FRESHWATER BIODIVERSITY PROJECT SUSTAINABILITY PLAN (2023 – 2030)

Framework for the JRS Biodiversity Foundation River Project



Prepared by Gaea Seychelles

Supported by the JRS Biodiversity Foundation

SECTION 1: PURPOSE, SCOPE, AND STRATEGIC OBJECTIVES

1.1. Purpose

Sustaining an independent non-governmental organization (NGO) requires a resilient financial strategy structured like a social enterprise business model. This Sustainability Plan transitions the JRS Freshwater Biodiversity Project from a grant-reliant pilot into a self-sustaining conservation model. It establishes clear procedures to balance environmental stewardship, community empowerment, and fiscal continuity.

1.2. Scope

The scope of this plan is strictly focused on the operations, assets, partnerships, and communities connected directly to the JRS Freshwater Biodiversity Project. This includes the river sites and the networks of local stakeholders, commercial partners, and regulatory bodies.

1.3. Core Sustainability Goals

1. **Financial Diversification:** Generate independent operational revenue through eco-services to complement external grant cycles.
2. **Post-Project Continuity:** Secure long-term partnership frameworks to maintain restoration sites and river monitoring after the initial grant lifecycle ends.
3. **Asset Optimization:** Maximize the long-term utility of field instruments, computing assets, and hardware purchased under project budgets.
4. **Service Scale-up:** Expand Gaea's baseline technical capacity to deliver paid environmental consulting, monitoring, and educational services across the Seychelles.

SECTION 2: REVENUE-GENERATING MECHANISMS (INTERNAL FUNDING)

To achieve long-term autonomy, Gaea Seychelles will leverage project-derived outputs to establish five primary internal revenue channels:

2.1. Guided Eco-Hike Services & Citizen-Science Tours

- **Mechanism:** Capitalise on the restored pilot river catchments and adjacent historic nature trails to offer guided educational hikes for tourists, destination management companies (DMCs), and upscale resorts.
- **Value Proposition:** Hikes will feature immersive instruction on tropical island hydrology and riverine ecology. Visitors will actively participate in river health tracking using simplified citizen-science kits (MiniSASS protocols), transforming a standard tourist excursion into an active conservation experience.

2.2. The ‘Little Explorer’s Green Harvest’ Nursery

- **Mechanism:** Utilise the Little Explorer’s Garden network to cultivate and sell native riverbank stabilisation plants, aquatic flora, local produce, and seedlings.
- **Synergy:** Connect the nursery to visitor carbon-offsetting initiatives. Tourists can purchase certified native trees directly from the nursery to plant in degraded riverbanks, creating a self-funding restoration cycle.
- **Product Extensions:** Sell value-added garden items, including custom compost blends, decorative potted plants, and handcrafted macramé plant hangers assembled by youth volunteers.

2.3. Watershed Beekeeping Initiatives

- **Mechanism:** Establish managed apiaries within protected riverine forest zones, utilising bee-plant interactions as a functional tool for natural watershed restoration.
- **Revenue:** Package and market premium, eco-certified raw forest honey and organic beeswax products to local retail networks and tourists, with 100% of profits funnelled back into river catchment conservation and management.

2.4. Value-Added Upcycled Crafts & Eco-Artisan Products

In partnership with the Seychelles Institute of Art and Design (SIAD) and the Landscape and Waste Management Agency (LWMA), Gaea will commercialise high-quality upcycled items to support youth enterprise:

- **Invasive Biomass Garments:** Work with local designers to harvest aggressive invasive undergrowth and process it into biodegradable textiles and fashion statements.
- **River Cap Collective:** Collect plastic water bottle caps (High-Density Polyethylene - HDPE) from river cleanups and process them into structural 3D-printing filaments or mosaic art installations for commercial exhibitions.
- **Glass Lantern Refurbishing:** Reclaim discarded glass jars and bottles from hotel waste streams, transforming them into artisanal lanterns, candle holders, and functional flowerpots.

