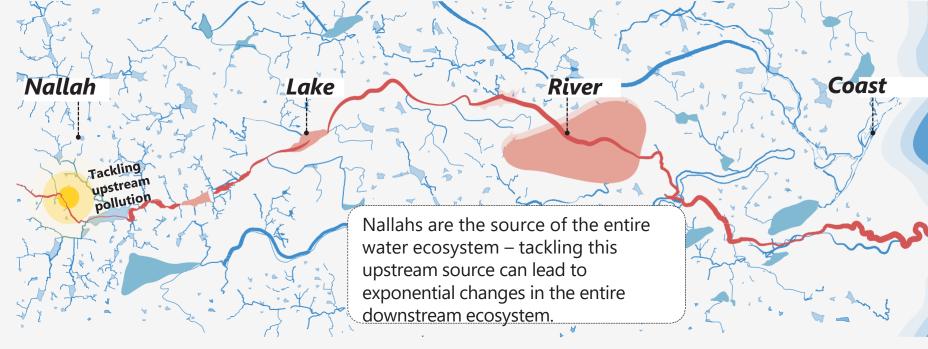
NbS for Tackling Water Scarcity at Source

Problem: Water scarcity and pollution

India is at a critical point of urbanization, with 75% of its projected infrastructure for 2050 yet to be built amidst extreme climate change. This rapid urbanization significantly impacts cities' blue-green infrastructure. Even in the current scenario, 72% of the sewage generated in urban centres remains untreated and is discharged into our freshwater system through nallahs and drains.

By 2050, 550 million people in Indian cities are projected to face extreme water stress, making India the most water- stressed region globally.

Solution: Tackling upstream pollution through cleaning and rejuvenation of nallahs



PARTICIPA

4P framework using Nature-based Solutions

Involve local communities in the cleaning and rejuvenation of water bodies during planning, design and construction stage.

To solve these problems, we need to target the source through a **decentralised**, **nature-based** approach. Upstream nallahs carry pollutants to water bodies; **treating them at the source is crucial for reducing water stress**.

The capacity of a nallah to address challenges







Channelizing and storing stormwater run-off

ng and Increasing rmwater ground-water recharge

g Creating vater public s along th

Creating everyday public spaces along the nallahs

Integrating Nature-based Solutions

In large urban centres, it is imperative to **complement** centralised treatment plants with nature based decentralised solutions like wastewater treatment plants, phytoremediation, and bioremediation, etc.

Methodology: Steps to scale up



Engage with users/ key stakeholders to understand issues in current ecosystem.



Develop guidelines for

Challenge: Lack of public spaces **Solution:** Develop recreational public spaces using nature-based solutions along the nallah

to enhance people's

ownership

connection with water,

and build com- munity

Challenge: Urban flooding Solution: Sustainable materials and nature-based construction methods to prevent erosion, enhance groundwater recharge around the water body.

PRESERVE

PROTECT

Challenge: Downstream pollution **Solution:** Use decentralized, nature-based solutions to clean the water body from solid waste and sewage outfalls. nallahs – Water SURE.



Establish proof of concept by working on pilot projects.



Develop a working model to scale to other cities and states.

SCAN FOR MORE INFO



Impact indicators



Environmental

- **** Increase in green/open spaces with permeable surfaces/bio-retention systems
- **** Reduction in stormwater evacuation time
- **** Million litres of rainwater harvested
- \ Increase in ground water table



 Increase in rentable vending spaces
Increase in neighbourhood level recreational/ socio-cultural spaces



\Increase in barrier-free infrastructure

**** Development of green mobility corridor NMT loops

\Increase in neighbourhood level play areas

