

# CSE - SWW Webinar Series



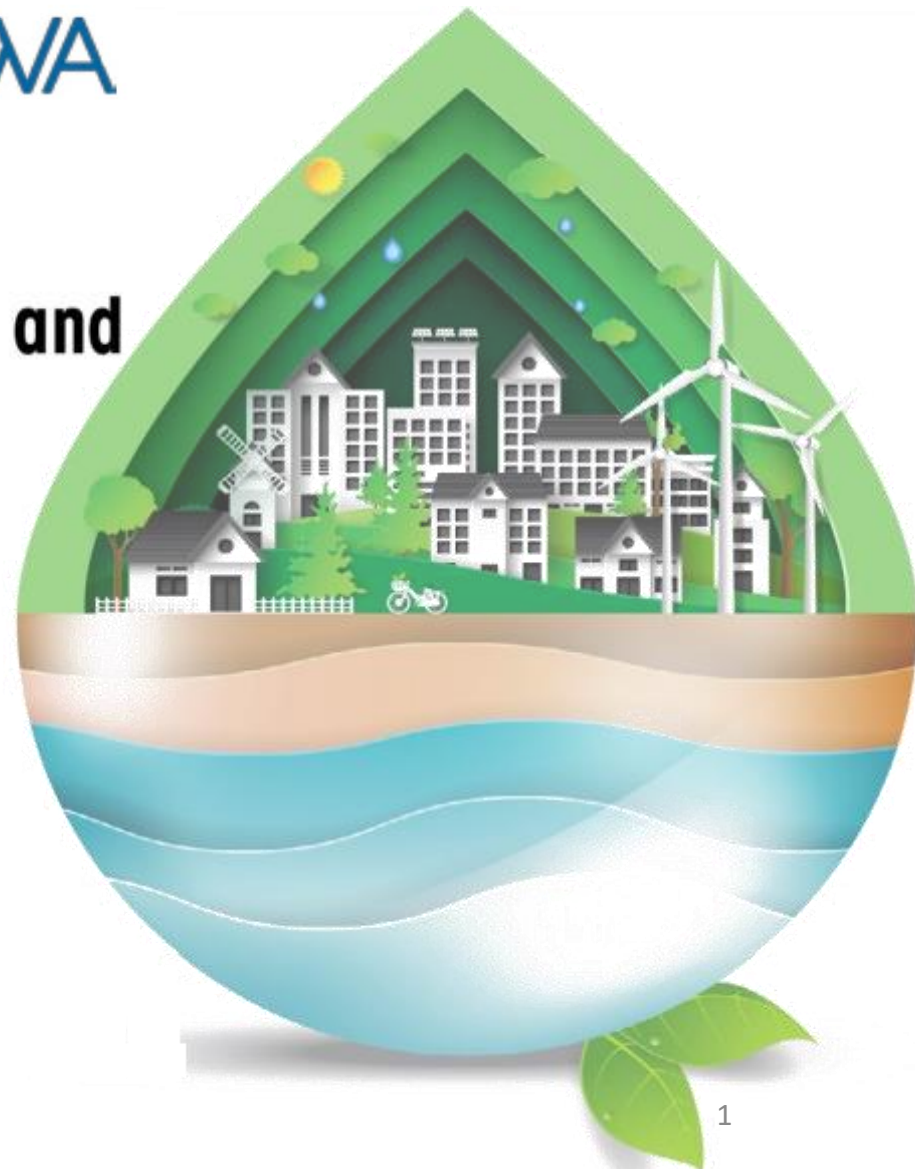
SCHOOL OF WATER AND WASTE

**AAETI**

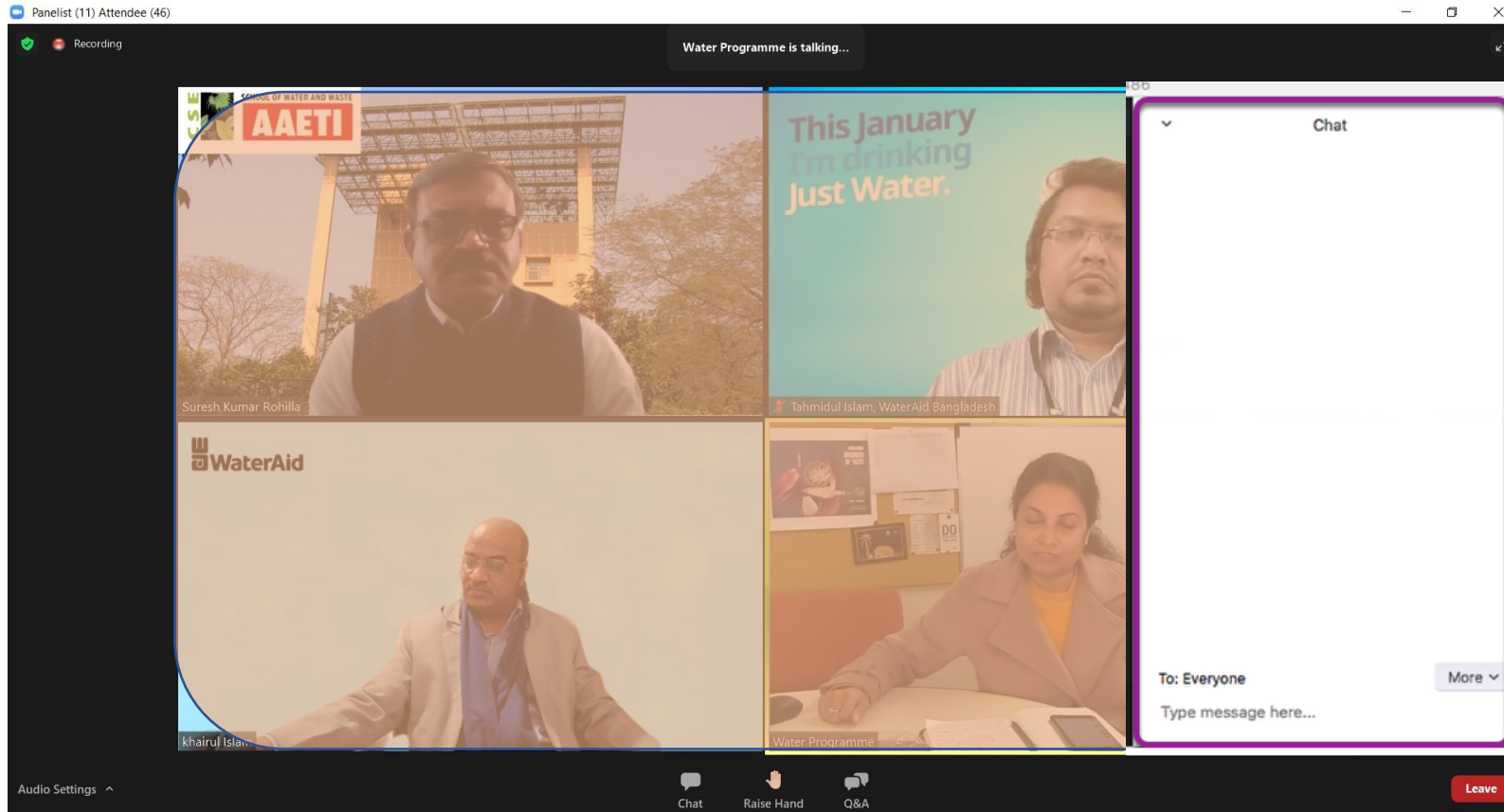


## **Sustainable Urban Water Management – Challenges and Opportunities in mainstreaming Climate Adaptation**

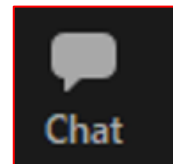
**DATE: 5TH MARCH, 2021 | TIME: 5:00 – 6:15 PM (IST)**



