

CAPACITY BUILDING INITIATIVE ON MAKING GANGA BASIN CITIES WATER-SENSITIVE

REVIEW MEETING



YEAR 1 (2021-2022) Activities

About the CSE-NMCG Programme

➤ Vision:

Making **Ganga basin cities water-sensitive** for improved river health.

➤ Aim:

Capacity building initiatives, action research and developing model projects for making cities in the Ganga basin water-sensitive, by **improving the river flow and health with water-sensitive urban design and planning.**

➤ Objectives:

- Sensitize and **build capacities of 1,300+ municipal and state functionaries**, elected representatives and other key actors as well as the National Mission for Clean Ganga (NMCG) team in making cities water-sensitive.
- Help improve **convergence of programmes** like Jal Jeevan Mission, Atal Bhujal Mission, Jal Shakti Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and Swachh Bharat Mission.

➤ Programme Tenure: **3 years**

➤ Total Funds sanctioned: **2,93,15,000** (*Rupees Two Crore Ninety Three Lakh Fifteen thousand only*)

Three Year Activity Plan:

- # **40+ activities over 3 year** - 24 Training (incl. 12 no. online) , 12 webinars , annual knowledge conclaves & field exposure visits for **capacity building of 1300+ state / development authorities / municipal functionaries**
- # Develop **Practitioner's Guide (5 no.s) on thematic focus areas**
- # **Helpdesk & Web portal** for handholding support to design and implement model WSUDP intervention as model projects

Activities Planned v/s Activities Done: **At a Glance**

Total no. of proposed Activities	Done Activities	Activities in Progress
25	16	4



Programme Highlights



CAPACITY BUILDING

To improve capacities and understanding about issues of decentralized water management and augmenting water supply through rainwater harvesting, decentralized sewage including septage management and reuse or recycling of wastewater.



RESEARCH

To secure sustainability in urban water management for improved river flow and health.



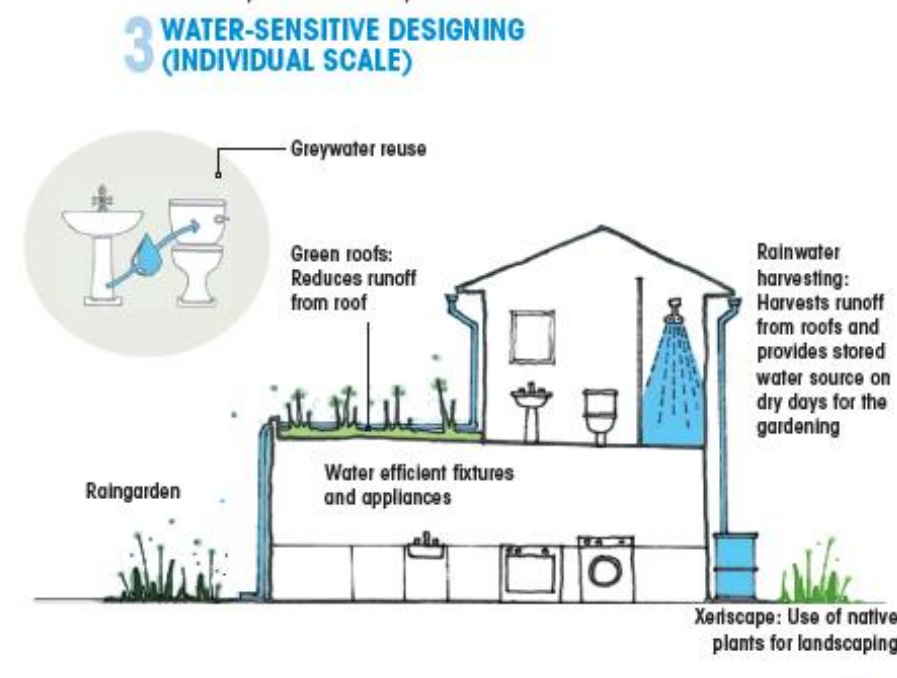
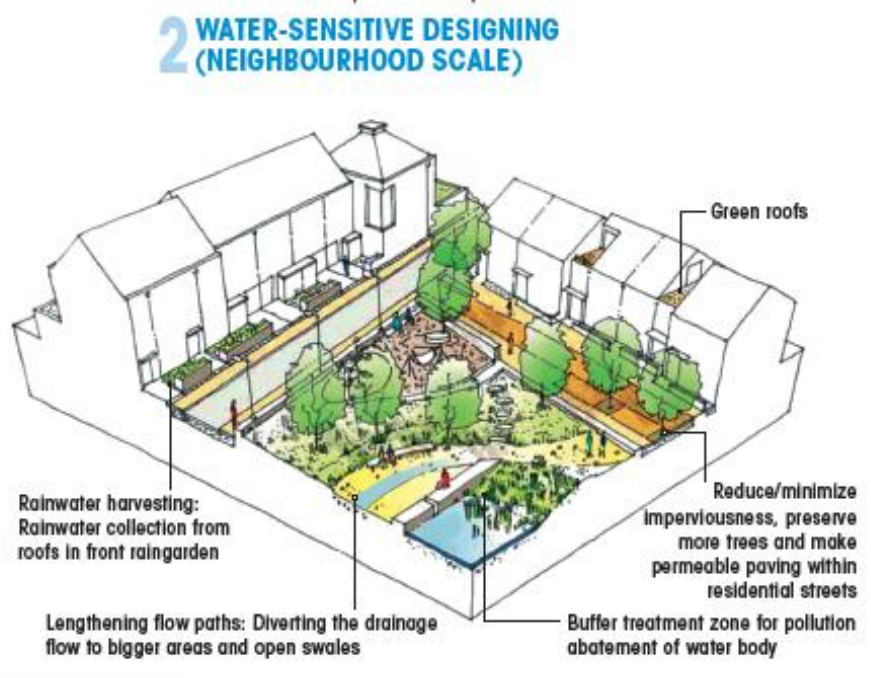
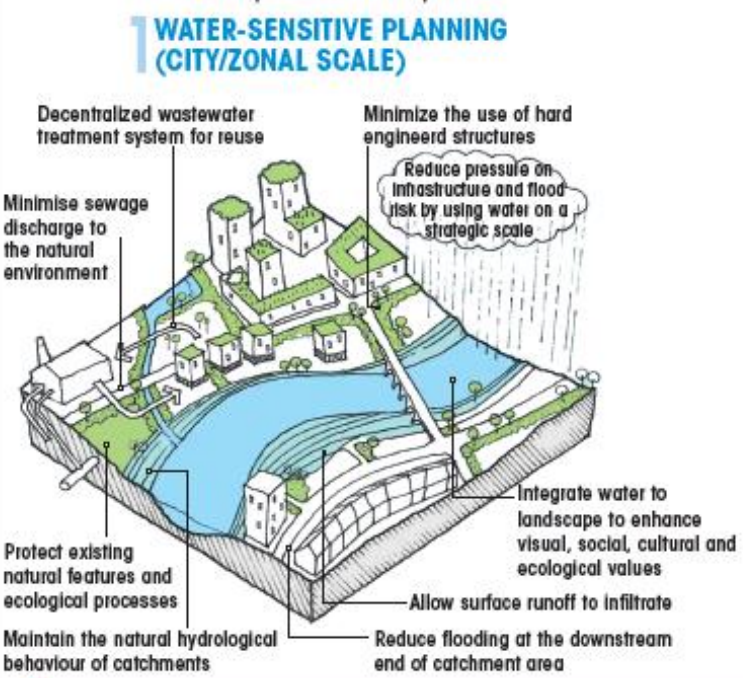
**TECHNICAL KNOWLEDGE SUPPORT
FOR MODEL PROJECTS**

