

Terms of Reference

Position Title:	Identification and Operationalization of Greenhouse Gas (GHG) Emissions Measurement Methodologies for identified Agricultural Value Chains under the SPRINT Programme
Location:	Lao Cai (former Yen Bai Province)
Period of Assignment:	From March to May 2026
Reporting To:	Clean Growth, Energy & Environment Specialist and Grant Manager
Project:	SMEs Promote Resilience, Inclusion, and Innovative Transformation (SPRINT)
Activity Code:	Sub-activity 1122.2: Identification of greenhouse gas (GHG) emissions measurement methodologies

1. Background

The Small and Medium Enterprises (SMEs) Promote Resilience, Inclusion, and Innovative Transformation (SPRINT) Project is a flagship initiative funded by Global Affairs Canada (GAC) in Vietnam, with an implementation period from 2023-2029. The SPRINT is implemented in the province of Lao Cai (formerly in Yen Bai Province) and managed by Cowater International.

Cowater International is a leading global development consulting company founded in 1985. Headquarters in Ottawa, Cowater International, has successfully delivered a portfolio of over 2,500 projects and assignments in more than 95 countries. Cowater works with governments, private sector actors, and communities to implement projects that support socio-economic development, institutional strengthening, environmental improvements, and advancing equal opportunities for all.

(Website: <https://www.cowater.com/en/home/>)

Introduction of SPRINT Project:

The project will be implemented over six years, from 2023 to 2029 (including the project initiation and approval phase). It will focus on addressing skills and knowledge gaps, while encouraging innovation and the adoption of agricultural recovery and clean growth solutions, including Renewable Energy (RE) and Energy Efficiency (EE), for SMEs/cooperatives/industrial production units, with a focus on SMEs operating in the agricultural sector.

The project aims to improve the socio-economic well-being of ethnic minority women working in agriculture by enhancing their economic status, leadership capacity, and proactive role in promoting clean growth. The project will implement a series of interventions designed to strengthen the operational efficiency of micro, small, and medium-sized enterprises (MSMEs), cooperatives, and production groups, focusing on ethnic minority women in the agriculture and food sector. Project interventions will prioritize and focus on eight key agricultural value chains: Shan Tuyet tea, cinnamon, hawthorn/wild apple, bamboo shoots, glutinous rice, medicinal herbs, mulberry, and mixed vegetables. The primary beneficiaries are ethnic minority women in Lao Cai province (formerly Yen Bai province).

Information pertaining to the consulting service request

SPRINT delivers its clean-growth mandate through Clean-Growth Solutions Grants and Innovation Challenge Funds that support cooperatives, MSMEs and producer groups across eight priority value chains — cinnamon, bamboo shoots, medicinal plants, tea, mulberry, rice, vegetables and hawthorn — where diagnostics have identified energy-intensive processing, reliance on solid fuels, post-harvest losses and climate-sensitive farming systems. Interventions such as solar and biomass dryers, electrified tea-processing lines, agroforestry in cinnamon landscapes, and Climate Smart Agriculture (CSA) practices in rice-based systems

are designed to address major agricultural emission “hotspots” while simultaneously improving product quality, incomes and occupational health for women workers.

SPRINT’s clean-growth portfolio currently comprises nineteen (19) grants awarded in Year 3 (April 2025–March 2026), including twelve (12) Clean Growth Solutions grants and seven (7) Innovation for Clean Growth Challenge Fund grants. These interventions cover biomass drying systems, energy-efficient electric dryers, solar drying structures, Alternate Wetting and Drying (AWD) irrigation in rice, electrified tea processing, and agroforestry models in cinnamon and bamboo systems, spanning post-harvest processing, agricultural production and land-use management.

