

LAGI 2025 Fiji

Concept
Our design consists of two building entities: 1) THE STRETCH: a long (155 m) and narrow (10 m) structure that connects the Marou village and the farm fields and 2) THE POINT: a freeform building that hosts emergency shelter and recreation spaces. They both have timber structure from local woods – e.g. mahogany. The Stretch is an open play of physical parts, covered by solar energy arrays and roof, protecting underneath a shadowed path, small buildings as well as energy and water systems.

Technical Narrative
Our design incorporates different locally feasible and easily maintained (reasonably low-tech) energy and water systems integrated into a functioning process whole: 1) Linear Fresnel (LF) thermal energy system for heating water by solar mirrors, 2) Multi-Effect Distillation (MED), where heat from solar collectors boils seawater and rain water, and the resulting steam is condensed to produce fresh water, 3) Polyvoltaic (PV) Solar panels, 4) Electricity turbine run by steam, 5) Molten Salt Thermal Energy Storage (TES) and 6) Lithium battery electricity storage for 24/7 distribution.

Prototyping, Pilot Implementation, Operations and Maintenance
The residents of Marou will be included as much as possible in the implementation process, including detailed design through installation. Operations and Maintenance Statement The buildings and construction structures can be operated and maintained by the local community, as well as the technical energy and water systems as long as training and manuals for this are sufficient and spare parts available.

The co-benefits that the design provides to the local community are the possibility to construct and maintain the wooden parts together.
The design is modular, flexible, changeable and replicable.



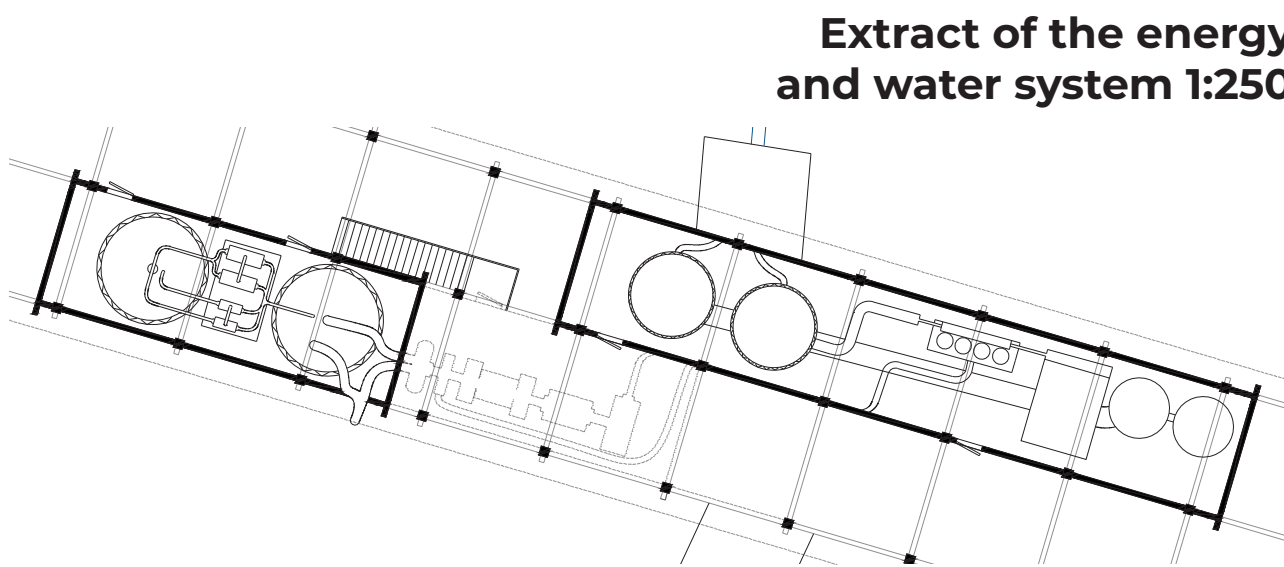
Fiji LAGI 2025 Land Art for a Changing Climate



1 The Stretch
2 The Point

Site Plan 1:1000

The name stretch point comes from that that we wanted to avoid professional jargon when naming the long and round buildings. At the same time, these terms refer to sustainability: The humans are stretching the capacity of the Earth and we have come to the point where one needs to change our lifestyles. The Point is also the gathering point for the community.



Stretch Point 2/3