme to meet the necessary training requirements in future.

The workshop was organized for ARM, Computer Operator, Consultant, Deputy Director, Executive Engineer, Executive Officer, Managing Director, MIS Incharge, Sr. Programme Lead, Programme Lead, Research Analyst, Senior Assistant, SWM Specialist & Tax Collector. Overall 33 participants attended the workshop. The programme was coordinated by Mr Himanshu Chandra, Assistant Director, RCUES, Lucknow

ONLINE WORKSHOP ON MICRO CREDIT FACILITY TO URBAN POOR (THROUGH SVANIDHI SCHEME)

The outbreak of global pandemic COVID- 19 has led to massive devastation in India. In view of the global crises, Government of India declared a complete lock down in the country which has left a deep impact on the Street Vendors, labourers, migrant workers and all those marginalized communities who struggle hard for their survival. Government of India has declared a huge package of Rs. 20,00,000 crores for reviving Indian economy and providing relief to affected persons. The package of Self Reliance include governance reforms, credit support to urban street vendors, MSMEs, start up business, SHGs, relief to migrant workers, poor, and homeless etc. The role of urban local governments has massively increased in post lockdown situation in prevention, spread of pandemic disease, response, and protection of frontline workers and rehabilitation of urban poor. Street vendors play a significant role in ensuring availability of the goods and services at affordable rate at the door-step of the city dwellers. The COVID-19 pandemic and consequent lockdowns have adversely impacted the livelihoods of street vendors. They usually work with a small capital and their earnings are grossly inadequate to survive their families for long period and thus the savings along with capital are consumed. Therefore, there is an urgent need to provide credit for working capital to street vendors to resume their business. Prime Minister SVANidhi Scheme has



been launched by government of India to support the urban street vendors in reviving their business and livelihood. Against this backdrop, 11 online trainings were organized which purports to discuss and deliberate upon the provisions and procedures of the scheme so that it may be effectively implemented in urban centres.

The main objectives of the training were:

- To highlight the imperatives of Aatma Nirbhar Bharat and emerging opportunities for urban poverty alleviation;
- To discuss and deliberate upon the various provisions and procedures of the Prime Minister SVANidhi Scheme;
- To highlight the Micro credit facility to urban poor through SVANidhi Scheme;
- To discuss the provisions of the SVANidhi se Samridhhi Scheme;
- To highlight the problems and challenges in implementation of Prime Minister SVANidhi Scheme and suggesting measures for its effective implementation.

| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 11 November 2022 | 109 |
| 15 November 2022 | 50 |
| 30 January 2023 | 52 |
| 01 February 2023 | 60 |
| 03 February 2023 | 80 |
| 06 February 2023 | 68 |
| 10 February 2023 | 44 |
| 18 March 2023 | 44 |
| 20 March 2023 | 32 |
| 22 March 2023 | 41 |
| 24 March 2023 | 58 |

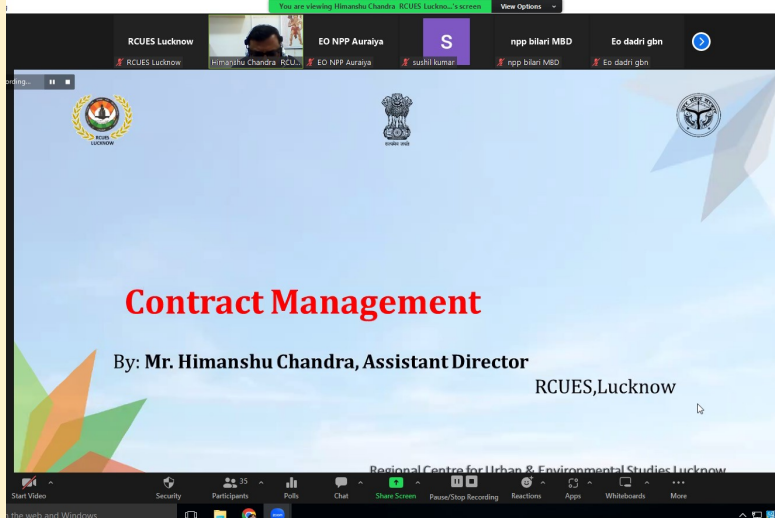
The trainings were organized for Assistant Municipal Commissioner, Executive Officer, City Mission Manager, Accountant, District Programme Manager, Community Organiser, Office Assistant, City Mission Manager, Community Resource Person. Overall 638 participants attended the workshop. The programme was coordinated by Dr Anjali Mishra, Joint Director, RCUES, Lucknow.

ONLINE TRAINING ON CONTRACT MANAGEMENT

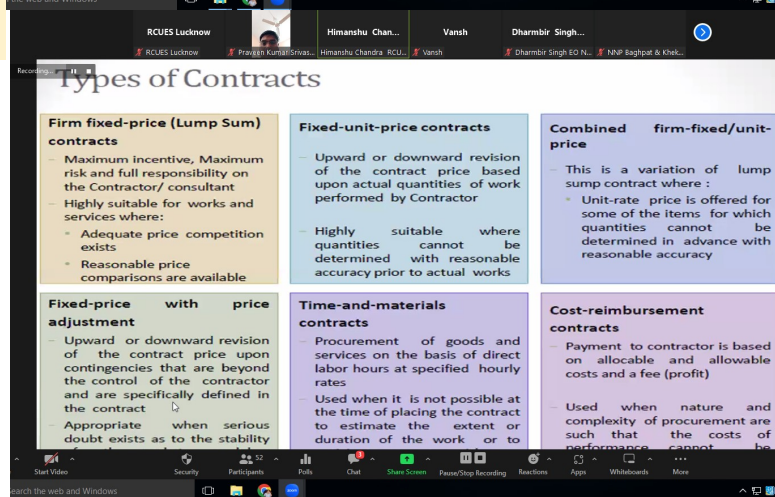
Urban India has grown by nearly five times during the last fifty years, while the population of India has grown two and half times in the same period. India's Urban Population grew from reported 290 million in Census 2001 to an estimated 340 million in 2008. This process of urbanization has created a huge gap between demand and supply of urban services and infrastructure.

Contract Management is important throughout the entire process of the contract cycle and not just at award process, effective contract management will bear dividends for both employer and contractor to ensure a well-managed agreement in practical and logistical terms. Contracts, the foundation to every business relationship, are a legally binding agreement between the parties identified in the agreement to fulfil all the terms and conditions outlined in the agreement. A prerequisite requirement for the enforcement of a contract, amongst other things, is the condition that all the parties to the contract accept the terms of the claimed contract. One who is in charge of the project is known as the Employer. One who agrees to execute or perform is known as the Contractor.

Against this view point, Regional Centre for Urban and Environmental Studies (RCUES), Lucknow, under the auspices of Ministry of Housing and Urban Affairs, Government of India, New Delhi organized four, One day Online workshop on contract management for the Municipal Officials, Urban Planner and Urban Infrastructure Expert of Urban Local Bodies. The main objectives of the



| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 16 November 2022 | 53 |
| 18 November 2022 | 56 |
| 01 February 2023 | 30 |
| 02 February 2023 | 18 |



training were:

- To discuss and deliberate on emerging issues and challenges in planning for infrastructure development projects and their implementation.
- To discuss the criterion and parameters for project formulation in the field of water supply, Sewerage, SWM and urban transportation
- To discuss the desirable contents in DPRs and essential characteristics of Project development cycle.
- To discuss the procedures and legal issues in contract management.

The workshop was organized for Executive Office, Sanitary & Food Inspector, Environmental Officer, Sub Engineer, Urban Planner, Urban Infrastructure Specialist, Dy. Quality Manager, Executive Engineer. Overall 157 participants attended the workshop. The programme was coordinated by Mr Himanshu Chandra, Assistant Director, RCUES, Lucknow

WORKSHOP ON WATER RESOURCE MANAGEMENT

India's fragile water resources are under stress and running out. One of the most valuable natural

resources, groundwater has been crucial to maintaining India's economy, environment, and way of living. India is a relatively large country with a diverse geological, climatologically, and geographical setting, resulting in varying groundwater conditions across the nation. Most Indian towns are ill-prepared to handle the growing water scarcity and water stress due to rapid urbanisation, population increase, lack of new raw water sources, outdated water infrastructure, and ineffective water administration. Impacts of climate change could lead to periodic drying up of captive water sources; this will only make the issue worse. Groundwater supplies provide 48 percent of India's urban water supply, according to a report by the Centre for Science and Environment, and in seven of the country's ten most populated cities, groundwater levels have drastically decreased over the previous two decades. Rapid urbanisation and population growth, coupled with no added raw water sources, archaic water infrastructure and inefficient water governance, means that most Indian cities are ill-equipped to handle the increasing water scarcity and water stress. Climate change impacts will only aggravate the situation; rising temperatures could cause the periodic drying up of captive water sources. By 2050, at least 30 Indian cities will face a grave water risk, according to the WWF. The problems range from poor management of water sources, contaminated supplies, leaky distribution networks and vast volumes of untreated wastewater being poured into India's rivers. More alarmingly, the long-term, indiscriminate extraction of groundwater is making water tables fall rapidly in most Indian cities. Groundwater is the main source of domestic water supply for rural and urban India as more than 80 percent of it is supply sourced through it, making the country the largest user of groundwater in the world. This excessive extraction of groundwater has made almost 22 percent of assessed blocks as critical or overexploited. At the state level, Punjab, Haryana, Rajasthan, and Delhi are states where Stage of Groundwater Extraction is more than 100 percent and hence the groundwater is overexploited. Against this backdrop, five one day each Workshops on “Water Resources Management:” were organized at Lucknow by RCUES, Lucknow.

The workshops were organised keeping in view of the following main objectives:

- To review the status of urban water resources, water supply system, policy perspective and need for effective urban resources management;
- To highlight the issues of water scarcity, water risks and water stress and emerging need of rain water harvesting ;

MANAGEMENT OF URBAN FLOODING AND CLIMATE CHANGE

Dr. Abhishek Awasthi
Associate Professor
Department of Environment Science
Maharaja Agrasen University, Solan (H.P.)