In line with the approved pipeline, SPRINT will continue scaling this portfolio in Year 4 through an additional twenty (20) Clean Growth Solutions grants and five (5) Innovation for Clean Growth Challenge Fund grants, contributing toward the programme’s planned total of sixty (60) Clean Growth Solutions grants and fifteen (15) Innovation for Clean Growth Challenge Fund grants across the full project cycle.

Given this expanding portfolio, harmonised, conservative and audit-ready GHG-accounting approaches across CSA, RE and EE pathways are essential to ensure consistency, credibility and donor-defensible reporting throughout the programme.

To safeguard credibility with donors and evaluators, SPRINT has established a programme-wide GHG measurement framework based on baseline-versus-post-intervention accounting using activity data and approved emission factors, with explicit rules on system boundaries, proxy use, confidence scoring and portfolio aggregation. The framework prioritises: (i) conservative assumptions to avoid over-statement; (ii) documentary verification through invoices, meter logs and production records, and other tools as needed; (iii) differentiated confidence levels for RE/EE, CSA and biomass-sequestration pathways; and (iv) standardised portfolio-level aggregation procedures.

As SPRINT expands its grant portfolio and the diversity of clean-growth interventions increases, further operationalisation of this framework is now required at value-chain level, particularly for Cinnamon, Bamboo Shoots and Tea, which together represent the largest concentrations of biomass-fuel substitution, electrified processing and agroforestry activities within the programme.

The consultancy also responds to increasing climate variability in northern Viet Nam, including rising temperatures and rainfall extremes, which heighten risks to agricultural productivity and reinforce the need for climate-smart agriculture, resilient processing systems and low-carbon energy solutions.

Indicator Linkage to SPRINT Results Framework.

This assignment directly supports SPRINT’s related clean-growth and climate indicators under the project results framework, including:

- 1) the number of enterprises adopting RE and EE solutions;
- 2) CSA areas and practices monitored;
- 3) the number of ethnic minority women trained in clean-growth operations; and
- 4) the number of grants producing verified baseline-to-endline GHG calculations.

Alignment with SPRINT Theory of Change

This assignment operationalises SPRINT’s Theory of Change by translating Clean-Growth investments into measurable behavioural, technical and climate outcomes. Through standardised baseline establishment, value-chain-specific methodologies and portfolio-level aggregation, the consultancy contributes directly to strengthened climate-adaptive capacity at MSME and cooperative level, improved technical leadership of ethnic minority women, and verified reductions in emissions across priority value chains. These results underpin SPRINT’s pathway from pilot interventions to scalable low-carbon transformation and inclusive income growth.

Coverage Across Grant Cycles.

The Consultant will prioritise all Year-4 Clean-Growth grantees, while also consolidating and strengthening MRV systems for the nineteen (19) Year-3 projects where applicable, in order to ensure consistency, continuity and portfolio-wide reporting across successive grant cohorts.

Under Sub-Activity 1122.2, SPRINT therefore seeks to:

- consolidate verified baseline datasets across all approved Clean-Growth projects;
- translate the programme-level GHG framework into field-ready methodologies for the Cinnamon, Bamboo Shoots and Tea value chains;
- develop digital tools to support consistent grant- and portfolio-level reporting;
- reduce fiduciary and reputational risks associated with overstated climate claims; and
- strengthen preparedness for donor verification missions, audits and evaluations.

This consultancy will provide the technical backbone of SPRINT's Clean-Growth Measurement, Reporting and Verification (MRV) system, enabling the programme to track progress toward its annual GHG-reduction objective, improve targeting of future grants toward high-impact CSA/RE/EE interventions, and reinforce income growth and leadership opportunities for ethnic minority women.

