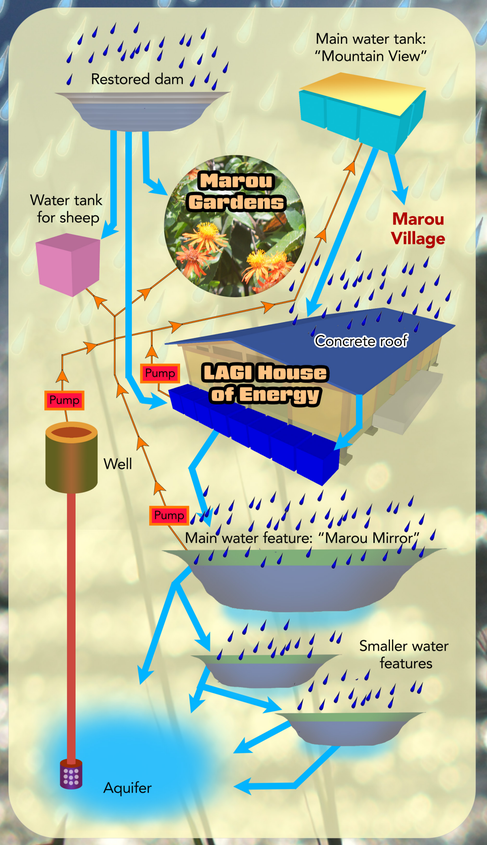
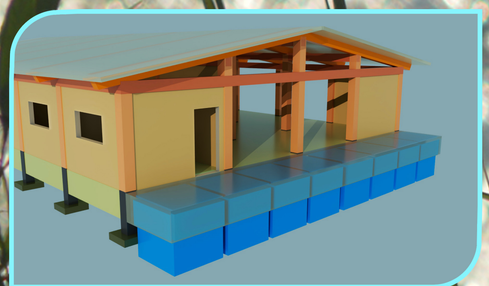


Making the Most of a Harvest of Rainwater

Clean water for everyday activities is not a luxury, it is a necessity. In many tropical locations like Marou, there is abundant rainwater during the rainy season, and large periods of drought during the dry season. Harvesting the largest amount of rainwater possible, and storing it is a necessity to manage this precious resource. The rainwater harvest system for Marou receives water from a number of different sources, and stores it in higher locations by using pumps that are powered during peak energy production of the solar system. The rainwater harvest system for Marou also provides water for the Marou Gardens.

- Rainwater is harvested from the surface of the roof of the LAGI House of Energy. The concrete roof measuring 20 m. X 29 m. gathers the rainwater in 8 large storage tank under the floor in front of the LAGI House of Energy.
- Land shaping of water features inside the design site by using a medium tractor with a backhoe and a loader.
- Make the main water feature, "Marou Mirror," that harvests rainwater from runoff that flows by natural elevation.
- Make smaller water features to harvest runoff and prevent erosion from the run-off ditches.
- The seepage of water from the water features naturally feeds underground water resources. The quantity of water in the wells of Marou will benefit from this seepage.
- The water flow of excessive runoff is controlled by land shaping that diverts water away from the main walls, and sends it towards shallow spillways that are perpendicular to the water flow.
- Continued pumping during peak hours of energy production is used to fill up the main water tank at "Mountain View" that will provide Marou Village with running water by gravity from this location.
- A network of pumps moves water from lower features towards higher locations creating a system of controlled watering that fills up the reserves, increases water filtration in the water features, and provides watering for the Marou Gardens.
- The input of the people of Marou is essential for placement of the water features, the storage locations and their inter connections. They will provide knowledge of their land, and ideas to harvest the largest amount of rainwater for the community.



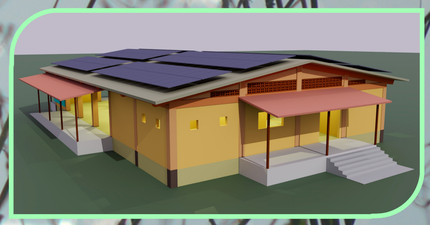
Solar Energy System | Rainwater Harvesting and Storage | Marou Gardens | The LAGI House of Energy | Community Participation

An Interconnected Energy System: **Land Art to Power the Community**

Land Shaping with a Tractor

A medium tractor with a backhoe and a loader can significantly advance the work of shaping the earth to capture more rainwater and prevent erosion. The tractor is also useful for compacting the ground, moving large rocks, rising the terrain for pathways, and digging for foundations. The tractor can also help to quicken digging for water deposits, for making the septic system for the LAGI House of Fire, and for preparing other water management infrastructure.

The cost of fuel and rent of the equipment, and placement on the island, is well worth it when moving large amounts of earth to shape pools, reserves and other water features to direct flow and store water. The tractor could also be useful in restoring the old dammed reservoir halfway up the mountain by compacting the earth and creating adequate spillways.



Making Long-Lasting Structures for Marou

There is an environmental cost related to transporting and using a tractor, and there is also an environmental cost related to using concrete and steel to build the LAGI House of Energy. Solar energy also has an environmental cost to produce panels and batteries, and it certainly leaves the print of human activity on the environment. The LAGI House of Energy and Marou Gardens use these technologies because the people of Marou deserve to improve the quality of life in their community.

The disproportionate negative effect of global warming on island communities is fueled by patterns of over consumption in far away locations. Tractors for digging are used everyday in cities around the world. Thousands of stores are built that use larger infrastructure than the LAGI House of Energy. Erosion, lack of water and lack of energy are real problems that deserve permanent solutions and long-lasting structures. The LAGI House of Energy and Marou Gardens use tools like the tractor, and technologies like cement construction, because they are are designed to work reliably for decades.