To increase knowledge about best practices regarding sustainable water and wastewater management including rainwater harvesting; sewage treatment; reuse and recycling of wastewater; water efficiency; and conservation, protection and management of urban water bodies;

Key Thematic Focus Areas

The comprehensive vision of this project is to promote water- sensitivity of cities in the Ganga Basin. The vision is being achieved through five key thematic focus areas

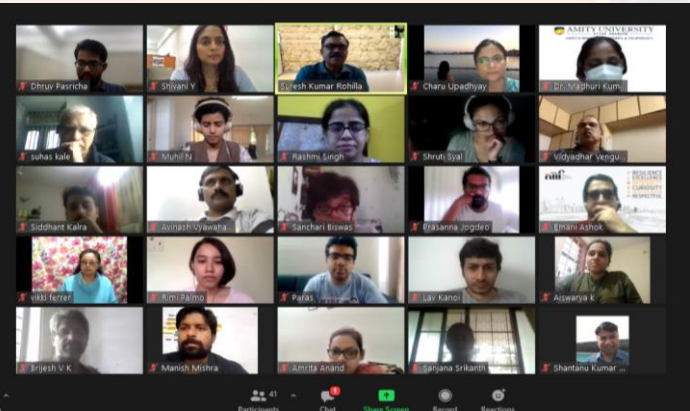
Water Sensitive Urban Design & Planning - Concept and Approach



STORMWATER HARVESTING AT ALL LEVELS

Capacity Building: **Webinars** (July 2021 to December 2021)

Capacity Building



21
OCTOBER
 2021

Decentralised Nature Based Wastewater Treatment Solutions for Improved River Health



30
SEPTEMBER
 2021

Managing Urban Water Bodies for Making Cities Water - sensitive and Improving River Health



04
AUGUST,
 2021

Groundwater and Riverine System: Challenges, Opportunities and Solutions for Rapidly Urbanizing Ganga Basin