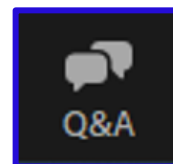
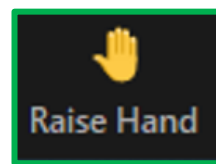
# Housekeeping rules



1. Watch the chat window where we will post biography, links to resources and seek your input



2. Raise your hand if you want to ask something or in case if your want to share something.



3. Submit your questions to the speakers in the Q&A window instead of chat box.

4. Request to please keep your mic muted unless speaking



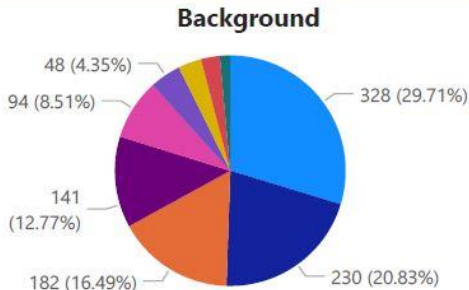
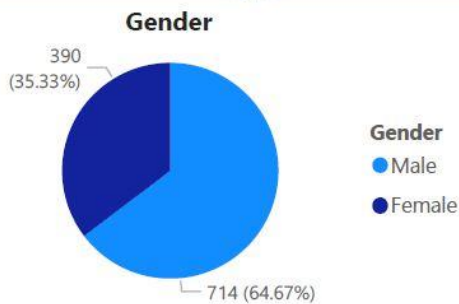
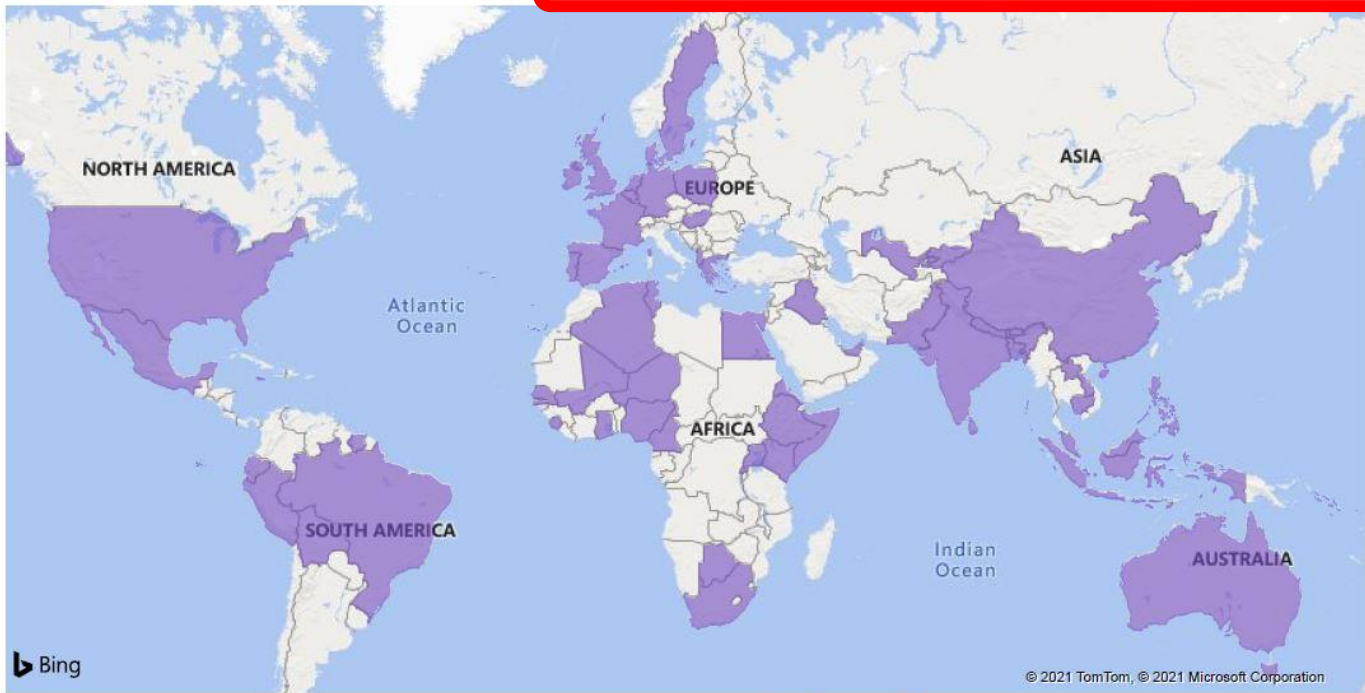
5. Incase of any emergency, my colleague Mr. Dhruv Pasricha will take over the webinar.

6. Allocated time for each speaker is **20 mins** and discussants is **5-7 mins**

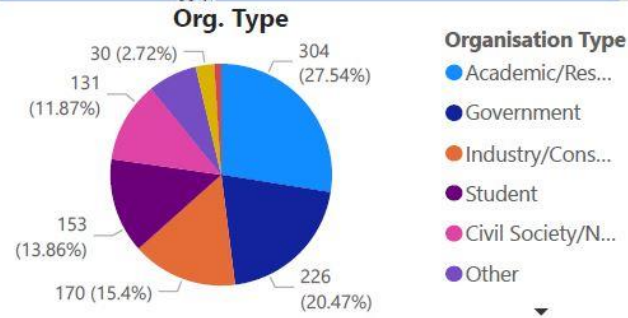
# Registration Statistics

## CSE Webinar on Sustainable Urban Water Management – Challenges and Opportunities in mainstreaming Climate Adaptation

Registration Statistics: 1,102 Registrations from 567 cities across 62 countries



- Background**
- Engineer
  - Ecologist/Geographer
  - Architect/Planner
  - Social Scientist
  - Agriculture
  - Doctor/Medical professional



- Organisation Type**
- Academic/Research
  - Government
  - Industry/Consulting
  - Student
  - Civil Society/NGO
  - Other

# Speakers Profile

## MODERATOR/ ANCHOR



### **Dr Suresh Kumar Rohilla**

**Senior Director** possess over 23 years of work experience, leads the water programme at **Centre for Science and Environment**, New Delhi.

