



## Term of Reference

### CADMIUM REDUCTION SOLUTIONS AT FARM LEVEL FOR COCOA-CHOCOLATE SUPPLY CHAIN OF MAROU CHOCOLATE J.S.C IN VIETNAM

Project: CIRCULAR ECONOMY COCOA: “FROM BEAN TO BAR”

Budget line: 6.1.2.2 | Date: 03.01.2025

Helvetas is an independent development organization based in Switzerland, with affiliated organizations in Germany and the United States. Since 1994, Helvetas has been active in Vietnam, working across various sectors, including Agriculture, Biodiversity Conservation, Forestry, Eco-tourism, and Rural Economic Development.

## 1. BACKGROUND

### Context

Under the SWITCH-Asia program of the European Union, Helvetas is implementing the project “Circular Economy Cocoa: From Bean to Bar.” The project aims to develop circular economy solutions in cocoa and other agri-food sectors, leading to equitable economic growth decoupled from harmful environmental impacts. The project is being implemented over four years (2022-2026) in 6-7 key cacao-growing provinces in the Central Highlands and Mekong Delta regions of Vietnam.

### Cadmium (Cd) content issues discovered in cocoa beans in Mekong Delta area

Cadmium, a naturally occurring element, accumulates in cocoa beans due to various environmental and agricultural factors. Elevated levels have been identified in Mekong Delta cocoa beans, raising concerns about the sustainability of cocoa farming and economic prospects for farmers. Addressing these issues is vital to maintain the region’s reputation and compliance with international standards.

### Factors influencing Cadmium (Cd) accumulation

The accumulation arises from factors like naturally high soil cadmium, industrial contamination, irrigation water, fertilizer impurities, and poor soil management. Identifying these root causes is key to ensuring quality cocoa, safeguarding livelihoods, and meeting international standards.

In collaboration with Marou Chocolate J.S.C., Helvetas seeks expert consultancy to address cadmium accumulation, propose mitigation strategies, and implement solutions for safe and sustainable cocoa production, supporting circular economy principles and reducing environmental impact.

## 2. OBJECTIVES

The consultancy aims to assist cocoa producers in the Mekong Delta in reducing cadmium levels in cocoa beans to enhance quality, safety, and sustainability across the cocoa supply chain..

The specific objectives of this assignment are to:

- Identify the underlying factors (environmental, agricultural, and physiological) contributing to Cadmium accumulation in cocoa beans in the Mekong Delta region.
- Propose feasible and economical technical solutions for Marou Chocolate J.S.C and cocoa producers to reduce Cadmium levels and thereby improve soil health.

### 3. SCOPE OF WORK

The consultancy's scope includes:

- **Investigation of Cadmium accumulation:** Conduct comprehensive investigations into the root causes at farm level in the Mekong Delta. Factors to be examined include but are not limited to environmental conditions, agricultural practices, and physiological traits of the cocoa plants.
- **Proposal and piloting of solutions:** Develop and pilot practical technical solutions incorporating soil amendments and improved agricultural practices. The pilots are conducted and monitored at 03 demonstration farms in Ben Tre (Chau Thanh district) and Tien Giang (Chau Thanh district).
- **Capacity building:** Provide guidance and training for cocoa farmers and other stakeholders on Cadmium reduction techniques and sustainable farming practices.
- **Documentation:** Document the fact-findings and best practices for reference and broader adoption by cocoa producers in Vietnam.

### 4. REQUIRED QUALIFICATIONS

- A minimum of 10 years of experience managing soil contamination and mitigating environmental contaminants in agricultural supply chains is required.
- A Master's degree in Environmental Science, Agriculture, Soil Science, or a related academic field is preferred.
- Proven experience in the cocoa industry or similar agri-food sectors.
- Strong analytical and problem-solving skills.
- Familiarity with circular economy and regenerative agriculture principles (preferred).
- Proficiency in English and Vietnamese with excellent communication skills.

### 5. TIMELINE AND DELIVERABLES

The consultancy period is 06 months, from February to August 2025.

Activity	Deliverables	Timeframe
Contract negotiation and signing		February 2025
Investigation	<ul style="list-style-type: none"><li>• Assessment report, solutions proposal and detailed mitigation plan.</li></ul>	March 2025
Implementation	<ul style="list-style-type: none"><li>• Monitoring and guidance for pilots.</li><li>• Field trips and progress updates.</li></ul>	March-June 2025
Capacity building	<ul style="list-style-type: none"><li>• Training materials in Vietnamese/English.</li><li>• Training sessions conducted.</li></ul>	June-July 2025
Report Writing	<ul style="list-style-type: none"><li>• Final Report (in English and Vietnamese).</li><li>• PowerPoint presentation summarizing findings, solutions, and progress.</li></ul>	August 2025
Contract Liquidation		End of August 2025

Note: An extension may be considered for monitoring and evaluation services over the next 6-8 months.

### 6. APPLICATION AND DEADLINE

Applications should include:

- Technical Proposal: Team composition with CVs highlighting relevant experience and roles of each member; proposed approach and methodology, detailed work plan, and quality assurance procedures.
- Financial Proposal: Detailed costs including number of working days, consulting rates for each team member, budget justification, field travel expenses, and any additional costs. The EU Cost Norms (2022) are suggested to be applied.

Interested candidates should send their Profiles, Technical and Financial Proposal to Helvetas Vietnam at [diep.dinh@helvetas.org](mailto:diep.dinh@helvetas.org) and [helvetas.vietnam@helvetas.org](mailto:helvetas.vietnam@helvetas.org) by **January 20, 2025**.