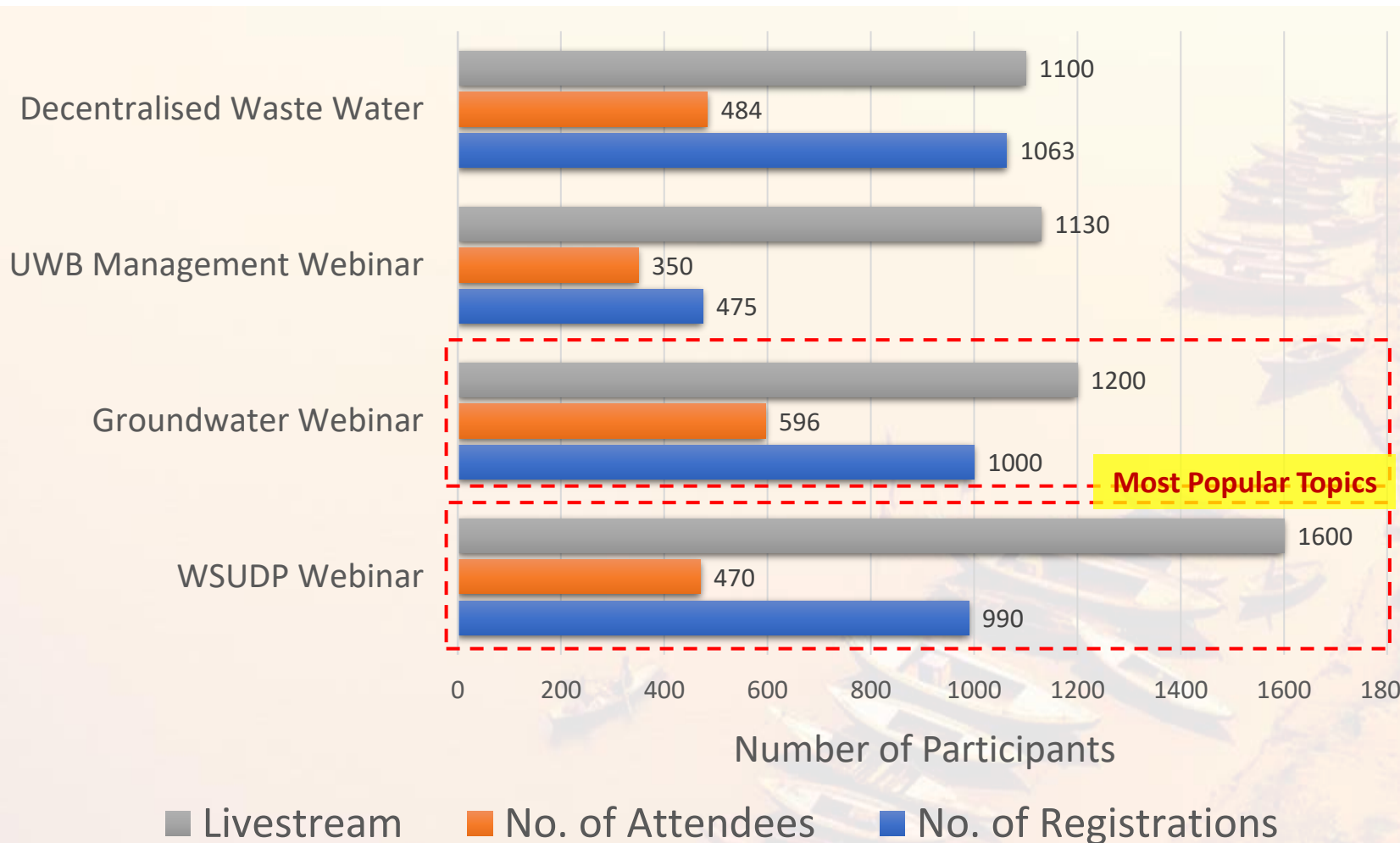
27
JULY
 2021

Launch Event cum Webinar: Making Ganga Basin Cities Water Sensitive



Capacity Building: **Webinars** (July 2021 to December 2021)

Capacity Building



Total no. of outreach through all the Webinars
10458

Total Registrations
3528

Total Attendees
1900

Total Livestream
5030

Total Male	Total Female
59.75 %	40.25%

Total Government	Total Non-Govt.
32 %	68 %

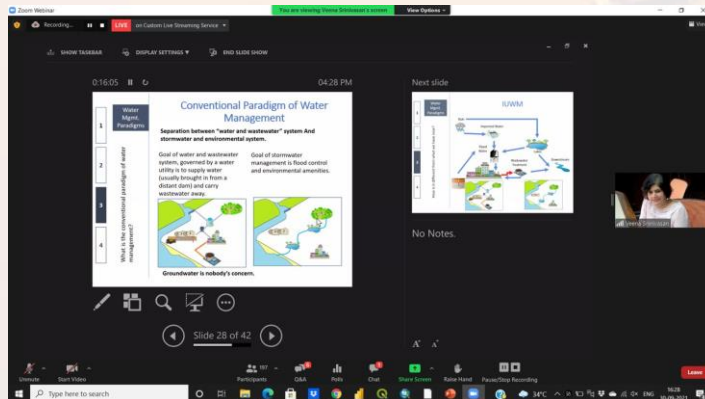
Participant Profiles and Background for CSE-NMCG Webinars 2021

Academics, Researchers, Ecologist & Geographers	Engineers	Planners & Architects	Social Scientist & Economist	Others
26 %	28.75%	14.5 %	9.75 %	19.5 %



Capacity Building: Online Trainings (July 2021 to December 2021)

Capacity Building



Online training and workshop



Decentralised Wastewater Treatment and Local Reuse - Issues Challenges & Potential



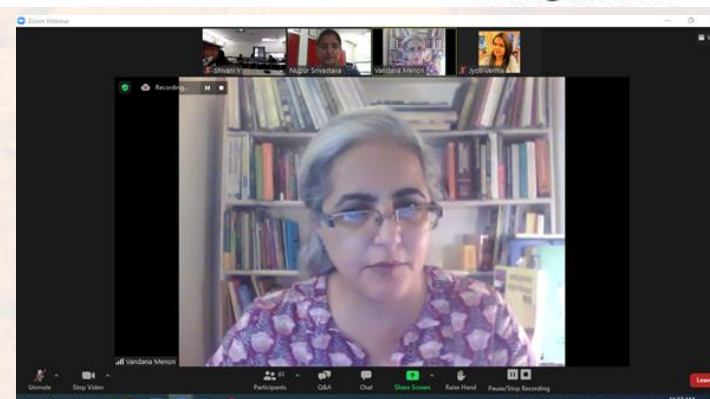
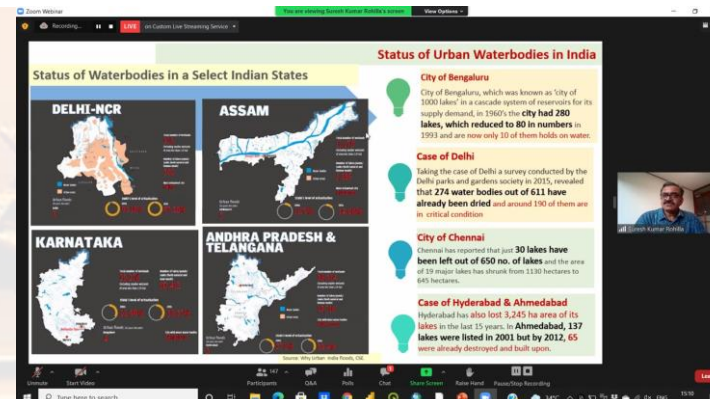
Urban Waterbodies Management: Issues, Challenges & Potential of Making Water Sensitive Cities



