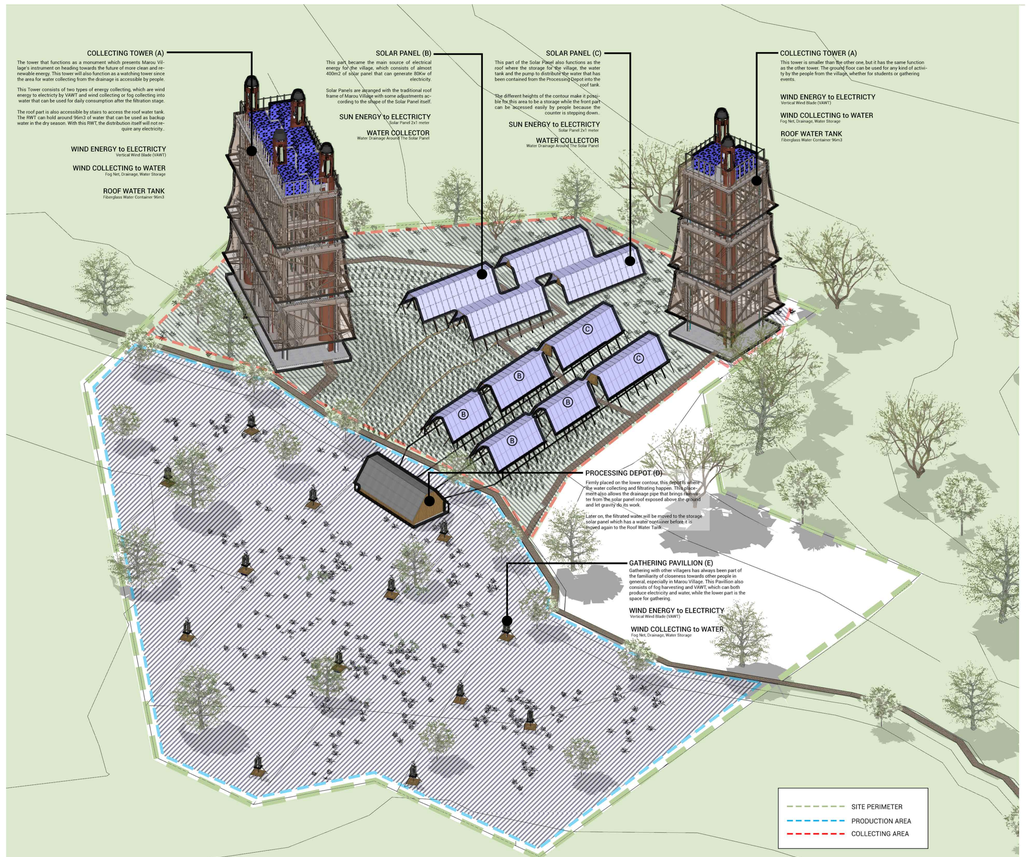
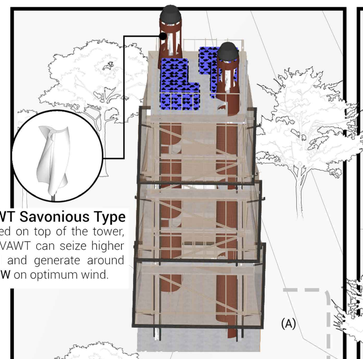
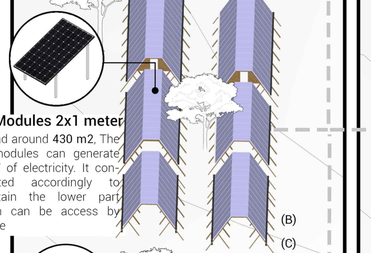


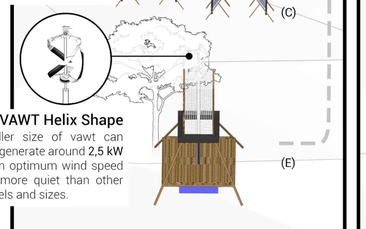
## VAWT Savonious Type

Placed on top of the tower, this VAWT can seize higher wind and generate around 7,5 kW on optimum wind.



