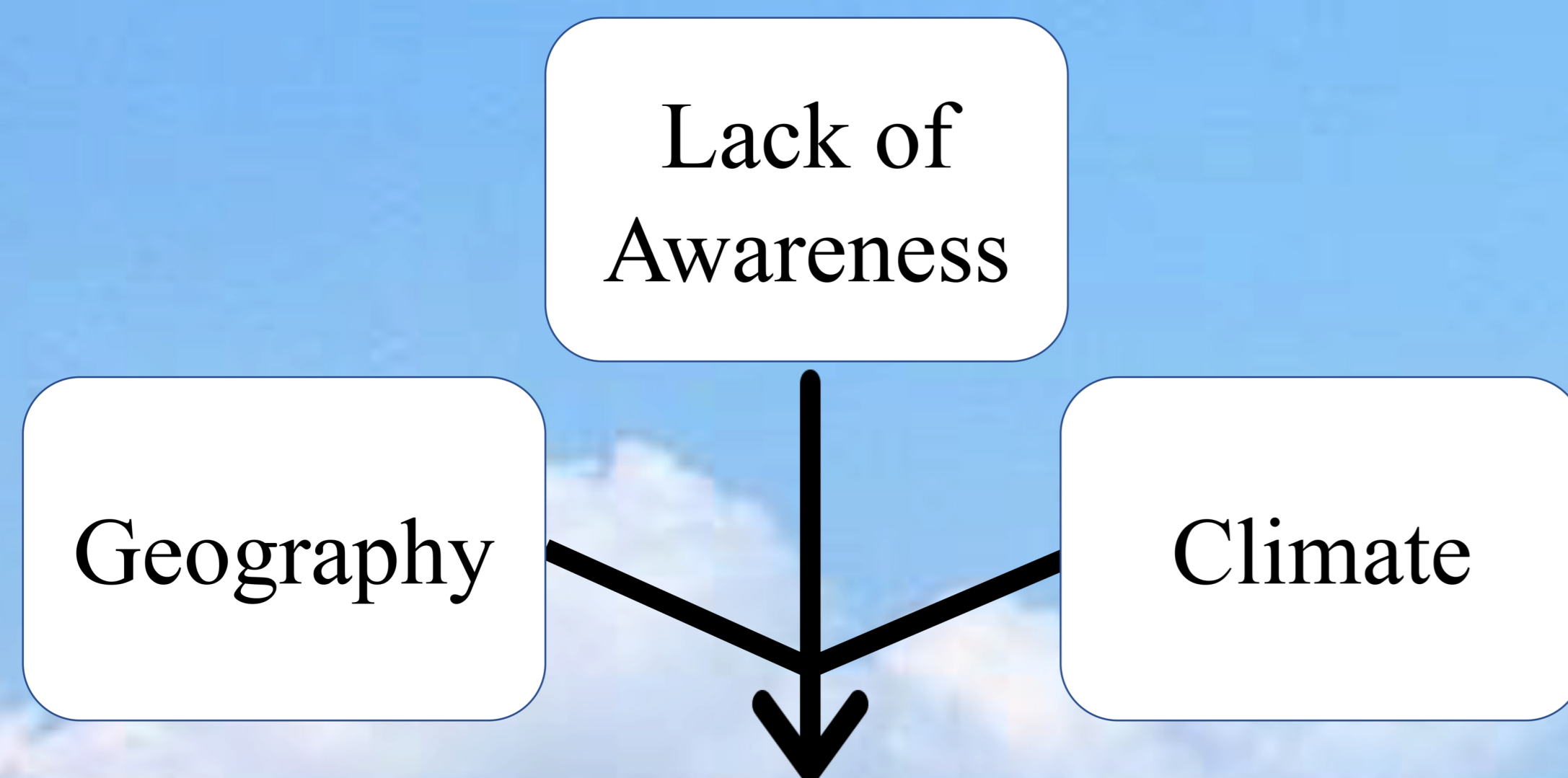


## Goal

To develop a technical and educational solution that enables the community of Nawalparasi, Nepal to remove arsenic from their drinking water.



## Problem

Drinking water in Nawalparasi contains hazardous amounts of arsenic concentrations that negatively impact the community's health and results in the development of serious illnesses.

## Health Impacts



Hands and feet of someone suffering from arsenicosis.



