

Call for Participation

Work Crews – Development Teams & Review Groups

30 June 2020

The Caribbean Cooperative MRV Hub (“MRV Hub”) is developing tools and other regionally-pooled institutional arrangements to support member countries in enhancing their national measurement, reporting and verification (MRV) systems. We would like to invite you to participate in the work of this cooperative Caribbean initiative, as a member of one or more of our work crews. Participation will provide training opportunities and enhance technical capacity among your country’s MRV and mitigation experts. The MRV Hub’s work crews will generate MRV outputs directly relevant to your national data needs and UNFCCC reporting requirements.

With this *Call for Participation*, we are now inviting participation in three work crews – Data Management Systems, Forestry and Other Land Use, and On-Road Mobile Source. If you are interested in participating in one or more these work crews, please read the information in this document, and provide the following information to Ms. Ahyana Bowen, MRV Hub Intern, at info@mrvhub.org by close of business Friday 24 July 2020¹:

- The work crew(s) you would like to participate in, including whether that is as a Development Team or Review Group member;
- A few details about yourself and the sector and region you work in;
- Why you are interested in the MRV Hub and the specific work crew(s);
- How your experience, expertise or current job responsibilities are relevant to the work crew(s); and
- If your interest is in a Development Team (as opposed to a Review Group), please also provide your CV.

We will review candidates on a rolling basis as your expression of interest is received. If you have any questions, please contact Ahyana.

The remainder of this document has three sections. Sections 1 and 2 provide an overview of the MRV Hub and its goals. If you are already familiar with the MRV Hub, you can skip straight to Section 3, which describes the work crews and how you can participate in them. Appendices provide details on each of the work crews established to date – their purpose, scope of work, main outputs, and roles and responsibilities.

¹ This is the deadline set out in this Call for Participation, so that we can establish the work crews as soon as possible. However, individuals can put themselves forward at any time and will be considered for participation in the work crews; the Review Groups in particular will benefit from broad and open membership, including individuals who may only become aware of our work after July 2020.

1. CARIBBEAN COOPERATIVE MRV HUB

The Caribbean Cooperative MRV Hub is a regional institution to support national climate change data systems in 12 English-speaking CARICOM countries. These systems will support Paris Agreement reporting and evidence-based climate policymaking.

Through cooperative activities (outlined below), the MRV Hub will enhance national MRV systems, and support enhanced transparency framework reporting of GHG inventories, NDC progress tracking, mitigation assessment (including projections and scenarios), and data management tools. By improving technical capacity, the MRV Hub aims to: prepare member countries for Paris Agreement reporting, improve country access to climate finance, enhance national data systems (making reporting less burdensome and faster for countries), enable domestic (non-reporting) uses of data, improve data quality and analysis, and train and specialize country experts. By regionally pooling expert capacities and institutional arrangements, The MRV Hub will function as a true learning and mentoring cooperative and produce high-quality national climate reporting outputs.