2. Purpose of the Consultancy

This consultancy activity is undertaken to contribute to the achievement of the following objectives:

- **Intermediate Outcome 1100:** Improved performance of EMW-focused MSMEs/coops/producer groups in gender responsive and climate resilient value chains in agriculture
- **Immediate Outcome 1120** Enhanced climate adaptive capacity of EMW-focused MSMEs/coops/producer groups in agriculture
- Output 1122: Clean growth solutions (focally low carbon and adaptive climate smart agriculture) co-designed and piloted with selected EMW-focused MSMEs/ coops/producers

Consulting to support the implementation of Activity 1122.2 Identify the emission measurement method

3. Objective of the Assignment

2.1 Overall Objective

To design, test and operationalise standardised, field-ready GHG measurement methodologies and digital tools, consistent with IPCC methodologies (especially Tier1/2) and, where applicable, national emission factors and recognised GHG accounting standards such as the GHG Protocol Project Accounting Standard and sector-specific guidance, that enable SPRINT to establish credible baselines, quantify post-intervention emission reductions, and aggregate results at both grant and portfolio levels, in line with SPRINT's Performance Management Framework (PMF) indicators and donor reporting requirements.

At portfolio level, the consultancy underpins SPRINT's annual mitigation ambition by ensuring that grant-level baselines, post-intervention calculations and confidence scoring can be consistently aggregated across cohorts and value chains. The tools and methodologies produced through this assignment will enable programme management to track progress toward overall GHG reduction targets and to prioritise future grants toward the highest-impact CSA, RE and EE pathways.

2.2 Specific Objectives

The consultant shall:

1. **Consolidate and quality-assure baseline data** for all 19 approved Clean-Growth projects, covering CSA, RE and EE interventions, with full documentation and audit trails.
2. **Develop chain-specific GHG methodologies** for priority value chains, namely:
 - Cinnamon
 - Bamboo Shoots
 - Tea

3. **Define and standardise key accounting parameters** across all projects, including:
 - system boundaries,
 - functional units,
 - emission-factor hierarchies, and
 - calculation equations and conservative assumptions.
4. **Integrate production-stage, post-harvest and processing-stage emissions** into a coherent measurement framework that captures the full mitigation effect of CSA, RE and EE interventions supported by SPRINT.
5. **Develop and pilot digital calculation tools and portfolio dashboards** capable of generating project-level results and programme-wide aggregates aligned with SPRINT’s PMF and annual reporting cycles.
6. **Strengthen internal capacity for ongoing Monitoring, Reporting and Verification (MRV)**, through user manuals, SOPs and hands-on training for SPRINT staff and partners.
7. **Generate strategic, evidence-based recommendations** to guide future grant targeting toward high-impact mitigation pathways and to support achievement of SPRINT’s annual GHG-reduction objective.

4. Scope of Works and Deliverables

The assignment shall be implemented through five integrated workstreams to establish grant-level GHG baselines, develop chain-specific methodologies for priority value chains, operationalise CSA/RE/EE measurement systems, and deliver portfolio-level reporting aligned with SPRINT’s clean-growth and climate indicators under the results framework and donor reporting requirements.

Expected methodological rigor: The methodologies and tools are intended primarily for **program monitoring and portfolio management (screening-level estimates)** rather than audit-ready calculations for external verification. Approaches shall therefore prioritise practicality, transparency, and consistency across projects, while remaining aligned with recognised standards (e.g., IPCC guidance and national factors). Where higher-confidence data are available, methods should allow progressive improvement toward verification-ready estimates without redesign.

No.	Specific Task	Detailed Description	Deliverable (s)
Workstream 1 – Inception and Technical Review			
1	Desk review of SPRINT documentation	Review baseline studies, GHG manuals, climate-risk analyses, grant files, and procurement records to confirm methodological alignment, identify data gaps, and assess readiness for baseline consolidation.	Desk-review inception notes covering applicable methods, data gaps, compliance issues, and indicator linkages.
2	Portfolio mapping	Classify all projects by value chain, CSA/RE/EE intervention type, system boundary and emissions-reduction pathway to guide fieldwork and prioritisation.	Portfolio mapping matrix for all projects.
3	Design data-collection and QA/QC protocols	Develop standardised survey instruments, data templates, verification checklists and audit-trail procedures for baseline establishment.	Field templates, data-entry sheets, and QA/QC protocol manual.
Total consultancy days: 5 days; SPRINT’s GHG Specialist: 3 days			
Workstream 2 – Baseline Data Consolidation			
4	Baseline data collection	Conduct an initial data availability and quality assessment for each project, followed by collection of CSA, RE and EE data (e.g., energy use, fuel switching, production	Assessed and completed baseline datasets (with data quality notes and