## SPEAKERS



### **Dr. John H. Matthews**

is the Executive Director and co-founder of **Alliance for Global Water Adaptation (AGWA)**.



### **Dr. Ad Jeuken**

is working as a climate change adaptation expert at **Deltares** for 13 years and has worked for various international organizations

## DISCUSSANTS



### **Prof. Ishrat Islam**

works with the Department of Urban and Regional Planning, **Bangladesh University of Engineering and Technology**, Dhaka



### **Dr. John Ngoni**

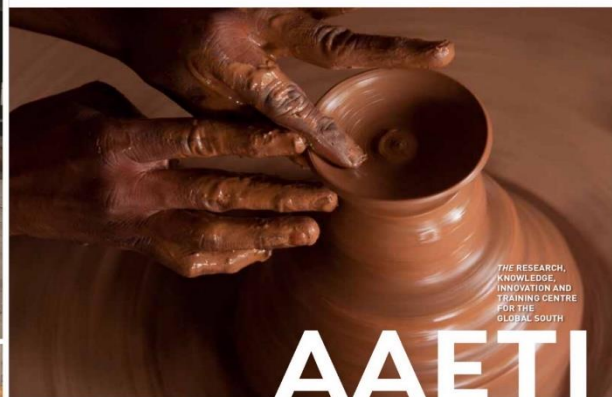
**Zvimba** (formerly with Mintek and CSIR) is currently with the **South African Water Research Commission** as Research Manager.