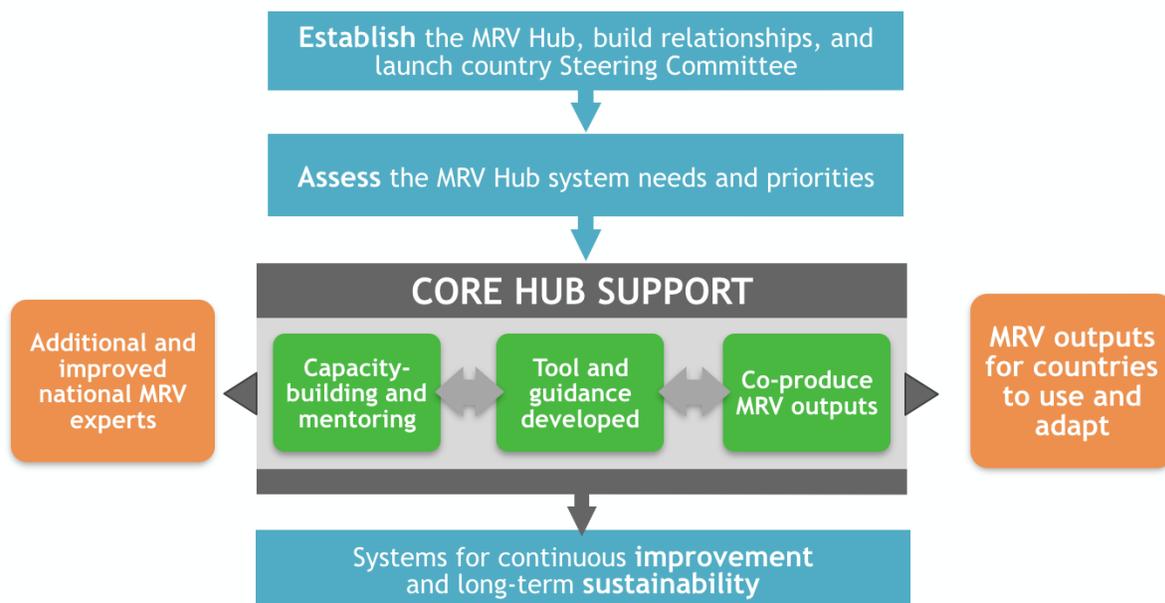
The MRV Hub is a partnership between the GHG Management Institute (“GHGMI,” serving as the technical partner and project lead), the UNFCCC Regional Collaboration Centre for the Caribbean (“RCC St George’s”), and the Windward Islands Research and Education Foundation (“WINDREF,” our institutional host). UNDP/UNEP Global Support Programme is an additional supporting partner. The MRV Hub is funded for five years through the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU). The MRV Hub Secretariat and working space are physically based at WINDREF’s offices at the St. George’s University (SGU), in Grenada. The MRV Hub is directed by a Steering Committee and holds an Annual Meeting of all participating countries and project partners.

2. MRV HUB GOALS

The mission of the MRV Hub will be achieved through six intermediate goals:

- **Goal 1.** Establish the MRV Hub as a permanent institution in the region
- **Goal 2.** Assess country needs and priorities and build into workplan of the MRV Hub
- **Goal 3.** Increase human capacity of Caribbean technical MRV and mitigation experts
- **Goal 4.** Conduct MRV Hub working sessions and share transparent and complete GHG data and documentation
- **Goal 5.** Develop and disseminate tools and guidance and promote use by countries
- **Goal 6.** Create a generalized sustainability and replicability MRV Hub package and actively present to other countries and regions with similar conditions

Figure 1: The MRV Hub process and core hub support



3. DESCRIPTION OF WORK CREWS

Member countries of the MRV Hub continue to face technical challenges at each step of the GHG emission inventory process as well as tracking quantitative indicators of NDC implementation at the sectoral and policy level. These challenges include establishing national systems for data flows, data collection, data processing, emission calculations, report generation, and data archiving. Additional needs and challenges relate to meeting broader MRV functions including dealing with projections, mitigation planning and analysis, adaptation planning and analysis, NDC tracking, climate finance tracking and supporting local air quality programs and supporting domestic policy making.

Member countries of the MRV Hub also face institutional challenges. The number of specialists dedicated to the GHG inventory team are often too few, capacity is insufficient, training opportunities infrequent, and staff turnover is often too high, thereby demanding more time from already small teams. Many of the MRV Hub member countries are forced to outsource the inventory development tasks to outside organizations, and retention of primary data files, draft documents, and calculation tools is often a problem.

The work crews are central to the MRV Hub’s implementation approach and will help to address these challenges.

Focus areas

The work crews are a key part of the *Core Hub Support* shown in Figure 1 above; in particular, by developing tools and guidance, through capacity-building and mentoring, and by co-producing MRV outputs applicable for use by each country's UNFCCC reporting.