Prevention and Mitigation of Disasters and Urban Resilience

Dr. A.K. Singh
Assistant Director
Regional Centre for Urban & Environmental Studies, Lucknow

- To orient the participants regarding rain water harvesting mechanism, procedures and practices in urban centres;
- To highlight the concept and practice of rejuvenating water bodies and their bio-remediation;
- To discuss and elaborate the water treatment technologies and waste water management in urban centres;.
- To highlight the recycling, treatment and reuse of waste water in urban centres;
- To discuss the issue of conservation of water resources in urban centres and also to highlight the best practices and case studies.

| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 18 November 2022 | 33 |
| 19 November 2022 | 35 |
| 23 March 2023 | 34 |
| 24 March 2023 | 31 |
| 25 March 2023 | 21 |

The workshop was planned for Executive Officer, Junior Engineers, DPM, Assistant Engineers, Urban Infrastructure Specialists, Sanitary and Food Inspectors, and other concerned municipal officials of ULBs and other parastatal organisations of Uttar Pradesh. Overall 154 participants attended both the workshops.

In view of the programme objectives, the following sessions were delivered by Internal and External Faculty of RCUES, Lucknow

- Urban Water Resources
- Rain Water Harvesting
- Rejuvenation of Water Bodies and Bio-Remediation
- Water Treatment Technologies
- Recycling and Reuse of Waste Water
- Conservation of Water Resources

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

TRAINING PROGRAMME ON WATER AUDIT, WATER ACCOUNTING AND ENERGY AUDIT OF RURAL WATER SUPPLY SCHEMES UNDER JAL JEEVAN The availability of potable water (underground and surface) is very limited, There are considerable losses in the water produced and distributed through leakages in pipelines, valves, public taps un authorized service connection etc. the percentage of unaccounted for water (UFW/NRW) ranges from 30 to 55 % .Thus, huge quantum of water is being wasted which also leads to reduction in water as well as revenue losses. Therefore it become essential to plan the conservative use of water i.e. water auditing/ leakage control through metering, improved O & M practices and awareness intervention.

Water Audit of a water supply scheme can be defined as the assessment of the capacity of total water





produced by the Water Supply Agency/VWSC and the actual quantity of water distributed throughout the area of service by the Agency/VWSC, thus leading to an estimation of the losses otherwise known as non-revenue/ un-accounted-for water (NRW/UFW) and it is the expression used for the difference between the quantity of water produced and the quantity of water billed or accounted for.

RCUES Lucknow has been designated as the Key Resource Centre under Jal Jeevan Mission by the Ministry of Jal Shakti, Government of India. Under which Centre has conducted two training programmes on Training programme on Water Audit, Water Accounting and Energy Audit of Rural Water Supply Schemes under Jal Jeevan Mission-Level 2 for the functionaries under Jal Jeevan Mission.

Our Centre has been designated as a Key Resource Centre under Jal Jeevan Mission by the Ministry of Jal Shakti, Government of India. Under which Centre conducted capacity Building programmes for various levels of functionaries under Jal Jeevan Mission.

The main objectives of the trainings were:

- Water audits and leak detection programmes can achieve substantial benefits, including the following:
- Reduced Water Losses Water audit and leak detection are the necessary first steps in a leak repair programme. Repairing the leak will save money for the utility, including reduced power costs to deliver water and reduced chemical costs to treat water.
- Financial Improvement A water audit and leak detection programme can increase revenues from customers who have been undercharged, lower the total cost of whole sale supplies and reduce treatment and pumping costs.
- Increased Knowledge of the Distribution System During a water audit, distribution personnel become familiar with the

| List of Workshops | | |
|-------------------|--------------------|-------------------------------------|
| Date | No of Participants | Nomination State |
| 25-26 Nov, 2022 | 35 | Uttar Pradesh & Punjab |
| 08-09 Dec, 2022 | 41 | Uttar Pradesh, Maharashtra, Haryana |

distribution system, including the location of main and valves. This familiarity helps the utility to respond to emergencies such as main breaks.

- **More Efficient Use of Existing Supplies** Reducing water losses helps in stretching existing supplies to meet increased needs. This could help defer the construction of new water facilities, such as new source, reservoir or treatment plants.
- **Safeguarding Public Health and Property** Improved maintenance of a water distribution system helps to reduce the likelihood of property damage and safeguards public health and safety.
- **Improved Public Relation** The public appreciates maintenance of the water supply system. Field teams doing the water audit and leak detection or repair and maintenance work provide visual assurance that the system is being maintained.
- **Reduced Legal Liability** By protecting public property and health and providing detailed information about the distribution system, water audit and leaks detection help to protect the utility from expensive law sue.

The workshop was organized for Superintending Engineers, Executive Managers Engineers, Junior Engineers, Water Utility and Waster Testing laboratory personnel from Public Health Department (PHEDs)/Rural Water Engineering Supply (RWS) Departments (PWDs) or departments/Public works and other concerned persons from under JJM projects. Overall 76 participants attended the workshop.

The programme was coordinated by Dr Alka Singh, Deputy Director and Mr Himanshu Chandra, Assistant Director, RCUES, Lucknow.

TRAINING CUM EXPOSURE VISIT ON USED WATER AND FECAL SLUDGE MANAGEMENT AT CHUNAR, MIRZAPUR

The Swachh Bharat Mission (Urban) will continue till 2025-26 with focus on sustainability of Open D outcomes, achieving scientific processing of solid waste in all cities, and managing waste water in cities with less than one lakh population as per Census 2011, the cities that were not covered under Atal Mission for Rejuvenation and Urban Transformation (AMRUT).



All statutory towns to become at least ODF+; all cities with below 1 lakh population to be made ODF++; and putting in place systems and processes so that all wastewater is safely treated and optimally reused and no untreated wastewater pollutes water bodies.

The mission will focus on ensuring complete access to sanitation facilities to serve additional population migrating from rural to urban areas in search of employment and better life.

Complete liquid waste management in cities in less than one lakh population – a new component introduced under SBM-Urban 2.0



will ensure that systems and processes are set up in every city so that all wastewater is safely contained, collected, transported and treated and no wastewater pollutes our water bodies. Regional Centre for Urban and Environmental Studies (RCUES), Lucknow and Water, Sanitation and Hygiene Institute (WASH – I) are continuously working towards the capacity building and trainings of the concerned persons and supporting the Government to achieve the objective. RCUES and WASH - (I) have conducted numerous training programmes

and exposure visits for engineers from Uttar Pradesh Jal Nigam (UPJN) as well as Executive Officers from various Urban Local Bodies.

The present Exposure visit was organized for the Executive Officers (EOs) of various ULBs who are working towards implementation of used water treatment and faecal sludge management to ensure that they will implement the best practices in their region.

The purpose of exposure visits is to learn from the experience of others outside your own community, by direct interaction. Both RCUES and WASH Institute has been organizing the training and capacity building programmes for solid and liquid waste management for quite a long time. SBM-U 2.0 envisions to make all cities 'Garbage Free' and ensure grey and black water management in all cities with a population of less than 1 lakh as ODF++, thereby achieving the vision of safe sanitation in urban areas. The overall objective of this exposure visit is to exchange ideas and experience regarding challenges in implementation of Sewage Treatment and infrastructure development related to STPs such as Interception and Diversion, Faecal Sludge Management services at town/city-scale, and potential of decentralized management facilities for human waste for small ULBs like Chunar. The visit also involves the interaction with various stakeholders apart from the members of the organising team for exchange of





ideas and sharing of experiences.

| List of Training cum Exposure | |
|-------------------------------|--------------------|
| Date | No of Participants |
| 02-03 December, 2022 | 22 |
| 05-06 December, 2022 | 30 |

Exposure Visit

There was brief introduction about the objective of organizing this Exposure visit by Ajit Kumar Mishra, RCUES, Mr. Nitin Kumar, WASH – (I) and Mrs. Rachna Rishi, RCUES Lucknow. The visit started with taking the participants to Pumping station at Dinapur STP plant which is located at Chauka Ghat, Varanasi. The participants were shown the diversion of the drain to the sump well and then lifting of waste water through pump and sending to the sewer line towards Dinapur STP plant. The dry weather flow was approx 116 MLD however the capacity of the pumping station is 140 MLD. The pumping station has 33 KV High Tension transformers for pumping and equipped with real time flow monitoring device. The participants were then taken to the Dinapur STP plant which is of 140 MLD. The project is funded by JICA and the first and the largest sewage treatment project to be implemented under Namami Gange Mission. It is equipped with the latest technology. The treatment plant employs activated sludge process and is powered by green power from sewage (biogas), significantly reducing the carbon footprint apart from lowering operational cost, This is in line with PM's vision to power India through green energy and India's ratification at the UN Climate Change Convention. The plant produces of 2500-3000 m³/day balloon type double membrane gas holders, the largest of its kind in India. The BOD level of water received at the inlet is approx 130 mg/L and treated water is approx 15mg/L. The STP discharged its treated water into the river Varuna. The participants were excited to see the Dinapur STP plant and its working. Participants were taken to the Assi ghat Pumping station and shown Interception and Diversion Structures.

After visiting Assi ghat I&D and Pumping Station the participants moved to Ramnagar STP 10 MLD. The STP is based on AAO technology (Anaerobic, Anoxic and Oxidation). The plant is suitable for ULBs whose population is below 1 Lakhs. The last field visit included the Fecal STP plant in Chunar, Mirzapur. The plant is based on simple dewatering technology and then biological digestion of sludge to manure by plants. The participants were shown the working of FSTP plant.

The workshop was organized for Executive Officers, Junior

Engineers, Assistant Engineers of UP Jal Nigam. Overall 52 participants attended the workshop.

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

TRAINING CUM EXPOSURE VISIT CITY-WIDE INCLUSIVE SANITATION (CWIS)

NIUA in collaboration with Indian Institute for Human Settlements (IIHS) and All India Institute of Local Self Government (AIILSG) Mumbai and support of RCUES Lucknow organised 2, three-day programme and exposure visit in Tiruchirappalli, Tamil Nadu.

