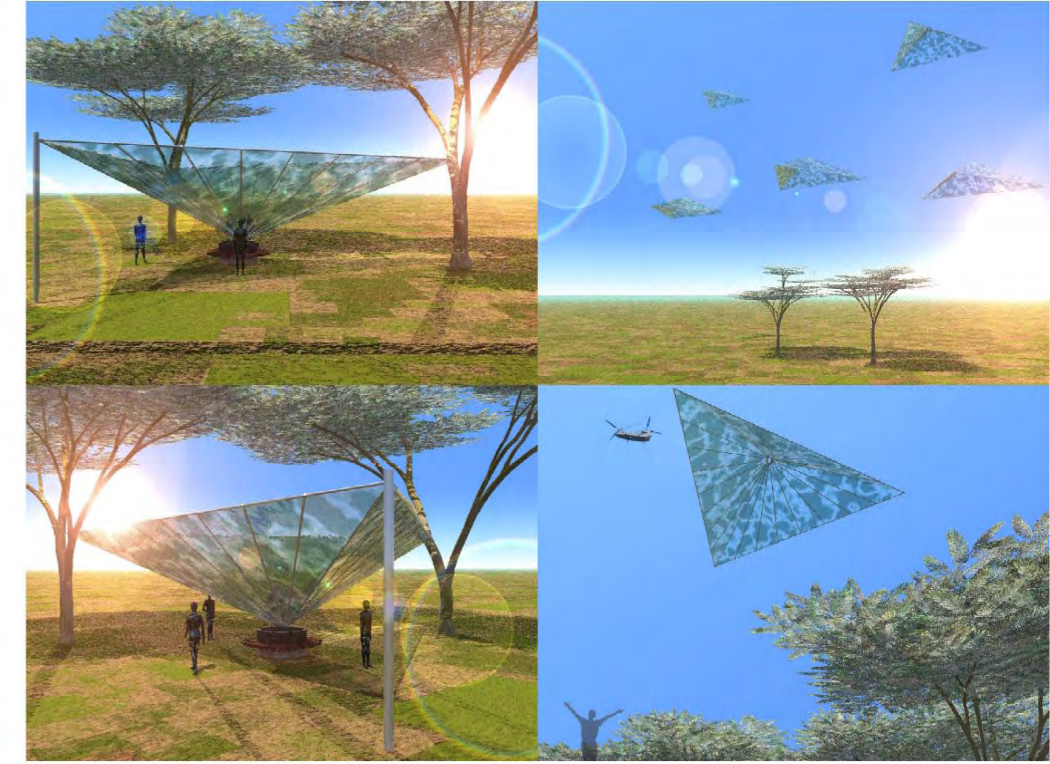


WatAir...
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Sustainable Concept

Extracting water vapor from air = fresh water out of dew
 Adaptable device especially also in hot climate

96 m² of dew-collecting-panels in just one pyramid shape = minimum 48 liters a day!
 0.5 L/m² of minimum water collection per night

More collectors = unlimited daily safe water supply
 Reliability - working always even in rainless days

Local water collection even in remote and polluted places = Free access to clean water
 Low maintenance and feasible to all



Sustainable Technology

Parachuting capabilities to remote and isolated communities
 Compact lightweight packing that can be installed easily

Flexibility in the spatial arrangement through different layouts
 Folding option during day time

Passive technology that is using only recycled materials
 Gravity induce the dew into different collecting tanks/wells/bottles