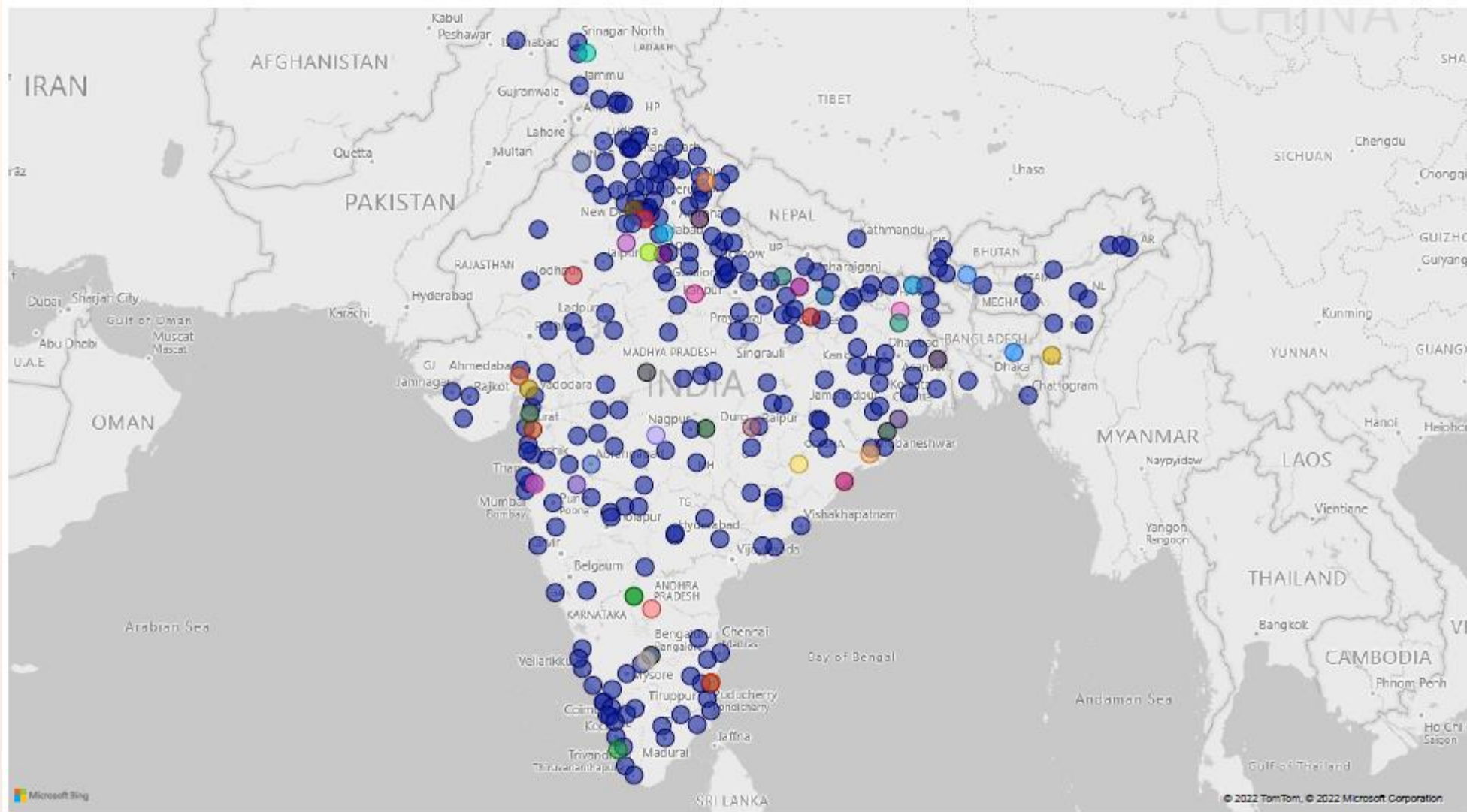
Water Sensitive Urban Design & Planning - Issues, Challenges & Potential



Planning cum Consultation Workshop for CSE - NMCG initiative on 'Making Water Sensitive Cities in Ganga Basin'



Capacity Building: **Online Trainings** (July 2021 to December 2021)



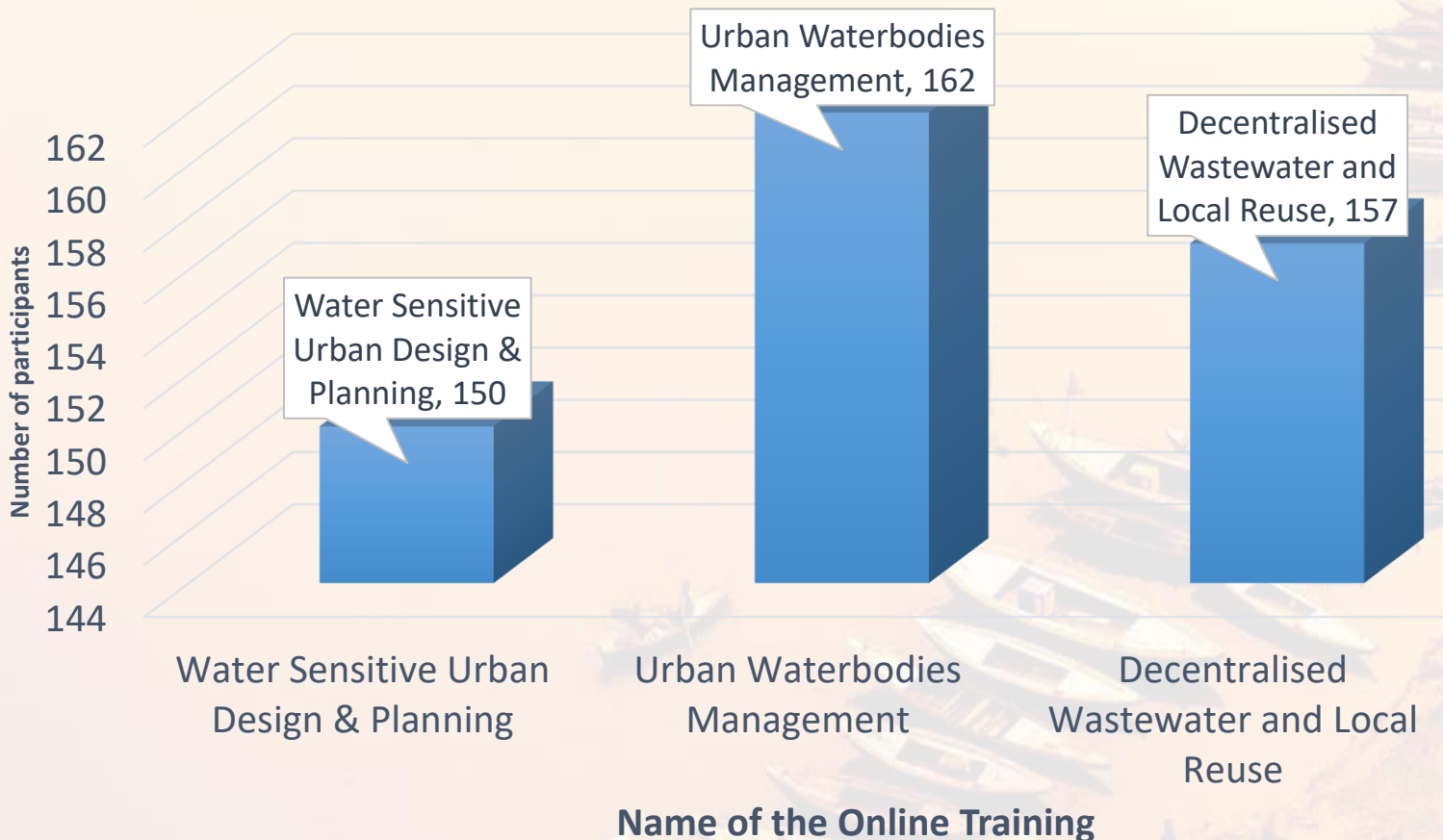
156+
Indian
Cities

There was a huge participation from the Ganga Basin stem states (Himachal Pradesh, Uttarakhand, Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal, Madhya Pradesh, Chhattisgarh, Rajasthan, and Haryana) and other non-stem states (Andhra Pradesh, Kerala, Maharashtra, Assam, Tamil Nadu, Odisha etc).



