CARIBBEAN COOPERATIVE MRV HUB

Measurement • Reporting • Verification

Caribbean Cooperative Measurement Reporting & Verification Hub (CCMRVH)

and

New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC)

Call for Participation

Agriculture Work Crew

May 2025

1 Introduction

Caribbean countries continue to face persistent technical and institutional challenges in producing robust, policy-relevant greenhouse gas (GHG) inventories, particularly within the agriculture sector. These challenges include gaps in data collection systems, limited availability and quality of activity data, insufficient in-country expertise, infrequent training opportunities, and high staff turnover. As a result, many countries rely on international consultants to prepare their inventories. This approach undermines sustainability, institutional memory, and national ownership of the reporting process.

At the same time, countries must prepare to meet the evolving and more rigorous reporting expectations under the Enhanced Transparency Framework (ETF) of the Paris Agreement. This includes the preparation of Biennial Transparency Reports (BTRs) and the updating of Nationally Determined Contributions (NDCs) both of which require detailed, sector-specific emissions estimates.

In a similar manner, the developing Voluntary Carbon Market (VCO), and associated reporting frameworks, along with corporate initiatives to offset carbon footprints present potential opportunities and pitfalls for farmers and implications for national policy.

In response to these ongoing challenges, the **Caribbean Cooperative Measurement, Reporting, and Verification Hub (MRV Hub)**, in partnership with the **New Zealand Government, under its Latin America and the Caribbean Climate Smart Agriculture programme** established the **Agriculture Work Crew,** a regional initiative aimed at building lasting technical capacity to support the development of policy, extension services and accurate, country-led GHG inventories from agriculture.

The Work Crew brings together technical professionals from across the Caribbean region to:

- Strengthen national policy advice to government,
- Strengthen national inventory systems,
- Apply IPCC methodologies and open-source tools,
- Use harmonised, regionally appropriate data templates,
- Generate outputs directly aligned with each country's UNFCCC reporting needs, and
- Building a network of professionals that can assist and support each other.

This ***Call for Participation*** provides an outline of the technical programme, expected outcomes and terms of participation in this Agriculture Work Crew.

Eligibility

Funded participation in this phase of the Agriculture Work Crew is available for two applicants from each of the following countries: *Belize, Dominica, Grenada Jamaica, Saint Lucia, Suriname* and *St. Vincent and the Grenadines*. Participation from other Hub Member Countries is welcomed on a self-funded basis. We particularly encourage the participation of:

1) **A technical officer** within the agriculture sector actively engaged or experienced in agriculture-related work and demonstrating interest in climate-related topics such as:
    - Agriculture GHG data collection
    - Carbon markets
    - GHG inventory development
    - Agricultural mitigation strategies.
2) **A policy or reporting officer** within the Ministry responsible for compiling the national GHG inventory (e.g. NC/BTR/NDC coordinator, GHGI chapter lead, etc.). Participants who are directly involved or interested in GHG data collection, national and voluntary carbon markets, GHG inventory development, or the implementation of agricultural mitigation strategies.

Pre-eligibility questions can be directed to ahyana.bowen@mrvhub.org CC: info@mrvhub.org.

Application Process

If you are interested in participating in this Agriculture Work Crew, please read the information in this document and submit the following to Ms. Ahyana Bowen, MRV Hub Work Crews Coordinator, at ahyana.bowen@mrvhub.org CC: info@mrvhub.org by close of business **Friday 23rd May 2025**:

1. A brief statement (maximum 1-page) of your interests in this work crew,
2. One-page CV, and
3. Supporting letter from your ministry, or employer.

2 Background

2.1 Purpose

The primary purpose of the Agriculture Work Crew is to strengthen technical, policy and advice capacity across Caribbean countries to independently compile and improve GHG inventories for the agriculture sector. This includes estimating emissions from key categories such as livestock and manure management, as well as nitrous oxide (N_2O) emissions from managed soils.

Specific objectives include:

1. Build technical understanding of IPCC methodologies for agriculture sector GHG estimation, with emphasis on livestock and soil emissions.
2. Provide hands-on capacity building for Tier 1 and introductory Tier 2 inventory development using available open-source tools and inventory templates.
3. Support the development of baseline national GHG inventories for the agriculture sector using domestic experts, with guidance from the CCMRVH and NZAGRC.

