

TRACK BRIEF 07: MINA SALOSALO — Guardians of the Wild & Uncharted Eco-Tech

Phase 1 Deployment: Woodlark (Murua) Island | Release: 9 August 2026

Complete Track Brief — all 1 challenges

CHALLENGE AT A GLANCE

Objective: Catch genuinely green, genuinely useful, unconventional ideas that don't fit neatly into the six named currents.

Technical Baseline: Tactical mesh telemetry, non-lithium storage, zero environmental hazard, tropical/volcanic hardening at deployment, explicit sub-system handoff.

Required Deliverables: Engineering/technical specification, sub-system handoff declaration, telemetry integration plan, and proof-of-concept evidence in whatever form fits your team's stage.

A note before you read further: everything below is one way to solve this challenge, not the only way. It's meant to show you the shape of the problem clearly enough to work with, not to box you into a single design. Bring your own research, your own expertise, and tell us plainly what extra value your approach adds beyond what's written here — that's genuinely welcome, not a deviation to explain away. This is also a challenge, not the finished deployment: some things that belong to the real, on-the-ground project — like securing consent from customary landowners — aren't yours to demonstrate at this stage, and you won't be asked to. Read the Guidelines for Guardians to Unite alongside this brief for the fuller picture of how deployment actually works, logistics included.

Who can apply: You can apply as a single person, a company, or a team — whatever shape your work actually takes. If more than one submission ends up solving the same piece of this puzzle, we'd rather introduce you to each other than make you compete: this is about uniting the right people around Ava, not picking a lone winner.

1. SYSTEM PLACEMENT & ROLE

Where This Sits: The open door.

Core Mission: Catch the genuinely green, genuinely useful ideas that don't fit neatly into the six named currents — on the condition that they answer to the exact same data rules, environmental safeguards, and telemetry protocols as everything else in the build.

Integration Rule: A Salosalos submission is not exempt from project standards. It declares, at minimum, which physical track or subsystem it feeds (Mina Kula, Mina Valu, Mina Tawali, Mina Yaguma, Mina Liliu, Sinabada Hub) and how it reports to the central dual-node dashboard.

2. WOODLARK ISLAND: WHAT YOU'RE ACTUALLY DESIGNING FOR

A real starting point, not the whole picture — go do your own deeper research from here. Facts below are sourced from public geographic and climate records; anything marked as an estimate is exactly that.

Geography. Woodlark Island is roughly 60km east-west and 30km north-south at its center, in the Solomon Sea, part of Milne Bay Province, centered around 9.13°S, 152.81°E. Highest point is Mount Kabat at 240m. The

island's own name is Muyuw, also called Murua.

Population & settlements. No formal census has been taken since 1990; an unofficial estimate puts the island's population around 6,000 today, spread thin. Kulumadau is the largest settlement, Guasopa second — Guasopa also holds the island's health centre, currently 9 health workers covering roughly 6,000 people across Woodlark and the surrounding islands. There is one primary school, in Kulumadau; every child leaves for Alotau to attend secondary school.

Climate. Warm and humid year-round, roughly 21–34°C. Wet season runs January through March, peaking in March. Southeast trade winds dominate the drier stretch, roughly May through November. Cyclone and tropical storm risk concentrates December through March.

Access. The route in runs through Alotau, Milne Bay Province's capital, then by sea to Woodlark — roughly 155–160 nautical miles by straight-line estimate; no verified figure exists for actual sea-route distance or travel time, so treat this as a rough planning estimate, not a fixed number.

3. THE TECHNICAL BASELINE

These fall into two tiers. A small number are hard constraints, marked [HARD CONSTRAINT] below — they protect physical safety or the project's core environmental commitments, not architecture, and admit no exceptions. Everything else here is the reference bar for meeting each field challenge, not the only acceptable answer: if your team has a genuinely better way to solve the same problem, propose it. This challenge is evaluated on what actually works in the field, not on matching this document line for line.

