SCF

SUBNATIONAL CLIMATE FUND

Request for Proposals

Upcycling Pineapple Waste to Cellulose – Pre-feasibility Study

This document serves to provide an overview of the underlying project relevant to the Subnational Climate Fund (SCF), context on data availability and goals of the mandate, as well as an estimated scope of work requested from the consultant. Final details of the mandate should be covered by the subsequent proposal submitted by the consultant.

1. The Subnational Climate Fund

The SCF is a blended finance impact fund formed to pursue attractive risk-adjusted returns for private investors while generating measurable and certified environmental and social impacts. The Fund is focused exclusively on pursuing investments in mid-size climate infrastructure with nature-based solutions in various developing countries across Latin America and the Caribbean, Africa, the Mediterranean, and Asia. The Fund is managed by Pegasus Capital Advisors, a commercial Private Equity impact fund manager and further benefits from a separate, grant-funded Technical Assistance facility managed by The International Union for the Conservation of Nature (IUCN) and implemented by Catalytic, IUCN, and Gold Standard.

2. Context of the Potential Study Agreement

The SCF is considering a potential investment opportunity relating to an agricultural waste valorisation initiative based in Costa Rica. The company positions itself as a circular bioeconomy startup converting agricultural residues (pineapple stubble/leaves, etc.) into cellulose pulp and fertilizer via a modular, plasma-assisted process.

The project aims to find solutions related to the high environmental costs of the current pineapple cultivation industry in Costa Rica and similar regions, as well as provide a scalable and sustainable alternative to the deforestation-reliant wood cellulose pulp. The company has already explored potential offtaker engagements with prominent players in the packaging and textile industries.

The project developer is currently in the process of starting a pilot project within a partner farm in Provincio de Aljuela, Costa Rica. Their plasma system is currently at TRL 7-8 and the pilot will be used to validate the operation of this system under real field conditions on a commercial-representative scale.

Objectives

Catalytic Finance Foundation, in charge of the SCF's Technical Assistance Facility, is seeking one or several experts who carry out an economic and market assessment of this proposed agricultural biomass valorisation pilot.

The overall aim of this study is to assess the viability of SCF's potential engagement, by validating market demand for the sustainable cellulose pulp produced and the economic viability of the project by factoring in the total expected investment required and the franchise model proposed by the company.

3. Scope of Work for a Pre-feasibility Study

The consultant is expected to provide the following assessment:

1) **Market Context and Demand Mapping**
   a) Conduct a high-level desk review to map demand for high-purity cellulose and plasma-derived fertilizers in key target sectors, specifically hygiene, packaging, and regenerative agriculture.
   b) Provide an order-of-magnitude sense-check of the project's assumptions regarding realistic pricing and attainable volumes by referencing indicative market ranges and known substitute products.
   c) Highlight any major foreseeable market-entry considerations, such as qualification timelines, required certifications, and logistics constraints, based on available secondary data, that could impact the speed to market.
2) **Technical and Operational Assumptions Review**
   a) Perform a plausibility check of the project's technical assumptions regarding feedstock throughput, maintenance schedules, and energy consumption to ensure they align with industry standards for biomass valorisation, drawing on comparable biomass valorisation references available in the public domain.
   b) Review the logic of the feedstock cost assumptions (USD 0/t), by verifying the costs associated with collecting harvest waste and transporting it to the processing unit and identifying factors that may materially affect collection or transport costs.
   c) Compare CAPEX and OPEX assumptions on a high level against similar bio-industrial or agricultural processing pilot projects to identify any underestimated costs.
3) **Economic Viability and Unit Economics**
   a) Provide a light-touch review of the proposed unit economics model by focusing on whether the key cost and revenue drivers fall within reasonable ranges for comparable early-stage projects.
   b) Identify the main variables that influence breakeven potential, and offer indicative directional observations on robustness under conservative, base, and optimistic conditions
   c) Provide a high-level assessment of the financial risks associated with the pilot phase vs. commercial scale-up.
4) **Franchise Model and Governance Assessment**
   a) Review the proposed franchise structure at a structural level to assess the practicality of the cashflow distribution between the parent company and potential franchisees.
   b) Provide a qualitative assessment of franchise model's resilience under varying offtake price scenarios to ensure it remains attractive to franchisees during market fluctuations.
   c) identify key operational and governance risks within the proposed relationship structure and suggest standard mitigation measures.
5) **Recommendations**
   a) Summarize the findings into a clear "red flag" section highlighting any critical flaws in the economic or technical assumptions.
   b) Outline a prioritized list of next steps required to move the project from this pre-feasibility stage to a full investment-grade feasibility study.

c) Provide a concluding opinion on the readiness of the project for initial pilot funding based on the validated economic and market data.