4. Develop and institutionalize processes for agriculture data collection, analysis, and emission estimation.
5. Facilitate the preparation of national GHG estimates, sectoral documentation, and institutional memory products.
6. Co-develop standardized, regionally relevant data collection templates to streamline future inventory work.
7. Understand the broader implications for farmers and national policy from the emerging VCO market.

2.2 Statement of Work

The Agriculture Work Crew is a key component of the Agriculture GHG Inventory Capacity Building in the Caribbean project. Its primary function is to train and support national experts to calculate agriculture GHG emissions in alignment with IPCC Guidelines and ETF reporting requirements. It also aims to build national systems that reduce the long-term reliance on external consultants.

The programme is structured into three main phases:

Foundation Building and Planning Phase (Initiation to Workshop 1)

1. Orientation sessions for participating country experts
2. Review of available data, national inventory systems, and country-specific challenges
3. Introduction to IPCC Guidelines and GHG inventory tools
4. Identification of key emission sources and data needs
5. Introduction to VCOs

Capacity Building and Inventory Development Phase (Post Workshop 1 to Workshop 4)

1. Virtual and in-person training workshops led by CCMRVH and NZAGRC
2. Hands-on inventory compilation using selected tools (e.g., IPCC Inventory Software, GHGMI templates)
3. Country-specific data collection and input using developed templates
4. Peer review and iterative feedback process to strengthen draft estimates

Documentation, Integration, and Reporting Phase (Post Workshop 4 to Final Report submission)

1. Finalization of national agriculture sector GHG estimates
2. Preparation of sectoral inventory documentation in line with UNFCCC/BTR expectations

3. Integration of estimates into national reporting systems and CCMRVH's centralised database
4. Development of knowledge products (e.g., inventory summary briefs, case studies, lessons learned)
5. Recommendations for institutionalising inventory practices and sustaining progress

2.3 Deliverables

By the end of the work crew period, the following key outputs are expected:

1. **Country-specific Agriculture GHG Inventory**
   - Completed using IPCC-compliant methodologies (primarily Tier 1, with progress toward Tier 2)
   - Covers emissions from livestock and managed soils (Key categories for Tier 2)

2. **Inventory Supporting Documentation**
   - Country specific sectoral methodologies for key categories, data sources, assumptions, QA/QC approaches
   - Ready for integration into National Communications, BTRs, and other official reports

3. **Agriculture Activity Data Collection Templates**
   - Country specific templates to aid in data collection decision making.

4. **Virtual and In-person training workshops**
   - Four in person workshops
   - An optional study tour to New Zealand for further training and information, and
   - Virtual support and training

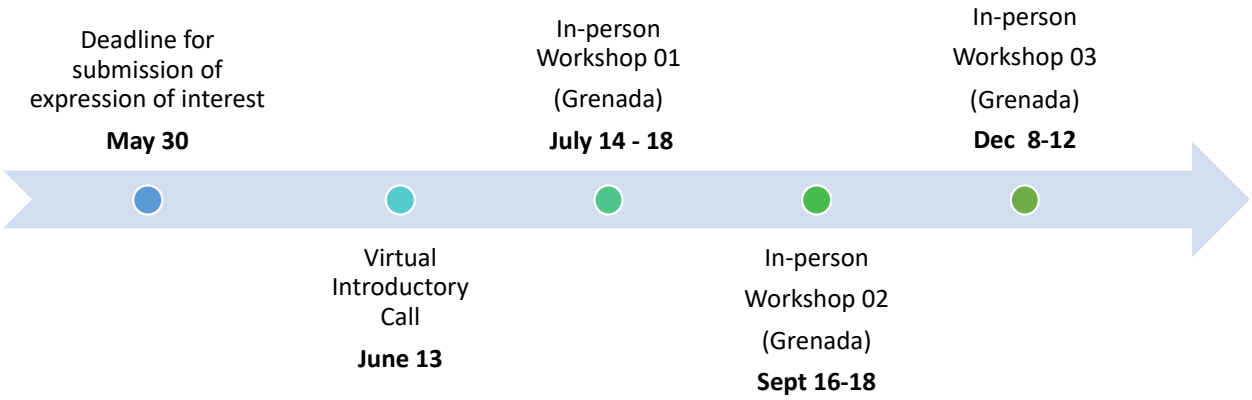
5. **National-Level Roadmaps**
   - Outline next steps for institutionalising agriculture inventory processes and enhancing Tier 2 readiness