Initial focus areas for the work crews were determined based on the MRV System Status Assessments conducted with MRV Hub member countries which identified gaps and priority needs. The resultant Capacity Building Reports documented each country's capacity building needs and served as the basis for selecting topics for the work crews. The following work crews are now being established:

- **Data Management Systems Work Crew.** Develop and implement software solution(s) to enable MRV data management, analysis, reporting and archiving for MRV Hub member countries.
- **Forestry and Other Land Use (FOLU) Work Crew.** Develop tools and guidance to improve data collection and calculation of GHG emission and removal estimates for FOLU.
- **On-Road Mobile Source Work Crew.** Develop tools and guidance to improve data collection and calculation of GHG emission estimates for on-road mobile sources.

Appendices 1-3 provide a description of each work crew. A further work crew on maritime transport fuels will be established soon². Potential topics for future work crews include agriculture, waste, and fluorinated gases. As and when new work crews are established, the MRV Hub Secretariat will reach out to countries and experts with a call for participation for them. In the meantime, we are keen to hear from experts who would be interested in leading or participating in these future work crews. If you are interested or would like more information, please contact Ms. Ahyana Bowen at info@mrvhub.org.

Work crew composition

Each work crew comprises a **Development Team** and a **Review Group**.

The **Development Team** is the technical core of the work crew doing the substantive work entailed in producing the work crew outputs. The team is led by an expert who has the requisite technical expertise and experience, but the team may also include less experienced members who express a commitment to become technical experts on the work crew's topic through participation in work crew process and training opportunities. We have a limited number of short-term, paid fellowship and internship positions we can offer to Development Team members. A lead for each work crew has already been identified. The anticipated size of each Development Team is 3-5 people.

² An initial concept paper for maritime transport fuels has been drafted and was presented at the MRV Hub's Annual Meeting in March 2020 in Barbados. We plan to establish the actual work crew soon.

The **Review Group** is a broader group of country representatives (who may or may not have technical expertise on the work crew topic) and other sector and MRV experts. Their role is to provide strategic direction and specific input on work crew outputs to ensure that these outputs are relevant and useful to country needs. The anticipated size of each Review Group is 10-15 people, though there is no upper limit.

Appendices 1-3 provide more information about composition, responsibilities and time commitment for the Development Team and Review Group for each work crew.

Timeline for work crews

The three Work Crew Leads have developed the initial concept and work plan for their respective work crews. The next step is to establish the work crews themselves (via this *Call for Participation*) before the work begins in earnest. Work is anticipated to run through to 2021, with some later phases of work crews running beyond this. Indicative timelines for the initial phases for each work crew are provided in Appendices 1-3.

Data confidentiality

It is important that all work crew members treat national data confidentially, and all work crew members will be asked to sign a data confidentiality agreement.

APPENDIX 1: DATA MANAGEMENT SYSTEMS (DMS) WORK CREW

Purpose

Member countries of the MRV Hub continue to face technical challenges at each step of collecting and processing MRV data. These challenges include establishing national systems for data flows, data collection, data processing, emission calculations, report generation, and data archiving. Additional needs and challenges relate to meeting broader measurement, reporting and verification functions including dealing with projections, mitigation planning and analysis, adaptation planning and analysis, NDC tracking, climate finance tracking and supporting local air quality programs and supporting domestic policy making.

The overall purpose of the DMS work crew is to address these challenges by supporting member countries in all aspects of requirements analysis, design and implementation of MRV data management systems, guidance, and training.

