

MAOZHU ZHANG

# WATER STEPS

CIRCULAR WATER STORIES  
INGE BOBBINK, ESTHER GRAMSBERGEN

RESEARCH QUESTION  
Can an integrated and comprehensive landscape architectural (spatial) design of the Bagmati River reconnect people to the river and enhance the living quality in the Kathmandu Valley?

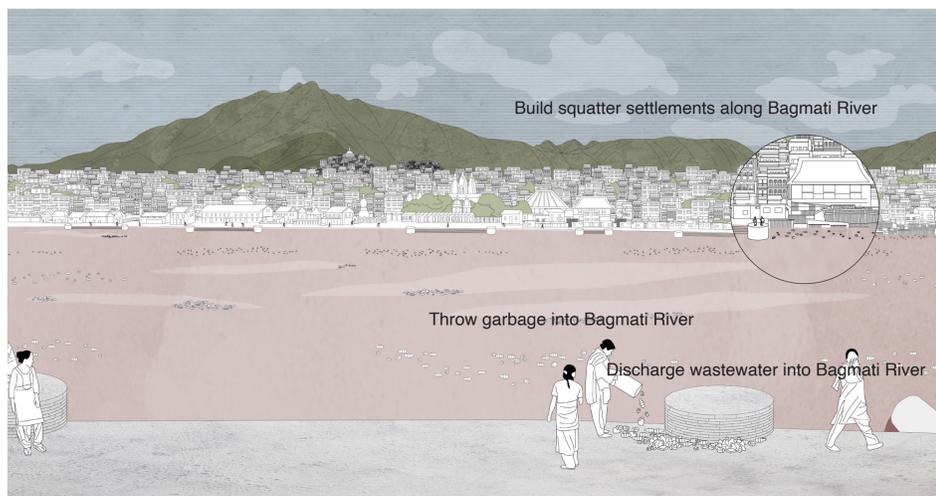
## PROJECT DESCRIPTION

The rapid urban expansion has brought many problems to Bagmati River. This project explores the role of landscape architectural means to integrate the separated, technical measures, as part of a spatial design that rebuild the connection between people and Bagmati River and improve the living quality in the Kathmandu Valley.



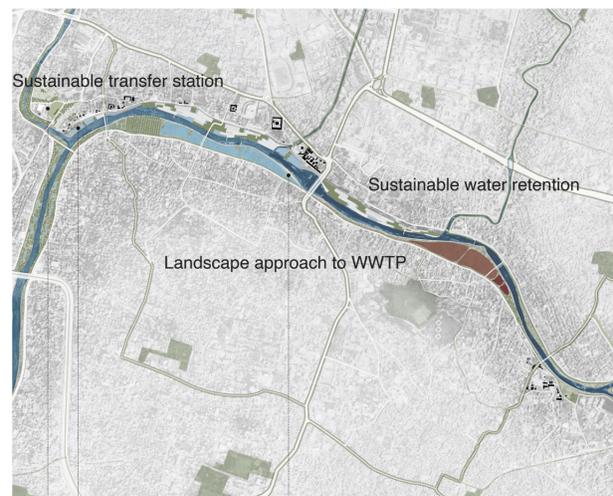
## THE PRESENT BAGMATI RIVER

The reverence of people on the Bagmati River disappear due to quick city expansion, human activities pollute the holy river.



## THE FUTURE BAGMATI RIVER

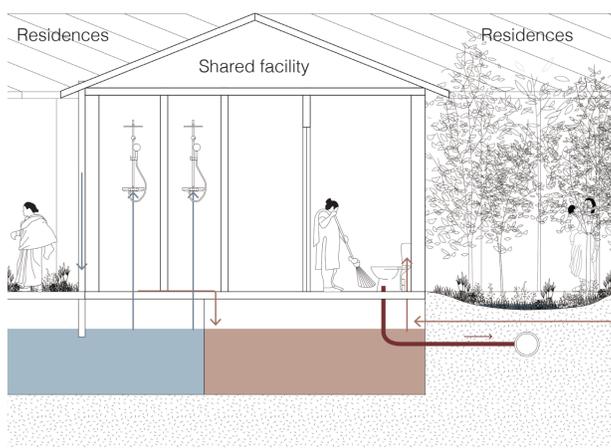
Through the proposed strategies, a new connection will be built between people and Bagmati River. The living quality for people, flora and fauna will all be significantly improved.



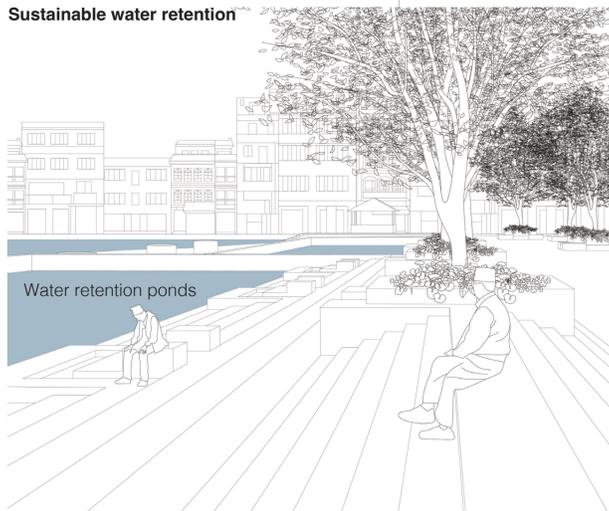
## MASTER PLAN

The conflict is from the linear inefficient flow. To revive Bagmati River, three strategies are proposed to turn the flow to become circular and sustainable. The three strategies are Landscape approach to WWTP, sustainable water retention and sustainable transfer station. With the contribution of both people and Bagmati River, the river will become clean and living quality of people will be improved.

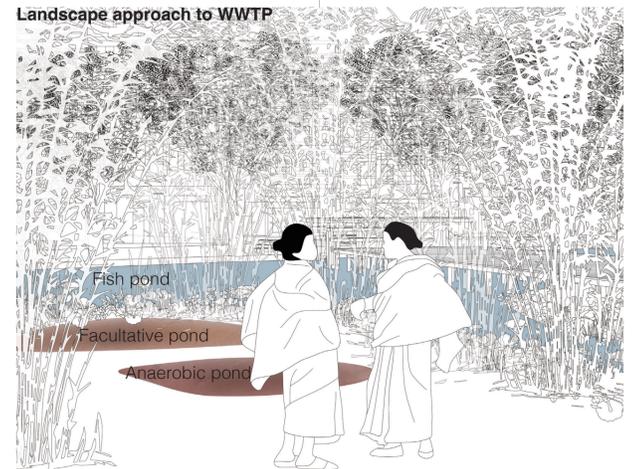
### Sustainable transfer station



### Sustainable water retention



### Landscape approach to WWTP



## THREE STRATEGIES

Sustainable transfer station helps to better manage waste and can significantly reduce the amount of solid waste being thrown into the river and also provide job opportunities to the squatters. The landscape approach to WWTP could purify 9.1 MLD of domestic waste water and the sustainable water retention can raise the groundwater level by collecting flood water and rainwater to recharge aquifer to flush the already polluted river to further help deal with the pollution of Bagmati River.