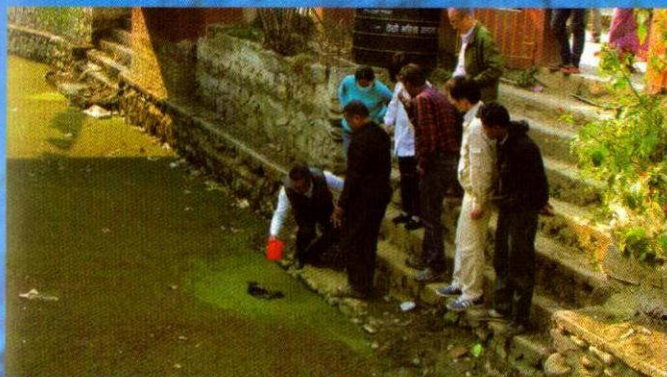


Introduction

Urban water management is one of the key challenges faced by human society along with the rapid urbanization. Besides the water scarcity, the pollution of natural water bodies, sustainable management of waste water and drainage are on the top agenda of most of the municipalities. The conservation of ponds, rivers and other water bodies is a priority for urban communities too. In this context, several attempts and the initiations come up with innovative solutions to address the problem.

Water for Life is one of such initiatives to improve the public water facilities, make the urban environment healthy and community livable. UN-Habitat, with the support of people of Fukuoka, Japan, is implementing this project in selected settlements in Nepal through its partner Centre for Integrated Urban Development (CIUD).



Application of Aqualift in Buddha Pukhu, Lalitpur

Programme Objectives

- To promote community initiatives to conserve public water bodies for the betterment of urban settlements
- To improve the water bodies using Aqualift (a combination of various types of microbes) there by maintain and enhance the natural ecosystem.

Aqualift: the microbes that augment the water cycle through natural process

In the nature various microbial organisms primarily workout the impurities and filter, settle and recycle the nutrients to keep the water bodies fresh and alive. With the change in lifestyle, these water bodies are receiving more and more impurities from human activities. Therefore, there is a need to augment the process by adding more and effective microbes. Aqualift is one of such microbes that help to improve the water bodies. It includes aerobic, anaerobic and facultative bacteria imbedded in volcanic sand powder. Aqualift has a simple mechanism for the water treatment. Once it is applied in any water body, it settles on the bottom and starts regenerating



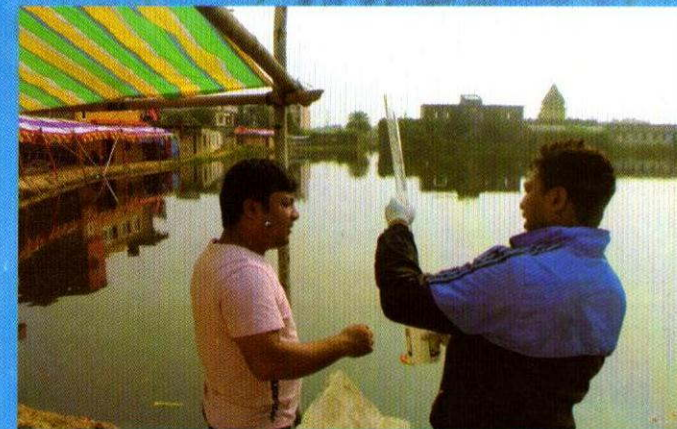
Aqualift has series of products for various purposes

The bacteria breakdowns the organic matter present in the water and feeds in it. Under the right conditions, it starts regeneration within hours of its application and a single bacterium will reproduce several hundred million to several billion offspring. The bacteria will increase and form a territory which avoids disease causing bacteria from growth. The bacterium breaks down sludge, hydrogen sulfides and other sulfides such as Dinitrogen-N-sulfide (N₂S) to improve water quality and remove the unpleasant odors and remove hazardous substance such as hydrogen sulfide (H₂S) will help improve water permeability, increase absorbability of nutrients and it will enable healthier growth of botanicals and agricultural products.



