

FEEL NAVITI

LAGI2025  
FIJI



## "NAVITI: A SENSORY JOURNEY THROUGH PARADISE"

### **Dawn at the Eco-Resort**

Sight: You wake to golden light filtering through bamboo blinds, revealing an infinity pool that melts into the South Pacific. The resort's living roofs bloom with native orchids.

Sound: Distant waves and the chime of wind turbines shaped like Fijian war clubs (totokia).

Feeling: Your bare feet touch warm reclaimed-teak floors as you step toward breakfast—a whisper of "Ni sa yadra!" ("Good morning!") from staff.

### **Morning: The Artisan's Path**

Touch: At the weaving workshop, your fingers trace damp pandanus leaves as a local craftswoman teaches you to braid a basket. The bamboo walls smell of fresh rain.

Taste: A sip of coconut water, chilled in solar-powered fridges, while children laugh nearby, chasing hermit crabs.

Emotion: Awe, watching 70-year-old masters carve canoes beside young apprentices installing solar panels—tradition and innovation dancing together.

### **Midday: Market Alive**

Smell: The tang of salt-crusted mahi-mahi grilling over coconut husks, mingling with vanilla from dried beans.

Sound: Polyphonic harmonies—fishmongers calling prices, a ukulele strumming, the clink of artisans shaping pearl-shell jewelry.

Sight: Your eyes dart between hand-dyed masi cloths (sunlight glowing through their patterns) and a digital screen showing real-time energy production from the market's roof.

### **Afternoon: Spa of the Elements**

Touch: Warm volcanic stones placed on your back during a bobo massage, while sea breeze drifts through open-air treatment rooms.

Taste: A post-spa ginger-and-turmeric tea, sweetened with wild honey from the resort's hives.

Feeling: Your muscles unwind as you hear rainwater cascading from rooftop gardens into reed-filtered pools—nature's lullaby.

### **Sunset at the Amphitheater**

Sound: The deep thump of lali drums as dancers' firelit shadows leap against a backdrop of solar-paneled stage lights.

Smell: Earth after rain and the smoky sweetness of lovo (underground oven) feasts.

Emotion: Your heart swells as an elder whispers, "Vinaka for carrying our stories home." You're not a tourist—you've become part of Naviti's living story.

### **Night: Return to the Resort**

Sight: Bioluminescent plankton sparkles in the private cove as you wade in, the resort's LED lanterns (charged by day's sun) glowing like low-hanging stars.

Sound: The hum of battery banks storing energy for tomorrow beneath your villa—a modern pulse beneath Fijian thatch.

Feeling: Gratitude. Naviti hasn't been "discovered." You've been invited.

## INTRO

This project builds far more than structures—it weaves opportunity, heritage and innovation into the very fabric of Naviti. By fusing Balinese ancestral techniques with cutting-edge green technology, we create:

### 1. Work & Legacy

Locals will master sustainable trades—solar panel installation, treated bamboo construction, and water management—transforming skills into lifelong careers while preserving Fijian craftsmanship.

### 2. Living Culture

The complex becomes a sensory portal to Fiji's soul:

Hear waves harmonize with traditional meke songs

Smell frangipani blossoms and earth ovens (lovo)

Taste just-caught kokoda in the solar-powered bar

Touch hand-carved masi cloth and volcanic stone

See sunsets paint the thatched roofs gold

### 3. Community Resilience

Families will cut energy/water costs by 60% using replicable systems, shielding their paradise from climate threats while setting a global benchmark for sustainable development.

This is Naviti's renaissance—where tradition powers progress, and every job planted grows a forest of possibilities.

## DEVELOPMENT PROJECT ON A NAVITI ISLAND.

Introduction This project seeks the comprehensive development of a community on a **NAVITI in Fiji**, combining local training, sustainable tourism, and income generation.

It is structured in **three stages**, prioritizing first the training of residents so they can participate in the **construction and management of the project**, followed by the implementation of tourism infrastructure, and finally, a luxury resort that guarantees economic sustainability.<sup>2</sup>.