Capacity Building: Online Trainings (July 2021 to December 2021)

CSE-NMCG Online Trainings 2021-2022: Number of Registered Participants



Total no. of participants through all the Online Trainings

469

Total Male

313

Total Female

156

Total Government

449

Total Non-Govt.

20

Participant Profiles and Background for CSE-NMCG Online Trainings 2021

Town Planning Dept.	Urban Local Bodies
42.59 %	10%
Development Authority	Central Water Res. Dept.
9.26 %	25.31 %
State Water Res. Dept.	Others
8.6 %	4.24 %

There was a huge participation from the Ganga Basin stem states (Himachal Pradesh, Uttarakhand, Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal, Madhya Pradesh, Chhattisgarh, Rajasthan, and Haryana) and other non-stem states (Andhra Pradesh, Kerala, Maharashtra, Assam, Tamil Nadu, Odisha etc).



Capacity Building: Residential Trainings (July 2021 to February 2022)



Advanced Training Programme on
 Water Sensitive Urban Design and Planning (WSUDP) – Rainwater Harvesting at Different Scales
 November 30 – December 2, 2021 • Anil Agarwal Environment Training Institute (AAETI), Nimli, Rajasthan



Advanced Training Programme on
 Decentralised Wastewater Management and Local Reuse
 December 21 – 23, 2021 • Anil Agarwal Environment Training Institute (AAETI), Nimli, Rajasthan



Advanced Training Programme on
 Urban Waterbodies Rejuvenation and Management
 22-24 February, 2022 • Anil Agarwal Environment Training Institute (AAETI), Nimli, Rajasthan

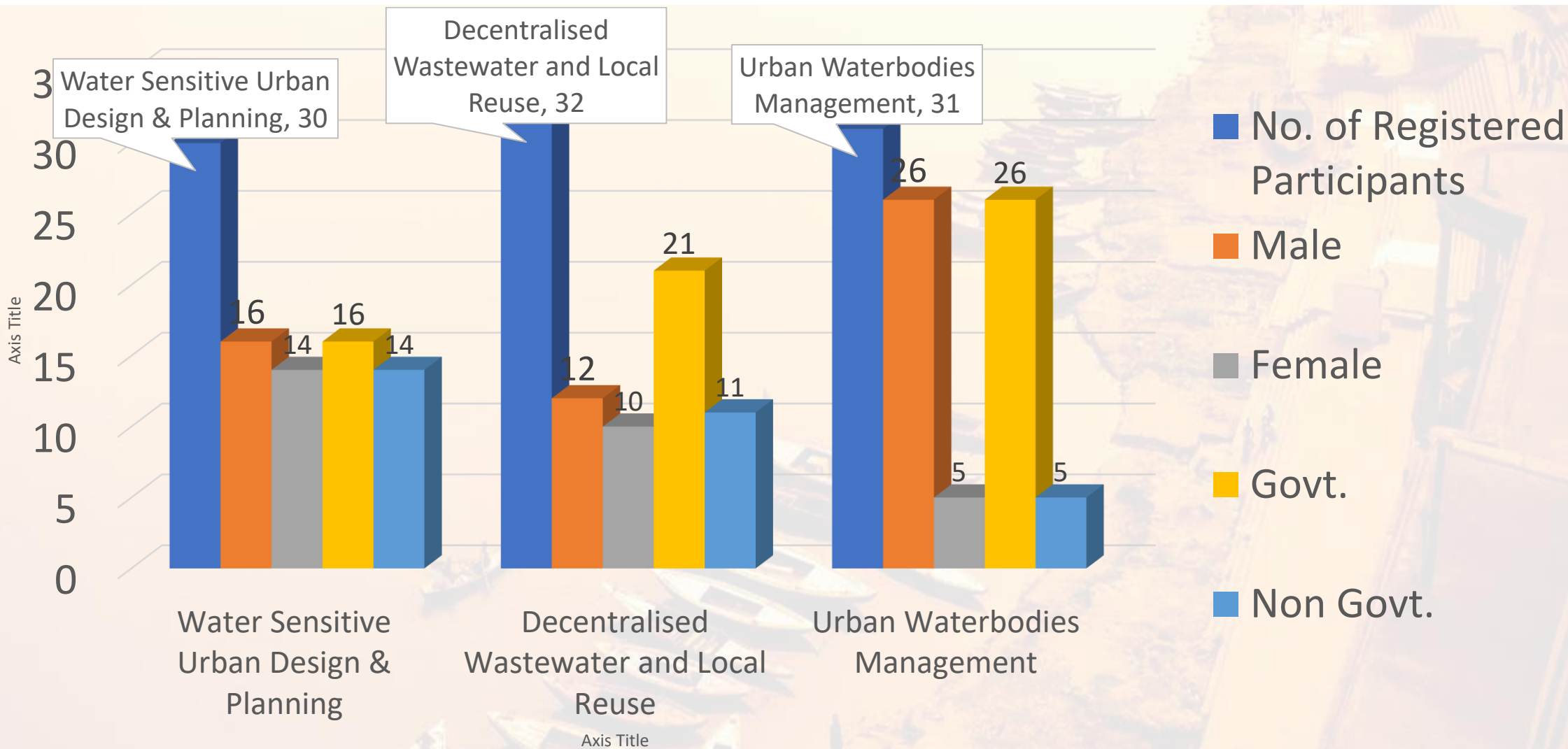


Capacity Building



SHOT ON MI AT MI DUAL CAMERA

Capacity Building: Residential Trainings (July 2021 to February 2022)



Capacity Building

Total no. of participants – Residential Trainings	Total Male	Total Female	Total Government	Total Non-Govt.
93	54	29	63	30



Videos



Dr. Shyamali Singh, IIPA



Mr. Purna Chandra Mohanty,
WaterAid India, Odisha



Mr. Lalmani Yadav,
Food and Sanitary
Inspector, NPP, Chunar



Ms. Meenu Arya,
DPM, Ghaziabad



Mr. Vikash Mahla, Section
Officer (Horticulture), DDA

Written Feedback

Completed this 'Advanced training program on Urban Waterbodies Rejuvenation and Management' conducted by Centre for Science and Environment, New Delhi. A well-designed program. The participants of the program were a good mix of people from the public, private, and government sectors. This experience will definitely help me in my future projects. With the deteriorated condition of urban water bodies in India at present, this program provides valuable inputs for changing this scenario. Thanks for the team's efforts. Would love to come again for next training.