## PV Modules 2x1 meter

Spread around 430 m2, The PV modules can generate 80kW of electricity. It constructed accordingly to maintain the lower part which can be access by people



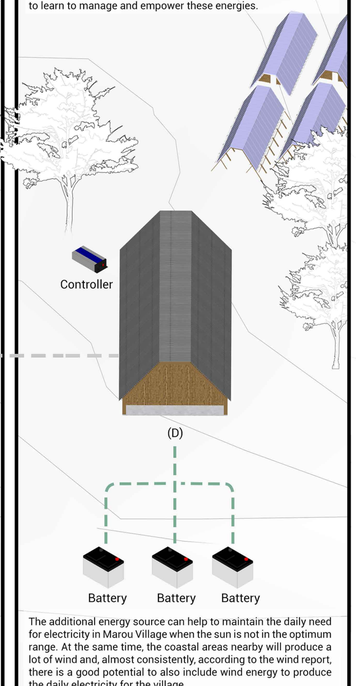
## VAWT Helix Shape

Smaller size of vawt can also generate around 2,5 kW on an optimum wind speed and more quiet than other models and sizes.

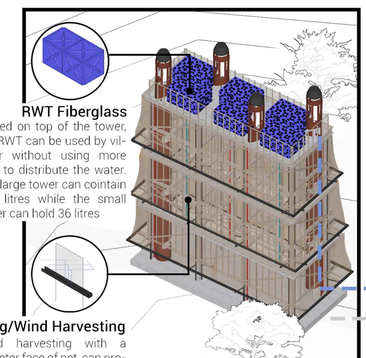
## THE FLOW OF THE RENEWABLE ELECTRICITY

Despite PV modules are used as a primary renewable energy, other options seems possible to include while looking at the site which as wind energy. VAWT generate almost 7kW on its high performance, can add an additional electrical needs for the village.

The energy from VAWT and PV modules will be store in Processing Depot (e) where the controller located and later on put in batteries and can be use by the villager. The Depot itself become A place where all energies unite, where it is also a place for villagers to learn to manage and empower these energies.

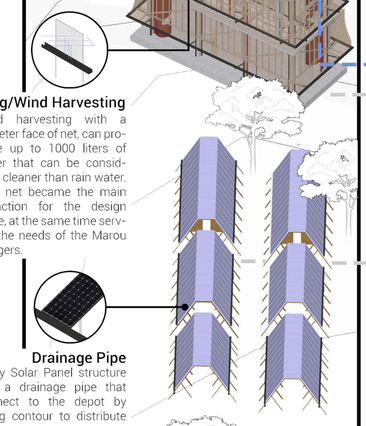



The additional energy source can help to maintain the daily need for electricity in Marou Village when the sun is not in the optimum range. At the same time, the coastal areas nearby will produce a lot of wind and, almost consistently, according to the wind report, there is a good potential to also include wind energy to produce the daily electricity for the village.



## RWT Fiberglass

Placed on top of the tower, the RWT can be used by villager without using more pipe to distribute the water. The large tower can cointain 108 litres while the small tower can hold 36 litres

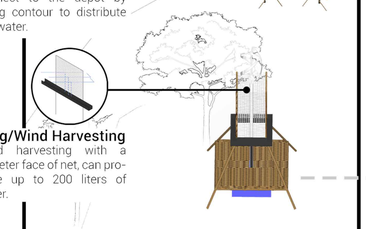


## Fog/Wind Harvesting

Wind harvesting with a 5-meter face of net, can produce up to 1000 liters of water that can be considered cleaner than rain water. This net became the main attraction for the design while, at the same time serving the needs of the Marou villagers.

## Drainage Pipe

Every Solar Panel structure has a drainage pipe that connect to the depot by using contour to distribute the water.