### Project Stages

#### STAGE 1: TRAINING AND SELF-CONSTRUCTION

\_(Community-Based)

**Objective:** To empower the local population through training workshops and multifunctional spaces. Proposed

Structures: Trade Workshops: Carpentry: Construction with local wood (traditional bures, furniture). Blacksmithing:

Manufacturing of lightweight and ornamental structures. Basic Installations: Solar electricity, water and sanitation systems. Gastronomic and Cultural

Center: Communal Kitchen: Fijian cuisine workshops (e.g., Lovo, Kokoda). Dance and Music Workshop: Space for traditional teachings (Meke). Arts and Crafts Market: Sale of local products (wood carvings, masi fabrics). Materials: Coconut wood, bamboo, thatched roofs (sustainable and indigenous).

## **STAGE 2:** **CULTURAL AND RECREATIONAL TOURISM**

(Intermediate Economic Axis)Objective:

Attract responsible tourism, generating employment and preserving cultural identity.Interventions:Bar and Restaurant Area: Fusion cuisine (traditional and international) with outdoor terraces.Natural Spas: Treatments with coconut oil and

Pacific salts.Arts and Crafts Shops: Expansion of the initial market with a contemporary design.Tourist Corridor:

Elevated walkway (to protect vegetation) connecting to the beach.Covered amphitheater:Wood and natural fiber structure, capacity for 200 people.Use: Evening shows, open-air cinema, ceremonies.

## **STAGE 3:** **LUXURY RESORT**

(Financial Sustainability)

Objective: Attract high-net-worth tourism, reinvesting profits in the community.Features:Eco-friendly villas: On stilts, with private pools and solar energy.Gourmet restaurant: Seafood and high-end local produce.Premium spa: Incorporating

Fijian techniques and thalassotherapy.Exclusive access: Boat transportation from the amphitheater to the circuit.3. Key StrategiesSelf-management: Locals trained in Stage 1 will be hired in subsequent phases.Sustainability:Use of renewable materials and rainwater harvesting systems.Reef protection and plastic ban.Connection with nature:

Interpretive trail with endemic flora and viewpoints.4. ConclusionThe project will transform the island into a model of community-based tourism and sustainable luxury, where residents own their development.

Each stage will be financed with mixed funds (government, NGOs, and ethical investors), ensuring that growth benefits the local po

. Narrative Concept  
"Learning by Building, Building by Learning"  
A living space where:

Architecture becomes a classroom: Each building (amphitheater, workshops, market) will be built by local apprentices under expert mentorship, fusing Balinese techniques with Fijian innovation.

Tourism is symbiotic: Visitors participate in daily workshops ("Building Holidays"), leaving their literal mark on signed structures.

Culture is tangible: From meke dances in the student amphitheater to tastings at the bar built with the wood of shipwrecks.

## 2. Technical Narrative

Key Systems:

Structures:

Treated bamboo (anti-termite) + coconut wood (beams assembled without nails).

Hybrid roofs: Flexible solar panels (Trina Solar, 450W) on corrugated sheet metal (Bluescope Zinalume).

Water/Autonomy:

Rainfall harvesting (150,000L in Bushman tanks) + UV filters (5,000L/day).

BYD batteries (96kWh) for 2 days of autonomy.

Local Innovation:

Handmade solar roof tiles (recycled glass + PV cells) manufactured in the workshops.

Key Data:

Average cost:

£355/m<sup>2</sup>

£140/m<sup>2</sup> (water).

30% local materials (bamboo, volcanic rock).

## 3. Prototyping and Pilot Implementation

Phase Zero (6 months):

"Vanua Dome" prototype:

8m diameter structure built by 20 apprentices.

Tests for:

Wind resistance >120 km/h (cyclone simulator).

Energy efficiency ( $\geq 85\%$  self-consumption).