**Dr. Prasanna
Jogdeo Co-Founder
Lemnion Green
Solutions Pvt. Ltd.,
Pune**

Advanced training program on Urban Water Bodies Rejuvenation and Management in a place very close to nature (AAETI). In this advanced training I got to learn various necessary aspects of waterbodies rejuvenation like pollution abatement in waterbodies, catchment and buffer zone design and management, step by step procedure to prepare urban waterbody management plan including stakeholder engagement, community participation, O&M strategies and socio-economic benefits. It was a fruitful learning for me and it is going to help me on implementation on ground interventions related water body with a sustainable approach. I would like to thank our mentors who made their valuable effort to getting us trained.



**Ankur Choudhary
Project Manager
J S Water Energy Life
Co. Pvt. Ltd. Gurgaon**

A great course to upgrade my learning from used water perspective to the impact on water bodies and their rejuvenation strategies. Doing the course with government officials and other participants gave me a view of their way of working and implementation style. Looking forward to more learning and execution opportunities.



**Vikash K
Agarwal
Consultant
(Water and
Sanitation
related),
Entrepreneur
RSTPL,
Guwahati**

Capacity Building & Action Research: External Trainers (29 in nos.)

WEBINARS & ONLINE TRAININGS



Rajiv Ranjan Mishra
Director General
National Mission for
Clean Ganga (NMCG)
India



Sunita Narain
Director General
Centre for Science and
Environment (CSE)
India



G. Mathi Vathanan
Principal Secretary,
HUDD, Odisha



Vandana Menon
Independent
Consultant, New Delhi



Stanley Samuel
CEO Ecosoft Pvt Ltd,
Singapore



Sanjay Prakash
Managing Director
SHIFT Architects



Abhinav Pandey
Head of Studio
SHIFT Architects



Jigisha Jaiswal
C-WAS CEPT,
Ahmedabad



Victor Rana Shinde
Lead: Water and
Environment
NIUA



Somnath Sen
Retd. Associate
Professor, IIT
Kharagpur



Mr Manu Bhatnagar
Principal Director,
Natural Heritage Division,
INTACH, New Delhi



Dr Ritesh Kumar
Head,
Wetlands
International,
South Asia



Ashok Kumar Singh,
IAS,
Executive Director
(Projects),
NMCG



Dr Ravinder Kaur
Principal Scientist,
WTC,
IARI



Dr Mohit Ray
Environmental
Consultant and
Activist



Tanmay Kumar
Project Engineer
CH2M HILL



P.Z. Thomas
Managing Director
EEC Pvt. Ltd



Jamie Ewert
Monash University
CRC for Water
Sensitive Cities



Sandhya Haribal
Senior Project
Manager
CDD Society



Eli Cohen
Founder and CEO,
Ayala Water &
Ecology, Israel



**Vijay Kumar
Chaurasia**
Joint Advisor,
CPHEEO, MoHUA,



Nadeem Khalil
Professor
Aligarh Muslim
University



**Dr K.S.
Jayachandran**
(Delhi Pollution
Control Committee)



Veena Srinivasan
Senior Fellow
(ATREE), Bangalore



S. Vishwanath
Director-Biome
Environmental
Solutions, Bangalore



Vivek Jangde
Dy. General
Manager
ESTPL



**Dr Mansee Bal
Bhargava**
(EDC), Ahmedabad



Ramveer Tanwar
Pondman
Environmentalist



Lokendra Thakka
Officer Incharge,
GoMP State
Wetland Authority

RESIDENTIAL TRAININGS

Capacity Building & Action Research: Oversight Planning Committee (18 members)

An advisory committee comprising sector experts to strengthen the efforts of CSE for efficient design and delivery of the proposed capacity building project has been developed.

WATER SENSITIVE URBAN DESIGN & PLANNING

RAINWATER HARVESTING, WATER EFFICIENCY & CONSERVATION AND DECENTRALISED WASTEWATER TREATMENT & LOCAL REUSE.



Venkatesh Dutta
Professor,
SEES, BB Ambedkar
University, Lucknow



P Z Thomas
Managing Director,
EEPCL



Himanshu Joshi
Professor, Department
of Hydrology,
IIT Roorkee



Deepak Khare
Professor, Water
Resources Development
& Management,
IIT Roorkee



Manu Bhatnagar
Principal Director,
Natural Heritage
Division, INTACH,
New Delhi



S.K. Sharma
Groundwater Expert
Former Member
(Technical), CGWB



Rajiv Sinha
Professor,
Department of Earth
Sciences, IIT Kanpur



Somnath Bandopadhyay
Associate Professor
Nalanda University,
Bihar



Shashank Shekhar
Professor (Geology),
Delhi University



Mohit Ray
Independent
Environmental
Consultant
& Activist

GROUNDWATER AND URBAN LAKE MANAGEMENT IN URBAN AREAS



Somanth Sen
Associate Professor,
IIT Kharagpur



Sumit Sen
Head and Associate
Professor, Department
of Hydrology,
IIT Roorkee



Victor Shinde
Sector Coordinator for
Water and
Environment,
NIUA



Nadeem Khalil
Professor, Department of
Civil Engineering,
Aligarh Muslim University



