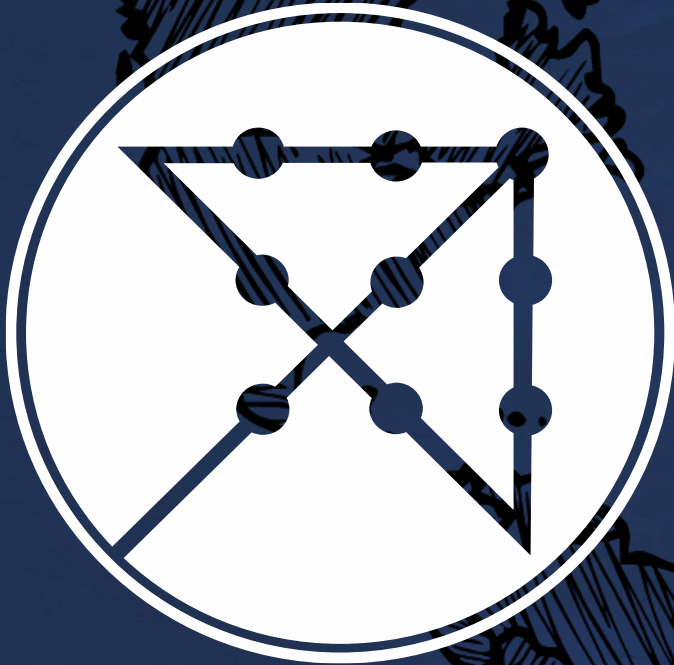


Rainwater Harvesting

A sustainable solution for the future

Promoting an effective, simple and scalable decentralized solution to Lebanon's water scarcity



ACTED

What is Rainwater Harvesting?

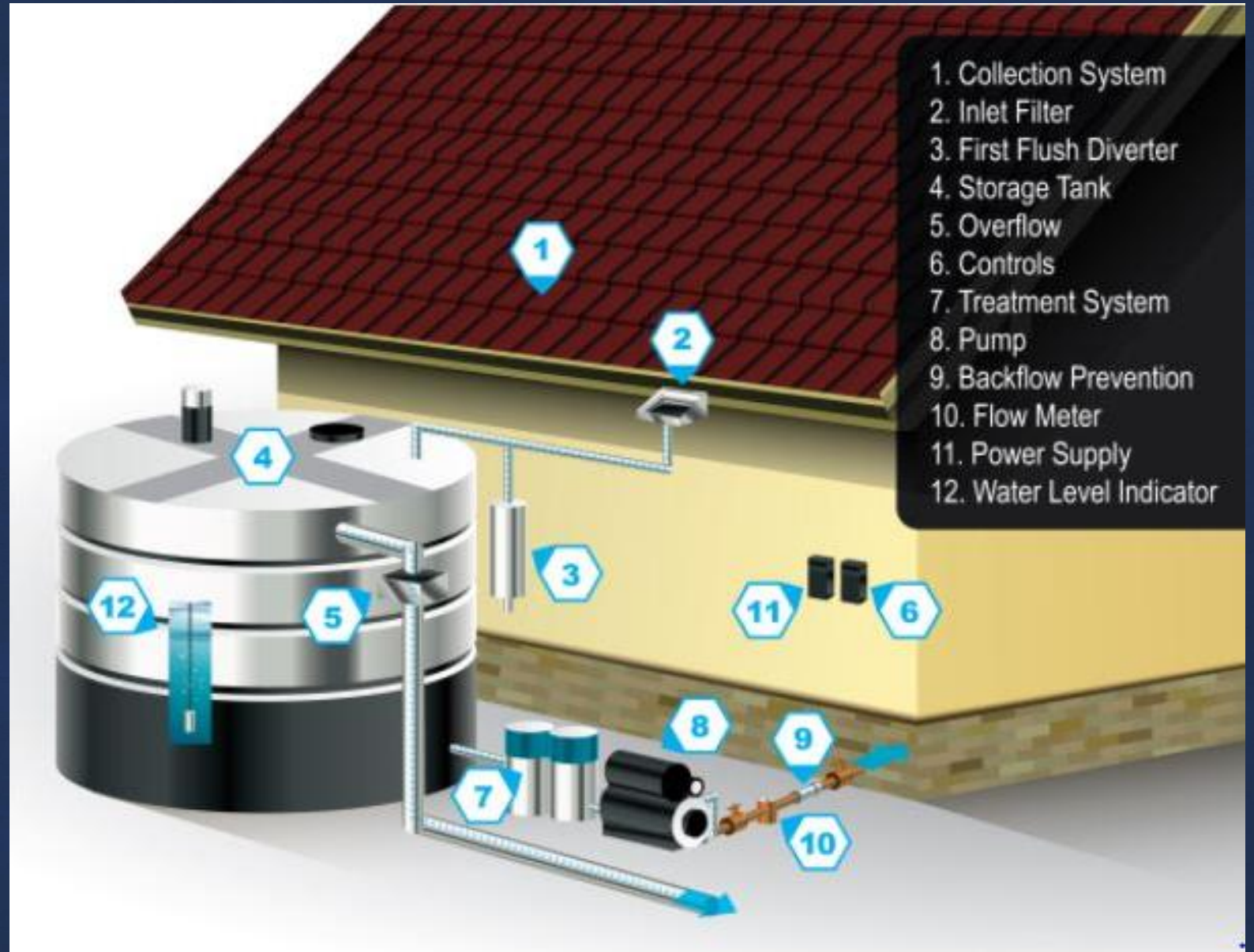
Rainwater harvesting is the collection and storage of rain, rather than allowing it to run off.

