**LAGI 2025 Fiji Narrative Template**

**Concept Narrative**

Our proposal for Marou Village is a modular solar installation that combines renewable energy generation with shaded multifunctional community space and water storage. The system is designed to be a passive-use land art intervention.

Each structure is built from a durable bamboo frame, capable of supporting 12 solar panels measuring 1x2 meters. With an estimated total of 600 panels, the array forms a network of elevated canopies across a gently sloped terrain. The elevated supports provide protection for the solar panels by raising them above the ground level, keeping them safe from debris and accidental damage. Their height also prevents unauthorized handling, ensuring the panels remain secure and functional over time. The space below remains accessible and can be freely used by the community.

Integrated water tanks are placed at ground level between the solar arrays to collect and store freshwater. Their positioning helps mitigate the risk of water contamination during drought periods. Some structures can be used to display traditional items. Fijian crafts, such as woven mats (ibe), which are commonly practiced across the Yasawa islands.

Importantly, no specific functions are imposed beneath the canopies, allowing the community to organically develop uses according to their evolving needs. The modularity and flexibility of the design make it scalable and adaptable.

**Technical Narrative**

The project incorporates monocrystalline solar panels for high-efficiency energy generation in a tropical climate. Modules are oriented north with a relatively shallow tilt to capture maximum sunlight. Two of the more steeply angled modules house inverters under their shelter.

Each module produces approximately 400W, meaning the entire array will generate around 240 kW of power under peak conditions. This energy will be used for residential lighting, cold storage for fish, water purification, and powering small local enterprises.

Water tanks integrated into the layout are fed by surface runoff and rainwater collection systems. These tanks provide water for community use and can be adapted for small-scale irrigation during dry periods. The system’s primary inputs are sunlight and rainfall; outputs include electricity, clean water, and usable shaded space.

**Prototyping and Pilot Implementation Statement**

Prototyping will be carried out in collaboration with local stakeholders and community members. Solar modules will be built on-site using available materials, with community workshops organized to guide construction and gather feedback.

Pilot implementation will begin with one complete cluster of modules, including energy and water systems, followed by staged expansion based on evaluation and input. The installation process is designed for flexibility and transportability, making future deployment to other remote Fijian communities feasible.

**Operations and Maintenance Statement**

Maintenance will be overseen by a locally trained cooperative formed within the community, supported by initial training from technical partners. Tasks include monitoring energy systems, maintaining water tanks, and managing shaded spaces. Routine checks will be simple and based on visual indicators and basic digital interfaces.

**Environmental Impact Assessment**

The project’s ecological footprint is minimal, using low-impact foundation systems and materials that harmonize with the environment. The bamboo structure is biodegradable and locally sourced, reducing transportation emissions and supporting circular design principles.

The water tanks help manage stormwater and reduce soil erosion. The gravel layers beneath modules improve water infiltration and prevent pooling.

Potential risks include disruption to existing play which has been mitigated through careful site selection and integration. All interventions are reversible, ensuring that the land can be restored if necessary.