Success Metrics:

90% of materials approved by Fiji Green Building Council standards.

40 locals trained in construction first aid.

#### 4. Operations and Maintenance

"Process Owners" Model:

Operating Community:

12 local technicians certified in:

Solar panel cleaning (every 3 months).

Tank maintenance (annually).

"Naviti Sustain" app for real-time fault reporting.

Financing:

15% of tourism revenue allocated to the maintenance fund.

FijiCare insurance against climate damage.

#### 5. Environmental Impact Assessment

Key Indicators:

Target Area Year 1 Measurement Tool

Energy: 90% renewable. Real-time monitoring (SolarEdge).

Water: 70% rainwater. Flow sensors in tanks.

Biodiversity: 0 native trees felled. Reports from local biologists.

Waste: 95% recycled. Partnership with the Fiji Recycling Initiative.

Offset:

For every kg of CO<sub>2</sub> emitted during construction: 10 coral reefs planted (project with the Mamanuca Environment Society).

#### Conclusion

This project is not limited to erecting buildings, but rather weaves an ecosystem where:

The technical (panels, bamboo) merges with the human (artisans, stories).

Every screw tightened is a job, a lesson, and a step toward self-sufficiency.

Naviti becomes a global benchmark for regenerative tourism.

"We don't build for people. We build with people, and that changes everything."

Do you need to adjust KPIs or delve deeper into a subsystem? ✨







## **Description of the Sustainable Complex Buildings**

### **A. Workshops (900 m²)**

Design:

High ceilings (5-6 m) with solar skylights to maximize natural light.  
Treated coconut wood and laminated bamboo structure on stilts for ventilation.

Features and Technology:

Workbenches with solar-powered USB outlets (powered by integrated flexible panels).

Recycled water system for pottery studios (filtered and reused).

Cross ventilation + solar-powered ceiling fans.

### **B. Cultural Building (300 m²)**

Design:

Open floor plan with carved columns inspired by Fijian art.

Folding wood and glass walls to integrate indoor/outdoor spaces.

Features and Technology:

Coconut fiber acoustic panels and woven curtains for sound control.

Smart LED lighting (dimnable by motion and daylight sensors).

Raised floor with event storage.

### **C. Bar (180 m²)**

Design:

Recycled wood central bar with turquoise resin inlays (inspired by the ocean).

Terrace planted with *Jasminum multipartitum* vines (native to Fiji) for natural shade.

Features and Technology:

Solar Cooling: Efficient refrigerators + nighttime ice system (freezers that use battery power).

Bioclimatic fabric on roofs to reduce heat.

Filtered rainwater for drinks.

### **D. Local Market (600 m²)**

Design:

Modular stalls with removable canvas roofs (UV-resistant).

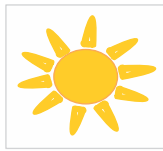
Lightweight structure in bamboo and recycled steel.

Features and Technology:

Solar refrigerators with insulated thermopanel for fish and fruit.

Communal composter with biogas digester (uses waste for cooking).

Permeable floor for rapid drainage during rainfall.



## **Hybrid System:** Solar Panels + Rainwater Harvesting on a Corrugated Metal Roof

Objective: Maximize energy and water efficiency in a tropical climate while maintaining a Balinese aesthetic.

### **1. Roof Design**

#### **A. Main Structure**

Material: Galvanized steel sheet or stainless steel (resistant to saltwater corrosion).

Pitch: Minimum 20° for rapid water runoff.

Solar panels mounted on elevated rails, with 5-10 cm separation between the sheet and the panels.

#### **B. Advantages of the Mixed System**

Ventilated space: Prevents panels from overheating (increasing their efficiency).

Water flows below: Rainwater runs off the sheet without interfering with the panels.

### **2. Rainwater Harvesting**

#### **A. Key Components**

Gutters:

Located at the edges of the roof.