2.5. Technical Publications & Memorabilia

- **Publications:** Commercialise the highly detailed outputs of the 2023–2026 JRS grant, including the comprehensive *Seychelles Freshwater Species Guide* (the first of its kind), field identification guides, and pedagogical booklets.
- **Merchandise:** Retail high-margin, conservation-themed merchandise made from organic materials, including species-identification t-shirts, reusable bottles, tote bags, and interactive nature art featuring native river fauna.

SECTION 3: EXTERNAL FUNDING & ADVOCACY

3.1. Targeted Green Grants

Gaea Seychelles will leverage data baselines compiled during the current JRS project cycle to secure mid-to-long-term international and domestic funding extensions:

- **International Portfolios:** Submit data-backed proposals to the Global Environment Facility (GEF), Critical Ecosystem Partnership Fund (CEPF), USAID, Australian Aid, and Japanese Aid programs.
- **Domestic Portfolios:** Apply for long-term project allocations via the Seychelles Conservation and Climate Adaptation Fund (SeyCCAF), the Environment Trust Fund (ETF), and the Seychelles National Grant scheme.

3.2. Corporate Social Responsibility (CSR) Partnerships

- **Beverage and Bottling Sectors:** Partner directly with industrial water consumers (e.g., **SeyBrew**, national water bottling firms) that rely heavily on clean, reliable freshwater catchments. Gaea will provide technical watershed management services funded through corporate sustainability portfolios.
- **Co-Branded Marketing Campaigns:** Implement innovative, public-facing environmental education campaigns on consumer products, such as:
    1. Re-designing lemonade and mineral water labels to include hidden native species illustrations (e.g., the endemic freshwater fish *Gourzon*).
    2. Printing species-identification graphics and conservation facts inside bottle caps.
    3. Launching limited-edition product lines dedicated exclusively to Seychelles freshwater biodiversity awareness.

3.3. Carbon Credit & Blue/Green Economy Monetisation

Given that the Seychelles maintains 58% of its native forest cover and nearly half of its land territory is under strict protection, Gaea will advocate for carbon credit frameworks. Degraded riverbanks and sub-montane forest zones systematically restored by this project will be bundled into validated carbon-offsetting portfolios for international corporate buyers.

SECTION 4: ORGANISATIONAL & HUMAN ASSET SUSTAINABILITY

4.1. 'Train-the-Trainers' & Institutional Integration

- **Capacity Building:** Invest heavily in specialised technical training for core staff and our volunteer network. This ensures a permanent local pool of experts capable of leading future river restoration and monitoring initiatives across the archipelago.
- **The Citizen Science Network:** Maintain and scale the active Citizen Science communication hub (currently 60+ monitoring members representing multiple partner organisations) to coordinate river tracking.
- **Academic Integration:** Embed the standardised JRS project methodologies directly into the University of Seychelles (UniSey) BSc in Environmental Science curriculum. Students will conduct field research and track long-term water parameters as a formal part of their coursework or independent research project, ensuring continuous data collection without additional operational costs.

4.2. Shared Facilities & Physical Asset Management

To minimise structural overhead, Gaea will maintain formal collaborations with local institutions to share state-of-the-art facilities:

- **University of Seychelles, MECENR and Soil Diagnostic Laboratory::** Shared use of advanced water- soil-quality testing and chemistry laboratories.
- **National Herbarium:** Shared office infrastructure and plant preservation spaces.
- **Centre for Environment and Education:** Shared workspace and public outreach amenities.

All specialised field gear purchased under the JRS grant will be pooled to deliver professional environmental consulting services, creating an independent revenue line.

SECTION 5: SOCIO-CULTURAL INTEGRATION & LOCAL COMPLIANCE

5.1. Community Co-Management & Inclusivity

- **GAMEA Transition:** Day-to-day stewardship of the pilot river channels will be systematically co-managed alongside the Grand Anse Mahé Environment Action group (GAMEA) and the National Catchment Management Committee. This setup aligns directly with the upcoming Water Resource Management Bill.
- **Generational Inclusion:** Bridge gaps in environmental data by conducting oral-history surveys with elderly community members to document historical changes in river baselines and traditional species naming.