Optional PV elastic panels to produce clean & free energy as well

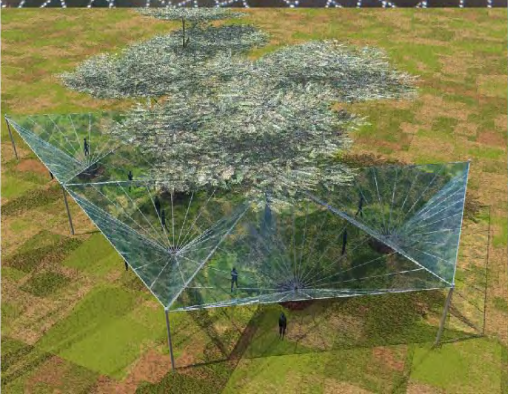
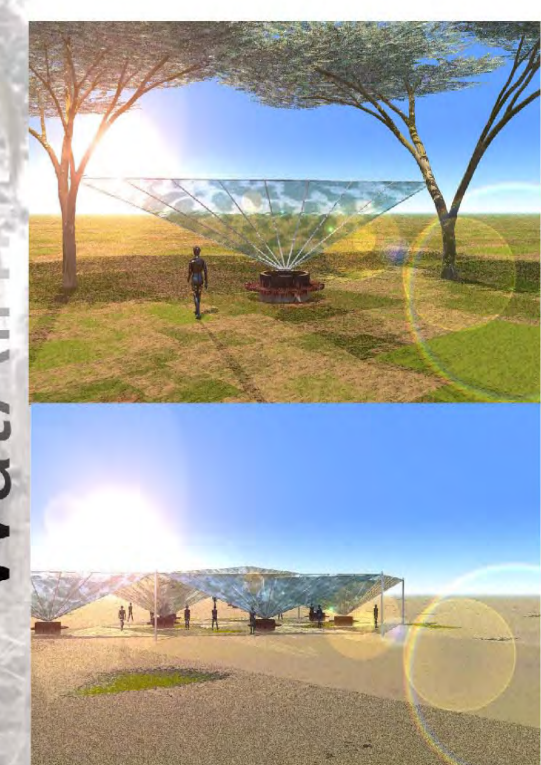
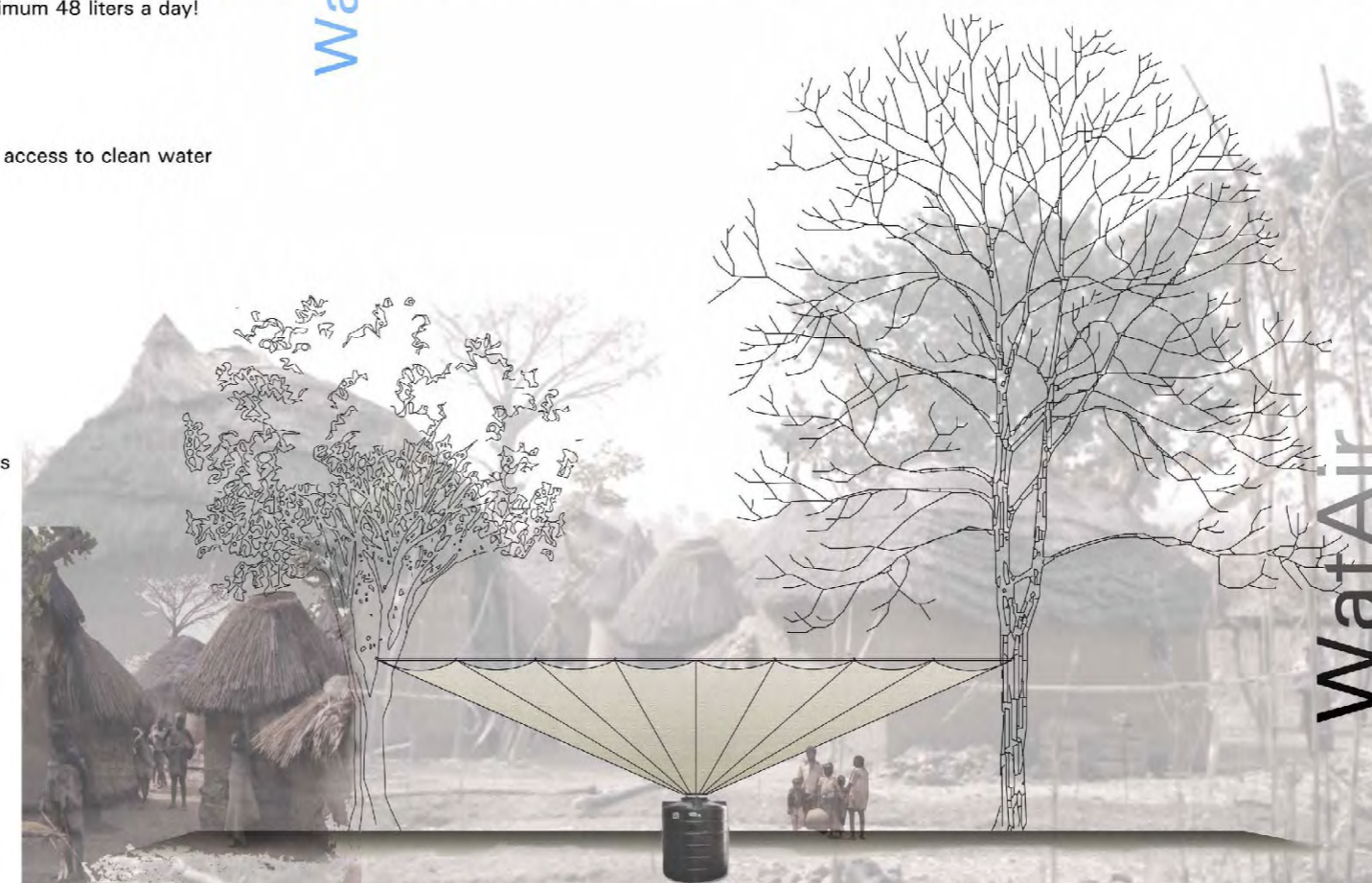
Sustainable Innovative Approach