4. Deliverables

A concise strategic assessment report (30-40 pages) in English and in Word Format, identifying critical technical and commercial risks, validating key assumptions against industry benchmarks, and providing actionable recommendations on the project's readiness for pilot funding.

5. Requirements

Applicants are encouraged to apply as a small team that combines:

1. **Technical and Financial Expertise:** Capability to validate bio-economy business models, specifically regarding market demand and unit economics.
2. **Local Insight in Costa Rica/South America:** Ability to verify on-the-ground logistics, feedstock availability, and regulatory realities in the Costa Rican/South American agricultural sector.

The proposed team should demonstrate the following:

Mandatory Qualifications:

- Proven experience in market analysis for bio-based products, specifically fertilizers, agricultural inputs, or fibers (cellulose).
- Financial modelling skills with experience reviewing unit economics, CAPEX/OPEX assumptions for agri-industrial projects.
- Knowledge of the Costa Rican agricultural context, including waste management regulations and logistics for agricultural by-products.
- Ability to work in both English (for reporting) and Spanish (for local verification and document review).

Preferred Qualifications:

- Prior experience analysing franchise or distributed manufacturing business models in emerging markets.
- Specific familiarity with the pineapple sector or similar fibrous biomass supply chains.
- Experience working with development agencies or donor-funded feasibility studies.

Considerations: We anticipate this engagement will span 12 weeks, with a total effort of around 25 days. Given the specific focus on validating existing models rather than primary research, a large, multi-disciplinary team is not required.

We encourage a streamlined, principal-led approach, ideally suited for a senior consultant capable of bridging technical, economic, and market assessments holistically. Proposals should reflect a lean team structure that ensures the report is focused on high-value expert analysis rather than project management.

5.1 Evaluation Criteria and Weighting

Proposals will be assessed according to the following criteria and weights:

Evaluation criteria	Weight
Technical Qualifications and Experience	40%

Workplan and Delivery Approach	25%
Management Plan and Key Staff	20%
Budget and Value-for-Money	15%
Total	100%

6. Indicative Timeline

Work is expected to commence immediately after the consultant is appointed. The work is expected to be completed within **3** months after signing the service contract. The delivery of services and reporting timeframes are anticipated to be as follows:

Pre-Feasibility Study	
Activity / Deliverable	**Indicative timeline**
Kick-off meeting Establish communication channels for initial information exchanges, confirm the project schedule, confirm the reference framework, and review document availability.	Week 1
Draft report provided to Catalytic	Week 8
Final report provided to Catalytic	Week 12

7. Form of Proposal & Requirements

Please prepare a brief proposal for the performance of this work, including the scope of work, project team and qualifications, and estimated costs.

1) **Scope of Work:** The scope of work should include a description of the specific activities that will be performed to accomplish the required tasks identified in Section 3. This should include any proposed site visits/reconnaissance, documents to be reviewed, interviews, etc. If the Consultant feels that additional tasks or components within a required task are suggested or warranted, these should be stated and delineated as "Optional Tasks".
2) **Project team and qualifications:**
   This should include the name of the principal staff members and any sub-contractors, and a brief description of their role within the project team. Qualifications of staff should include relevant technical capabilities, full CVs, specific previous experience similar to this assignment, specific in-country experience and knowledge.
3) **Estimated costs:**
   A total time and expenses cost estimate (not to be exceeded), in US Dollars, must be provided for the required scope of work. A breakdown of the estimated costs by task must also be presented in tabular format and should include Direct Labour Costs (number of hours or days per member of staff and their associated unit costs). If field visits are necessary, travel costs will be covered by the SCF separately from the consultancy fee under "Indirect Labour Costs". Please note that "Per Diems"

are not an eligible expense under our travel expense policy. Please also note that Catalytic is exempt from VAT. Your financial proposal should therefore not include VAT.

4) **Contract & payments:**
The contract will be based on Catalytic's standard terms of engagement, fixing a total consultancy fee on lump-sum basis in US Dollars. Catalytic will pay the consultant in 2-3 instalments: E.g. one advance payment of 20% upon signature of the contract, one payment of 40% after delivery of the draft report, final payment of 40% after delivery of the final report.

5) **Conflicts of interest & KYC documentation:**
As part of the proposal, the Consultant shall also confirm that they do not have a conflict of interest and that they are in a position to provide an adequate, accurate and objective review. In addition, we will request an extract from the commercial registry and passport copy for a KYC / DD check for shortlisted candidates.

8. Submission

Please submit your proposal before 11 January 2026 by sending it to **project@catalyticfinance.org**