

NbS for Tackling Water Scarcity at Source

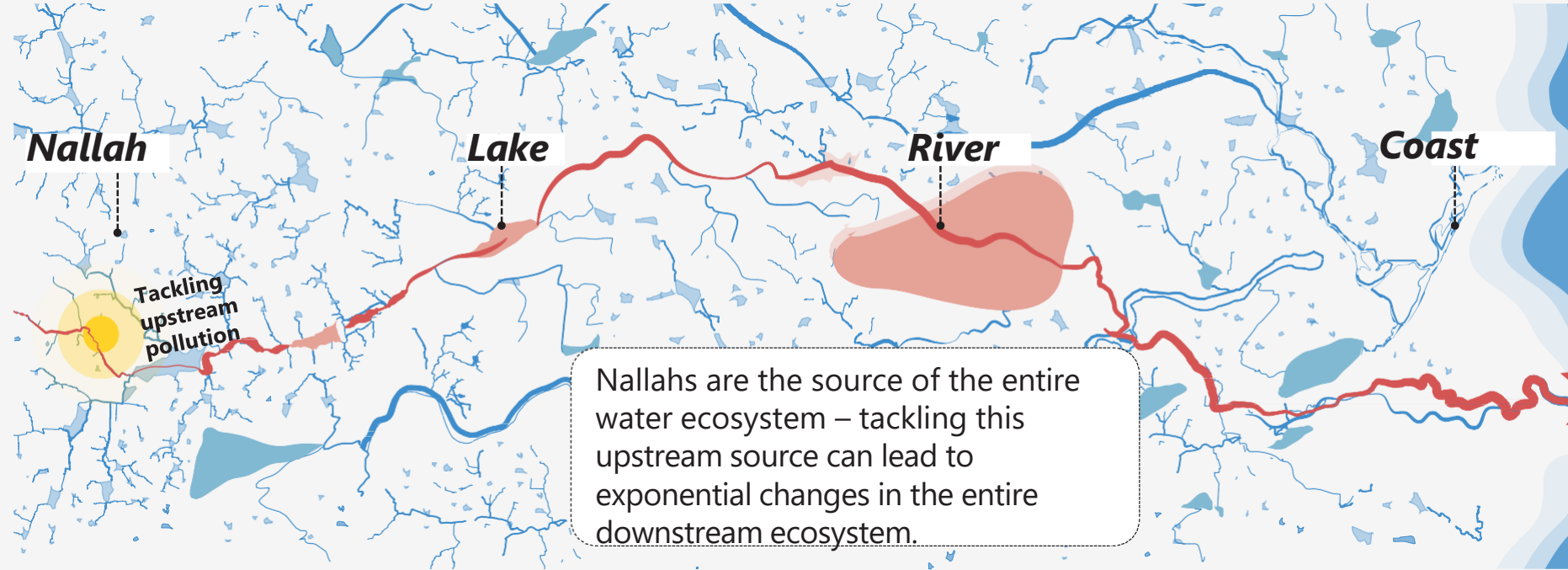
Problem: Water scarcity and pollution

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.

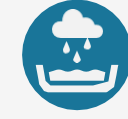
By 2050, 550 million people in Indian cities are projected to face extreme water stress, making India the most water-stressed region globally.

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.**

Solution: Tackling upstream pollution through cleaning and rejuvenation of nallahs