K.J. Anandha Kumar
Scientist
(Hydrogeologist)
(Retd.), CGWB



Meenakshi Dhote
HOD, Dept. of
Environment Planning,
SPA, Delhi



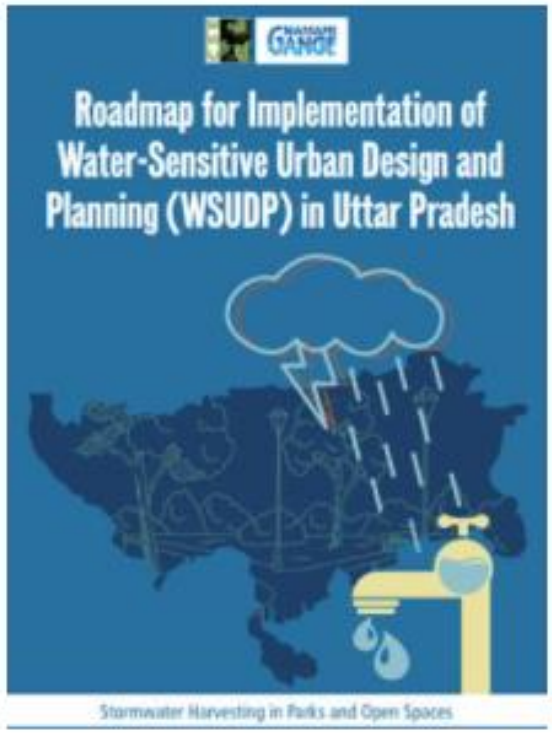
Ritesh Kumar
Head, Wetlands
International, South
Asia, WI-SA



Venkatesh Dutta
Professor,
SEES, BB Ambedkar
University, Lucknow



Report



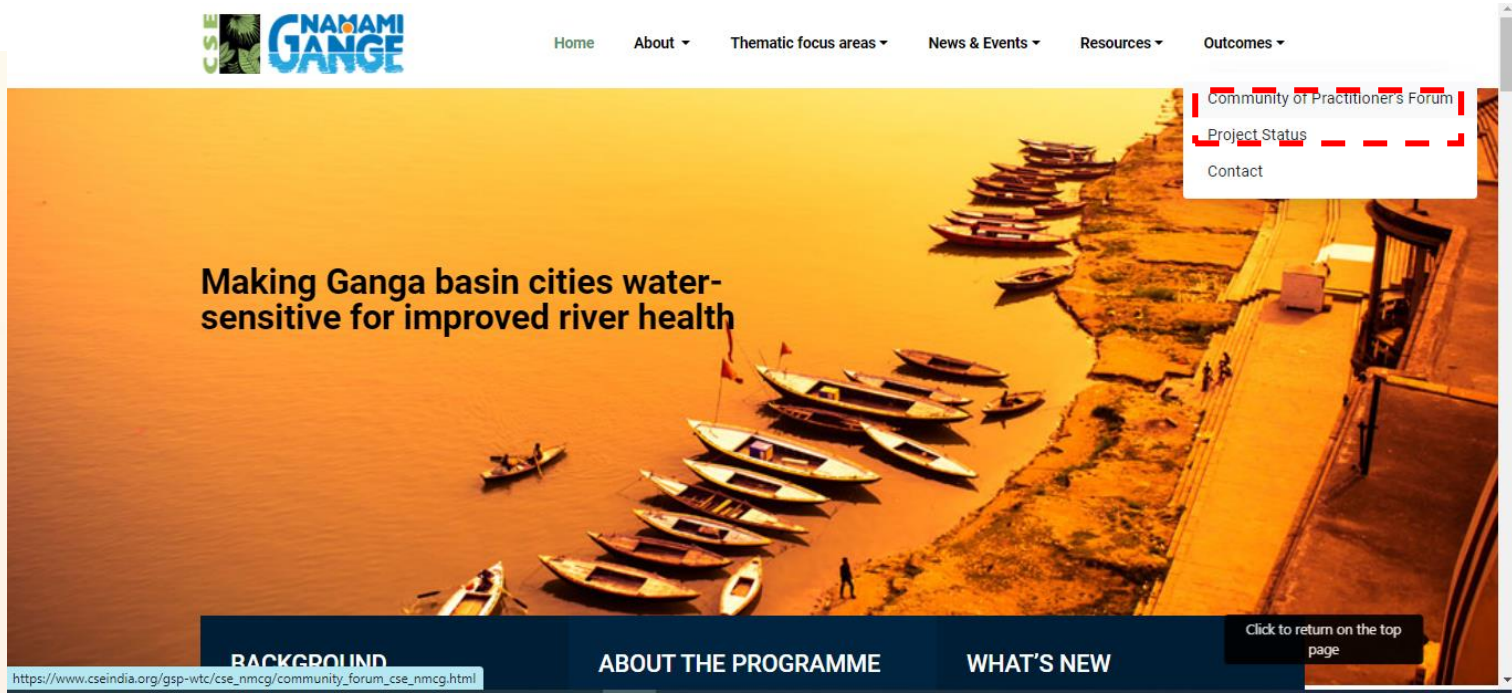
Total Downloads: 837

Action Research

Technical Support

Outreach

Programme Brochure in Hindi and English



Web Portal and Helpdesk



Advisory Committee: Identifying 18 sector Experts to form Oversight Planning Committee

River City Alliance: Collaboration with NIUA for River Centric plans of cities

IEC Campaigns: Events on 'Making water & sanitation sensitive cities' for Ganga Utsav 2021 in Uttar Pradesh



Capacity Building

Technical Support

Outreach



Events on 'Making water & sanitation sensitive cities' for Ganga Utsav 2021 in Uttar Pradesh



Ganga Utsav 2021, Chunar



Awareness cum orientation programme of Self Help Groups (SHGs) on 'Making water & sanitation sensitive cities'



Celebration of Ganga Utsav in Bijnor



SCHOOL OF WATER AND WASTE



- The program in its first year achieved significant outreach and build capacities of government officials and other water sector experts:

Webinar: **10458** | Online Trainings: **469** | Residential Trainings: **93** | Total: **11020**

Participation of **1640+** Government Officials

Active participation from across **305 cities across India and 51 cities outside India across the globe.**

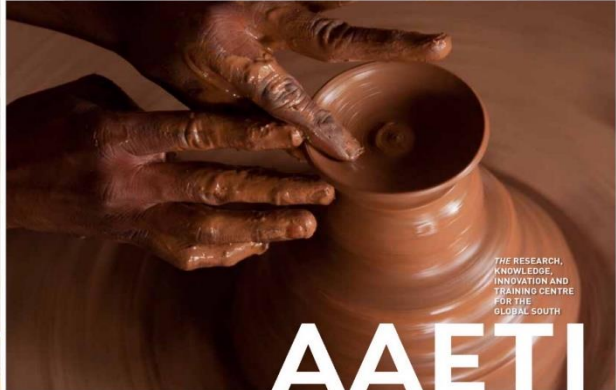
This represents the enormous outreach of the Webinars and Training programs of CSE and the strength of its network all over the world.