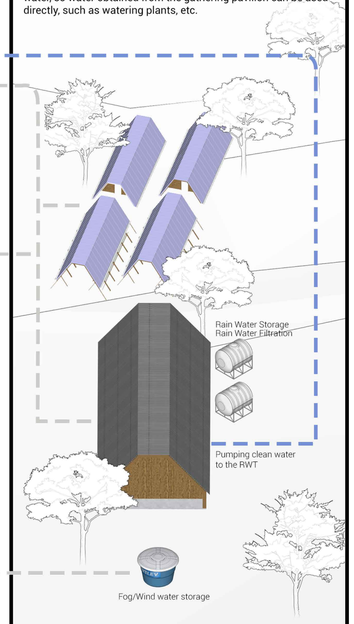
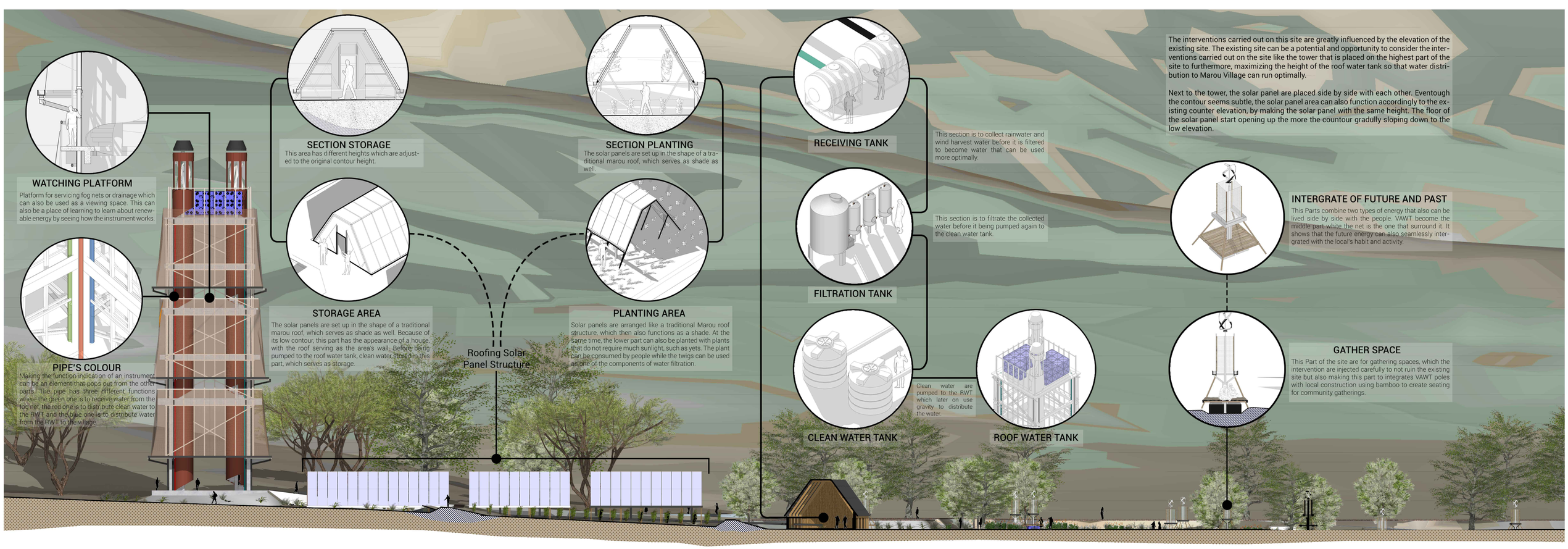


## Fog/Wind Harvesting

Wind harvesting with a 2-meter face of net, can produce up to 200 liters of water.

## EXTENDABLE WATER SOURCE OF MAROU

Water is the main need for Marou village. Besides, because it is located on the coast, water is hard to get in this area. Based on the data, there have been several months with no rain and little rain. The need for water will increase during the rainy season at its lowest point.

By maximizing water intake during the rainy season and looking for other sources to provide water, we can maximize water storage for the needs of Marou Village. The depot house becomes a place for natural water filtration so that it can be used for other needs that require cleaner water.

Water obtained from fog harvest is considered cleaner than rainwater, so water obtained from the gathering pavilion can be used directly, such as watering plants, etc.