

"Toilet to Crop" for Pakistan

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Pakistan Water Crisis

By 2025, Pakistan could run dry due to over-consumption of water.

Causes

- Intensive Water Use
- Climate Change

Impacts

- Agriculture
- Economy
- Lower class farmers and families.



Families in Pakistan are forced to drink unclean water due to the lack of fresh water available.

Project Goals

1. System to help Pakistan reuse its wastewater for agriculture
2. Campaign to highlight the benefits of using recycled wastewater

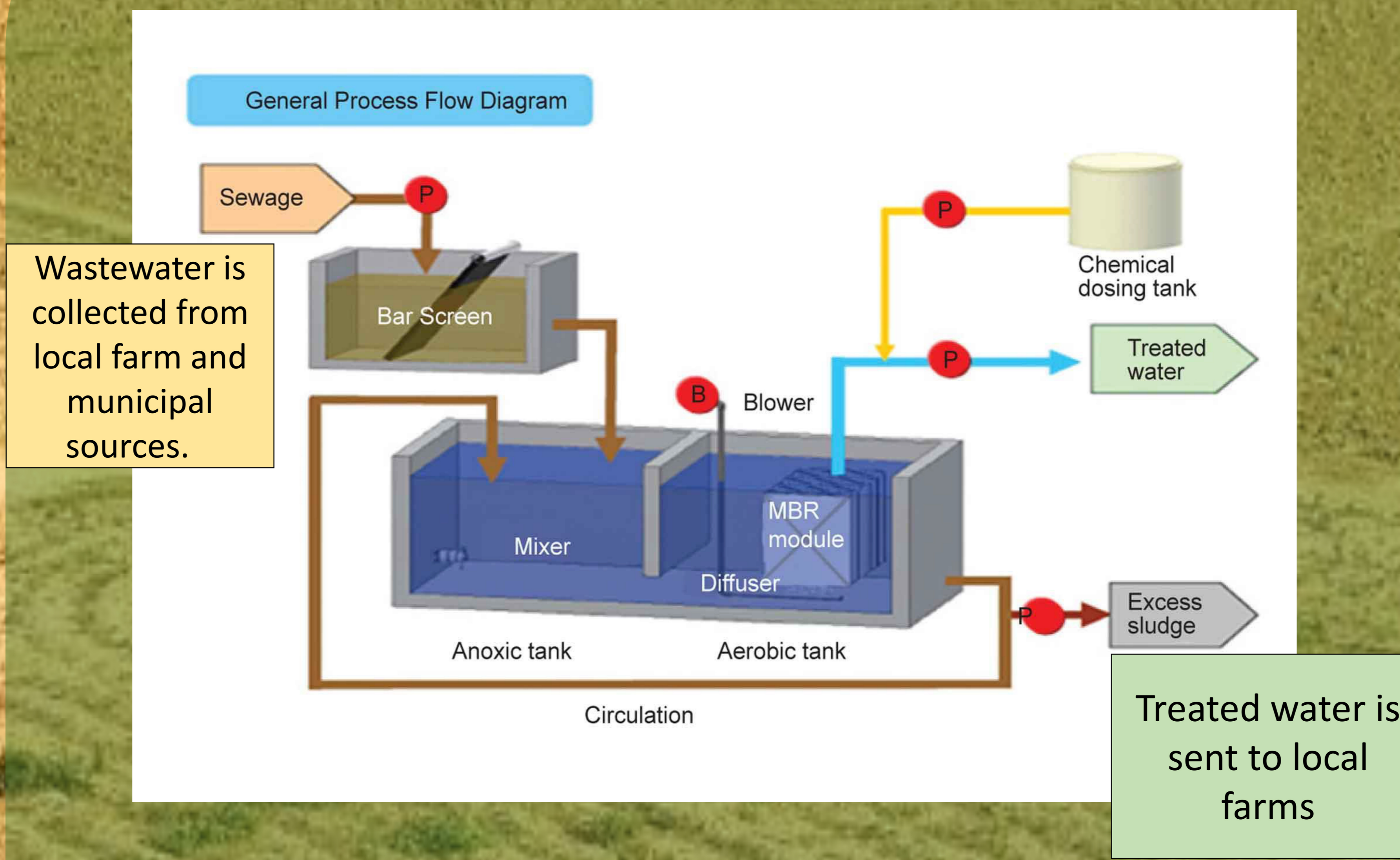
Community

Small scale cotton farmers in the Sindh province of Pakistan



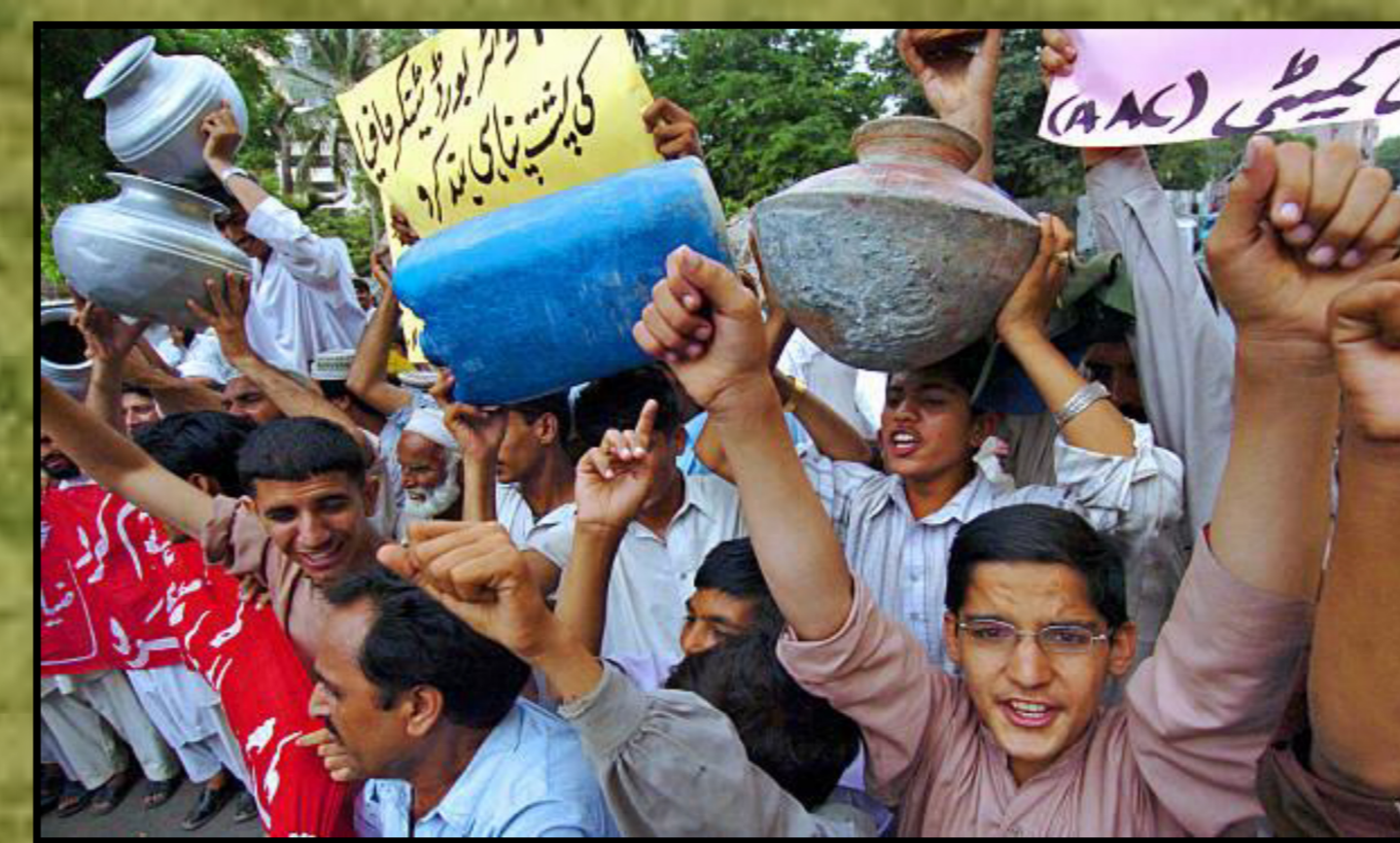
Solution

Membrane Bio-reactor (MBR)



A MBR passes wastewater through multiple different filters, removing the bad chemical, nutrients, and bacteria. It is capable of secondary filtration, so it is safe for agriculture, but not human consumption.

Campaign



Our campaign would involve educating the community on reusing water and suggesting more efficient runoff water disposal systems to farmers.