Spider web inspiration
 Water webs is a social design through its simplicity

Minimal footprint of the device on the ground
 Vertical and diagonal deployment to increase collecting area

Shading canopy to prevent vaporization
 Shading for outdoors activities of the community

Symbiotic relationship with nature or rural dwellings
 Rooftop deployment in dense cities



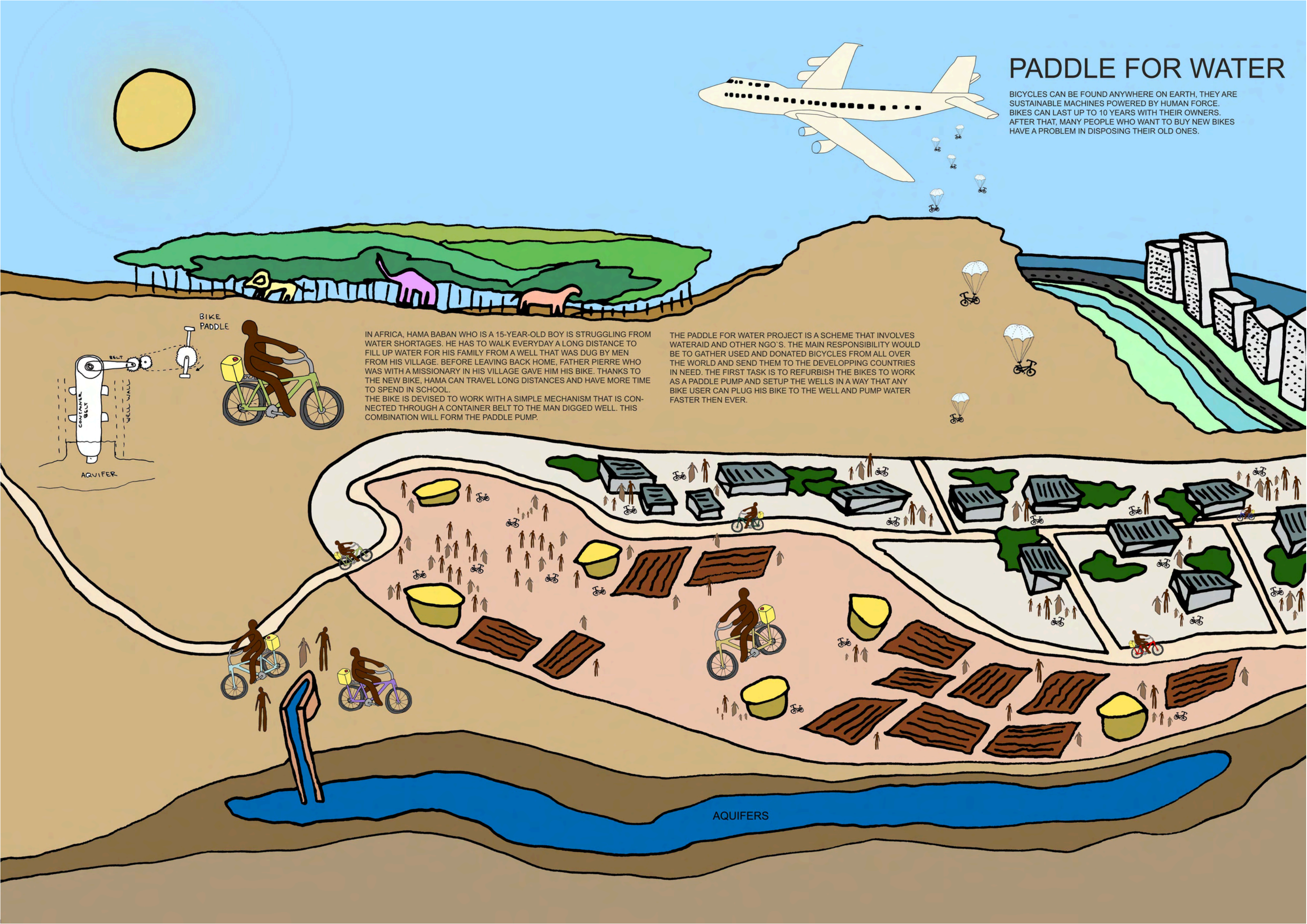
PADDLE FOR WATER

BICYCLES CAN BE FOUND ANYWHERE ON EARTH, THEY ARE SUSTAINABLE MACHINES POWERED BY HUMAN FORCE. BIKES CAN LAST UP TO 10 YEARS WITH THEIR OWNERS. AFTER THAT, MANY PEOPLE WHO WANT TO BUY NEW BIKES HAVE A PROBLEM IN DISPOSING THEIR OLD ONES.