6. **Work Crew Summary Report**
   - Captures lessons learned, good practices, and recommendations for sustaining capacity in the region
   - Participants complete a final report and share a presentation of lessons learned and country-specific summary of achievements

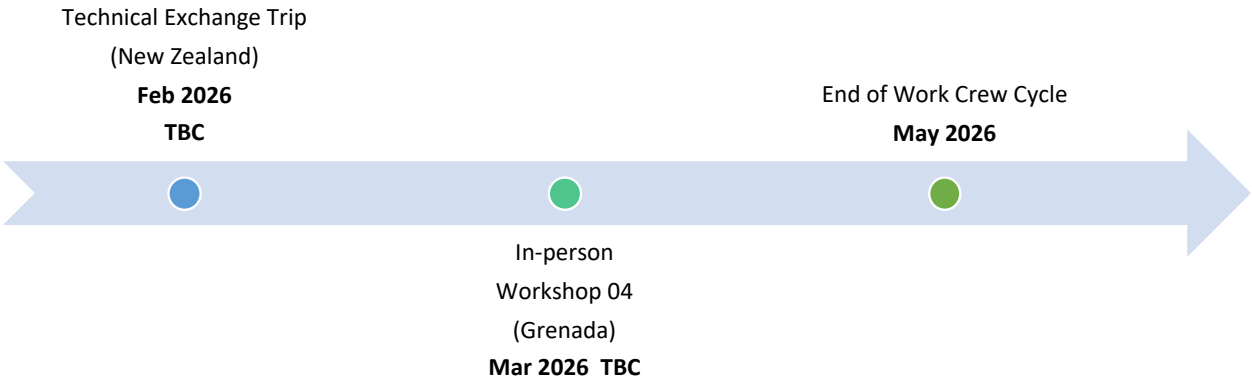
2.4 Timeline

Below are the scheduled key milestones of the Agriculture Work Crew.

2025



2026



3 Technical Outline

3.1 Expected Learning Outcomes

By the end of the Agriculture Work Crew cycle, participants should be able to:

- Demonstrate foundational knowledge of climate change and the science behind agricultural greenhouse gas (GHG) emissions, including the role of agriculture in national and international climate commitments.
- Understand their country's reporting obligations under the Paris Agreement, and how agricultural GHG inventories contribute to National Communications (NCs), Biennial

Transparency Reports (BTRs), Nationally Determined Contributions (NDCs), and domestic climate policies and plans.

- Collect, analyse, and manipulate agricultural data to support the estimation of GHG emissions, with an emphasis on livestock.
- Apply advanced IPCC methodologies and open-source tools to estimate emissions from agricultural sources at both Tier 1 and Tier 2 levels.
- Identify and apply appropriate country-specific models or tools for estimating agricultural emissions.
- Implement practices that improve the accuracy and transparency of GHG inventories in the agriculture sector.
- Collaborate and engage effectively with national stakeholders, fostering relationships that support ongoing knowledge sharing and multi-agency cooperation.
- Diagnose key data gaps, institutional barriers, and identify opportunities for building a sustainable, nationally led agricultural GHG inventory system.
- Understand the broader context of agricultural GHG emissions management, from on-farm practices, reporting and verification frameworks, national and voluntary carbon markets, national policy frameworks and implications for trade.

A **certificate of participation** and **recognition of contribution** will be issued to all active Work Crew members upon successful completion of the cycle.

3.2 Technical Work plan

The Agriculture GHG Inventory Work Crew Cycle is a structured, multi-phase capacity-building programme designed to guide participating countries in developing Tier 1 and Tier 2 GHG inventories for the agriculture sector.