- **469 participants** from government organisations and individual experts undertook the **online trainings** under the three themes mentioned above.
- **93 participants** were trained at the **advanced level in the residential trainings**, from among the participants who were trained in the online trainings earlier (60 %). The participants in these advanced residential trainings were Planners, Architects, Engineers, and Officials from Development Authorities, Planning Departments and Urban Local Bodies.
- A great extent of information dissemination was also done for the general public and **relevant stakeholders**, under this initiative through media **collaterals like brochures and web page.**
- A **Research Report was also published-** “Roadmap for Implementation of Water-Sensitive Urban Design and Planning (WSUDP) in Uttar Pradesh: Storm water harvesting in Parks and Open Spaces”. This report showcases the potential of run-off infiltration in storm water harvesting systems in parks and green open spaces in **five cities—Lucknow, Kanpur, Varanasi, Prayagraj and Moradabad —in Uttar Pradesh.**

- **COVID -19:** First three months of the programme has been inactive in terms of travel and other events due to surge of COVID 19 in the country. **The first three months** were utilised in doing the **preparatory work: Literature study and Secondary Research, preparation of teaching learning material, Module preparation, and planning advisory committee.**
- **Difficulty in securing Nomination:** Even though this is a funded program and nominations for the trainings are sought from the state planning departments and local bodies, sometimes these authorities are not responsive in sending nominations for these trainings and capacity building activities and timelines are delayed. This poses as a major challenge as it leads to lag in the completion of the activities.
 - **Last minute drop outs from NMCG and SPMG has been noticed for onsite trainings.**
 - **Request for TA/ DA is sought from state authorities and ULB's. In particular from Uttar Pradesh. A positive and enthusiastic response from the state authorities is expected in order to make these activities successful.****Better coordination with co-partners are expected in future.**
- There is a major **challenge of monitoring and ensuring** that these learning will actually be implemented t the ground level or not. Some sort of **mechanism is needed** which can help ensure that at least few of the learnings and solutions can be implemented locally in an efficient way in these cities at scale.
- Also since the government administrative structure is conventional in a certain way, these trainings also challenge the conventional knowledge of the existing governance structure.



School of Water and Waste



THE RESEARCH, KNOWLEDGE, INNOVATION AND TRAINING CENTRE FOR THE GLOBAL SOUTH

AAETI
ANIL AGARWAL
ENVIRONMENT
TRAINING
INSTITUTE



A teaching - learning and innovation centre that is designed to find appropriate and **affordable solutions** for key problems of **India and the global south.**

Event Calendar 2021 - 2022

Type of Activity	Name of the Event	Date	Link of Announcement
Residential Training and in Upcoming	Advanced Residential Training Programme on Urban Waterbodies Management and Rejuvenation NEW	February 22 - 24, 2022	https://www.cseindia.org/advanced-residential-training-programme-on-urban-waterbodies-rejuvenation-and-management-11091
Residential Training	Advanced Residential Training Programme on Decentralised Wastewater Management and Local Reuse	December 21-23, 2021	https://www.cseindia.org/advanced-training-on-decentralized-wastewater-management-and-local-reuse-at-aeti-from-21-23-december-2021-11109
Residential Training	Advanced Residential Training Programme on Water Sensitive Urban Design and Planning (WSUDP) - Rainwater Harvesting at different scales	November 30 – December 02, 2021	https://www.cseindia.org/water-sensitive-urban-design-and-planning-wsudp-11024
Updates	CSE at Launch of River Cities Alliance	November 25, 2021	https://www.cseindia.org/cse-at-launch-of-river-cities-alliance-11075
Webinar	Decentralised Nature Based Wastewater Treatment Solutions for Improved River Health	October 21, 2021	https://www.cseindia.org/webinar-on-decentralised-nature-based-wastewater-treatment-solutions-for-improved-river-health-11003
Online Training	Decentralised Wastewater Treatment and Local Reuse - Issues Challenges & Potential	October 07 – 22, 2021	https://www.cseindia.org/online-training-on-decentralised-wastewater-treatment-and-local-reuse-issues-challenges-potential-10968
Webinar	Managing Urban Water Bodies for Making Cities Water - sensitive and Improving River Health	September 30, 2021	https://www.cseindia.org/managing-urban-waterbodies-for-making-cities-water-sensitive-and-improving-river-health-10996
Online Training	Urban Waterbodies Management: Issues, Challenges & Potential of Making Water Sensitive Cities	September 21 – October 04, 2021	https://www.cseindia.org/urban-waterbodies-management-issues-challenges-potential-of-making-water-sensitive-cities-10972
Online Training	Water Sensitive Urban Design & Planning - Issues , Challenges & Potential	September 07 – 20, 2021	https://www.cseindia.org/online-training-on-water-sensitive-urban-design-planning-approach-challenges-potential-10955
Webinar	Groundwater and Riverine System: Challenges, Opportunities and Solutions for Rapidly Urbanizing Ganga Basin	August 4, 2021	https://www.cseindia.org/webinar-groundwater-and-riverine-system-challenges-opportunities-and-solutions-for-rapidly-urbanizing-ganga-basin-10902

Event Calendar 2021

Type of Activity	Name of the Event	Date	Link of Announcement
Webinar	Groundwater and Riverine System: Challenges, Opportunities and Solutions for Rapidly Urbanizing Ganga Basin	August 4, 2021	https://www.cseindia.org/webinar-groundwater-and-riverine-system-challenges-opportunities-and-solutions-for-rapidly-urbanizing-ganga-basin-10902
Webinar	Launch Event cum Webinar: Making Ganga Basin Cities Water Sensitive	July 27, 2021	https://www.cseindia.org/launch-event-cum-webinar-making-ganga-basin-cities-water-sensitive-10887
Webinar	Planning cum Consultation Workshop for CSE - NMCG initiative on 'Making Water Sensitive Cities in Ganga Basin'	July 02, 2021	https://www.cseindia.org/planning-cum-consultation-workshop-for-cse-nmcg-initiative-on-making-water-sensitive-cities-in-ganga-basin--10879

CSE-NMCG Capacity Building Initiative (SWW Team)

MEET THE TEAM



SURESH KUMAR ROHILLA
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Waste, AAETI
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**CAPACITY BUILDING INITIATIVE ON
MAKING GANGA BASIN CITIES WATER-SENSITIVE**

Thank you

EMAIL: sww-aaeti@cseindia.org