About CSE School of Water and Waste  
&  
Context Setting for the webinar

**Suresh Kumar Rohilla, Senior Director CSE**  
Academic Director, School of Water & Waste

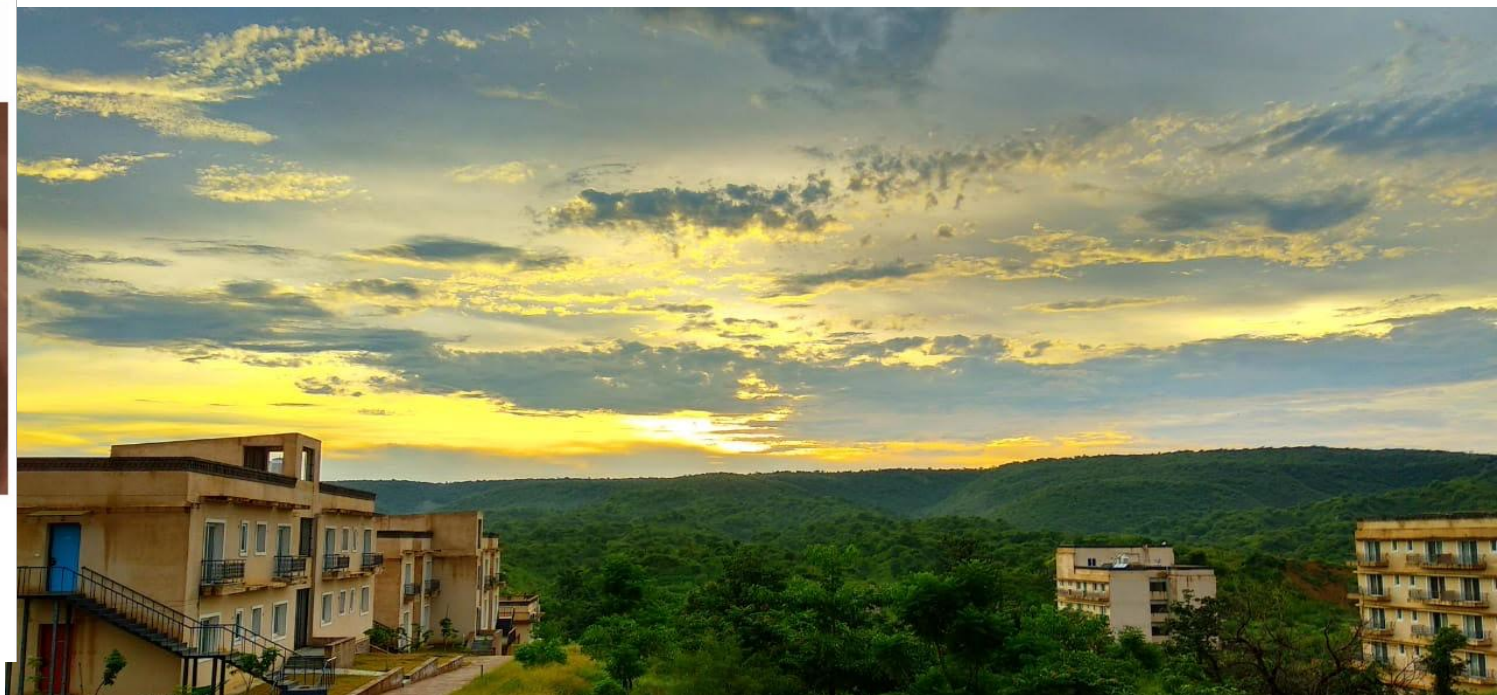


School of Water and Waste



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

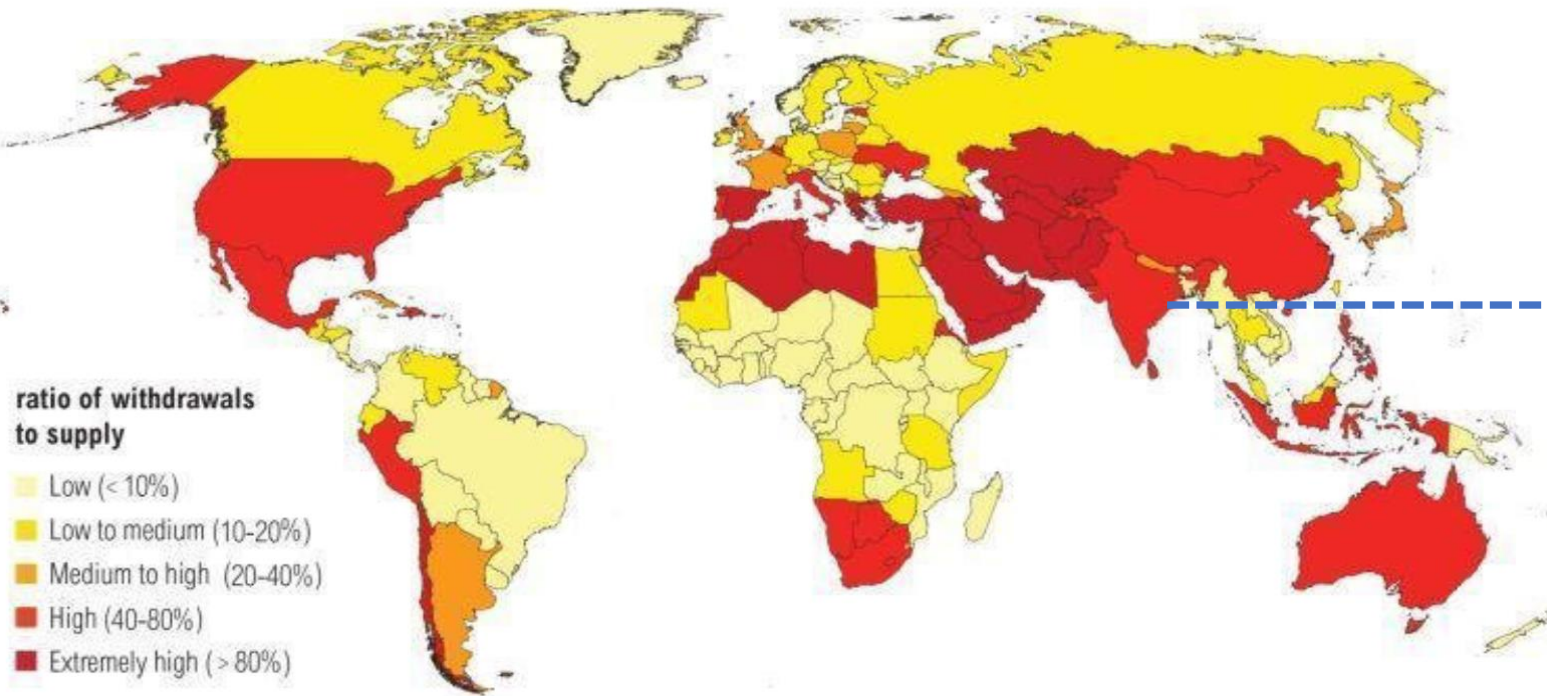
**AAETI**  
ANIL AGARWAL  
ENVIRONMENT  
TRAINING  
INSTITUTE



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

# Global Water Challenges

Water Stress by Country: 2040

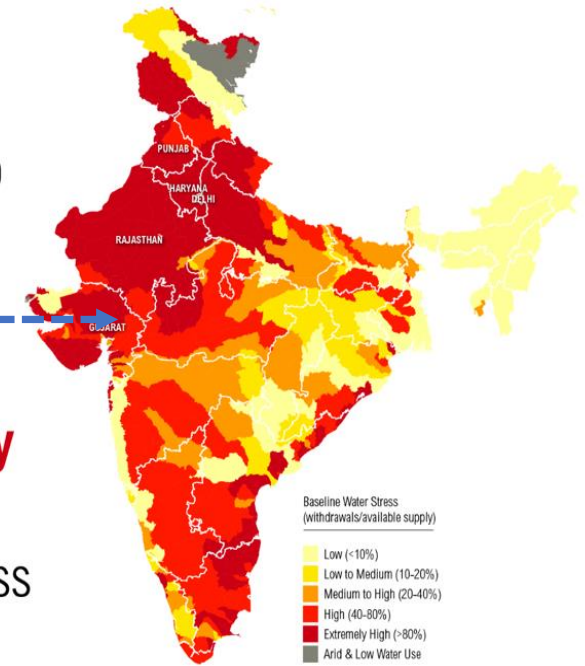


**NOTE:** Projections are based on a business-as-usual scenario using SSP2 and RCP8.5.

For more: [ow.ly/RiWop](http://ow.ly/RiWop)

 WORLD RESOURCES INSTITUTE

**54%**  
of India  
Faces  
**High to  
Extremely  
High**  
Water Stress

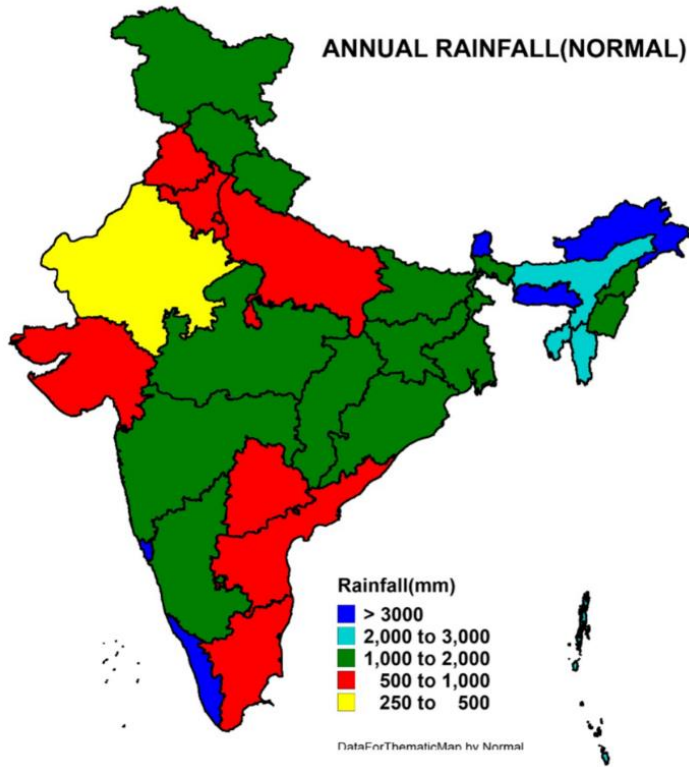


[www.indiawatertool.in](http://www.indiawatertool.in)

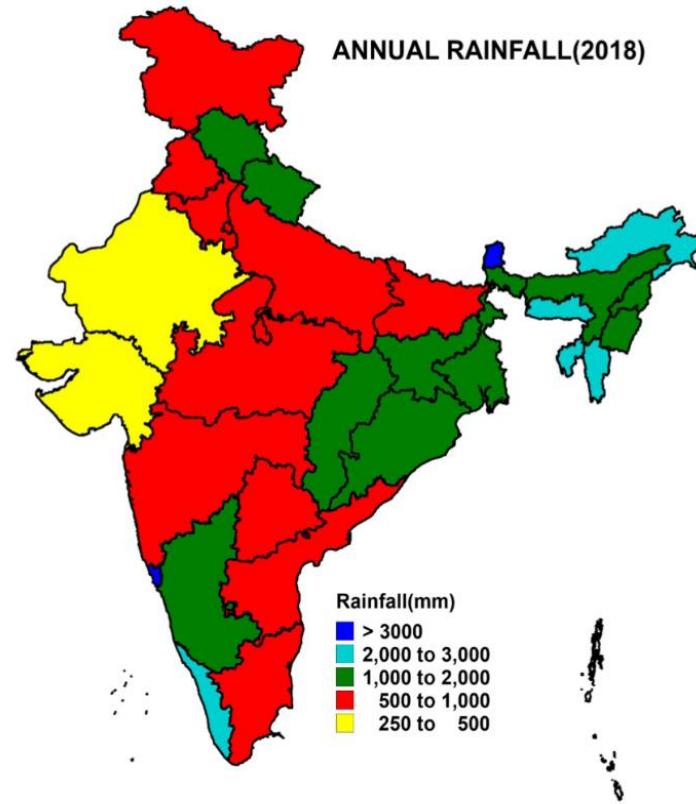
 WORLD RESOURCES INSTITUTE

- 3 Indian cities greater than 10 million, **53 cities more than 1 million**
- **377 million** live in about **8000 urban centres.**