The objective was to provide a comprehensive understanding of CWIS through Tamil Nadu's experiences towards the inclusion of gender, urban poor, managing Self-Help Groups (SHGs) and supporting health, safety and livelihood of the sanitation workers to mid-level engineers from several organisations. These agencies included Urban Development Directorate, State Urban Development Agency, Peyjal Nigam, Jal Sansthan departments of Uttarakhand, Madhya Pradesh, Bihar, Chhattisgarh and Uttar Pradesh and, Regional Centre for Urban and Environmental Studies Lucknow.

The sessions started with the brief introduction exercise and setting the context of FSSM CWIS work in Tamil Nadu.

Participants were taken to visit On-site treatment systems at Kodappu to understand the working principles of different types of chlorine disinfection systems, RCC circular septic tank as an affordable model for urban poor. It was followed by visit to decanting station at Anna Stadium. Here participants understood the basics of co-treatment and the function of the various treatment facilities, including the decanting station at Main Pumping Station. Participants were explained about the interventions at the decanting station-its design, technology and monitoring. In the second half, participants travelled to Thuraiyur city to visit 20 KLD Gravity based FSTP. The plant operator explained about the treatment units, cluster approach taken and also clarified the doubts of participants. On the way to the FSTP, the participants also visited improved septic tank in inclusive Community toilet at RMS Colony. The community toilet was designed keeping the requirements in mind of women, men, children and disabled people and learned about the importance of proper containment structures and the interventions, outlining how the issues were identified and the structure was improved using the adopted technology that ultimately improved the outlet parameters results.

Next day sessions started with the debriefing of previous day and context setting of work around inclusion within the scope of CWIS. Participants met the Municipal Commissioner, Trichy at Trichy City Corporation office. The Municipal Commissioner gave the overview of various work being done and initiatives taken by the Trichy City Corporation to streamline sanitation services in the city. Participants visited Ganeshapuram area to meet women Self Help Group (SHG) members, Sanitation workers and informal sanitation workers. The SHG member and workers shared about improvement in access to the various benefits like occupational ID cards, social security and welfare schemes, skill



development training etc. Participants got an overarching understanding of different types of sanitation workers across the chain, their working arrangements, and the operationalization of different initiatives underway with a focus on

livelihoods and welfare, especially for informal workers. The discussion with the SHG members gave the participants an idea as to how to converge various scheme-benefits for the SHGs.

| List of Training cum Exposure | |
|--------------------------------|--------------------|
| Date | No of Participants |
| 08-09 December, 2022 | 30 |
| 31 January - 02 February, 2023 | 19 |

On the last day the participants interacted with the women's enterprise and understood impact of the initiative in their livelihoods. They were explained the full chain between how women-led enterprise groups are formed, how they are linked to markets, and how they are empowered through sanitation-based livelihoods. After the visit, a closing session was helpful in which participants shared their experience and learning from the visit. Overall, it was a fruitful visit and concluded with a high note with excellent feedback from the participants. In total 49 participants from the ULBs and parastals of Uttarakhand, Madhya Pradesh, Bihar, Chhattisgarh and Uttar Pradesh participated.

ORIENTATION TRAINING PROGRAMME FOR CONSULTING ENGINEERS UNDER PANCHAYATI RAJ DEPARTMENT, GOVT. OF UP

Development of infrastructure has been accelerating in the last few decades with the increased awareness towards improved living environment. With the introduction of Finance Commission (FC), a sum of Rs 26608.4 crore have been assured to be devolved to Gram Panchayats (GPs) during the period of 2020-26 which provides them an enormous opportunity for local self-development at the cutting-edge institutional level of Gram Panchayats (GPs) and hence a robust mechanism was required which focuses on integrated plan creation, monitoring of fund flow and improved transparency through use of technology.

The infrastructure which is being developed by various Gram Panchayat will need more number of qualified and trained manpower for better designing, speedy implementation of all the schemes in economical manner and also for proper operation and maintenance of old and new projects and infrastructure development.

Regarding this, State took a paradigm shift from traditional planning approach to introduce an



integrated planning system viz. Gram Panchayat Development Plan (GPD), as per Ministry of Panchayati Raj, Government of India, Guidelines, in all Gram Panchayats for creation of Annual Plans by GPs capturing local needs by visualizing the annual budget of every GP following a decentralized, participatory, bottom-up planning process. The annual Plan consists of works to be done across the year in the Gram Panchayats.

The annual Plan consists of works to be done across the year in the Gram Panchayats. Department of Panchayati Raj, Uttar Pradesh (DoPR) lacks the technical manpower for civil works in the Gram Panchayats. Hence, DoPR has decided to do district wise empanelment of the Private individual Consulting Engineer (Civil) on work basis payment mode.

The broad Scope of work of the Empaneled Consultants are as follows:

- To prepare estimates of works/Projects taken by the Gram Panchayats.
- Map/ Layout design of the work.
- Preparation of MB of the works.
- Other related civil works awarded by the Gram Panchayats.

In this backdrop, RCUES, Lucknow organized 37, One Day Training programme for Engineers for Gram Panchayat dealing with roads, streets, building, water supply, sewer, drains, street light, water bodies, etc.

The main objectives of the training were:

- Develop technical capabilities in preparing estimates of works/projects taken by the Gram Panchayats.
- Develop technical capabilities to measure the activities of work/projects executed by Gram Panchayats.

| List of Training cum Exposure | |
|-------------------------------|--------------------|
| Date | No of Participants |
| 17 December 2022 | 49 |
| 17 December 2022 | 16 |
| 20 December 2022 | 54 |
| 20 December 2022 | 17 |
| 22 December 2022 | 28 |
| 24 December 2022 | 53 |
| 27 December 2022 | 49 |
| 27 December 2022 | 13 |
| 28 December 2022 | 28 |
| 29 December 2022 | 29 |
| 03 January 2023 | 55 |
| 03 January 2023 | 14 |
| 05 January 2023 | 21 |
| 07 January 2023 | 46 |
| 07 January 2023 | 16 |
| 09 January 2023 | 46 |
| 09 January 2023 | 12 |
| 12 January 2023 | 56 |
| 12 January 2023 | 10 |
| 20 January 2023 | 40 |
| 21 January 2023 | 48 |
| 21 January 2023 | 14 |
| 23 January 2023 | 50 |
| 23 January 2023 | 18 |
| 28 January 2023 | 56 |
| 28 January 2023 | 21 |
| 31 January 2023 | 53 |
| 31 January 2023 | 22 |
| 07 February 2023 | 52 |
| 07 February 2023 | 16 |
| 13 February 2023 | 40 |
| 13 February 2023 | 20 |
| 15 February 2023 | 41 |
| 15 February 2023 | 18 |
| 22 February 2023 | 32 |
| 25 February 2023 | 42 |
| 25 February 2023 | 20 |

- Develop the understanding of tendering process of different types of activities in the Gram Panchayat.
- Develop the understanding of standard specification for different types of construction work in the Gram Panchayat.





- To orient the participants in preparation of MB of the works as per Gram Panchayat.
- To orient the engineers in understanding the different approaches and its applicability and long term sustainable models

The workshop was organized for Consulting Engineers under Panchayati Raj Department, Govt. of UP. Overall 1215 participants attended the Training. The programme was coordinated by Dr Alka Singh, Deputy Director, Dr Nasruddin and Mr Himanshu Chandra, Assistant Director, RCUES, Lucknow.

ORIENTATION TRAINING PROGRAMME FOR SOLID & LIQUID WASTE MANAGEMENT (SLWM) CONSULTANT UNDER PANCHAYATI RAJ, DEPARTMENT, GOVT. OF UP

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’. Development of water supply, sewerage and sanitation infrastructure has been accelerating in the last few decades with the increased awareness towards improved living environment. Water, sanitation, and hygiene (WASH) directly impact human health and have far reaching consequences when ignored. India is one of the fastest developing economies, but when it comes to WASH indicators, it continues to lag behind. The management of solid and liquid 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.



With a population of over 1.2 billion, there is a mounting and urgent need to address sanitation. Solid and Liquid Waste Management (SLWM) is one of

| List of Training | |
|----------------------|--------------------|
| Date | No of Participants |
| 21-22 December, 2022 | 28 |
| 28-29 December, 2022 | 35 |

the key components of Swachh Bharat Mission (SBM) (G), launched with the objective of bringing improvement in cleanliness, hygiene and the general quality of life in rural areas.

SBM focuses on generating awareness and providing community managed sanitation systems. To implement SLWM initiatives economically and efficiently, ownership at grass root level and community involvement at all stages is critical. Information, Education, and Communication (IEC) interventions should focus on SLWM to create a demand for a sustainable system. This must lead to setting up systems for waste disposal in such a way that it has tangible impact on the population. The community/Gram Panchayat (GP) has to be encouraged to come forward and demand such a system, which they can subsequently operate and maintain. Awareness and education campaigns should aim for panchayat officials, elected representatives, schools, nongovernmental organisations (NGOs) working in villages, shop keepers, families, and general public.

The GP functionaries would be responsible for design, implementation, operation and maintenance (O&M) of SLWM systems with support from respective state governments. Mechanisms for involving third parties in construction and management activities under GP and community supervision can be explored. In such cases, absolute clarity in the roles and responsibilities of various stakeholders in managing SLWM systems is a must. Community contribution and appropriate user charges for sustainable SLWM initiatives are also desirable.

In order to cater to the needs of Sanitation services in the state there is a need for Specialized Training courses for Solid and Liquid Waste Management Experts on various aspects of Public Health Engineering which are essential for the design, construction, operation and maintenance sanitation projects, so that schemes and projects that are implemented are able to meet the criteria of cost effectiveness and efficient operation, maintenance and repair in timely manner.

In this backdrop, RCUES, Lucknow organized following Two Days Training programme for Solid and Liquid Waste Management Expert dealing with septage, sanitation, drainage and solid waste management.