Aqualift application in plants in horticulture centre, Kirtipur

Aqualift is available in the different series such as 900Ln, 1600Ln 300Ln and others. Each series of Aqualift is developed for the special purpose such as 900Ln is used for the waste water treatment and 300Ln is used for composting and in horticulture.

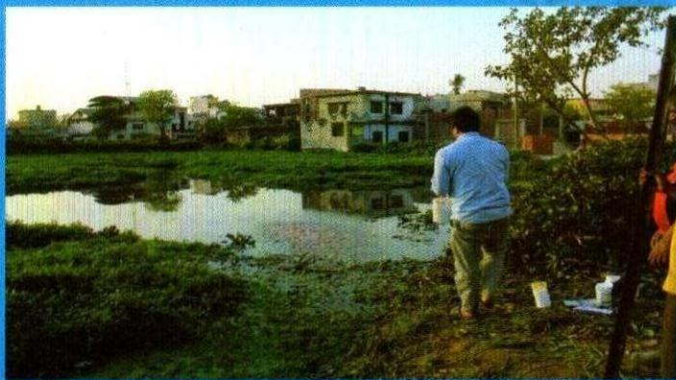


Onsite turbidity test in Kabindrasir pond, Janakpur

Planned Activities

The project is focused on two key activities:

- a. Study the effect of Aqualift application
The Aqualift is planned to be applied in few selected ponds of the Kathmandu valley and the community ponds of Birgunj and Janakpur. Aqualift will also be tested in wastewater treatment plant, landfill sites and bio composting. An analytical study will be carried out from results of its application



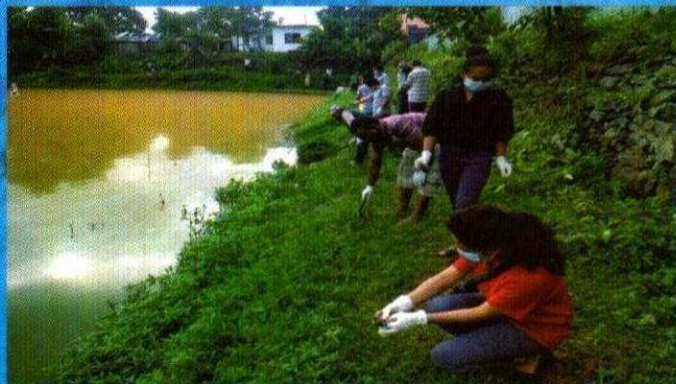
Aqualift application in Shreepur pond, Birgunj

Expected Results

The project expects the improvement of the water quality with the significant improvement in water transparency and pH level of water with the reduction of foul smells, biological oxygen demand (BOD) and chemical oxygen demand (COD) level and total suspended solids (TSS), Nitrates and Phosphates. Similarly, it is also expected that the communities as well as local authorities are made aware and motivated for the conservation and promotion of public water facilities.



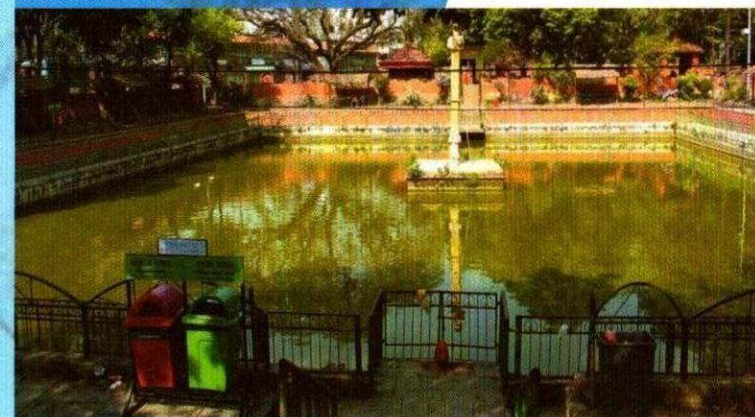
Orientation of Water for life' project to ward officers of three wards of Kirtipur Municipality



Cleaning campaign in Nhu Pukhu, Lalitpur

Water for Life

Improving Public Water Bodies for the Better Environment



Implementing Partner



Centre
for Integrated
Urban Development
(CIUD)
improving livable cities

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