WEBINAR 2 – Nature Based Solutions for Flood Management

12 April 2022 – 3:30 pm IST / 12:00 am CET

The webinar sought to inform/discuss/share best practices on nature based solutions for flood management. Cities of Rotterdam, Messina, Surat, Kochi, Panaji and Semarang shared their efforts/initiatives apart from two flood management experts.

Tjitte Nauta
Regional Manager
Deltares, Netherlands

Dr Vikrom Mathur
Director
Transitions Research, India

Flood Prevention Solutions

1. Dikes along rivers, dams, barriers to protect city from flooding

2. Development of city as sponge where city uses all possible spaces to store water and drain it underground

3. Water storage (at ground, above ground, underground) areas, while being used as multi functional spaces

4. River normalisation to increase channel capacity

5. Integrated urban water management

Early Warning Systems and Flood Management Coping Mechanisms

1. System to monitor territory to identify micro movements and thereby create a sophisticated alarm system

2. Pumping stations to pump all the rain and sewage water out

- Improved system understanding of the conceptual model of the sponge

- Understand the pattern of flooding through modelling

- Incorporation of a combination of structural and non-structural measures, grey and nature based solutions depending on the space available, flexibility and budget;

- Decision Support Tool box to support decision makers in a dialogue on flood management and identification of adaptation measures based on hydrological effectiveness and costs

- Use of multiple smaller nature based solutions which can collectively contribute to meet flood resilience objectives.

Tool kit for implementation of nature based solutions which allows for experimentation, co-creation with citizens, learning through multi-disciplinary approaches and engagement with multiple stakeholders;

Nature based solutions must include: 1. Ecological restoration; 2. Protection and maintenance through community awareness and signages; 3. Restoration and incentives such as cash for work schemes, loan collaterals, restorative aquaculture activities, blue carbon activities and 4. Monitoring through the development of a robust framework with social and ecological indicators with an option of intervention if targets are not met and communication strategies.

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