Rainwater is collected from a roof-like surface and redirected to a tank, or a reservoir for future use.





The process of Rainwater Harvesting





**Domestic Rainwater Harvesting in Lebanon
Pilot Project in Berqayel, Akkar**



Funded by the European Union
بتمويل من الاتحاد الأوروبي

- A pilot project funded by the EU
- Berqayel was suffering from water shortages and had the largest local population (26,500 inhabitants) hosting a large number of refugees (2,500 individuals).
- Main source of water was water trucking.
- Systems to collect 8,000 liters of water.
- Covered between 40% and 100% of daily water demand over a 12-week period.
- Around 220\$ can be saved replacing water trucking over the winter season.
- The cost of the system is half the average cost of drilling a new borehole.

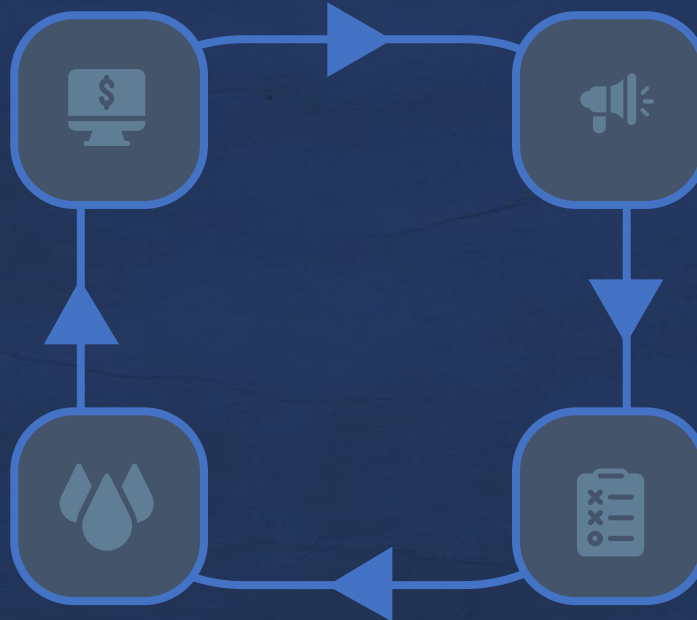


Case Study

Al Ostuan River Basin RWH Project

This project will address four of the priority actions in the river basin study:

01 Training and creating jobs for the local community



Reduce water use and raise awareness of water management 02



03 Increase the use of surface water and decrease groundwater use for agricultural needs

Protect water resources from climate change 04

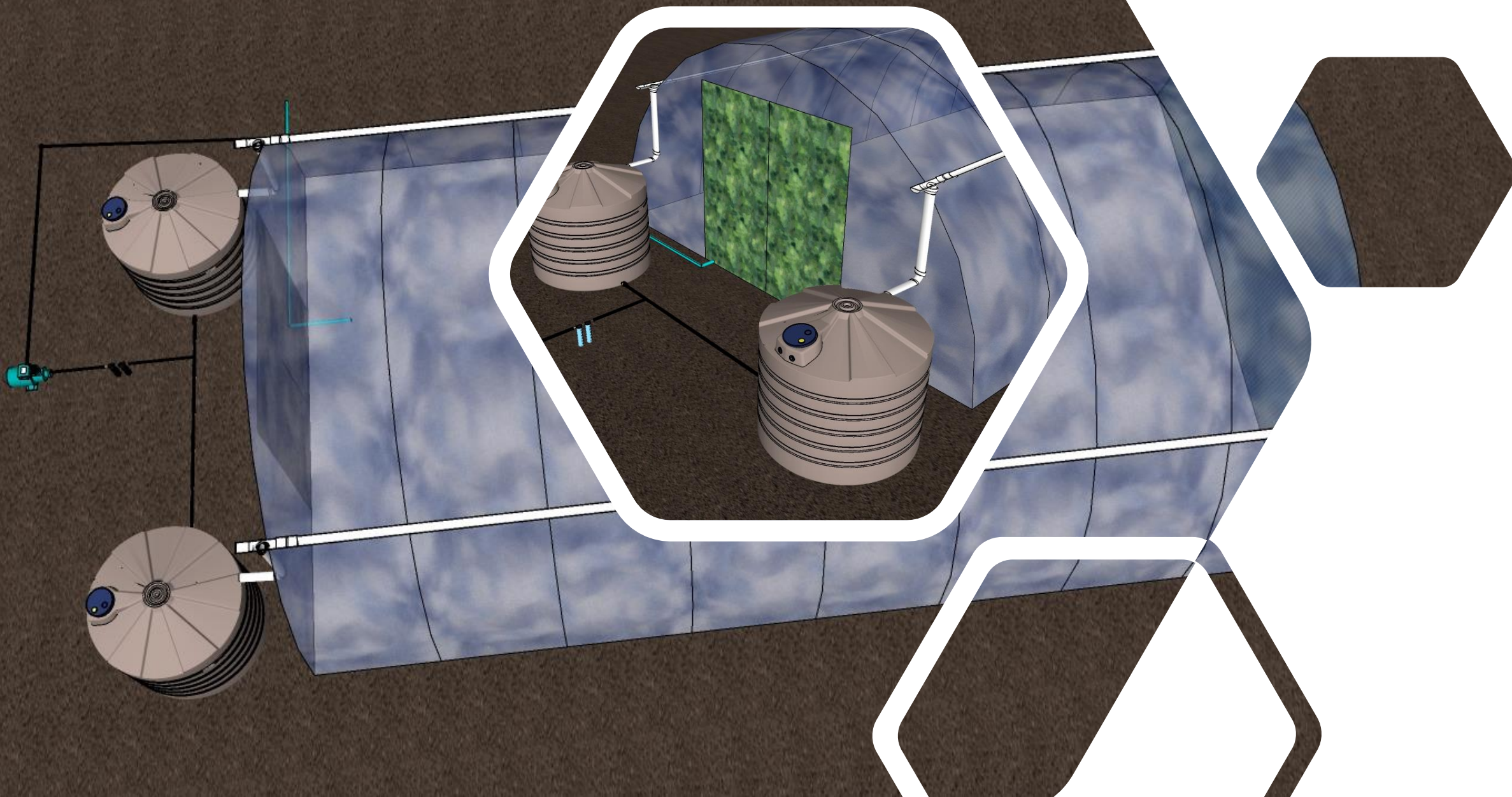
AL OSTUAN RIVER BASIN



LEGEND

-  Village boundaries
-  Areas with the highest agricultural unmet demand