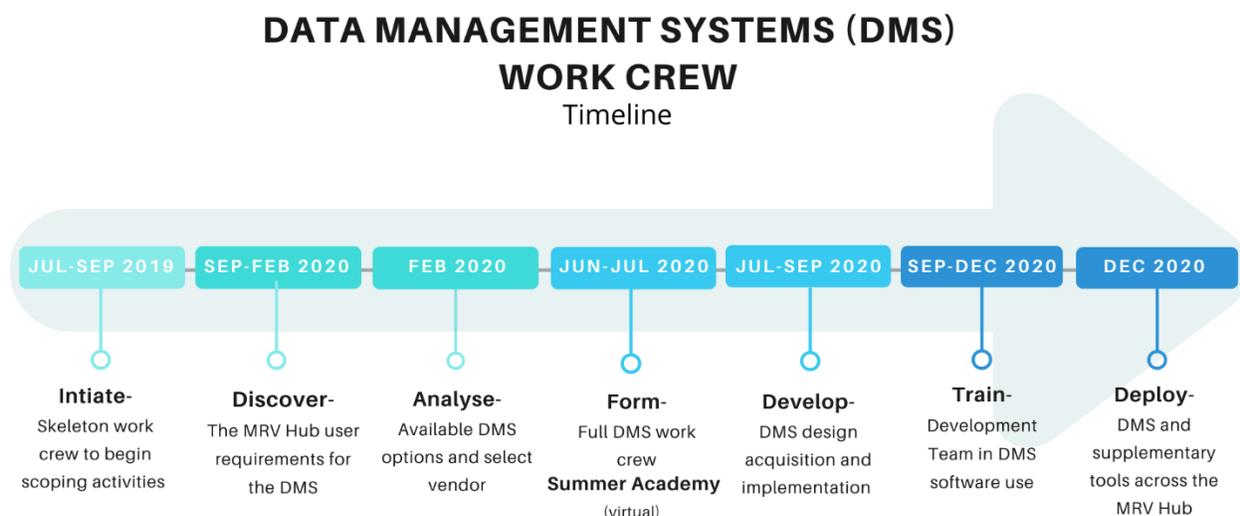
Scope of Work

The work will reflect the evolving needs of member countries to establish and maintain robust data management in all aspects of MRV. The initial efforts will focus on fundamentals of data collection, processing and reporting for GHG inventories, and developing and acquiring the supporting systems and tools. Next, the crew will work on systems, tools and systems for GHG emissions projections, monitoring of NDC indicators, adaptation to climate change and other areas of the MRV landscape, according to the needs of member countries and the availability of resources. The key activities associated with these steps include:

- Perform technical analyses to ascertain data and system requirements of member countries.
- Form recommendations on (existing and to be developed) tools and data management systems for member countries to use.
- Design and implement tools and templates to support MRV projects in member countries
- Support DMS implementation and deployment in member countries, convening any requests, issues and relevant decisions to the MRV Hub Secretariat and DMS development team.
- Conduct user acceptance testing and coordinate the testing activities with the wider community of the DMS users in member countries during software deployment stage.
- Provide guidance and on-going support, and deliver training associated with data management to member countries.

Outputs and indicative timeline for the initial step

Output	Description	Indicative date
1	Formation of skeleton work crew Development Team	Jul 2019
2	High-level analysis of the member country user needs and requirements for the DMS; concept note including functional and non-functional requirements is complete	Jul - Sep 2019
3	Technical analysis of available software options for DMS, including vendor selection; decision making matrix is made	End Feb 2020
4	DMS design, acquisition and implementation - Excel-based templates for data collection in the energy sector are designed and implemented, and the pilot inventory DMS implementation with the selected vendor is complete	Jun - Jul 2020
5	Training on the DMS software and associated user testing	Aug - Sep 2020
6	Deployment of the DMS tools for GHG inventories and further user training	Dec 2020 – Dec 2021



Roles and responsibilities

The work crew members will be engaged in developing and implementing software solution(s) to enable MRV data management, analysis, reporting and archiving for MRV Hub member countries.

Development Team

Composition

- Work Crew Lead – Overall manager for the work crew and lead technical expert (Dr Olia Glade, Director of MRV Systems, GHGMI).
- Minimum of two technical experts, expected to have substantial knowledge and expertise in some combination of the following areas:
 - Information systems analysis
 - Software design and implementation
 - Information system project management
 - GHG accounting and reporting.