Formulas :

Number of Panels:  $\text{Panels} = (\text{Daily Consumption}) \div (\text{Panel Power} \times \text{Peak Sun Hours})$

Example (Workshops):  $250 \text{ kWh} \div (0.45 \text{ kW} \times 5 \text{ h}) = 112 \text{ panels}$

Battery Capacity: Estimated for 1-2 days of autonomy (depending on the criticality of the building).

Key Assumptions System Efficiency: 85% (losses due to inverters, cables, etc.).

Adjusted Consumption: Typical values for tropical climates (ventilation > heating).

Available Roofs: Only 60% of the roofed area is used for panels (the remaining 40% is for water harvesting and structure). Additional

Recommendations Panel Orientation: Toward geographic north (in Fiji) with a 15-20° tilt.

Cost Comparison by Building Type

Building	Area (m²)	PV System (Total)	Water System (Total)	Total Cost/m²
Workshops	600	\$213,000	\$84,000	\$495/m²
Bar	180	\$44,100	\$21,600	\$365/m²
Market	600	\$213,000	\$84,000	\$495/m²

Cost Table for Photovoltaic and Rainwater Harvesting Systems

USD costs for Implementation In Fiji)

System	Equipment (Brand/Model)	Capacity	Units	Unit	Cost	Total CostPerformance
PHOTOVOLTAIC SYSTEMS						
Workshops (600m²)	Canadian Solar HiKu7 550W	55 kW	100		\$220	\$22,000164,250 kWh/year
Cultural Building (300m²)	SunPower Maxeon 3 400W	32 kW	80		\$280	\$22,40082,125 kWh/year
Bar (180m²)	LG Neon R 375W	15 kW	40		\$190	\$7,80049,275 kWh/year
Market (600m²)	Trina Solar Vertex S+ 450W	54 kW			\$210	\$25,200164,250 kWh/year
V Subtotal	156 kW				\$77,200	480,900 kWh/year total

## Employment Generation per Phase:

### Local vs. International Expertise

#### PHASE 1: COMMUNITY HEART (Years 1-2)

Total Jobs: 50-60 positions

Locals (85%):

Construction laborers (bamboo/stone workers): 20

Solar panel & rainwater system installers (trained on-site): 10

Artisans (weavers, ceramicists): 10

Market vendors & cultural performers: 8

Foreign Specialists (15%):

Sustainable architects (Balinese/Fijian fusion design): 3

Renewable energy engineers (training locals): 4

Project managers: 2

Focus: Upskilling locals in green technologies.

#### PHASE 2: COMMERCIAL

#### STREET & SOCIAL HUB (Years 3-4)

Total Jobs: 100-120 positions

Locals (80%):

Shop owners (clothing, crafts): 30

Food stall operators & chefs: 25

Amphitheater staff (events, security): 15

Tour guides (cultural/eco-tours): 10

Foreign Specialists (20%):

Hospitality trainers (sustainable tourism): 5

**PHASE 3: LUXURY ECO-RESORT (Years 5-6)**  
**Total Jobs: 200-220 positions**

**Locals (70%):**

**Resort staff (housekeeping, gardeners): 80**

**Chefs & waitstaff (local cuisine specialists): 40**

**Boat crew & maintenance (solar-powered vessels): 20**

**Spa therapists (traditional Fijian techniques): 15**

**Foreign Specialists (30%):**

**Executive chefs (fusion cuisine): 5**

**Hospitality managers (5-star experience): 10**

**Marine biologists (coral reef restoration): 3**

**Pilots/heliport operators: 4**

**Focus: High-value jobs with knowledge transfer.**

**Summary Table**

Phase	Local Jobs	Int'l Jobs
1: Community	45-51	9-12 Builders,

2: Commerce	80-90	20-24 Entrepreneurs, event managers
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3: Resort	140-154	60-66 Chefs, marine guides, VIP managers
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**Legacy Impact:**

**90% of leadership roles (Phase 3) filled by trained locals.**

**Foreign experts contractually required to mentor successors.**