Skin cancer, one possible effect of arsenic poisoning.

## Solutions

### Kanchan Arsenic Filter

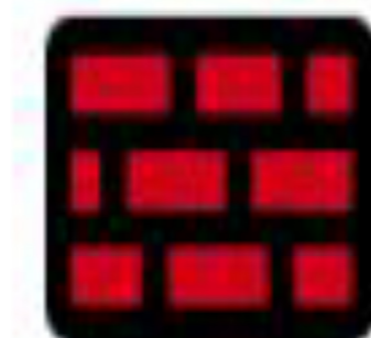
**95%**  
 ARSENIC REMOVED  
 FROM CONTAMINATED DRINKING WATER

**\$24**  
 INITIAL COST  
 PER KAF IN NAWALPARASI

**93%**  
 Iron Removal

**\$2**  
 Operating  
 \$ Per Year

Brick Chips



Iron Nails



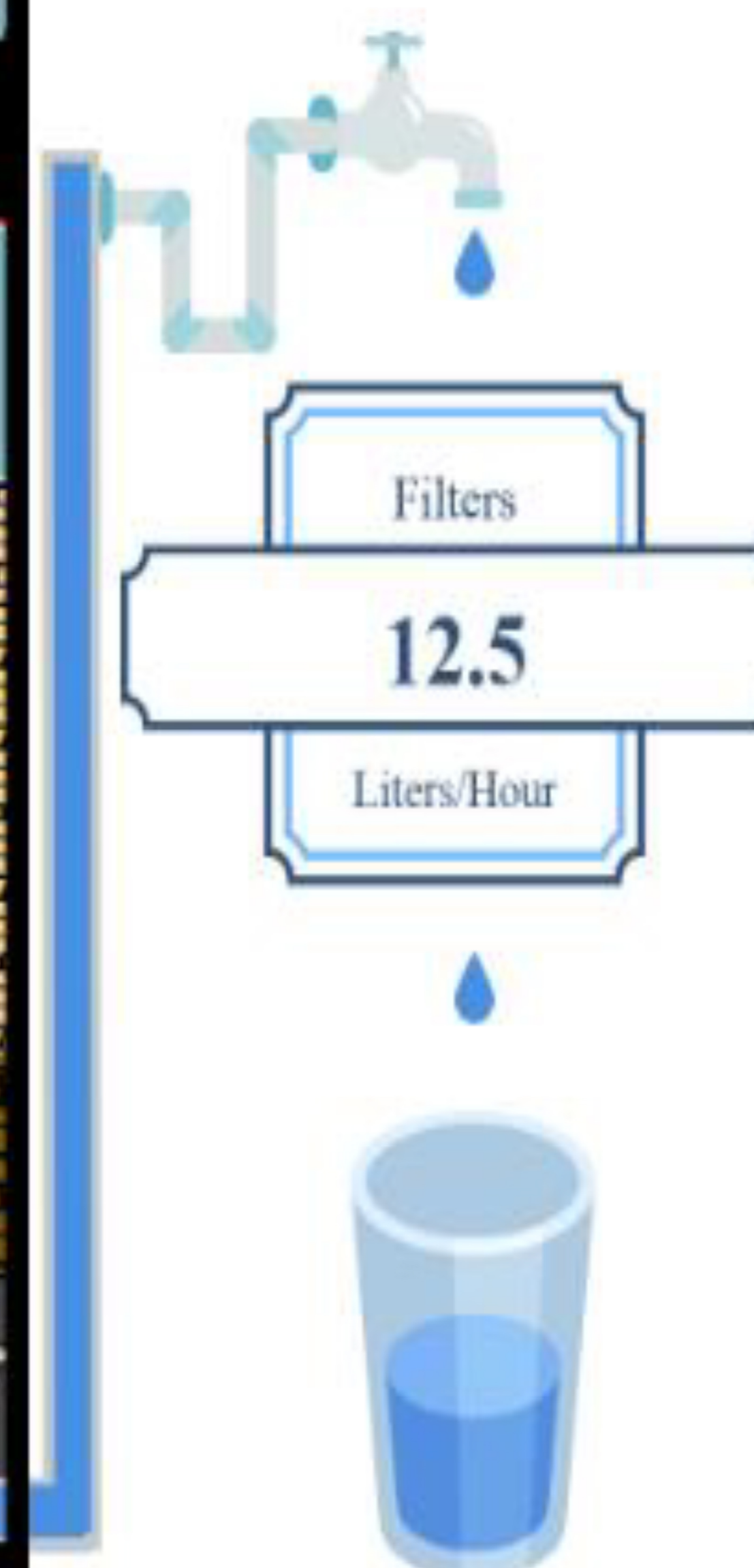
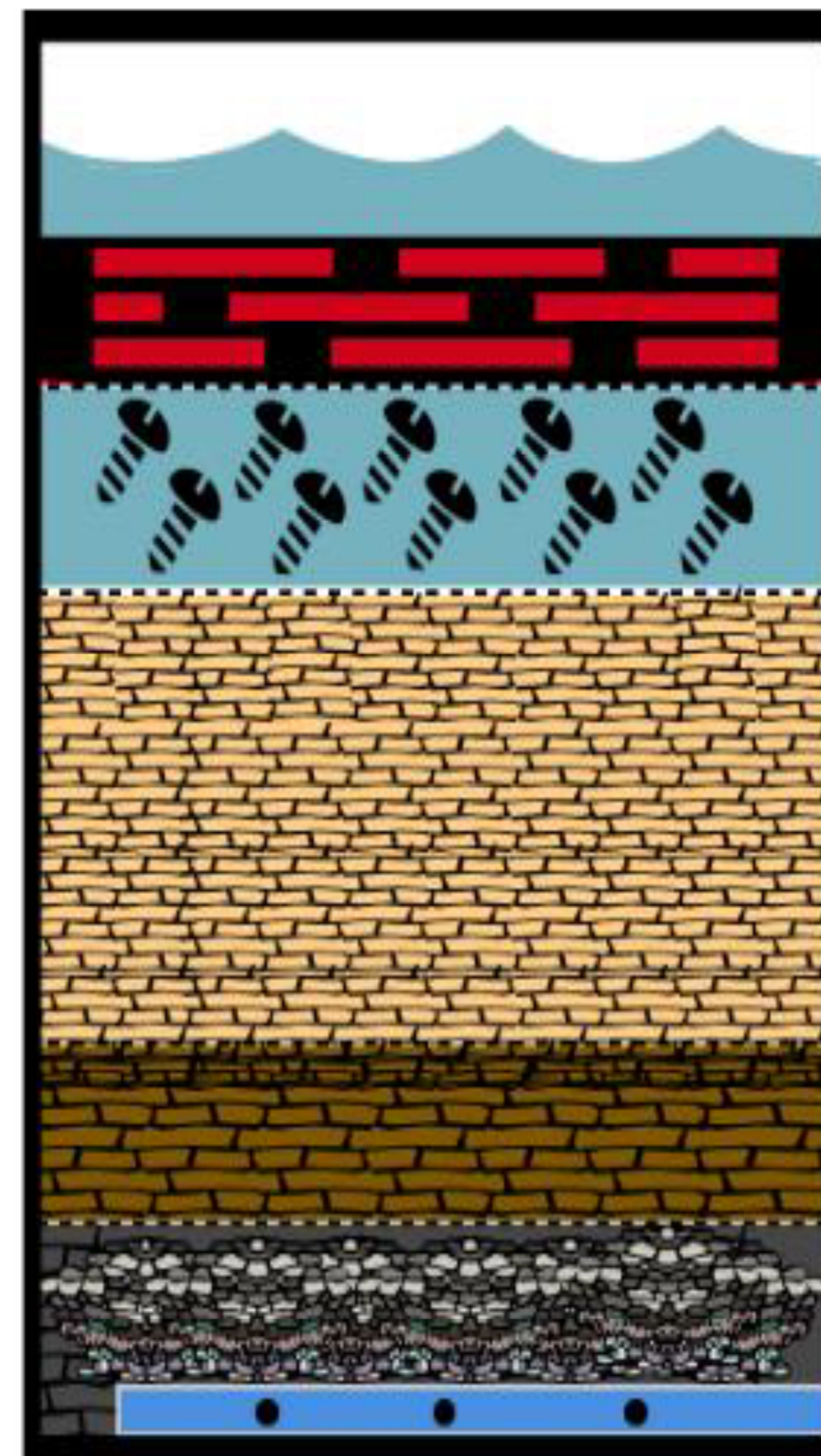
Fine Sand