The main objectives of the training were:

- To acquaint the participants with the need, importance, and objectives of SBM-G and Uttar Pradesh Solid Waste Management Policy for rural areas.



Academic Activities

- To acquaint the participants with the need, importance, and objectives of Solid and Liquid Waste Management.
- To acquaint the participants with the need, importance, and objectives of Faecal Sludge Management.
- 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.
- To orient the participants on Innovative and Cost Effective Technologies and best practices.



The workshop was organized for Solid and Liquid Waste Management Consultants under Panchayati Raj Department, Govt. of UP. Overall 63 participants attended the Training. The programme was coordinated by Dr Alka Singh, Deputy Director, Dr Nasruddin and Mr Himanshu Chandra, Assistant Director, RCUES, Lucknow

TRAINING PROGRAMME FOR PLANNING & IMPLEMENTATION OF JAL JEEVAN MISSION



The Jal Jeevan Mission is a flagship scheme of the government which seeks to not only provides functional household tap connections for all, but seeks to promote the holistic management of local water resources. The JJM

aims to provide a Functional Household Tap Connection (FHTC) to every rural household in the country. It promotes the management of water at the lowest appropriate level through decentralized, but integrated water resource management by the Gram Panchayats, with a key focus on water conservation, source sustainability, and rainwater storage. The JJM is also focusing on developing infrastructure for collection and basic treatment of domestic non-fecal wastewater, also called

| List of Training | | |
|------------------|--------------------|--------------------|
| Date | No of Participants | Venue |
| 21-24 Dec 2022 | 67 | Ranchi, Jharkhand |
| 26-29 Dec 2022 | 59 | Deoghar, Jharkhand |



greywater, which typically accounts for nearly 80% of all domestic water.

The main objectives of the trainings were:

- The main objective is to develop skills and knowledge of Sarpanches, Panchayat Secretaries, community leaders, and ISAs to plan and implement appropriate strategies for the Planning and implementation of JJM.
- To enhance understanding of PRIs and ISAs for planning and implementation of JJM with a focus on Village action plan preparation, Selection of technical options, including climate resilient, Quality of water supply construction works, Source strengthening, Greywater management, and Operation and maintenance of water supply scheme
- To motivate Sarpanches, Panchayat secretaries, and community leaders to take an active leadership role in mobilising communities for achieving the above objectives in a participatory manner for sustainable results.

The workshop was organized for ground level functionaries including Mukhiya, Jalsahiya, ISA members, community leaders. Overall 126 participants attended the Training. The programme was coordinated by Dr Anjuli Singh, Joint Director and Mr Ajit Mishra, Assistant Director, RCUES, Lucknow.

ONLINE TRAINING ON PROJECT MANAGEMENT

Urban India has grown by nearly five times during the last fifty years, while the population of India has grown two and half times in the same period. India's Urban Population grew from reported 290 million in Census 2001 to an estimated 340 million in 2008. This process of urbanization has created a huge gap between demand and supply of urban services and infrastructure.

| List of Training Programmes | |
|-----------------------------|---------------------|
| Date | No. of Participants |
| 02 February 2023 | 29 |
| 01 March 2023 | 25 |
| 02 March 2023 | 19 |
| 03 March 2023 | 19 |

Project management is the application of processes, methods, skills, knowledge and experience to achieve specific project objectives according to the project acceptance criteria within agreed parameters. Project management has final

The left screenshot shows a Zoom meeting interface with a presentation slide titled "Project Management" by Mr. Himanshu Chandra, Assistant Director, RCUES, Lucknow. The right screenshot shows a Zoom meeting interface with a presentation slide titled "Balancing Competing Project Constraints". The slide lists constraints: Scope, Quality, Schedule, Budget, Resources, and Risks/Issues. It also features a diagram of the "Magic Triangle" (Cost, Resource, Schedule/Quality) and a text box explaining that changing one factor will affect others.

deliverables that are constrained to a finite timescale and budget. A project manager is the person responsible for leading a project from its inception to execution. This includes planning, execution and managing the people, resources and scope of the project.

The main objectives were;

- To discuss and deliberate on emerging issues and challenges in planning for infrastructure development projects and their implementation
- To discuss the criterion and parameters for project formulation in the field of water supply, Sewerage, SWM and urban transportation
- To discuss the desirable contents in DPRs and essential characteristics of Project development cycle.
- To discuss the procedures and legal issues in Project management

SESSIONS

- Session I: Project Management
- Session II:
Project Appraisal
Pay Back Period-PBP.
NPV –Net Present value
IRR -Internal Rate of Return

Executive officers, Urban Infrastructure expert of Cities, Engineers who are implementing the AMRUT, SBM & Smart Cities projects, Nagar Nigam and Nagar Parishad Administrative Officer and engineers engaged in infrastructure Sector. In total 92 participants attended the trainings. The programme was coordinated by Mr Himanshu Chandra, Assistant Director, RCUES, Lucknow.

INNOVATIVE TECHNOLOGIES –SUPPLY MONITORING USING IOT, WATER TAPPING & TREATMENT, LEAK DETECTION USING ROBOTICS AND AUTOMATION USING SCADA UNDER JAL JEEVAN MISSION (L-2)

The Regional Centre for Urban and Environmental Studies Lucknow (RCUES) which is National Level Key Resource Centre, under Jal Jeevan Mission, conducted two, Level II Residential Training Programme for Engineers on Innovative Technologies –Supply Monitoring Using IoT, Water Tapping & Treatment, Leak Detection Using Robotics and Automation Using Scada under Jal Jeevan Mission at Lucknow.

| List of Workshops | |
|----------------------|--------------------|
| Date | No of Participants |
| 09-10 February, 2023 | 38 |
| 20-21 February, 2023 | 32 |

The two 2 days training were designed with the aim of providing a wider understanding of the various technical aspects for effective implementation of Drinking water supply schemes being implemented in state under Jal Jeevan Mission. The objective was to train the functionaries on making drinking water projects more sustainable at the ground level. The participants were provided training on methodologies and procedures of leak detection using IoT Sensors,

Academic Activities



automation of water supply systems using SCADA, water quality and treatment, water tapping for reducing Non- Revenue water, integrated management information sytem on drinking water. Group exercises were also conducted to provide hands on training to the participants.

The programme was inaugurated by Director, Dr. Nishith Rai. During the inaugural address he emphasized on Interstate cross learning for making the Jal Jeevan Mission sustainable in the long run. He deliberated on the importance of technology and advancement in various phases of water supply chain. Dr Alka Singh, Deputy Director presented the details of Measurement and monitoring of water service delivery in Rural Areas under Jal Jeevan mission.

The two-day long program was organised by RCUES Lucknow and supported by the Ministry of Jal Shakti, Government of India. The training was appreciated by the participants and they found the training very useful and effective in using this knowledge for better implementation of the projects at the ground level.

The workshop was attended by Engineers from PHED Department, Madhya Pradesh, Uttar Pradesh Jal Nigam (Grameen), PMU, West Bengal PWSP Department, and SWSM Department Maharashtra. Superintending Engineer, Executive Engineer, Assistant Engineer, Junior Engineer, Billing Engineer & Sub Engineer from Uttar Pradesh, West Bengal, Madhya Pradesh, New Delhi, Tripura & Maharashtra. Overall 70 participants attended the trainings. The programme was coordinated by Dr. Alka Singh, Deputy Director & Mr. Himanshu Chandra, Assistant Director, RCUES, Lucknow.

ONLINE TRAINING ON ROAD SAFETY AND TRAFFIC MANAGEMENT

In today's world road and transport has become an integral part of every human being. Everybody is a road user in one shape or the other. The present transport system has minimized the distances but it has on the other hand increased the life risk. Every year road crashes result in loss of lakhs of lives and serious injuries to crores of people.

| List of Trainings | |
|-------------------|--------------------|
| Date | No of Participants |
| 06 March 2023 | 27 |
| 14 March 2023 | 35 |
| 29 March 2023 | 34 |
| 29 March 2023 | 20 |
| 29 March 2023 | 19 |

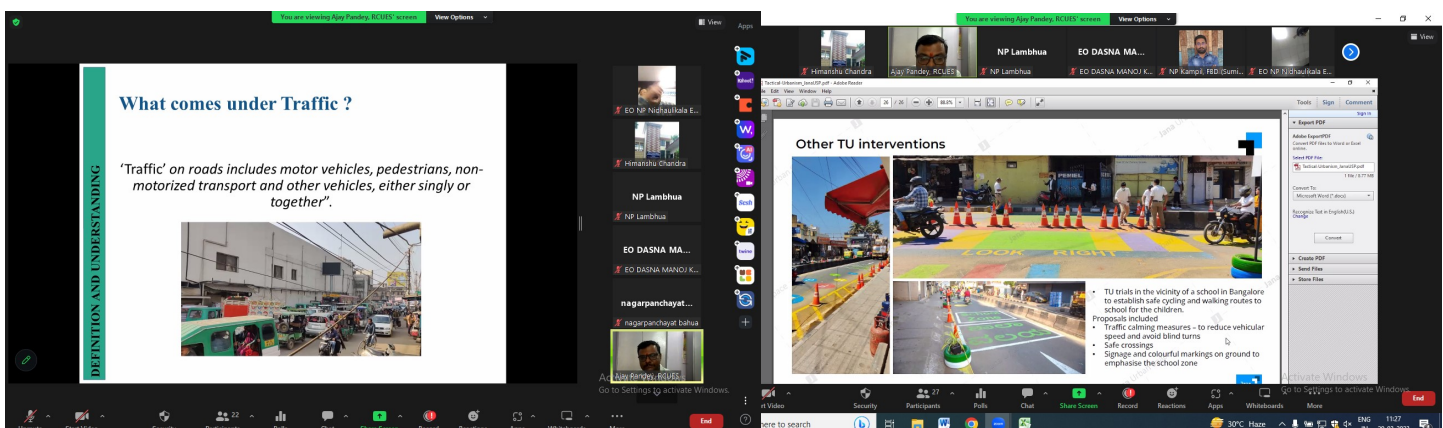
In India Two-wheelers are the most vulnerable and unprotected road users killed in road accidents in the country every year. The share of two wheeler user killed in accidents increased from 31.5 per cent in 2015 and to 34.8 per cent in 2016.