- **Accessible Learning:** Adapt all project-derived books, field guides, and educational materials into inclusive formats, including audiobooks, braille editions, and calm sensory storylines tailored for audio-visually and neuro-divergent children.

5.2. Cultural Heritage Safeguarding

- **Guiding Certification:** Ensure all field officers and youth hike leaders complete the specialised 3-week Tourism and Tour Guiding course at the Seychelles Tourism Academy (STA**)**. This secures formal accreditation from the Seychelles Licensing Authority to run commercial eco-tours legally.
- **Eco-Cultural Protocols:** Distribute standardised 'Eco-Cultural Fact Sheets' to all project participants, highlighting the historical significance of pilot sites, traditional practices, and strict regulations protecting adjacent historical and heritage landmarks.

SECTION 6: SUBSISTENCE, HEALTH, AND SAFETY COMPLIANCE

6.1. Institutional Subsistence Framework

Gaea Seychelles operates as a fully registered, compliant non-governmental organisation under the laws of the Republic of Seychelles. To safeguard the organisation's reputation and credibility among funders, all public-facing educational materials and research reports must undergo a rigorous, peer-reviewed copyright and referencing process. This review ensures absolute scientific accuracy and proper academic credit, as outlined in the *Gaea Seychelles Communication Plan*.

6.2. Rigorous Field Health & Safety Protocols

Given the rugged topography of riverine environments, Gaea enforces strict risk-mitigation protocols to protect staff, international researchers, and volunteers:

- **Mandatory Field Equipment:** No individual may enter a river channel or high-gradient stream bed without standard Personal Protective Equipment (PPE), including wading boots, high-traction footwear, and puncture-resistant field gear.
- **Risk Mitigation & Training:** Every field excursion requires a pre-departure risk assessment tailored to current weather conditions. Gaea will secure dedicated funding to ensure all field personnel maintain active First Aid certifications and carry fully equipped, water-sealed medical kits on-site.
- **Accident Prevention Policy:** Management maintains a permanent, centralised incident registry. This registry tracks safety metrics to continuously improve fieldwork safety and protect the physical and mental well-being of our workforce.

6.3. Fair and Equitable Labour Practices

- **Legal Compliance:** Gaea Seychelles maintains a strict zero-tolerance policy against child labour, workplace discrimination, and sexual harassment, operating in full alignment with the Seychelles Law.
- **Hiring Equity:** The project commits to fair, skills-based hiring.
- **Local Empowerment:** Gaea is proud to maintain a 100% Seychellois workforce for this initiative, with women filling leadership and scientific roles across all levels of the organisation. International consultants are brought in only when highly specialised technical expertise is unavailable locally.

Final Remark: A Shared Blueprint for Seychelles' Living Waters

The long-term survival of the Seychelles' unique granitic island ecosystems depends entirely on how we manage the freshwater arteries that feed them. The Freshwater Biodiversity Project Sustainability Plan (2023–2030) is more than an administrative exit strategy; it is a commitment to ensuring that the scientific baselines, community networks, and habitat restorations achieved under the JRS Biodiversity Foundation grant become permanent features of our national conservation landscape.

By merging cutting-edge freshwater science with local community stewardship and innovative social enterprise, Gaea Seychelles is moving away from the fragile cycle of short-term grant funding toward a model of resilient, self-sustaining autonomy. The preservation of our permanent watercourses, the protection of endemic bio-indicators like the *Gourzon*, and the safety of our riparian habitats cannot be accomplished by a single organization alone. It requires the sustained, collective energy of our state ministries, commercial partners, educational institutions, and local citizens. Together, we are ensuring that the vibrant, life-giving streams of today remain healthy, protected, and flowing for the generations of tomorrow.

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