# Diverse & Changing Rainfall : India



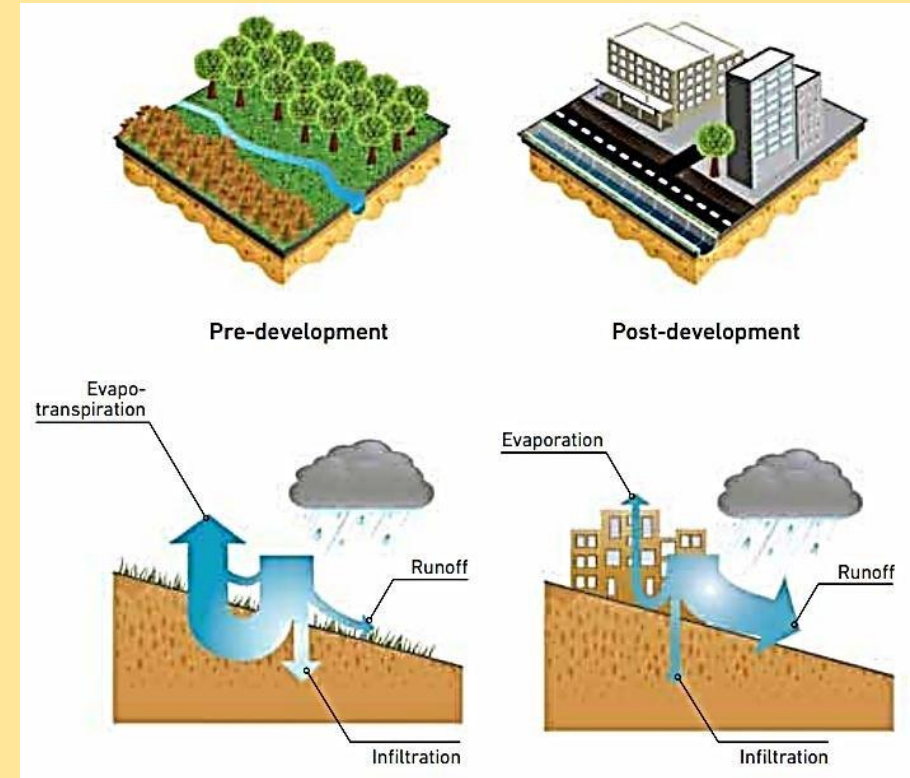
Source: India Meteorological Department, GoI



Source: India Meteorological Department, GoI

Increasing intensities and decreasing number of days it rains...