IN AFRICA, HAMA BABAN WHO IS A 15-YEAR-OLD BOY IS STRUGGLING FROM WATER SHORTAGES. HE HAS TO WALK EVERYDAY A LONG DISTANCE TO FILL UP WATER FOR HIS FAMILY FROM A WELL THAT WAS DUG BY MEN FROM HIS VILLAGE. BEFORE LEAVING BACK HOME, FATHER PIERRE WHO WAS WITH A MISSIONARY IN HIS VILLAGE GAVE HIM HIS BIKE. THANKS TO THE NEW BIKE, HAMA CAN TRAVEL LONG DISTANCES AND HAVE MORE TIME TO SPEND IN SCHOOL.

THE BIKE IS DEvised TO WORK WITH A SIMPLE MECHANISM THAT IS CONNECTED THROUGH A CONTAINER BELT TO THE MAN DIGGER WELL. THIS COMBINATION WILL FORM THE PADDLE PUMP.

THE PADDLE FOR WATER PROJECT IS A SCHEME THAT INVOLVES WATERAID AND OTHER NGO'S. THE MAIN RESPONSIBILITY WOULD BE TO GATHER USED AND DONATED BICYCLES FROM ALL OVER THE WORLD AND SEND THEM TO THE DEVELOPPING COUNTRIES IN NEED. THE FIRST TASK IS TO REFURBISH THE BIKES TO WORK AS A PADDLE PUMP AND SETUP THE WELLS IN A WAY THAT ANY BIKE USER CAN PLUG HIS BIKE TO THE WELL AND PUMP WATER FASTER THEN EVER.



Use your water

Conceptual approach for a multi-functional water system in South Asia

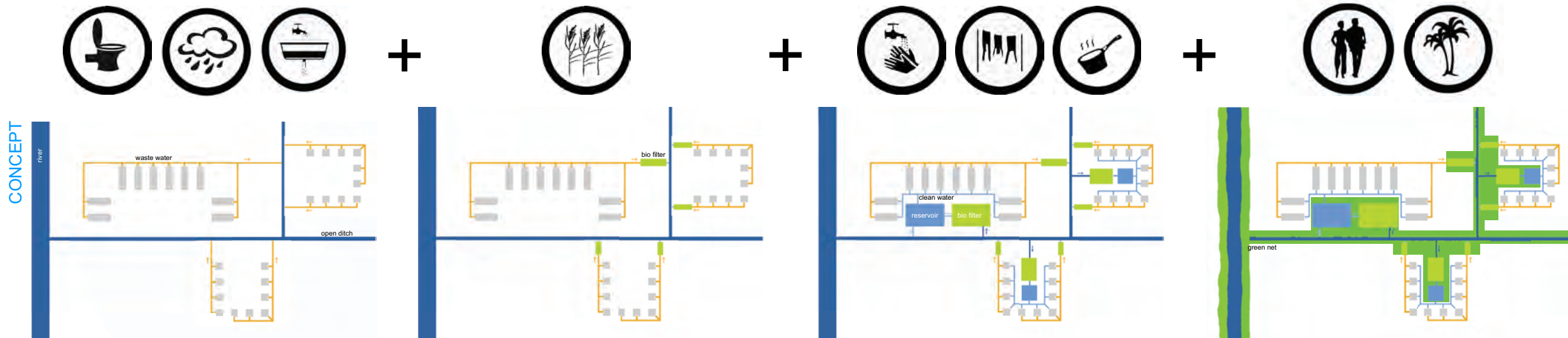
In South Asia 34% of the people in urban areas have no possibility to use improved sanitation. In large areas, an adequate sewage system does not exist and especially the poor and marginalised class of the population suffer from minimal access to sanitations facilities, causing diseases and epidemic plagues.

One of the key issues is how to establish a sustainable functioning sewage system.

The expensive, inflexible underground-pipe -systems of the western countries are not adjusted to the conditions of South Asia with extremely increasing urban population and intense monsoon rain.

The project „use your water“ has developed a conceptual approach for an open water system which will provide a sustainable solution for sanitation in the disregarded urban areas of South Asia. At the same time the concept presents an effective rainwater runoff treatment, the supply of clean water for the domestic use and space for recreation.