The cycle will run from June 2025 to May 2026 and will feature:

- Four in-depth regional workshops,
- An optional study tour in New Zealand for further training and information gathering,
- Preparatory learning modules,
- Post-workshop assignments,
- National validation exercises and
- Continuous mentorship from regional and international experts, including the New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC).

Participants will begin by establishing foundational knowledge through e-learning and an initiation workshop, followed by the development of a Tier 1 inventory. Subsequent phases will focus on

data collection and template development, enhanced livestock characterisation, and Tier 2 estimation methodologies. The final stage will emphasise inventory finalisation, stakeholder validation, and integration into national systems.

A key feature of the programme is an optional study tour in New Zealand, offering participants hands-on exposure into inventory systems, institutional processes and data infrastructure.

Participation in the study tour is contingent upon consistent attendance and participation at work crew activities and timely submission of assigned deliverables.

3.2.1 Time Commitment:

Participation in this work crew will require approximately 150 days of engagement from preparation in June 2025 until the end of the contract in May 2026. This includes travel time.

Please refer to the detailed workplan below for breakdown of required tasks and deliverables.

Workplan Overview: Agriculture GHG Inventory Work Crew Cycle

Phase / Workshop	Dates	Activities	Estimated Time Commitment	Expected Deliverables
Pre-Workshop 1	13 June- 14 July 2025	- Complete 3 GRA e-learning courses - Respond to capability survey - Prepare 5–10 min presentation on national GHG reporting status	1-2 days	- E-learning certificates - Presentation on national status
Workshop 1	14–18 July 2025	- Review e-learning foundation - Intro to agriculture GHG reporting - Cross-cutting issues (QA/QC, institutional arrangements) - Tools and Tier 1 methodology	5 days (in-person)	- Participation in workshop - Basic understanding of Tier 1 inventory
Post-Workshop 1	July–August 2025	- Compile Tier 1 agriculture inventory - Identify key emission sources - Collaborate with MRV Hub to assess existing tools/equipment	Up to 20 days for inventory ~3 days for collaboration	- Draft Tier 1 inventory - Equipment inventory list
Workshop 2: Data Collection & Template Design	16–18 September 2025 (3 days)	- Training on data sourcing, gaps, proxies, manipulation - Develop data templates	3 days (in-person) 2–5 days prep work	- Draft data templates
Post-Workshop 2	Sept–Nov 2025	- Revise templates - Begin data sourcing and template population	2 days for revision Up to 15 days for data sourcing	- Final data templates - Populated data tables
Workshop 3: Tier 2 + Livestock Characterisation	8–12 December 2025 (5 days)	- Develop Tier 2 livestock categories - Model/tool selection - Introduction to Tier 2 methodology - Cross-cutting topics (QA/QC, uncertainty)	5 days (in-person)	- Livestock profiles - Model/tool identified for Tier 2
Post-Workshop 3	Jan–Feb 2026	- Begin Tier 2 calculations	20 days across 2 months	- Draft Tier 2 Inventory - Improvement plan draft

		- Draft Inventory report - Refine data - Draft improvement plan		
Workshop 4: Advanced Analysis + Study Tour (TBC)	TBC	- Advanced model/tool training - Follow-up on Tier 2 - Uncertainty analysis - Potentially held in NZ as part of Study Tour	4 days	- Final methodology for Tier 2 - Report from NZ study tour
National Validation Workshop	TBC	- Country-level presentation - Stakeholder feedback session	1–2 days (workshop) 3-4 days (workshop organisation and report writing)	- Validation workshop report - Stakeholder feedback integrated
Finalisation of draft	March 2026	- Integrate stakeholder feedback - Finalise draft inventory & improvement plan and submit for NZAGRC review (end March)	15 days across 4 weeks	- Finalised draft Inventory report
Submission	Deadline April 2026	Incorporate NZAGRC feedback and submit for NZAGRC review	5 days across 2 weeks	- Finalised Inventory report - Finalised improvement plan

4 Participant Expectations

4.1 Learner Profile & Prerequisite Knowledge

Participants should ideally be based in one of the following institutions:

- government departments responsible for national GHG reporting and/or agriculture,
- a national statistics office, or
- a research institution involved in GHG-related work or livestock/agriculture research.

