



Terms of Reference

COCOA-BASED BIOCHAR PRODUCTION AND APPLICATION FOR PURATOS GRAND-PLACE VIETNAM

Project: Circular Economy Cocoa - “From Bean To Bar”

1. BACKGROUND

HELVETAS is an independent development organization based in Switzerland with affiliated organizations in Germany and the United States. HELVETAS has been active in Vietnam since 1994, working in various areas typically Agriculture, Biodiversity Conservation, Forestry, Eco-Tourism, and Rural Economy.

Under the SWITCH-Asia programme of the European Union, HELVETAS is undertaking the Project “Circular Economy Cocoa: From Bean to Bar” with the main objective to develop circular economy solutions in cocoa and other agri-food sectors, leading to equitable economic growth decoupled from harmful environmental impacts. The Project has been implemented since 2022 in 6-7 cacao provinces in the Central Highlands and the Mekong Delta of Vietnam.

In partnership with Puratos Grand-Place Vietnam, HELVETAS is seeking a qualified service provider or consultant team to provide technical assistance in cocoa-based biochar production and its close-loop practical application at the farm level.

2. OBJECTIVES

The objective of the package is to promote the production and application of biochar derived from cocoa pod husks and other organic materials in the cocoa supply chain of Puratos Grand-Place Vietnam. This initiative aims to enhance the efficiency and sustainability of cocoa production and promote the circular economy practices among the community of cocoa farmer households in Vietnam. The anticipated benefits include generating green energy, permanently sequestering carbon, improving soil quality, and reducing waste.

Specific objectives include:

- Preliminary Assessment: Test biochar production with cocoa pod husks and available organic materials in the nominated areas and propose the optimal formulation and technology.
- Demonstration: Establish 02 demonstration sites, operationalize the biochar production and application systems, and provide guidance and training for local stakeholders.

3. SCOPE OF WORKS

The scope of work of this service package includes the following components:

3.1. Preliminary Assessment

- Quick assessment: Assess the availability of raw materials (feedstock) for biochar production.
- Biochar Production Testing: Conduct biochar production trials using cocoa pod husks and available organic materials at each site, evaluating biochar quality according to International Biochar Initiative (IBI) standards and relevant Vietnamese regulations.

- Technology Proposal: Recommend suitable technology for biochar production that meets both technical and economic criteria, aligning with IBI standards.
- Soil Testing: Perform soil tests at the demonstration sites to establish baseline data.

3.2 Demonstration

- Demonstration Site Setup and Operation: Establish and operationalize the close-loop biochar production and application system at 02 demonstration sites.
- Training: Develop training materials and manuals and provide hands-on training for local stakeholders on operating and maintaining the systems.
- Monitoring: Monitor the results and provide guidance on improvements as needed.

4. LOCATIONS

02 demonstration regenerative cocoa farms and 01 conventional cocoa farm under the company's network in Ea Kar, Dak Lak.

5. METHODOLOGY

The Consultant(s) should propose effective methodologies for implementing the service package. Collaboration with HELVETAS's Project Manager, Puratos Grand-Place Vietnam, and other relevant stakeholders is required.

6. REQUIRED QUALIFICATIONS

Requirements for Consulting Firm/Team:

- **Team Leader:**
 - ✓ Minimum master's degree in environmental sciences or a related field, with at least 5 years of relevant experience.
 - ✓ Significant experience in biochar production.
 - ✓ Proven track record in setting up biochar production sites and training farmers.
 - ✓ Knowledge of IBI Biochar Standards and cocoa production technologies in Vietnam.
 - ✓ Understanding of circular economy and regenerative agriculture (preferred).
 - ✓ Strong communication skills in English and Vietnamese.
- **Other Team Members:**
 - ✓ Specialists in environmental and agricultural sciences or related fields.
 - ✓ Familiarity with biochar production and implementation.
 - ✓ Knowledge of raw materials and agricultural supply chains.
 - ✓ Understanding of farm-related emission
 - ✓ Strong communication skills in English and Vietnamese.

7. DELIVERABLES AND SUGGESTED TIMELINE

The consultancy period is 4 months, from September to December 2024. The consultant firm/team is expected to complete the service package and deliver the following outputs within this timeframe:

Activity	Deliverables	Timeframe
Contract negotiation and signing		Week 3 September 2024
Preliminary Assessment	<ul style="list-style-type: none"> • 01 Technology Proposal detailing the testing results, and technology recommendation (maximum 12 pages, in English). • Soil testing results of the nominated sites. 	Week 4 September – Week 1 October 2024
Setting up 02 demonstrations	<ul style="list-style-type: none"> • Setup of 02 demonstration regenerative farm sites; selection of 01 conventional farm site as a control group. • Periodical monitoring (on-site & online). • Manuals and training materials (in English and Vietnamese). • 04 training sessions at demonstration sites for farmers, fermenters, partners (in Vietnamese). 	October - December 2024
Final Report Writing	<ul style="list-style-type: none"> • Final report on the results with consultant's recommendations. • A PowerPoint presentation summarizing recommended biochar production and application methods/processes and implementation results (in English). 	Week 3&4 of December 2024
Contract Liquidation		End of December 2024

Upon completion of this service package and based on the quality of the services provided, we may consider extending the contract with the Consultant firm/team for Monitoring & Evaluation services in the next 8 months.

8. TECHNICAL & FINANCIAL PROPOSALS

- Technical Proposal: Should include team composition with CVs, relevant experience, proposed approach and methodology, detailed work plan with timeline, and quality assurance procedures.
- Financial Proposal: Should detail costs including number of working days, consultant rates, budget justification, field travel expenses, and any additional costs. All costs should comply with EU Cost Norms.

9. SUBMISSION

- Submission: Interested candidates should send their Profile, Technical and Financial Proposal to Helvetas Vietnam at diep.dinh@helvetas.org and helvetas.vietnam@helvetas.org.
- Deadline for submission: **13 September 2024**.