Responsibilities

- Perform technical analyses to consolidate data and system requirements for member countries; liaise with software developers, conduct system testing and coordinate user testing activities; and form recommendations on the existing and proposed tools and data management systems for use by member countries.
- Produce technical reports for the work crew and the MRV Hub wider audience
- Present work crew plans, achievements and reports at MRV Hub meetings; serve as presenters and instructors at MRV Hub training events and workshops.
- The Work Crew Lead will provide support and mentoring to the Development Team in all aspects the work.
- Sign and fully abide by the work crew country data confidentiality agreement.

Commitment

Development Team members are requested to actively participate in the work crew initially up to the end of 2020. This may be extended, depending on any subsequent phases of work and work crew outputs. The level of effort will vary over time according to the phase of work, and activities and outputs of the work crew.

Acknowledgement

Members of the Development Team will be acknowledged by name on the MRV Hub website and relevant documentation.

Review Group

Members of the Review Group may join at any point during the work crew activities and provide inputs to the Development Team, guide its work and ensure the work crew outputs are relevant to member countries, with ownership and buy-in from country focal points. The Review Group is integral to helping build DMS technical capacity in the region. Select Review Group members may be invited to contribute to the technical work of Development team and or be invited to join the Development Team, at the discretion of the Work Crew Lead.

Composition

- Any interested stakeholders, including from government, civil society, academia and business, expressing a technical interest regarding data management systems

Responsibilities

- Represent the views and perspectives of users of the work crew outputs (i.e., in particular, the data management system).
- Help guide the planned work crew activities by providing country, regional, sectoral and technical perspectives and feedback; collaborate with the Development Team on planning for future data management system work and relevant engagements.
- Review work crew outputs to ensure their relevance and appropriateness to member countries; contribute to finalizing the outputs, including training materials.
- Participate in user training associated with the work crew work products and activities, as relevant.
- Help ensure work crew outputs are understood and supported by member countries; help disseminate knowledge of the outputs; facilitate implementation of the work crew outputs in member countries, as applicable; serve as champions for work crew outputs.
- Sign and fully abide by the work crew country data confidentiality agreement.

Commitment

For work on DMS tools for GHG inventories, the Review Group members are expected to be involved from July to December 2020 with potential extension beyond this date if additional requests for the inventory software are received by the DMS crew and additional stakeholder engagements, user acceptance testing and training will be required. The level of commitment will vary depending on the level of effort needed for each of these tools, with more engagement needed at the business analysis and testing stages.

This is expected to involve:

- One initial in-person workshop or a webinar with follow-up rounds via meeting calls or emails for new DMS large development projects.
- Approximately one to two conference calls per month (1-2 hours each) during key phases of developing work crew outputs, and the necessary time to prepare and review materials (approximately 1-2 hours per call).
- Review documentation provided by Development Team. Provide written feedback at the discretion of the individual participant.
- Additional time to participate in user training associated with work crew products and activities.

A similar level of commitment is expected (most likely, beyond phase 2) if the member country will express the need for developing other MRV systems related, for example, emission projections, NDC indicators, and adaptation issues.

Acknowledgement

Review Group members will be acknowledged and recognized on the MRV Hub website.

APPENDIX 2: FORESTRY AND OTHER LAND USE (FOLU) WORK CREW

Purpose

Initial consultations with country partners during the MRV Hub's Annual Meetings (2019 and 2020) and through the country gaps and needs assessment process, has unambiguously identified the improvement of data collection and calculation of GHG emission estimates in the Forestry and Other Land Use reporting sector as a high priority for almost all member countries. Lack of both historical time series data and local capacity to generate country specific data are inhibiting effective policymaking and policy implementation for countries. This lack of historical data also results in an inability to confidently produce projections and consider policy scenarios to reduce GHG emissions from FOLU sector.

The overall purpose of this work crew is to develop a team of regional FOLU experts, to facilitate calculation of annual estimates of GHG emissions from FOLU sector for each member country. More specific objectives are to:

- Develop processes to collect and analyze data, to estimate annual GHG emissions for all member countries using open source tools.
- Apply 2006 IPCC guidelines and 2019 refinements.
- Identify and address data gaps such land cover/land use maps, emission factors, and field data.
- Create national GHG inventory estimates and documentation with support of MRV Hub experts.
- Coordinate with other work crew teams, especially with Database Management Systems Work Crew to input GHG estimates to a central database.