To ensure the successful completion of the programme, participants should possess the following prerequisite knowledge and skills:

- Fluent English (written and spoken).
- Good working knowledge of Microsoft Excel (mandatory) -this will be the primary tool used for inventory compilation and data management.
- Educational or professional background in agriculture is preferred but not mandatory.
- Completed Global Research Alliance (GRA) e-learning courses **prior to the first training workshop** (mandatory):
    - Course 1 – Introduction to Climate Change Science
    - Course 2 – Introduction to International GHG obligations
    - Course 3 – Introduction to the Science behind Agricultural GHG Inventories

Each course requires approximately 60-90 minutes to complete and provides essential context for the hands-on work that will be undertaken during the training programme.

4.2 Participation Agreement

Work Crew members will be engaged under a formal Work Crew Engagement contract, which outlines their responsibilities and commitment to the successful implementation of the Agriculture GHG Inventory Capacity Building Project.

Each member is expected to participate actively in all phases of the Work Crew activities, from initial orientation through to the delivery of the national inventory outputs. This engagement will require an estimated 150 days of work beginning in June 2025 and concluding by May 2026.

In recognition of their time and contributions, members will receive a stipend upon successful completion of agreed milestones. This arrangement is intended to support accountability, ensure consistency, and promote sustained engagement throughout the project cycle.

All work crew participants are expected to:

- Attend and actively participate in **all** scheduled **virtual** and **in-person** sessions.

- Communicate regularly with their national teams and CCMRVH counterparts.
- Contribute to the development and review of project deliverables.
- Collect and share relevant national data, inventory progress, and lessons learned.
- Collaborate respectfully and constructively within a multicultural, regional environment.
- Notify CCMRVH in a timely manner if they are unable to meet a deadline or participate, to allow for adjustments.
- Conduct knowledge sharing activities within home ministry or institution to help build national capacity

On-boarded work crew members sign a *Work Crew Engagement Agreement.*

4.3 Roles and Responsibilities

The Agriculture Work Crew is designed not only as a time-bound project but also as a catalyst for **long-term institutional capacity** across the Caribbean region. Participants will play a critical role in ensuring the sustainability and scalability of agriculture GHG inventory development at both national and regional levels.

Key elements to sustain the outcomes include:

1. **Building a Community of Practice**
    - Establishing a regional network of agriculture GHG inventory practitioners to exchange experiences, share tools and support peer learning.
    - Maintaining long-term connections to and through the CCMRVH network.
2. **Institutional Integration**
    - Supporting countries in embedding GHG inventory functions into national institutions (e.g., Ministries of Agriculture or Environment)
    - Promote the use of formal roles, Standard Operating Procedure (SOPs), and implementation of national inventory roadmaps.
3. **Harmonised Tools and Templates**
    - Promoting consistent use of open-source inventory tools, regionally adapted data templates, and guidance notes to reduce duplication and increase efficiency.
4. **Alignment with Country Reporting Cycles**
    - Linking outputs of work crews to upcoming reporting needs (e.g., BTRs, NDC updates, and other national reporting documents),
    - Supporting the institutionalisation of processes that enable regular updates to the agriculture GHG inventories

5 Institutionalisation and Sustainability

The work crew initiative is designed to build regional expertise, strengthen institutional frameworks and ensure the sustainability of agriculture GHG inventory development well beyond the life of the project.

Through hands-on experience, collaborative learning and structured mentorship, participants will be equipped to:

- ✓ Serve as national and regional resource persons for agriculture GHG inventory development
- ✓ Embed new skills and procedures into national systems and institutions
- ✓ Enhance regional collaboration through the development of strong agriculture GHG networks among technical experts and institutions
- ✓ Support the development of SOPs, data templates and reporting tools
- ✓ Enhance the national ownership by training and mentoring other technical officers within their respective agencies

The programme's achievement will be reflected in robust institutional frameworks, improved national reporting and a growing community of trained experts capable of advancing agriculture GHG inventories across the Caribbean.