Our aim of this training programme is to provide road safety information for road users to encourage safer road user behaviour among current and prospective road users and reduce the number of people killed and injured on our roads every year.

The main objectives of the training were;

- To develop an understanding Roads Safety
- To develop an understanding on aspects of Road Safety audits
- To understand the design aspects of Urban Transport Planning
- To suggest suitable policy measures for urban transport planning and sustainable over road safety

Municipal officials, Urban Planners, Urban Infrastructure expert of Cities, Town planning officer in TCPO departments, Traffic Engineers who are implementing the Transport projects, Nagar Nigam



and Nagar Parishad Administrative Officer and engineers engaged in Urban Transport Sector. In total 135 participants attended the online trainings. The programme was coordinated by Mr. Himanshu Chandra, Assistant Director, RCUES, Lucknow.

ORIENTATION TRAINING PROGRAMME UNDER AMRUT 2.0

To facilitate ease of living to citizens, Atal Mission for Rejuvenation and Urban Transformation (AMRUT), was launched in 500 cities on 25th June 2015, as a first focused national water Mission. AMRUT aimed to provide universal coverage of water supply by providing 1.39 crore household tap connections. Likewise, coverage of sewer/septage connections were proposed to increase from 31% to 62% by providing 1.45 crore connections. So far, 1.12 crore tap connections and 87 lakh sewer connections have been provided. Sewage treatment plants of capacity 1,800 MLD have been created; out of this 907 MLD is being reused. This Mission has decreased disease load and improved quality of life of all, especially women in terms of time and energy saved to be put to constructive use.

In order to meet SDG-6 to substantially increase water-use efficiency across all sectors and to extend ease of living in water sector from 500 to all statutory towns, Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0) has been launched. This will also ensure 100% coverage of sewerage/ septage management in 500 AMRUT cities. AMRUT 2.0 is a step towards AatmaNirbhar Bharat with aim of making the cities 'water secure' and providing functional water tap connections to all households. This will be achieved through circular economy of water by effecting water source conservation, rejuvenation of water bodies and wells, recycle/ reuse of treated used water, and rainwater harvesting by involving **community at large**. This Mission will be run as people's





program i.e. **Jan Aandolan**. Mission also targets to provide 100% sewage/septage management in 500 AMRUT cities. Mission has a reform agenda focused towards financial sustainability and water security of ULBs and also encourage smart elements to be incorporated in every

project. Outcome based funding is to be considered for the outcomes achieved with respect to sewer and water connections after the launch of AMRUT 2.0 by projects taken up by States/UTs and achievement beyond baseline established for the city as on 1 November 2021.

Capacity building is an important component under this mission. Capacity Building will be taken up for elected representatives, ULB functionaries, contractors & their staff and citizens. Purpose of capacity building is to enhance the functional knowledge and improve the job-related skills of targeted groups.

RCUES Lucknow has played a very pivotal role in building the capacities of municipal functionaries since the launch of the AMRUT Mission in 2015. Now keeping in view the new focus areas under Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0), RCUES Lucknow has initiated capacity building activities under this mission.

Three days Orientation training programme under Atal Mission for Rejuvenation and Urban Transformation 2.0 was conducted by RCUES Lucknow for municipal functionaries of Uttar Pradesh on 16-18 March, 2023 at RCUES Lucknow.

The programme was designed with to achieve following objectives:

- To orient the participants with AMRUT 1.0 achievements and Overview of AMRUT 2.0
- To acquaint the participants with admissible Elements of Projects under AMRUT 2.0
- To discuss the Reforms Agenda to be achieved under AMRUT 2.0
- To aware the participants about different Action Plans to be prepared under AMRUT 2.0



- To discuss the city level strategies for Recycle & Reuse of Treated Used Water
- To discuss city level action plan for Rejuvenation of Water Bodies (including Urban Wetland) & Creation of Green Spaces and Rain Water Harvesting
- To discuss the Pey Jal Survekshan toolkit and prepare the ULBs for undertaking Survekshan
- To discuss the Project and Financial Management aspects for projects undertaken under the Mission and to augment the funding through Public Private Partnership.
- To discuss E-governance and E-office reforms to be undertaken by the ULBs
- To aware participants about implementation strategies for GIS Based Master Plans of Class-II Towns
- To aware the participants with various IEC & Participatory Planning tools methods for involving community in management of water infrastructure and quality assessment
- To discuss varies strategies for Convergence and Synergies between different missions to ensure effective outcomes of the Mission

15 technical sessions were conducted across 3 days training programme, the sessions covered following topics:

- AMRUT 2.0: Overview of AMRUT 1.0 and 2.0
- Admissible Elements of Projects under AMRUT 2.0
- Reforms to Achieved under AMRUT 2.0
- Different Action Plans to be prepared under AMRUT 2.0
- Group Exercise on Preparation of Action Plans under AMRUT 2.0
- Recycle/ Reuse of Treated Used Water
- Rejuvenation of Water Bodies (including Urban Wetland) & Creation of Green Spaces.
- Rain Water Harvesting
- Pey Jal Survekshan
- Project and Financial Management
- E-governance and E-office
- GIS Based Master Plans of Class-II Towns
- IEC & Participatory Planning
- Convergence/ Synergies for Effective Outcomes of Mission
- Public Private Partnership under AMRUT 2.0

The 3 days training programme was attended by 31 officials from Urban Local Bodies of Uttar Pradesh which included Executive officers, Engineers, Tax Assessment Officers, Sanitary Inspectors, Revenue Inspectors, District Programme Managers and other administrative staff of ULBs. The programme was coordinated and conducted by Dr. Alka Singh, Deputy Director and Dr. Nasruddin, Assistant Director, RCUES Lucknow.

ONLINE TRAINING ON URBAN TOURISM

Urban tourism planning is an important factor for all urban centers. Cities should pursue their strategies in order to highlight the attractions and to give tourists a wide range of services.

Tourism has become a complex activity, having an important role in the national economy, in some state being even the main branch in the economy. Tourism has emerged as one of the most important industry of the future. The Multiplier effects of tourism in terms of employment generation, income generation, development of tourism infrastructure and also conservation of priceless heritage, cultural deposits and development of potential tourism places are significant.

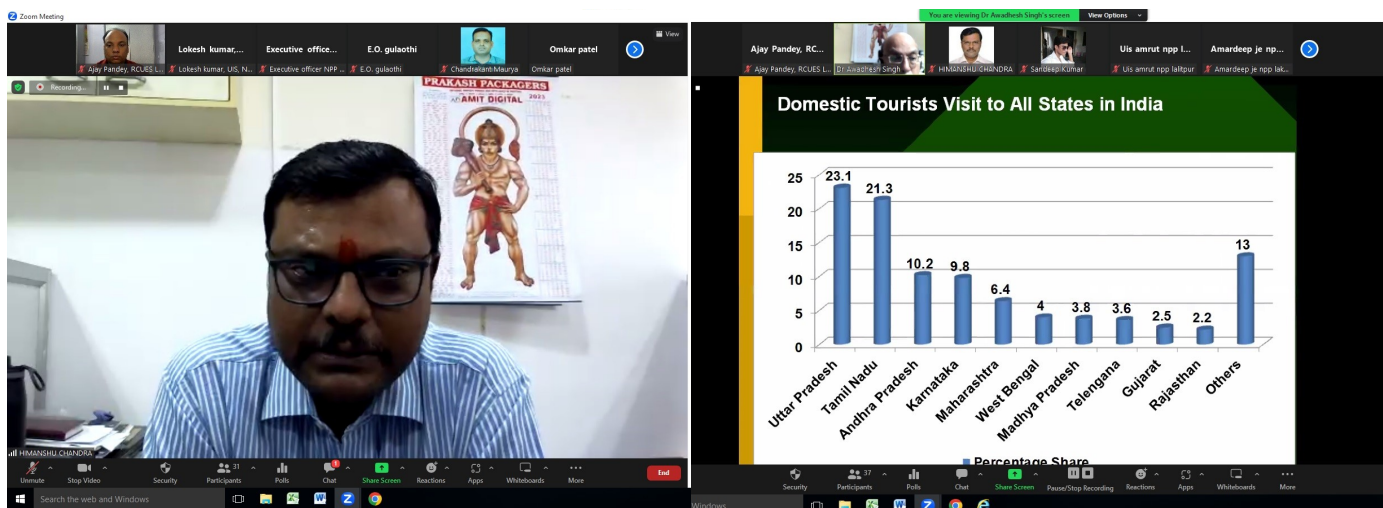
| List of Trainings | |
|-------------------|--------------------|
| Date | No of Participants |
| 31 March 2023 | 32 |
| 31 March 2023 | 21 |
| 31 March 2023 | 27 |

India's travel and tourism industry generated \$ 234.0 billion and 41.6 million employment in 2017 and is ranked 7th in the world in terms of its overall contribution to the nation's GDP .

Officials from Religious & Heritage importance cities of Uttar Pradesh Municipal officials, Urban Planners, Urban Infrastructure expert of Cities, who are implementing the projects, Nagar Nigam and Nagar Parishad Administrative Officer and engineers engaged in religious & Heritage cities. In total 80 participants attended the online trainings.

To assess floating population requirement and their stay at various destinations;

- To build capacity in developing social and physical infrastructure and amenities to facilitate visitors;
- How to develop recreational and other cultural events to attract tourists;
- To understand the design in Developing pleasure activities and professional service providers



Action Plans

Prepared City Solid Waste Action Plan (CSWAP) of 183 Urban Local Bodies of Uttar Pradesh under Swachh Bharat Mission 2.0 for Rs. 245.79 crores.

Monitoring, Evaluation & Implementation

Monitoring of infrastructure development projects for Panchayati Raj Dept., Govt of Uttar Pradesh rural projects under 14th Finance Commission (Performance Grant)

Third Party Verification of 533 Community Sanitary Complexes (CSE) in Gram Panchayats of Uttar Pradesh under Swachh Bharat Mission, Gramin.