## Pre & Post Urban Development:



Change in Urban Water Balance

# Co-existence of Water Shortage & Abundance :



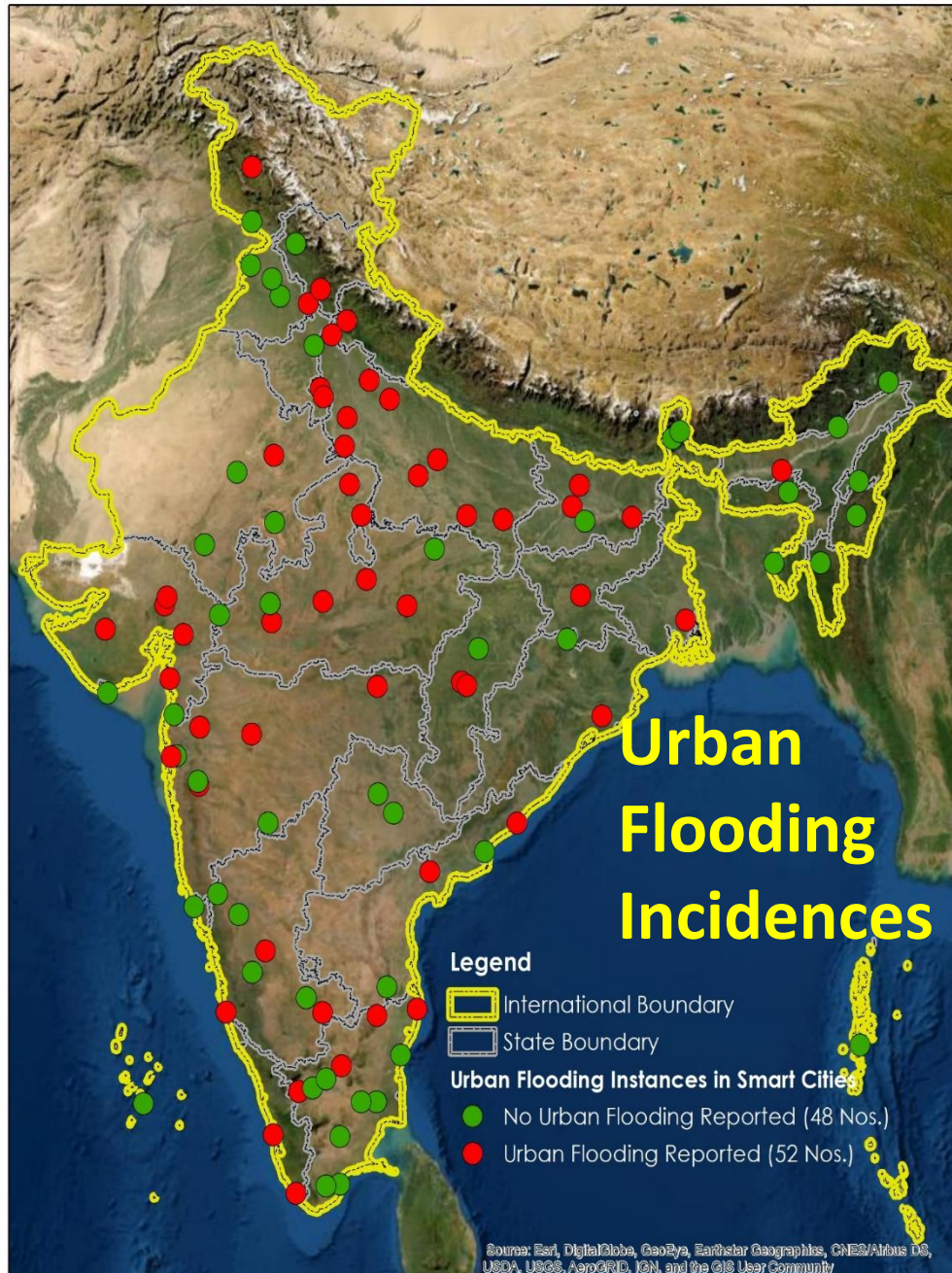
Water Scenario



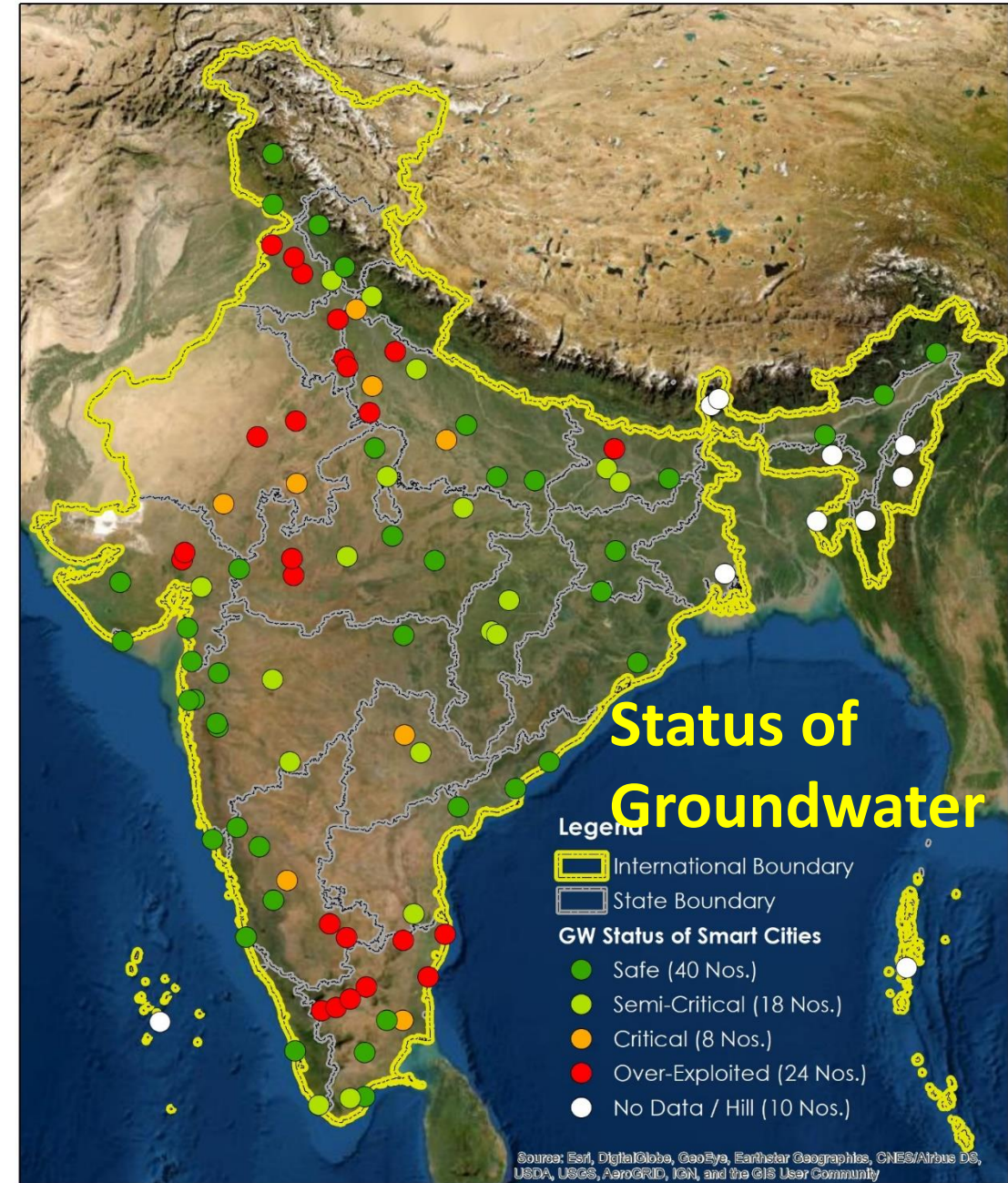
Heavy rain causes waterlogging at Ring Road near Sarita Vihar in Delhi. (TOI photo)

Drainage Scenario

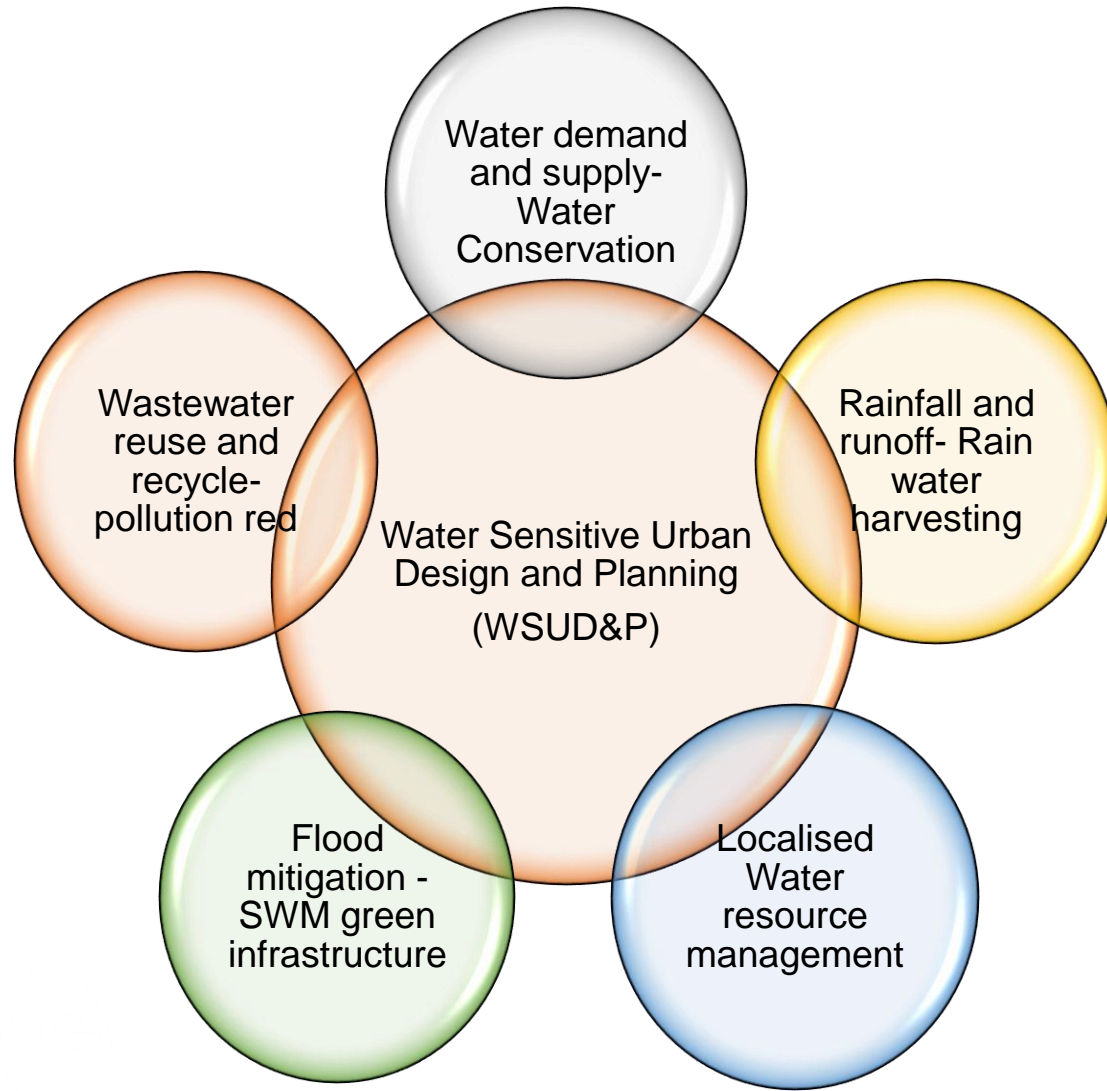
# Urban Flooding Incidences & Status of Groundwater



