



Terms of Reference

Service Package: BIOLOGICAL PEST AND DISEASE CONTROL

FOR REGENERATIVE COCOA FARMS OF PURATOS GRAND-PLACE VIETNAM

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

Budget line: 6.1.3.1

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 being implemented since 2022 in 6-7 cacao provinces in the Central Highlands and the Mekong Delta of Vietnam.

In collaboration with Puratos Grand-Place Vietnam, Helvetas Vietnam is seeking a qualified service provider (consulting team/firm) to provide technical assistance on enhancing cocoa yields and reducing carbon footprint through the application of beneficial fungi and biopesticides. The consultancy will evaluate how beneficial fungi can manage harmful pathogens, such as those causing black pod disease, and implement biopesticides made from neem oil and/or local herbs to enhance pest and disease management at the farm level.

2. OBJECTIVES

This consultancy aims to integrate biological pest and disease control methods within Puratos Grand-Place Vietnam's cocoa supply chain as part of regenerative agricultural practices. This will enhance cocoa productivity, reduce environmental impacts, and create scalable models for reducing carbon footprints in cocoa production.

Specific objectives include:

- **Demonstration of Beneficial and Innovative Fungi Application:** Apply antifungal treatments like Trichoderma to control cocoa pathogens and diseases; Explore the use of innovative fungi such as Arbuscular Mycorrhizal Fungi (AMF) to boost plant growth, establish beneficial root associations, and enhance disease resistance.
- **Demonstration of Neem Oil-Based Biopesticides Application:** Formulate and apply biopesticides derived from neem oil and local herbs to manage pests and diseases at the farm level.
- **Training and Monitoring:** Train and support farmers and local stakeholders on the preparation and application of these biopesticides and beneficial fungi; Monitor and evaluate the effectiveness of the treatments.

3. SCOPE OF WORKS

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

Category	Demonstration of Fungi Application	Demonstration of Biopesticide Application
Assessment	<ul style="list-style-type: none"> Desk review, assess and propose suitable beneficial fungi (including Trichoderma) and appropriate mycorrhizal fungi species to be applied on cocoa trees. 	<ul style="list-style-type: none"> Formulate biological pest control methods using neem oil and local herbs (e.g. chili, garlic, ginger, etc.)
Setting up 02 demonstration sites	<ul style="list-style-type: none"> Apply beneficial and innovative fungi on at least 25 cocoa trees in 02 selected demonstration farms. Monitor progress and make necessary adjustment if any. 	<ul style="list-style-type: none"> Apply biopesticides using neem oil and local herbs on at least 25 cocoa trees in 02 selected demonstration farms. Monitor progress and refine formulations based on feedback and practical results.
Training & Reporting	<ul style="list-style-type: none"> Develop training materials and conduct 04 training sessions for local stakeholders, including farmers and agricultural extension workers, on the use of beneficial fungi and biopesticides. Document the whole process and fact-findings to prepare a comprehensive report on the effectiveness of the treatments, their impact on the development of cocoa trees, and recommendations for scaling practices. The report should include data analysis, comparative observations between demonstration and control sites, and suggestions for future research and application. 	

4. LOCATIONS

02 selected demonstration cocoa farms and 01 conventional farm (for the comparison) under the company's network in Ea Kar, Dak Lak.

5. METHODOLOGY

The Consultant(s) are expected to propose effective methodologies for executing the service package. Collaboration with Helvetas' Project Manager, Puratos Grand-Place Vietnam, and other relevant stakeholders is required.

6. REQUIRED QUALIFICATIONS

Requirements for Consulting Firm/Team:

- **Team Leader:**
 - ✓ Advanced degree (Master or Ph.D.) in Agriculture, Plant Pathology, Mycology, Entomology, or a related field.
 - ✓ At least 7 years of experience in sustainable agriculture consulting, plant disease management, and pest control, preferably with tropical crops like cocoa.
 - ✓ Strong leadership and project management skills.

- ✓ Proven track record of successful implementation of pest control methods and disease management in agricultural settings.
- ✓ Expertise in integrating multiple pest and disease management strategies.
- ✓ Experience in training and supporting farmers.
- ✓ Understanding of circular economy and regenerative agriculture is preferred.
- ✓ Excellent communication and presentation skills, with proficiency in both English and Vietnamese for reporting and demonstrating results.

- **Other Team Members:**

- ✓ Relevant degree in Biological Sciences, Agricultural Sciences, or related fields.
- ✓ Experience in pest management focusing on biological control methods.
- ✓ Experience in plant disease treatment methods, particularly for tropical plants like cocoa.
- ✓ Familiarity with fungi production and their implementation in agricultural practices.
- ✓ Experience in applying treatments and monitoring plant health.
- ✓ Knowledge of raw materials and agricultural supply chains.
- ✓ Understanding of cocoa production and processing technologies is preferred.
- ✓ Strong communication skills.

7. DELIVERABLES AND SUGGESTED TIMEFRAME

The consultancy period is 6 months, from September 2024 to February 2025. 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 of September 2024
Assessment	<ul style="list-style-type: none"> • Demonstration plan (max 12 pages, in English): Propose suitable biological pest and diseases methods, timeline, risk management, required resources and needed preparations. 	Week 3&4 of September
Setting up 02 demonstrations	<ul style="list-style-type: none"> • Establishment of the 02 demonstration sites for application of beneficial and innovative fungi and biopesticide. • Periodical M&E visits. 	October - December
Training	<ul style="list-style-type: none"> • Training materials and manuals (in both English and Vietnamese). • 04 training sessions conducted for local stakeholders (in Vietnamese language). 	January 2025
Final Report Writing	<ul style="list-style-type: none"> • Final Project Report (in English). • PowerPoint presentation (summary of project's progress, fact-findings, and recommendations with key data visualizations. (in English). 	February 2025
Contract Liquidation		End of February 2025

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 6 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 Profiles, Technical and Financial Proposal to Helvetas Vietnam at diep.dinh@helvetas.org and helvetas.vietnam@helvetas.org.
- Deadline for submission: **15 September 2024**.