Conducted Social Audit, for the projects sanctioned for the F.Y. 2017-18 under PMAY (Urban) in five Districts of Uttar Pradesh.

GIS base map, survey of properties (ward wise & category wise), numbering of properties through assigning unique identification number to each property & developing property information system for 14 ULBs of Uttar Pradesh.

Detailed Project Reports (DPRs) prepared

Bioremediation of Legacy Waste of 22 ULBs of Uttar Pradesh

Prepared DPR for Used Water Management and Water Bodies Rejuvenation through Bio-phytoremediation for 15 ULBs of Uttar Pradesh

Sewerage System of MES Lucknow

Solid Waste Management 13 ULB's of Jharkhand

City Solid Waste Management for C&DS

Pahunj River, Nagar Nigam Jhansi

Detailed Project Reports (DPRs) vetted

Bioremediation of Legacy Waste of 2 ULBs of Uttar Pradesh

Solid waste Processing Plant of 4 ULBs of Uttar Pradesh

Project Management Cells

PMC work of Solid & Liquid Waste Management in Jammu Municipal Corporation.

PMC work of Solid Waste Management for 12 Urban Local Bodies of Jharkhand.

PMC work of Solid Waste Management for Lucknow Municipal Corporation.

PMC Aligarh of Solid Waste Management

Bid process Management

Enhancement of GIS base map, survey of properties (ward wise & category wise), numbering of properties through assigning unique identification & developing property information system for NN Shahjahanpur, Uttar Pradesh.

Engagement of Third-Party Inspection Agency for Saharanpur Smart City Ltd.

Selection of Consultant for designing of Smart Roads with Smart Components in Lucknow under Smart Cities Mission for Lucknow Development Authority

Development of Jurassic Park in Janeshwar Mishra Park, Lucknow on EPC/PPP Mode for Lucknow Development Authority.

Implementation of Design, Supply, Installation, Testing, Commissioning and Operation & Maintenance for 15 years of Jurassic Park on PPP mode at Janeshwar Mishra Park, Lucknow.

Selection of agency for providing comprehensive facility management services at Indira Gandhi Pratishthan, Lucknow for Lucknow Development Authority.

Selection of Consultant for providing Transaction Advisory Services for Lucknow Development Authority.

Selection of Manpower Agency for Providing Support Personnel for Program Unit (PMU) for Department of Urban Development (DoUD), Government of Uttar Pradesh (GoUP)

Selection of Consulting Firm for providing Experts for Program Unit (PMU) for Department of Urban Development (DoUD), Government of Uttar Pradesh (GoUP)

Transaction advisory for setting up of 2600 TDP MSW to 26 MW waste to energy project for Municipal Corporation Delhi

Transaction advisory for setting up of 1000 TDP to 10 MW waste to energy project at Ghazipur dump site for Municipal Corporation Delhi

Transaction Advisory services for waste to energy plant of 10 MW capacity for North Delhi Municipal Corporation.

Independent Engineers for monitoring of SWM Project of Nagar Nigam Lucknow.

Engagement of experts for Saharanpur SMART City Ltd.

Engagement of experts under CMNSY

Engagement of Legal Advisor for Urban Transport Department.

PUBLICATIONS

RCUES has been bringing out various publications from time to time. This is in line with its policy of keeping the public, especially the members of Ministry of Housing and Urban Affairs, Govt of India well informed about the objective, activities and achievements of the Regional Centre. During the period from April 2022 to March 2023, it brought out the following publications:

| Publications & Documentations in FY 2021-22 | | |
|---|------------------------------------|--------------------------------|
| S.N. | Head | Nos. |
| 1 | Research Studies / Best Practices | 8 (6 completed & 2 Ongoing) |
| 2 | Journal: Urban Panorama (Biannual) | 2 |
| 3. | RCUES Newsletter | 4 |
| 4. | Annual Report | 1 |
| Total Publication | | 15 |

| RESEARCH ACTIVITIES FY 2022-23 | | |
|--------------------------------|--|-----------|
| S.No. | Topics | Status |
| 1 | Impact assessment of AMRUT reforms implementation in achieving urban governance | Completed |
| 2 | A study of Involvement of stakeholder's engagement in last mile connectivity along Metro stations | Completed |
| 3 | Implementation of Prime Minister Housing for All Mission: A Study of Performance and Impact on Beneficiaries in selected cities of Uttar Pradesh | Completed |
| 4 | Assessment of Sustainability of Open Defecation Free Cities in Uttar Pradesh | Completed |
| 5 | Study of Gap Identification on Education of Scheduled Tribes Girls in Uttar Pradesh | Completed |
| 6 | Assessment of Basic Service Levels in Small & Medium cities of Uttar Pradesh with special focus on cities having religious/tourist importance | Completed |
| 7 | Review of Municipal Cadre, Structural Changes and Rationalization of Posts in Uttar Pradesh | Ongoing |
| 8 | Sustainability of ODF and Waste Water Management: A Study of Selected Districts on the Bank of River Ganga in Uttar Pradesh | Ongoing |

| RCUES Journal- Urban Panorama Published in FY 2022-23 | |
|--|--|
| 1 | Urban Panorama, Vol. XXI, January - June 2022, No. 1 |
| 2 | Urban Panorama, Vol. XXI , July-December 2022, No. 2 |
| RCUES Newsletters published in FY 2022-2023 | |
| 1 | RCUES Newsletter, April—June 2022 (Quarter-I) |
| 2 | RCUES Newsletter July - September 2022 (Quarter-II) |
| 3 | RCUES Newsletter October - December 2022 (Quarter-III) |
| 4 | RCUES Newsletter January - March 2023(Quarter-IV) |

STAFF POSITIONS AS ON MARCH 31, 2023

The RCUES has a core team of qualified and experienced faculty and researchers. Programme based dedicated cells are also created from time to time.

| Sr | Name | Designation |
|----|----------------------------|----------------------------|
| 1 | Prof. Nishith Rai | Director |
| 2 | Sri A K Gupta | Additional Director |
| 3 | Dr. Anjuli Mishra | Joint Director |
| 4 | Dr. Rajeev Narayan | Dy. Director |
| 5 | Dr. Alka Singh | Dy. Director |
| 6 | Dr. Awdhesh Kumar Singh | Asst. Director |
| 7 | Sri. Ajit Kumar Mishra | Asst. Director |
| 8 | Dr. Nasruddin | Asst. Director |
| 9 | Sri. Himanshu Chandra | Asst. Director |
| 10 | Sri. D K Rai | Management Officer |
| 11 | Smt. Rachna Rishi | Publication Officer |
| 12 | Sri. Tushar Gupta | Assistant Accounts Officer |
| 13 | Sri. B K Pandey | Hostel Manager |
| 14 | Sri. B D Mukharjee | Personal Secretary |
| 15 | Dr. Ashok Kumar Singh | Store Keeper |
| 16 | Sri. Prashant Kumar Mishra | Jr. Assistant |
| 17 | Smt. Deepa Pandey | Bill. Typist |
| 18 | Sri. Yogendra Pal | Janitor |
| 19 | Sri. Desh Raj Singh | Peon |
| 20 | Smt. Vimla Verma | Peon |
| 21 | Sri. Ram Bahadur | Peon |
| 22 | Smt. Geeta | Peon |
| 23 | Smt. Vineeta | Peon |
| 24 | Sri. Iqbal Ahmad Ansari | Care Taker |
| 25 | Sri. Nankau | Hostel Bearer |
| 26 | Sri. Anil Kumar Pal | Hostel Bearer |
| 27 | Sri. Tarkeshwar Singh | Hostel Bearer |
| 28 | Sri. Ram Balak | Hostel Bearer |
| 29 | Sri. Rajoo | Chowkidar |
| 30 | Sri. Sachin Kumar | Driver |
| 31 | Sri. Pratap Ram | Cook |

LIST OF CONTRACTUAL STAFF

| S No. | Name of the Employee | Designation |
|-------|------------------------------|---------------------|
| 1 | Sri Kumar Saket | Urban Planner |
| 2 | Ms. Vartika Yadav | Urban Planner |
| 3 | Sri Mahesh Kumar Jaiswal | Consultant |
| 4 | Sri Ajay Kumar Pandey | Computer Specialist |
| 5 | Sri Ram Narayan | Office Assistant |
| 6 | Sri Shailesh Kumar Singh | Office Assistant |
| 7 | Sri Pradeep Kumar Mishra | Project Assistant |
| 8 | Sri Ankit Agrawal | Typist |
| 9 | Smt Dipti Srivastava | Typist |
| 10 | Ms. Babita Tiwari | Typist |
| 11 | Sri Shivam Yadav | Assistant Cleark |
| 12 | Sri Laxmi Niwas | Driver |
| 13 | Sri Manoj Kumar Yadav | Fourth Class |
| 14 | Sri Rajesh Kumar | Gardner |
| 15 | Sri Tanveer Haider | Fourth Class |
| 16 | Sri Rahul Pal | Fourth Class |
| 17 | Sri Ajay Kumar Saini | Fourth Class |
| 18 | Sri Chandra Prakash | Fourth Class |
| 19 | Sri Kripa Shankar Pandey | Fourth Class |
| 20 | Sri Ghan Shyam | Fourth Class |
| 21 | Sri Lalan Singh Yadav | Fourth Class |
| 22 | Sri Ram Kishore Kashyap | Chowkidar |
| 23 | Sri Ravi Shankar Sharma | Fourth Class |
| 24 | Sri Anil Tiwari | Fourth Class |
| 25 | Smt Nazreen Alam | Fourth Class |
| 26 | Sri Amit Negi | Helper |
| 27 | Sri Sunil Kumar | Fourth Class |
| 28 | Sri Ashu Kanaukjiya | Fourth Class |
| 29 | Sri Shailendra Kumar Trivedi | Fourth Class |
| 30 | Sri Naresh Chandra | Sweeper |
| 31 | Sri Dheeraj Kumar | Sweeper |
| 32 | Sri Ram Shankar | Sweeper |
| 33 | Sri Ram Ji | Sweeper |