No.	Specific Task	Detailed Description	Deliverable (s)
		volumes, operating hours, cultivated areas, management practices) using approved templates. Where primary data are limited, apply validated proxies, default/IPCC or national factors, and documented assumptions to ensure minimum baseline completeness and transparency.	assumptions) for all 19 projects.
5	Process mapping	Map production, post-harvest and processing systems to identify emission sources and mitigation points along the chain.	Process flow diagrams and value-chain maps.
6	Verification and triangulation	Validate reported data through invoices, meter photos, equipment specifications, and operational logs.	Verification files for each project.
7	Data-quality scoring and proxy justification	Apply confidence scoring and document conservative proxy baselines only where primary data are unavailable.	Data-quality matrix and proxy-justification notes.
Total consultancy days: 10 days; SPRINT's GHG Specialist: 4 days			
Workstream 3 – Methodology Development for Cinnamon, Bamboo-shoot and Tea Value Chains			
8	Boundary and unit definition	Define system boundaries and functional units for Cinnamon, Bamboo Shoots and Tea to ensure consistency across projects.	Boundary notes and functional unit specifications.
9	Emission-source identification and factor selection	Identify key emission sources and select conservative emission factors consistent with recognised accounting practices.	Emission-source inventories and approved factor tables.
10	Equation development and assumptions	Develop transparent equations and document assumptions and uncertainty treatments.	Calculation sheets and methodological notes.
Total consultancy days: 8 days; SPRINT's GHG Specialist: 2 days			
Workstream 4 – Tool Development and Piloting			
11	Tool and dashboard development	Build standardised, modular Excel-based calculators and portfolio dashboards aligned with SPRINT's PMF and related clean-growth and climate indicators, using a common structure (core modules, input sheets, calculation engine, and summary outputs) to enable consistent use across projects and portfolio-level aggregation.	Modular GHG calculators and dashboard templates ready for portfolio aggregation.
12	Tool piloting and refinement	Pilot the tools with three selected grantees and refine data inputs, calculation logic, and user interfaces based on testing results and user feedback.	Validated and refined tools and dashboards ready for wider rollout.
13	QA features and version control	Embed error checks, revision tracking and audit-trail functions into all tools.	Finalised QA enabled tools.
Total consultancy days: 8 days; SPRINT's GHG Specialist: 2 days			
Workstream 5 – Capacity Building and Strategic Guidance			
14	Technical training workshop	Deliver at least one hands-on training session for SPRINT staff and partners on GHG methods, tools and data-quality standards.	Training agenda, materials, and participant records.

No.	Specific Task	Detailed Description	Deliverable (s)
15	SOP development	Produce practical SOPs for routine grant-level data collection, verification, and reporting.	SOP manual and reporting templates.
16	Strategic portfolio analysis	Analyze results to identify high-impact CSA/RE/EE interventions and inform future grant targeting.	Strategic guidance notes and prioritization matrix.
17	Final Report	Consolidated package	
Total consultancy days: 6 days; SPRINT's GHG Specialist: 6 days			
Total working day of consultant: 37 days; SPRINT's GHG Specialist: 17 days			
Note: Gender-responsive and inclusive approaches shall be integrated throughout, with specific attention to Ethnic Minority Women, culturally appropriate engagement and mobility constraints. Participation and learning outcomes shall be documented in deliverables.			
All outputs shall be submitted in English and Vietnamese.			