The capacity of a nallah to address challenges



Channelizing and storing stormwater run-off



Increasing ground-water recharge

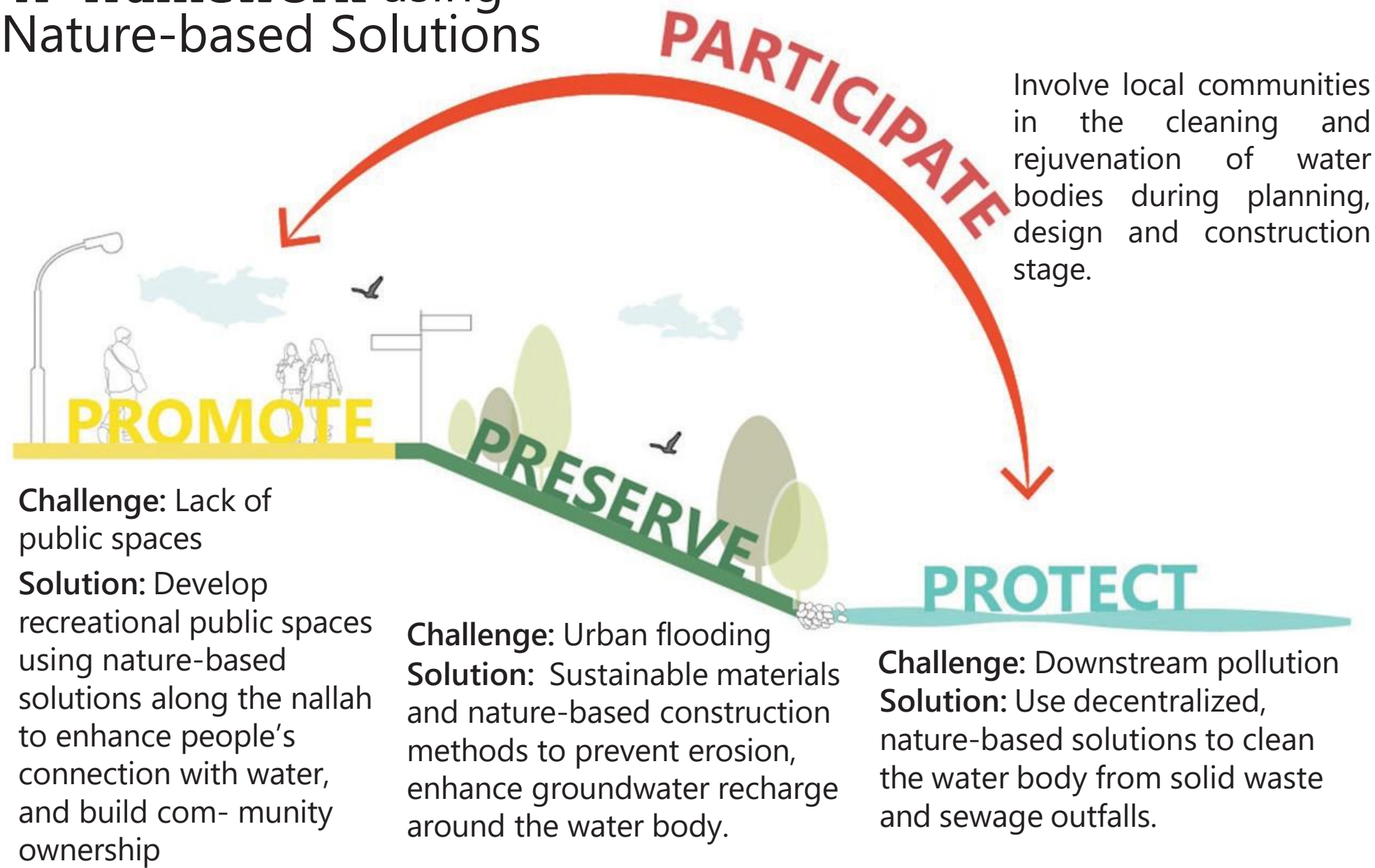


Creating everyday public spaces along the nallahs

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.

4P framework using Nature-based Solutions



Methodology: Steps to scale up



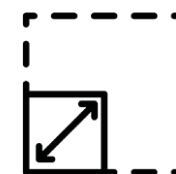
Engage with users/ key stakeholders to understand issues in current ecosystem.



Develop guidelines for nallahs – Water SURE.



Establish proof of concept by working on pilot projects.

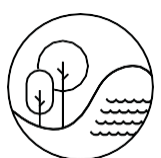


Develop a working model to scale to other cities and states.

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



Economic

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



Social

- \ Increase in barrier-free infrastructure
- \ Development of green mobility corridor NMT loops
- \ Increase in neighbourhood level play areas