Scope of Work

Activity data generation will focus on using freely available Landsat satellite imagery and open source software programs (Google Earth, Google Earth Engine, Open Foris-Collect Earth). Land will be classified based on IPCC land use categories and sub-categories, where appropriate. The work crew will focus on generating accurate time series for each member country for a specific time period (e.g. 1999-2019) based on country specific begin and end years.

The work crew will focus on producing country specific emission factors for forest land for high forest member countries (Belize, Guyana and Jamaica), with default IPCC values used for remaining land use categories. For low forest countries (all other member countries) IPCC default emission factor values will be used for all land use categories.

The initial work plan for the work crew will follow the steps below, which will be revised based on work crew input:

- Conduct virtual kick-off meeting to launch work crew.
- Gather available activity data, emission factors and land use maps through country contracts and available documentation.
- Assess data and data gaps for each member country.
- Produce activity data and emission factors.
- Consult with country focal points for their input on their country's post-processed time series activity data estimates and other methodological assumptions.
- Produce GHG emission estimates, associated documentation, and results/trends analysis for each member country.
- Draft and submit confidential results documentation for each member country's consideration and feedback.
- Establish a standardized tool, with embedded documentation, for emission estimation for all 12 member countries.

Outputs and indicative timeline

Output	Description	Indicative date
1	A guidance document with a) sources of freely available data on land cover maps, satellite data and analysis tools, b) step by step process to use satellite data to generate activity data for all land use categories, c) detailed process to generate country specific emission factors and d) templates to calculate GHG emissions from all land use categories	End of Sep 2020
2	Documented and processed activity data and emission factors for all land use categories for countries represented by the work crew technical members for an agreed upon time series (e.g. 1990-2019).	End of Dec 2020
3	GHG emissions estimated for countries represented by the work crew Development Team members for an agreed upon time series (e.g. 1990-2019), including associated documentation, and results/trends analysis.	End of Dec 2020
4	Draft FOLU sector GHG emission report for countries represented by the Development Team members in a format that can be adapted to UNFCCC reporting requirements such as NC, BUR, FREL or NDC.	End of Dec 2020
5	Trained work crew Development Team members who will work with remaining member countries to generate #2-4 above for each country	End of Jun 2021

FORESTRY AND OTHER LAND USE (FOLU) WORK CREW Timeline



Roles and responsibilities

The work crew members will be engaged in developing MRV outputs for all member countries, in keeping with the coop approach (versus only working on estimates for their single country).

Development Team

Members of the Development Team are to be identified at the launch of the work crew (i.e. now) and they substantively contribute to the development of the technical content of the work crew at each step of its work.

Composition

- Work Crew Lead - Overall manager for the work crew and lead technical expert (Dr Anup Joshi, Senior Fellow, GHGMI).
- Two to three technical experts, expected to have forestry-relevant knowledge and skills in some combination in the following area:
 - IPCC guidelines and GHG inventory
 - Forest inventory and field survey
 - Familiarity with one or more following software programs: Open Foris Collect Earth, Google Earth, Google Earth Engine
 - Remote sensing and use of satellite data

Responsibilities

- Act as liaisons with national governments to establish definition of the forest and other land use categories and methodological tier, communicate about the work of the work crew, and identify relevant national circumstances and priorities with respect to FOLU sector.
- Identify and document what kind of data and capacity are available or lacking in countries for which FOLU emissions assessment will be done.
- Based on country needs, design methods, prepare data collection templates, and establish data collection and analysis procedures.
- Organize field surveys, gather data to generate emission factors and also for field verification of change maps, as needed.
- Generate FOLU sector GHG emissions estimates for their own countries for agreed upon time series (e.g. 1990-2019).
- The Work Crew Lead will provide training and support to the Development Team to elevate them to be experts in the sector, and provide leadership and support in execution of work crew responsibilities listed above.
- Trained Development Team members will use their newly acquired skills to generate FOLU sector GHG emissions estimates for remaining member countries for agreed upon time series in consultation with country focal points, under the supervision of the Work Crew Lead.
- Sign and fully abide by the work crew country data confidentiality agreement.