5. Workstream Timeline and Intended Users

Workstream	Key Outputs	Intended Users	Deadline
Workstream 1: Inception and Technical Review	Tasks 1–3	SPRINT management, GHG Specialist, M&E team, donor reporting team	5 April 2026
Workstream 2: Baseline Data Consolidation	Tasks 4–7	SPRINT technical team, GHG Specialist, M&E unit, grant management team	20 April 2026 (baseline tasks); 2 April 2026 (process mapping)
Workstream 3: Methodology Development (Cinnamon, Bamboo, Tea)	Tasks 8–10	SPRINT technical team, GHG Specialist, program design team	2 May 2026
Workstream 4: Tool Development and Piloting	Tasks 11–13	Primary: SPRINT staff; Secondary: pilot grantees for data entry and testing	7 May 2026
Workstream 5: Capacity Building and Strategic Guidance	Tasks 14–17	SPRINT staff, implementing partners, selected grantees, donor stakeholders	11–15 May 2026

Integration with SPRINT MERL Systems

All data-collection tools, dashboards and reporting templates developed under this consultancy shall be fully aligned with SPRINT's Monitoring, Evaluation, Research and Learning (MERL) system. Verified datasets will feed into programme-level dashboards, annual donor reports and learning products, while methodological notes and portfolio analyses will support mid-term and final evaluations, strategic decision-making and adaptive management.

Key Risks and Mitigation Measures

Risk	Mitigation Strategy
Incomplete or inconsistent baseline data	Triangulation using invoices, meter records and production logs; conservative assumptions
Limited participation by ethnic minority women due to mobility or workload constraints	Gender-responsive scheduling and field-based engagement
Methodological uncertainty across value chains	Standardized boundaries, EF hierarchies and QA/QC protocols

Audit and verification risk	SOPs, documentation checklists and ready reporting templates
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Indicative Calendar Alignment

- **23 March – 30 March 2026** – Contracting, inception, desk review, workplan finalization
- **Late March – Mid April 2026** – Field visits and baseline data collection
- **Mid – Late April 2026** – Methodology development and drafting tools
- **Mid May 2026** – Tool piloting, training delivery and final reporting

6. Required Consultant Qualifications

Criteria	Required
Education	Postgraduate degree (Master’s or higher preferred) in climate change, environmental engineering, agriculture, energy systems, natural resource management or related disciplines.
Experience	Minimum seven years of experience in GHG accounting and MRV systems applied to: <ul style="list-style-type: none"> • RE, EE and CSA interventions. • donor-funded development programmes. <i>Demonstrated track record in:</i> <ul style="list-style-type: none"> • designing baseline–endline frameworks. • portfolio-level emissions aggregation. • development of GHG calculation tools and standard operating procedures for field implementation. • delivering training and capacity building on these methodologies and tools for field teams and implementing partners. • Experience with cooperatives, MSMEs and upland farming systems is desirable.
Technical Skills	<ul style="list-style-type: none"> • Strong familiarity with IPCC methodologies and conservative accounting principles. • Experience with agricultural, processing, and biomass energy systems.
Language	<ul style="list-style-type: none"> • Fluent English required. • Vietnamese highly desirable.

7. Application Process

Consultants or firms will be selected through a competitive evaluation of technical and financial proposals.

Interested applicants shall submit the following documents with the subject line: **[Application for Consulting – Sub-activity 1122.2 – Name of Consultant/Company]** to the email address: procurement@sprint-vietnam.com no later than **17:00 on 16 March 2026**.

Required documents include:

- Letter of interest
- Curriculum vitae of proposed experts
- Technical proposal and financial proposal
- Examples of previous similar assignments (optional but encouraged)

Note: The financial proposal shall be developed strictly in line with the scope of work and requirements set out in this ToR, inclusive of all applicable taxes. This ceiling excludes travel and accommodation costs for field missions, if required, which shall be itemized separately.