- **Sub-System Handoff Declaration — [HARD CONSTRAINT]:** Every submission states explicitly which primary track receives its output — feeding power to Mina Valu's microgrids, propulsion to Mina Tawali's vessels, payload capacity to Mina Yaguma's aircraft, or data to Mina Kula's dashboard. A technology with nowhere declared to plug in isn't ready for this track yet, whatever else it does well.
- **Telemetry & Edge Hashing:** Physical devices, generators, or sensors embed digital meters executing cryptographic hashing at the edge, binding raw outputs to a device-unique identifier and an unalterable UTC timestamp, reporting through Mina Kula's tactical mesh to the central dual-node dashboard.
- **Non-Flammable Energy Storage — [HARD CONSTRAINT]:** No unshielded lithium storage anywhere in the field. Sodium-ion, VRFB, or kinetic/non-electrochemical alternatives only — the same fire-safety baseline as every other track.
- **Zero Environmental Hazard & Non-Overlap Feedstock — [HARD CONSTRAINT]:** No toxic chemical runoff, no destructive habitat disturbance, and — for any energy, waste, or biomass transformation technology — zero feedstock overlap with primary rainforest biomass (CPA 1) or protected forest understory.
- **Working With Customary Land:** Free, Prior and Informed Consent with the registered customary landowners is led by Lyndax Global and the Samarai-Murua District Development Authority, as a real, ongoing relationship — it isn't something your submission needs to demonstrate or secure yourself, and you won't be asked to. Any field deployment touching customary land or water should be designed to adapt to what that process determines.
- **Tropical & Volcanic Mechanical Hardening:** Deployed field hardware withstands 95%+ relative humidity, ambient temperatures exceeding 40°C, volcanic ashfall, and saltwater corrosion. This is the standard for what gets deployed in the field — an early-stage submission demonstrating a credible path to meeting it is welcome; it doesn't need to already be field-hardened to be evaluated seriously.
- **Field Durability, Anti-Theft & Ease of Use — [HARD CONSTRAINT]:** Anything deployed unattended in the field is built to survive years without regular maintenance, resist tampering or theft, and stay simple enough not to fail from ordinary misuse — this district is genuinely isolated, and a fragile or easily-defeated

unit doesn't help anyone. This is about the real outcome (long unattended service life, tamper resistance, hard to get wrong), not a specific named spec like 'military grade': propose whatever achieves that outcome.

4. THE ONE SUB-CHALLENGE — ONE BACKBONE

7.1

Open Green-Tech Submission & Unconventional Field Inventions

THE FIELD CHALLENGE

Every named track was defined by people who already know this programme. The best idea for Woodlark Island might come from someone looking at the island's problems sideways — from a discipline nobody on this list anticipated.

REFERENCE STANDARDS

- Something real, buildable, green, and useful that solves an acute island field problem — novel bio-remediation, kinetic wave harvesters, micro-hydro generators, bio-inspired materials, or anything else that doesn't fit the other six tracks
- A credible path to meeting the edge-hashing, tactical mesh connectivity, environmental safety, and dashboard reporting baseline, even if the submission itself is an earlier-stage prototype

WHO SHOULD APPLY

Inventors, tinkerers, unconventional eco-engineers, deep-tech researchers with a real, buildable idea that serves the project.

5. WHAT TO SUBMIT

Teams applying to Mina Salosalo upload to lyndax.org:

- **Engineering & Technical Package** — specification or CAD schematics, material science details, power/thermodynamic balance, and environmental safety data.
- **Sub-System Handoff Declaration** — explicit statement of which physical track receives your technology's output and how it interfaces with Mina Kula's tactical mesh.
- **Proof-of-Concept Evidence** — in whatever form best reflects where your team actually is — a working prototype, a bench-tested subsystem, evidence of a prior deployment, or a detailed feasibility case with supporting calculations. This track exists to catch ideas from outside the programme's existing network; an early-stage submission with a credible path to field-hardening is exactly what it's for. A polished video is welcome but not required.
- **Rough Cost Estimate** — an order-of-magnitude budget for the specific challenge(s) you're addressing — not a binding quote. Early-stage teams can give a range; further-along teams can be more precise. This helps us plan against something real instead of guessing.

6. HOW THIS IS EVALUATED

Submissions are scored on three equal pillars:

- **Technical Integrity** — Does it meet the technical baseline — either as written, or with a genuinely better alternative?
- **Integration Readiness** — Does it plug cleanly into the rest of the build?
- **Guardian Spirit** — Was it designed for the clans, not just the spec sheet?

7. INTELLECTUAL PROPERTY

Any technology or intellectual property you bring into this challenge remains yours. What gets built specifically for this project is licensed to Lyndax Global and the Samarai-Murua District Development Authority for use here — not assigned, not sold, not owned by us. If your technology's use ever expands beyond this initial deployment, those terms will be set out clearly in your individual contract once you're selected — never assumed from this brief.

Questions or more detail before you submit? Reach Mina Salosalo directly at salosalo@lyndax.org.

This is a first-of-its-kind deployment, and this brief is a challenge document, not the final build — specifications are a starting point for direct engagement with applicant teams, not a fixed spec to execute silently. Full disclaimers and engagement terms are set out in the Guidelines for Guardians to Unite and the Eligibility & Disclaimers document. Submissions close 11 September 2026, 6:00pm Singapore time.