**Urban Water  
Management  
in Smart  
Cities**



# Water Sensitive Cities Approach



- **Protecting** local waterbodies (**lakes, ponds and wetlands**) for supplementary water sources
- **Storm-water management at public places, including open areas in cities**
- Increasing **water-conservation approaches at various scales** (buildings/campus).

**On-site water conservation** with rainwater harvesting (RWH) is important to reduce water scarcity **incl. use of treated wastewater**

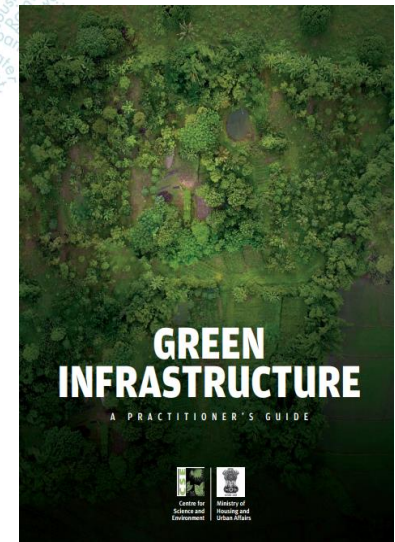
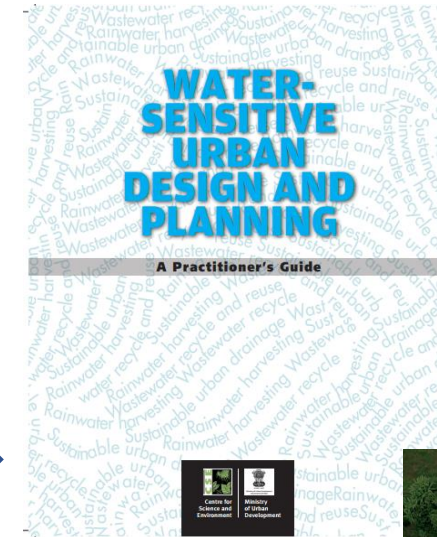
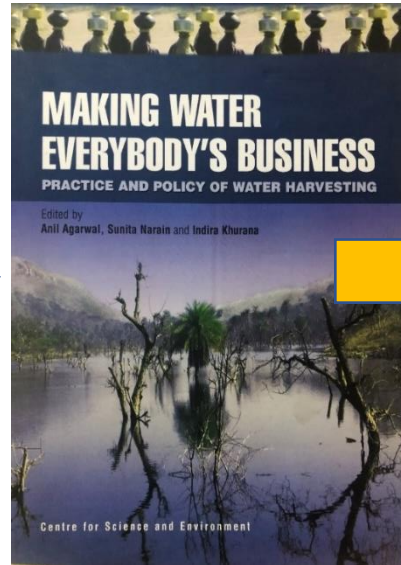
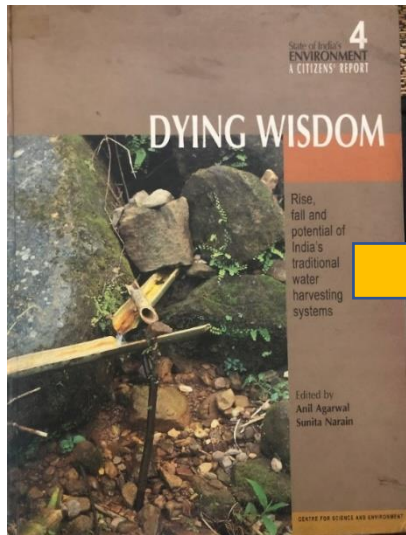
# Today's Sustainable Water Management in Urban India – Agenda

**Challenge of innovative policy and practice**

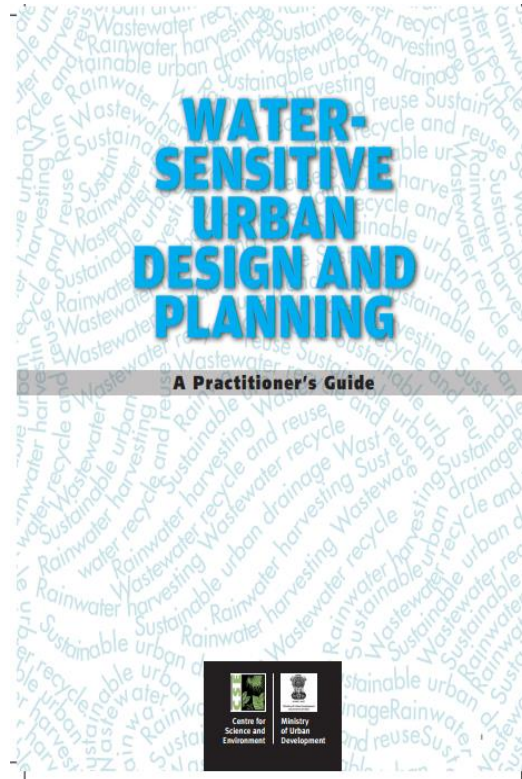
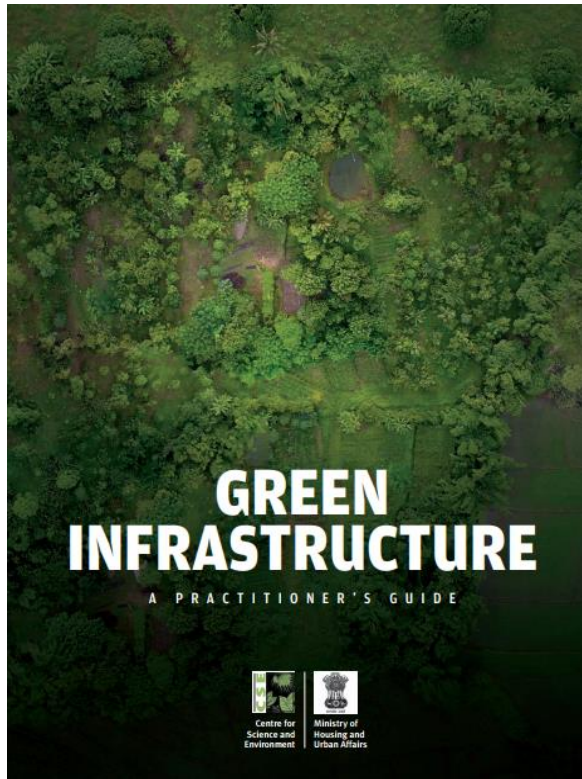
**Challenge of scale** -- implement change at the scale of the transition needed