RCUES IN NEWS

काम नहीं करेंगे तो बाहर का रास्ता दिखा देगी सरकार

जागरण संवाददाता, फर्रुखाबाद : क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र की ओर से गुरुवार को बदायुन स्थित होटल हिन्दुस्तान में उत्तर प्रदेश राज्य सेप्टेज पालिसी एवं यूज्ड वाटर प्रबंधन कार्यशाला का आयोजन किया गया। डिप्टी डायरेक्टर डा. राजीव नारायण ने निकाय कर्मियों से कहा कि वह डरा नहीं रहे हैं। अच्छा लगे अथवा बुरा लगे काम तो करना पड़ेगा। नहीं तो सरकार बाहर का रास्ता दिखा देगी। उन्होंने गंदगी और नालियों में बह रहे सौबरेज पर चिंता जताई।

डिप्टी डायरेक्टर ने कहा कि स्वच्छ भारत मिशन अभियान के तहत बावजूद आज भी शौचालय की



बदायुन स्थित होटल में कार्यशाला में संबोधित करते उप निदेशक डा. राजीव नारायण साथ में जिलाधिकारी संजय कुमार सिंह व स्थायी निदेशक डा. नसरुद्दीन ● जागरण गंदगी नालियों में बहाई जा रही है। गंदगी के ढेर लगे हैं। हमें शहर की स्वच्छ रखना है तो काम करना पड़ेगा। उन्होंने कहा कि गंद पानी भूगर्भ में जाने की वजह से ही कैन्सर जैसी गंभीर बीमारियां फैल रही हैं। उन्होंने पालिका कर्मियों से स्वच्छता के संबंध में सवाल किए, जिसके वह जवाब नहीं दे पाए। जिलाधिकारी संजय कुमार सिंह ने कहा कि पानी हमारी सड़कों को नुकसान पहुंचाता है। शहर को स्वच्छ रखने के लिए

- कार्यशाला में डिप्टी डायरेक्टर ने निकाय कर्मियों को दिखाया आदता
- पानी सड़कों को कर रहा बर्बाद, डीएम ने दिए स्वच्छता के टिप्स

नालों पर अतिक्रमण न होना बेहद जरूरी है। लोग अब यह बात समझने भी लगे हैं। उन्होंने कहा कि स्वच्छता अभियान की सफलता को समझने के लिए हम सभी की मानसिक रूप से तैयार होना पड़ेगा। असिस्टेंट डायरेक्टर डा. नसरुद्दीन, सलाहकार एसडी सिंह आदि ने भी विचार व्यक्त किए। नगर पालिका के अधीनस्थ अधिकारी रविंद्र कुमार भी मौजूद थे।

व्यावसायिक गतिविधि

ग्रामीण क्षेत्रों में पेयजल व्यवस्था दीर्घकालिक बनाने का प्रशिक्षण

लखनऊ (बि।) क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र (आरसीयूएस) द्वारा जल जीवन मिशन के अंतर्गत वाटर ऑडिट एकाउंटिंग एंड एनजी ऑडिट ऑफ स्मल वाटर सप्लाय स्क्रीम पर दो दिवसीय कार्यशाला का आयोजन किया गया। इसमें 35 अभियंताओं ने भाग लिया। कार्यशाला में ग्रामीण क्षेत्रों में पेयजल व्यवस्था को टिकाऊ एवं दीर्घकालिक बनाने का प्रशिक्षण दिया गया। कार्यशाला का उद्घाटन केंद्र के निदेशक डॉ. निशीथ राय ने किया और प्रशिक्षण के उद्देश्यों पर प्रकाश डाला। केंद्र के अपर निदेशक इंजी. एके गुप्ता, उप निदेशक डॉ. अलका सिंह और सहायक निदेशक हिमांशु चंद्रा ने भी विचार रखे। (संवाद)



RCUES conducts training programme

The Regional Centre for Urban and Environmental Studies, Lucknow (RCUES), under Jal Jeevan Mission, conducted a two-day level II residential training programme on water audit, water accounting and energy audit of rural water supply schemes, recently. The participants were provided training on preparing water balance plan, water accounting and water audit. Participants were also trained on making water utilities energy efficient. Group exercises were also conducted to provide hands on training to the participants.

The inaugural session of the training programme was attended by Er AK Gupta, additional director;



Himanshu Chandra, assistant director, RCUES, Lucknow. The programme was chaired by Dr Nishith Rai, director, RCUES. Dr Alka Singh, deputy director and in-charge of KRC RCUES was also present in the training for its smooth conduction.

These technical trainings are critical for the implementation of the Jal Jeevan Mission in its totality.

Training session for engineers

The Regional Centre for Urban and Environmental Studies, Lucknow, conducted an orientation programme for newly-appointed consulting engineers of UP Panchayati Raj department on Saturday. It was attended by 66 engineers from five districts - Bulandshahr, Jhansi, Kanpur Dehat and Pratapgarh. They were trained on various parameters of designing and drawing of structures.

66 अभियंताओं ने लिया प्रशिक्षण

■ एनबीटी, लखनऊ: पंचायतीराज विभाग की ओर से बनाए गए रिसोर्स सेंटर क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र में शनिवार को नवनियुक्त अभियंताओं को स्वच्छ भारत मिशन के तहत ओडीएफ प्लस के दूसरे चरण को लेकर प्रशिक्षण दिया गया। इस मौके पर डॉ. अलका सिंह, उप निदेशक हिमांशु चंद्रा और डॉ. नसरुद्दीन भी मौजूद रहे। अधिकारियों ने बताया कि इस बीच लखनऊ, बुलंदशहर, झांसी, कानपुर देहात और प्रतापगढ़ के 66 इंजीनियरों ने स्वच्छ भारत मिशन से जुड़ी योजनाओं को लेकर प्रशिक्षण लिया।

अब कूड़ा मुक्त होगा शहर, हर घर में पहुंचेगा शुद्ध जल

अमृत विहार, कन्नौज

अमृत 2.0 योजना के तहत हर घर में पीने का शुद्ध पानी पहुंचेगा और शहर पूरी तरह से कूड़ा मुक्त होगा। यह सब किया क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र लखनऊ के माध्यम से। इस संबंध में शुरुआत को एक होटल में उप्र. राज्य सेप्टेज पॉलिसी एवं यूज्ड वाटर प्रबंधन विषयक कार्यशाला का आयोजन किया गया।

कार्यशाला का शुभारंभ विशिष्ट अतिथि अपर जिलाधिकारी गजेन्द्र कुमार ने किया। इस मौके पर उन्होंने कहा कि जीवन की मूल जरूरतों के साथ स्वच्छता भी

बढ़द जरूरी है। खोजने, पानी की समस्याएं नगर निकायों से सीधे जुड़ी हुई हैं। इनसे जुड़ी समस्याओं का गुणवत्तापूर्ण निस्तारण स्वच्छता अभियान की सफलता के लिए जरूरी है। इससे पहले संस्था के निदेशक डॉ. एके गुप्ता ने ऑनलाइन माध्यम से उपस्थित लोगों को कार्यशाला के उद्देश्य की जानकारी दी। बताया कि सरकार के अमृत 2.0 का उद्देश्य हर घर में पीने का पानी पहुंचाना है। अभी तक यह योजना बड़े शहर तक सीमित थी। अब इसे अन्य शहरों में भी लागू किया जा रहा है। बताया कि टोस अपशिष्ट प्रबंधन को जमा कर उसका निस्तारण करते हुए शहरी



कार्यशाला को संबोधित करते एडीएम गजेन्द्र कुमार।

फोटो: अमृत विहार

को कूड़ा मुक्त किया जाना है। इसके लिए पूरा कार्ययोजना तैयार की जाएगी। इसी तरह से तरल अपशिष्ट प्रबंधन भी किया जाएगा। सेप्टेज मैनेजमेंट में सेंटिक टैंक का मलबा दो साल में हर हाल में खाली

मैनेजमेंट एवं एस. टी. पी. के उद्देश्य, घटक एवं समस्याओं पर विस्तार से चर्चा की गई। साथ ही स्वच्छ भारत मिशन के द्वारा होने वाले मुख्य कार्यों की प्रगति की समीक्षा की गई।

क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र के उप निदेशक श्री राजीव नारायण, श्री नसीरुद्दीन, श्री एस.डी. सिंह ने टोस व तरल अपशिष्ट प्रबंधन के संबंध में महत्वपूर्ण जानकारी साझा की। सभी निकाय के अधिशासी अधिकारी, सफाई खाद्य निरीक्षक, टेक्स सुपरिटेण्डेंट, रेवन्यू इंस्पेक्टर, डी.पी. एम. सभी निकाय के कंप्यूटर ऑपरेटर उपस्थित रहे।

सेप्टेज पॉलिसी एवं यूज्ड वाटर मैनेजमेंट को लेकर कार्यशाला का हुआ आयोजन

विंध्य ज्योति

मीरजापुर - आवासन एवं शहरी कार्य मंत्रालय भारत सरकार द्वारा स्थापित क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र लखनऊ द्वारा उत्तर प्रदेश राज्य सेप्टेज पॉलिसी एवं यूज्ड वाटर मैनेजमेंट विषय पर एक दिवसीय कार्यशाला का आयोजन जनपद मिर्जापुर उत्तर प्रदेश में आज दिनांक 24 फरवरी को किया गया इस एक दिवसीय कार्यशाला का उद्घाटन केंद्र के अपर निदेशक इंजीनियर एंके गुप्ता द्वारा वचुं अली माध्यम से किया गया कार्यशाला का संचालन केंद्र के उपनिदेशक एवं कोर्स कोऑर्डिनेटर डॉ॰ राजीव नारायण द्वारा किया गया इस उद्घाटन सत्र में कंसल्टेंट श्री एस०डी० सिंह उपस्थित रहे कार्यशाला में जनपद के सभी नगरीय निकायों के वरिष्ठ अधिकारी एंगिनीयर्स सफाई एवं खाद्य निरीक्षक डिस्ट्रिक्ट कोऑर्डिनेटर विभिन्न निकायों के अन्य अधिकारी सहित