Installation Design on Farms



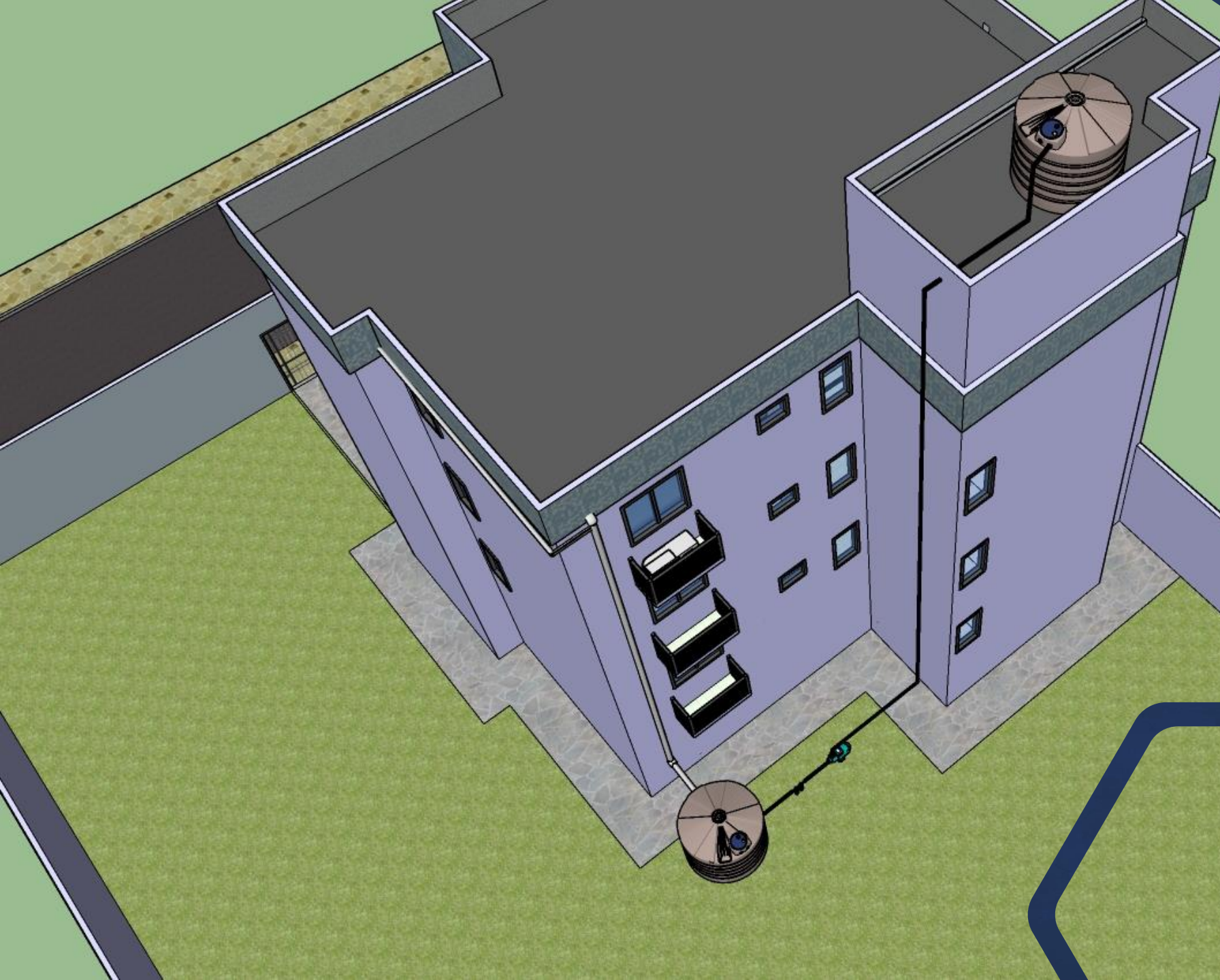


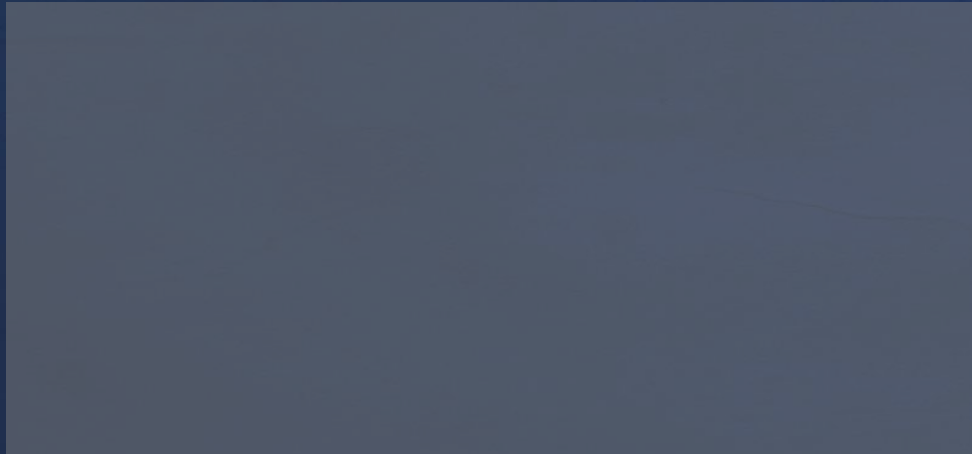






Installation Design on Public Schools



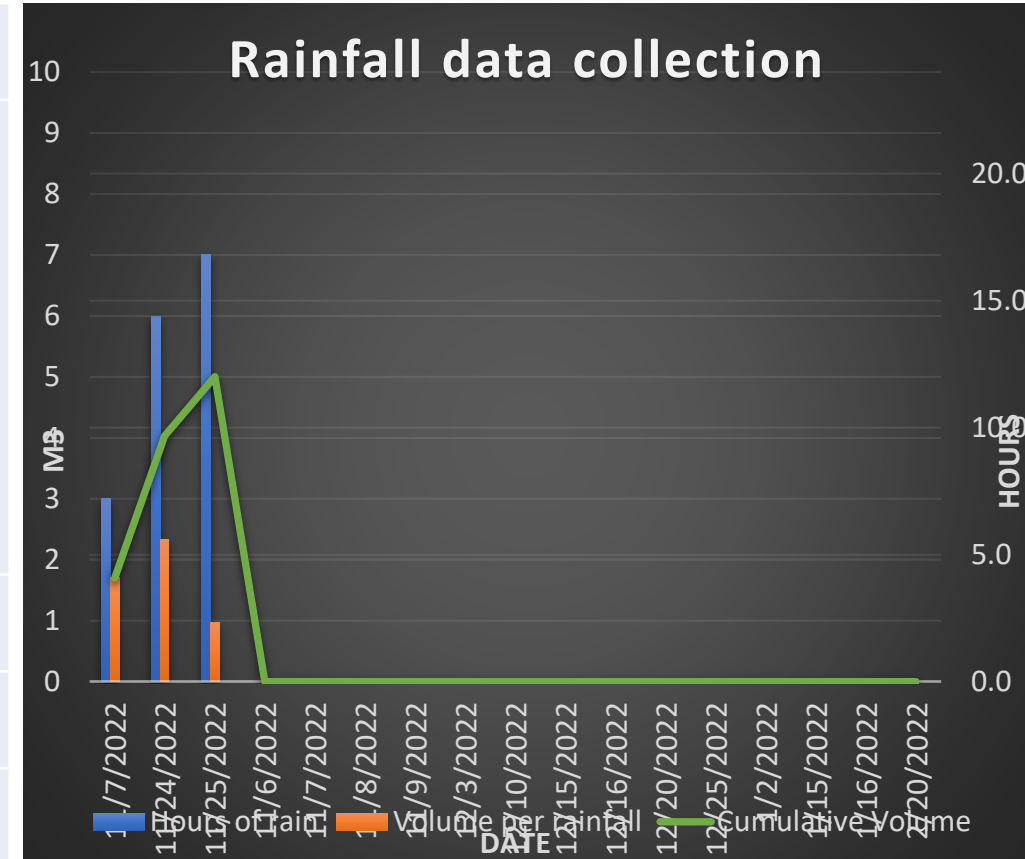






Quantity of Water Harvested

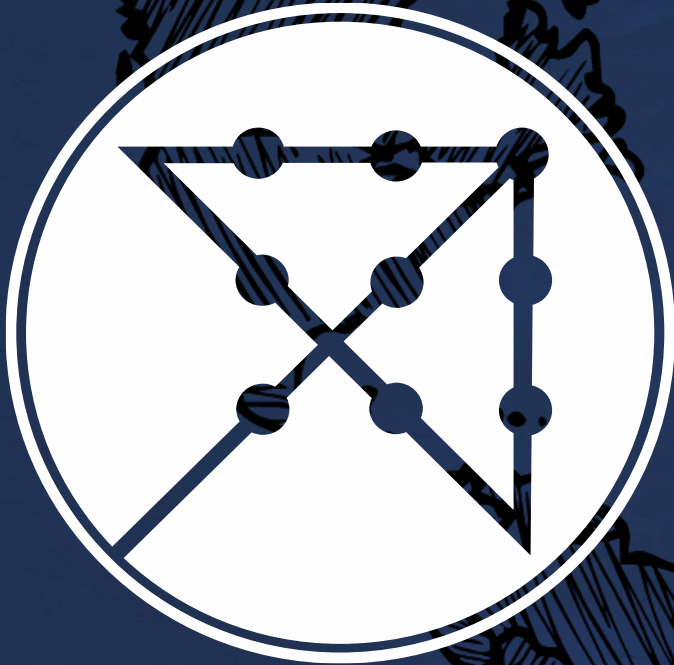
| Rainfall data collection per tank | | | | | |
|-----------------------------------|-------|--|--|--|----------------------------------|
| date of rainfall | hours | depth of water collected in the tank (m) | calculated Volume of stored water (m3) | volume catched per rainfall or used (m3) | Cumulative collected volume (m3) |
| 11/7/2022 | 3 | 0.57 | 1.70 | 1.70 | 1.70 |
| 11/24/2022 | 6 | 1.35 | 4.03 | 2.33 | 4.03 |
| 11/25/2022 | 7 | 1.675 | 5.00 | 0.97 | 5.00 |



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