Coarse Sand

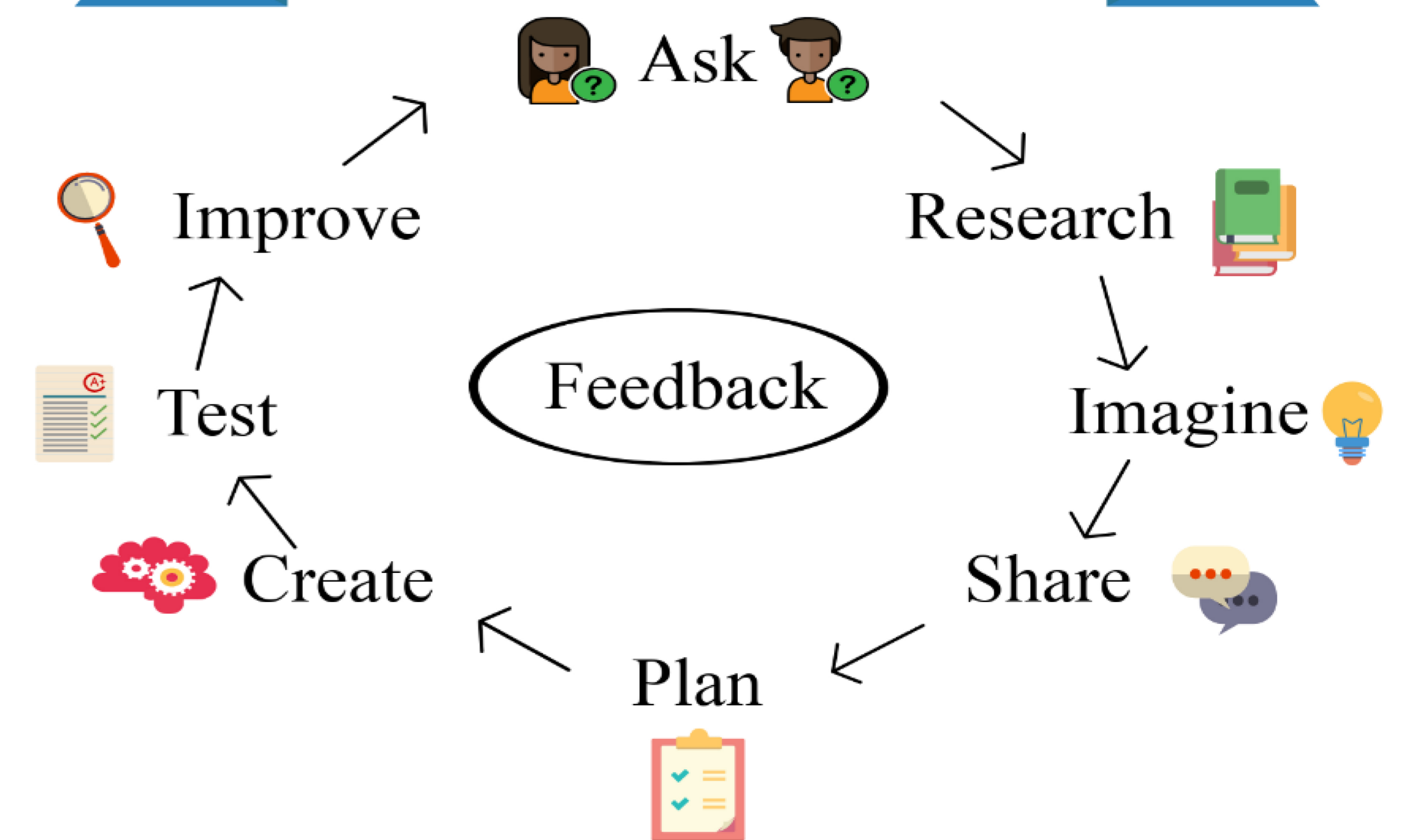


Gravel



## Education

### Engineering Design Process



## Implementation



Disperse KAFs in the neighborhood through Nepal Red Cross



Hold separate workshops for women and children to educate and promote STEM



Monitor the effectiveness of KAFs through testing and feedback on workshops

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