Implementation

For Membrane Bio-Reactor:



1: Contact the Water and Sanitation Agency (WASA). They are responsible for the infrastructure of the sewage lines,



3: They are responsible for infrastructure of the sewage lines in Pakistan

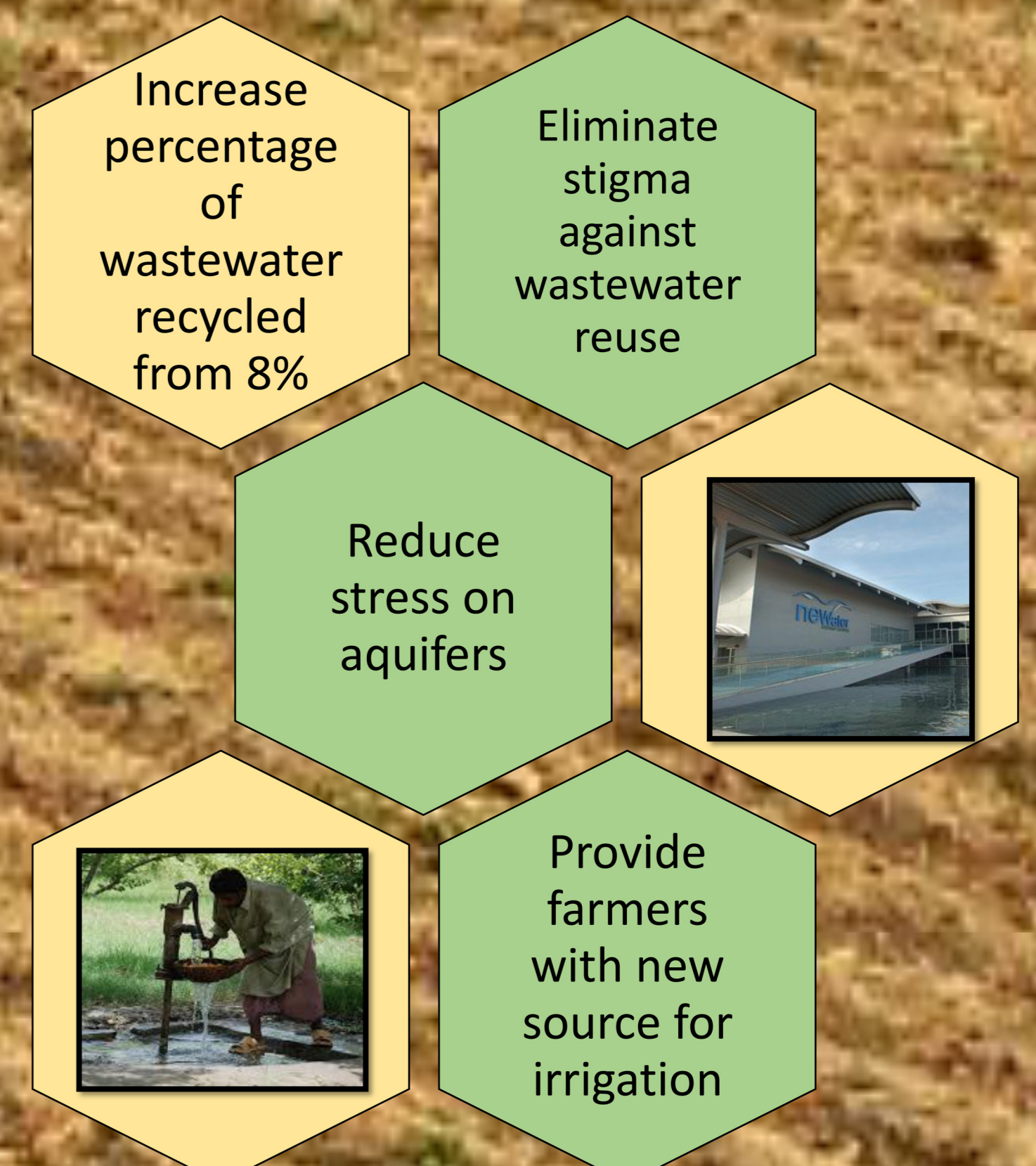


2: Contact The Pakistan Environmental Protection Agency (PAK-EPA).



4: They are responsible for funding and the set-up the MBRs in the existing wastewater recycling plants.

Outcomes & Assessment



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