The multi-functional water system will contribute to a high quality of the waters, benefit the environment and create positive social and economic impacts. This requires interdisciplinary considerations of engineering, ecology and landscape architecture. The idea of the design is an urban landscape where technical use of water and life quality go hand in hand.

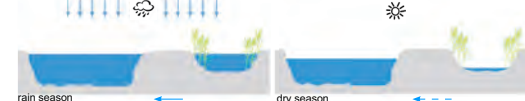


sewer system
The concept builds up on the existing system of pipes, open ditches and canals for both sewage and rain water, which is cheap and easy to operate. The concept does not aim for a monofunctional centralized high-tech treatment plant, but for a simple strategy of making use of ecological processes towards the aesthetic and social benefit of the community.

biological wastewater treatment
A decentral biological wastewater treatment will supply an adequate water quality in the system. Through an underground pipe system (or ditches) the domestic sewage is led to the bio filters before it reaches the open water system. Vegetation within ditches increases the self cleaning effect of the waters.

water for domestic use
The next step is to provide water for the domestic use. Water reservoirs with high capacity will compensate the unequal distribution of rainfall during the year. As far as it is possible, the reservoirs will be filled up when the amount of rain water in the ditches is high. In this way the good quality of the water can be obtained. Additional bio filters will also improve the water quality.

green infrastructure
In order to make the system attractive for the people, a multifunctional net of green infrastructure is developed. Different types of vegetation and paths follow the canals which combine the engineering methods with design and ecological considerations. The „green net“ connects existing green spots and creates space for recreation, nature experience and sport activities.



The multi-functional sytem integrates existing waters and can extended step by step.



water system in urban landscape

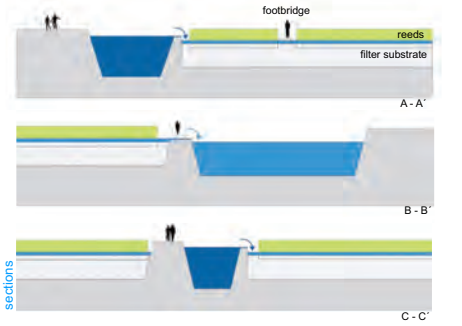
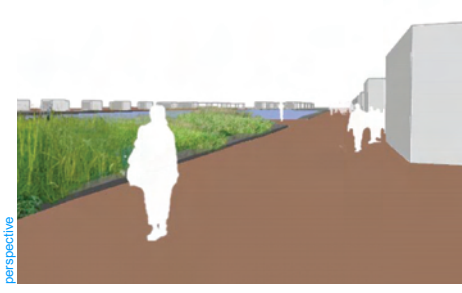
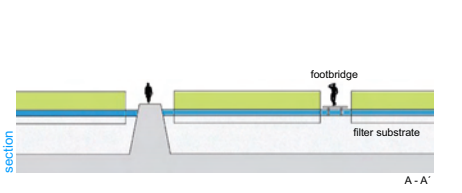
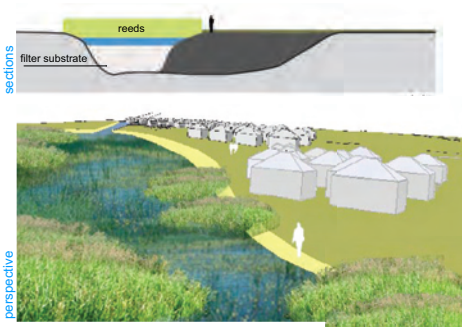
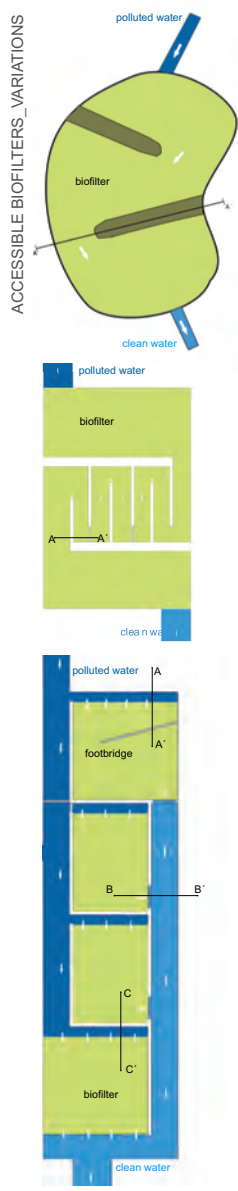
DESIGN When creating the multifunctional watersystem it is necessary to express a place based aesthetic. It is important to apply the concept onto the individual local areas because the structure of an urban landscape contains many different characteristics.

suburban areas

urban areas

natural character

architectural character



C - C'