Commitment

Success of the work crew will depend on active participation by all team members. Development Team members are requested to participate in the work crew process initially from July 2020 to mid-2021 (which could be extended, depending on subsequent phases of work and work crew outputs). This is expected to involve:

- Participation in regular work crew calls, anticipated as weekly or bi-weekly at times of peak activity and monthly otherwise.
- Attendance of all training sessions and completing all course assignments in a timely manner, as needed.
- Work on country data to generate GHG emissions data for FOLU sector during the training period.
- Expand work to include data from remaining member countries to generate GHG emissions for FOLU sector for all 12 member countries.

Acknowledgement

Members of the Development Team will be acknowledged by name on the MRV Hub website and relevant documentation.

Review Group

The Review Group provides inputs to the Development Team, to guide its work and ensure the work crew outputs are relevant to member countries, with ownership and buy-in from country focal points. The Review Group is integral to helping build FOLU technical capacity in the region.

Composition

- A minimum of 3-5 government representatives from member countries with at least one representative each from high forest countries and low forest countries.
- Technical and sector experts from the region are encouraged to join the Review Group.

Responsibilities

- Help guide the planned work crew activities by providing country, regional, sectoral and technical perspectives and feedback.
- Review and provide comments on work crew outputs, including methodological tier used, documentation of process, results/trend analysis, and guidance document.
- Help ensure work crew outputs are understood and supported by member countries.
- Encourage governments to integrate work crew results in their international reporting such as NCs, NDCs, BURs and FRELs.

Commitment

Review Group members are requested to participate in the work crew process from July 2020 to mid-2021, which is expected to involve:

- Participation in ah-hoc briefing calls, anticipated as one call every 1-2 months. The Development Team will run these briefing calls to provide information and solicit feedback on work crew activities and outputs.
- The necessary time to review and provide comments on work crew outputs.

Acknowledgement

Review Group members will be acknowledged and recognized on the MRV Hub website.

APPENDIX 3: ON-ROAD MOBILE SOURCE WORK CREW

Purpose

For all MRV Hub member countries, CO₂ emissions from on-road mobile sources is both a key category and transport is a factor in their NDC updating process. A lack of quality and disaggregated time series data on these mobile source emissions is inhibiting effective policymaking and policy implementation for all member countries. This lack of historical data also results in an inability to confidently produce projections and consider policy scenarios to reduce transport emissions.

The overall purpose of the work crew is to serve as a structured and facilitative venue for member countries to cooperatively build a system to produce national estimates for GHG emissions from on-road mobile sources, or more specifically:

- Develop tools and processes to annually collect data and estimate national GHG emissions from on-road mobile sources,
- Enhance associated national data collection processes,
- Identify data gaps and apply practical approaches to address gaps,
- Apply IPCC methodologies for on-road mobile sources,
- Create national GHG inventory estimates and documentation with support of MRV Hub experts,
- Contribute to the establishment of regional capacity for performing projections and scenario analysis for mobile sources, and
- Contribute to the establishment of targeted mitigation and NDC tracking MRV system development for MRV Hub member countries.

Scope of Work

Activity data collection efforts will focus on national fossil fuel consumption data, or more specifically, fuel import and export data (as well as production in the case of select countries—e.g., Trinidad & Tobago). Data will be classified according to standardized IPCC fuel type categories. Additional data to further understand on-road mobile source activity will be sought, including distance travelled data (vehicle kilometres), where available; evidence to support vehicle class fuel economy assumptions; population distributions of vehicle types, classes, and model year; evidence on vehicle scrappage rates; presence of emissions control technologies across vehicle fleets.