कार्यशाला में कोर्स कोऑर्डिनेटर डॉ॰ राजीव नारायण ने एसबीएम 2.0 अर्बन के बारे में विस्तार से बताया तथा उनके एस०डी० सिंह ने फोकल स्लज एवं सेप्टेज मैनेजमेंट के बारे में उपयोगी जानकारी साझा की इस मौके पर अधिशासी अधिकारी अंगद गुप्ता

कार्यक्रम प्रबंधक संजय सिंह हिमांशु केसरवानी जलकल अभियंता सुधीर वर्मा नगर अभियंता जटा शंकर अभियंता बिपिन मिश्रा सुनील मोर्य सुमित कुमार प्रभारी मुख्य सफाई निरीक्षक मनोज सेठ, सफाई निरीक्षक नंदकिशोर शर्मा सफाई निरीक्षक संकल्प पाण्डे मकसदन सिंह

आरसीयूईएस लखनऊ ने जीता वाटर डाइजेस्ट अवार्ड

लखनऊ (डीएनएन)।

क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र लखनऊ (आवासन और शहरी कार्य मंत्रालय भारत सरकार) ने एक और उपलब्धि हासिल की है। बेस्ट इनिशिएटिव इन अर्बन वाटर एंड सेनिटेशन श्रेणी में क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र लखनऊ को वाटर डाइजेस्ट अवार्ड 2022-23 का विजेता चुना गया है। भारत सरकार के जल शक्ति मंत्री गजेन्द्र सिंह शोखावत ने क्षेत्रीय नगर एवं पर्यावरण अध्ययन केंद्र लखनऊ के निदेशक डॉ. निरशी राय को नई दिल्ली के जेपी बसंत कॉर्टोनेटल होटल में आयोजित समारोह में यह अवार्ड देकर सम्मानित किया है। बताते चलें कि ये पुरस्कार यूनेस्को के साथ साझेदारी में आयोजित किए जाते हैं।



(बेस्ट इनिशिएटिव इन अर्बन वाटर एंड सेनिटेशन श्रेणी में मिला पुरस्कार- पृष्ठ 12 पर)



कार्यशाला को सम्बोधित करते एडीएम अभिनव रंजन। • हिन्दुस्तान

यूज्ड वाटर के प्रबंधन के बारे में दी जानकारी

संतकबीरनगर, निज संवाददाता। नगर पालिका खालीलाबाद केडलवावधान में खाईपास स्थित एक होटल में उत्तर प्रदेश राज्य सेप्टेज पॉलिसी एवं यूज्ड वाटर प्रबंधन विषय पर एक कार्यशाला का आयोजन किया गया। कार्यक्रम में मुख्य अतिथि अपर जिलाधिकारी वित्त एवं राजस्व अभिनव रंजन श्रीवास्तव ने उद्घाटन किया। कार्यक्रम में यूज्ड/सेप्टेज वाटर प्रबंधन करने की जानकारी दी गई।

(स्वच्छ भारत मिशन-2 के अन्तर्गत किए जाने वाले कार्यों के बारे में विस्तार से जानकारी दी गई। मुख्य अतिथि ने यूज्ड वाटर के प्रबंधन की आवश्यकताओं के बारे में विस्तार से जानकारी दी। कहा कि भविष्य

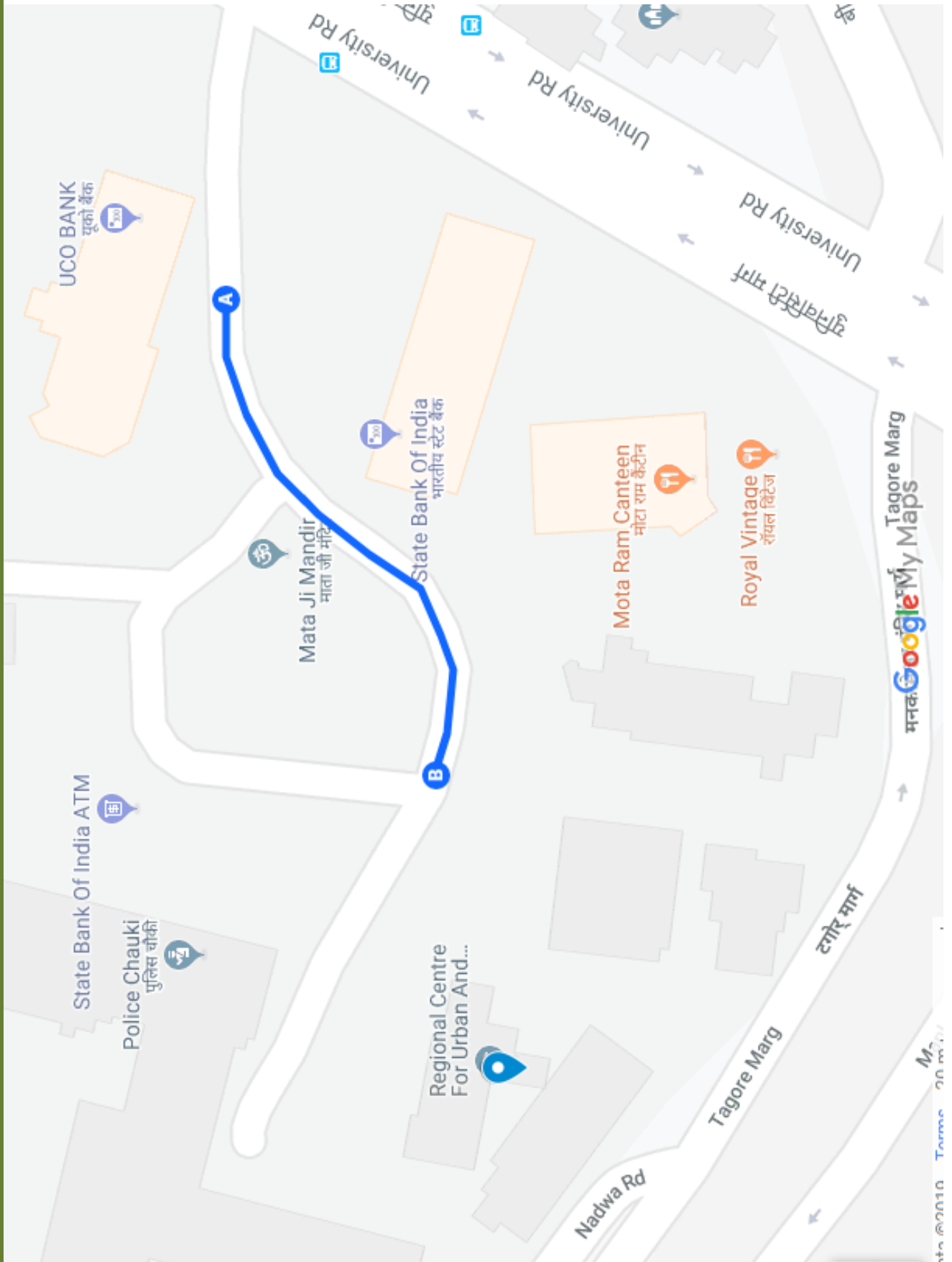
में पानी की बड़ी किल्लत होने वाली है। होने वाले समस्याओं से अवगत कराते हुए कहा कि यदि आज हमने यूज्ड वाटर का प्रबंधन नहीं किया तो भविष्य में हमें पीने के लिए शुद्ध जल शायद उपलब्ध न हो। मुख्य अतिथि ने कहा कि कार्यशाला में प्रतिष्ठित होने से ही प्रबंधन सम्भव नहीं है, बल्कि इन बातों को आत्मसात करते हुए इसे भौतिक रूप से धरातल पर भी क्रियान्वित किए जाने की आवश्यक है।

कार्यशाला का संचालन केंद्र की संयुक्त निदेशक एवं कोर्स कोऑर्डिनेटर डा. अंजली मिश्रा ने लोगों को आवश्यक जानकारी दी। इस मौके पर नपा ईओ विनय कुमार मिश्र ने कार्यशाला में आवस्यकताओं के बारे में विस्तार से जानकारी दी। कहा कि भविष्य

यूज्ड 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 पॉलिसी एवम यूसड वाटर प्रबंधन है। इस कार्यशाला में स्वच्छ भारत मिशन 2.0, यू0पी0 स्टेट सेप्टेज मैनेजमेंट पॉलिसी, सिटी सैनिटेशन एक्शन प्लान, ऑनसाइट मैनेजमेंट, ऑफसाइट मैनेजमेंट, ट्रीटमेंट ऑफ यूज्ड 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 अधिशासी अधिकारी पद्मजा मिश्रा, कटरा की अधिशासी अधिकारी अंजू यादव, नगर पालिका के सफाई निरीक्षक संतोष कुमार सिंह, राजस्व निरीक्षक लालबहादुर एवम राजेश बिंदु, 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।

RCUES LOCATION



Upcoming Campus of RCUES at Indira Nagar, Lucknow



For further details contact:

Regional Centre for Urban & Environmental Studies, Lucknow

(Ministry of Housing and Urban Affairs, Government of India)

Adjacent Registrar's Office, Lucknow University Campus,

Lucknow- 226007

Ph: 0522-2740-165,

Tele-Fax: 0522-2740-165

Email: rcueslucknow@gmail.com

www.rcueslucknow.org

क्षेत्रीय नगर एवं पर्यावरण अध्ययन केन्द्र, लखनऊ

(आवासन और शहरी कार्य मंत्रालय, भारत सरकार)

रजिस्ट्रार ऑफिस के निकट, लखनऊ विश्वविद्यालय परिसर,

लखनऊ-226007, उत्तर प्रदेश,

फोन: 0522-2740165 (टेली-फैक्स),

ई-मेल: rcueslucknow@gmail.com

वेबसाइट- www.rcueslucknow.org