**Challenge of capacity** – need multipliers in society to implement changes, think and act differently

# Building Urban Water Resilience - Way forward



# Building a Community of Practice for Mainstreaming Sustainable Urban Water Management



CSE pushing to get different approach in water-waste management - **Decentralized, cost-effective technologies**

Need capacity in society – **training of real users and implementers**

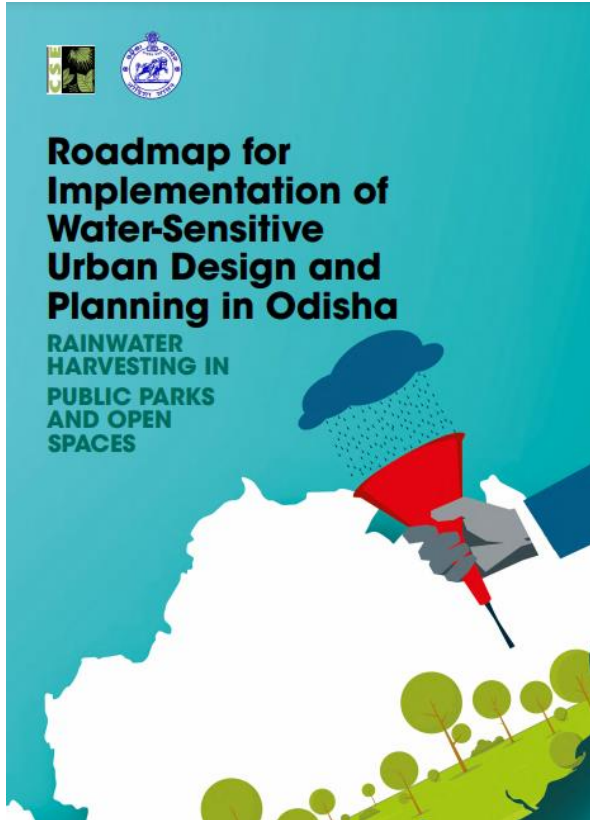
Need strategies to **experiment / practice and scale-up**

<https://youtu.be/xjCAyKY6fJg>

<https://youtu.be/NHTUC-Xs3uw>

## Recent Research Reports :

### Mainstreaming Water sensitive Urban Design (WSUDP) in India in Policy & Practice



**CSE Publication July & Nov. 2020**



Web compendium

**Launched in January 2021**

## MENU OF CASE STUDIES WORLDWIDE

C-GINS is your one stop platform to explore best management practices showcasing sustainable urban water systems.

<https://www.cseindia.org/c-gins/home>

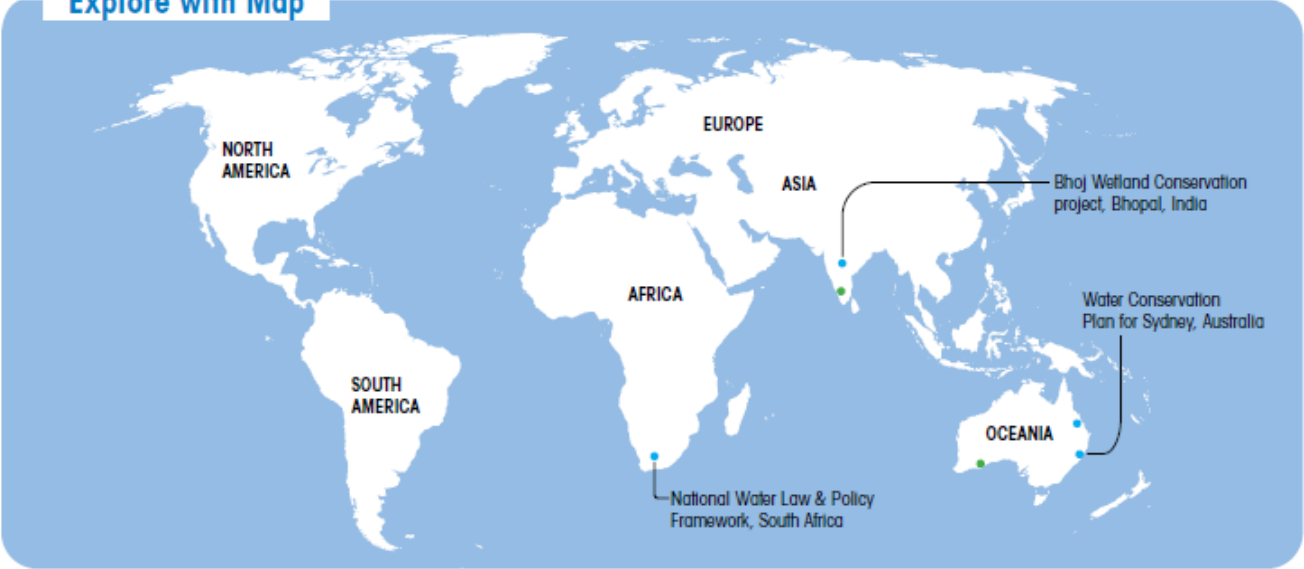
# C-GINS: Compendium of Green Infrastructure Networks

**73**  
Case Studies

**36**  
Global  
Case Studies

**37**  
Indian  
Case Studies

## Explore with Map



## Explore by scale

Regional Scale ▼

City Scale ▼

Neighbourhood Scale ▼

Individual Scale ▼

## Explore by Objectives



Water Conservation

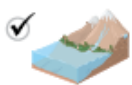


Pollution Abatement



Urban Flood Mitigation

## Search by



Water Bodies



Parks and  
Open Spaces



Residential



Institutional



Transportation



Intervention

Policy



Plan



Project



Ownership

Government



Private



QR code<sup>17</sup>



Thank you