The work crew will focus on producing accurate time series by country of on-road fuel consumption by fuel type. Fuel consumption data, generally, produces the most accurate CO₂ emission estimates. Likely data suppliers for fuel consumption data will be major wholesale fuel importers and providers in each country, along with any available government fuel sales or tax records.

It is anticipated that assumptions for the allocation of aggregate fuel consumption data to various uses (e.g., on-road vs. non-road) and vehicle types will be informed by various vehicle data references (e.g., registration), where available. In some cases where such registration records are not easily accessed (e.g., not available electronically), statistical sampling of available records could be performed. Some commercial operations with large vehicle fleets may provide useful partly representative sample data. Ultimately, annual fuel consumption estimates by fuel type and vehicle class will be produced. As a residual result of these data collection and processing steps, allocation of total fuel consumption to non-road uses will also likely be produced, which should be compared against available data and expectations for fuel consumption by these non-road users.

The initial work plan for the work crew will follow the steps below, which will be revised based on work crew input:

- Conduct virtual kick-off meeting to launch work crew.
- Identify country technical contacts relevant to on-road mobile source for each member country, including experts addressing transport-related air-quality issues.
- Gather available activity and other data (including proxy data) through country contracts and available documentation.
- Assess data, data gaps, and common elements across countries.
- Develop and implement gap filling and other data processing methods for all countries and for entire time series (1990-2019).
- Consult with country focal points for their input on their country's post-processed time series activity data estimates and other methodological assumptions.
- Produce GHG emission estimates, associated documentation, and results/trends analysis for each member country.
- Elaborate technical improvement plan addressing all data collection and methodological aspects.
- Draft and submit confidential results documentation for each member country's consideration and feedback.
- Establish a standardized tool, with embedded documentation, for emission estimation for all 12 member countries.

Outputs and indicative timeline

Output	Description	Indicative date
1	Formation of work crew Development Team and Review Group	End Jul 2020
2	Documented and processed activity data for each member country for time series (1990-2019)	End Jan 2021
3	GHG emission estimates for 1990-2019 time series for each country, including associated documentation, and results/trends analysis for each member country	End Mar 2021
4	Technical improvement plans for each country addressing data collection and methodological aspects	End May 2021
5	Confidential results “draft report” for each member country	End May 2021
6	A standardized tool, with embedded documentation, for emission estimation for all 12 countries	TBD jointly with DMS work crew

ON-ROAD MOBILE SOURCE WORK CREW Timeline



Roles and responsibilities

The work crew members will be engaged in developing MRV outputs for all member countries, in keeping with the coop approach (versus only working on estimates for their single country).

Development Team

Members of the Development Team are to be identified at the launch of the work crew (i.e. now) and they substantively contribute to the development of the technical content of the work crew at each step of its work.

Composition

- Work Crew Lead - Overall manager for the work crew and lead technical expert (Dr Michael Gillenwater, Executive Director, GHGMI).
- Minimum of two technical experts, expected to have transportation-relevant knowledge and skills in some combination of the following areas:
 - IPCC guidelines and GHG inventory
 - Air pollution
 - Transportation planning/policies
 - Energy statistics

Responsibilities

- Act as liaisons with national governments to establish data collection routines, communicate about the work of the work crew, and identify relevant national circumstances and priorities with respect to on-road mobile source.
- The Work Crew Lead will work with core members to design methods, prepare data collection templates, establish data collection connections and procedures, develop data processing (e.g., gap filling) methods, prepare emission estimates and analysis, and create thorough documentation for replication.
- The Work Crew Lead, with support from the MRV Hub Secretariat, will provide necessary training for core technical members and will chair the work crew activities.
- Sign and fully abide by the work crew country data confidentiality agreement.

Commitment

Success of the work crew will depend on active participation by all members. Development Team members are requested to participate in the work crew process initially from July 2020 to mid-2021 (which could be extended, depending on subsequent phases of work and work crew outputs). This is expected to involve:

- Approximately one to two conference calls per month (1-2 hours each) (see indicative timeline above), unless fewer calls are necessary.
- The necessary time to prepare and review materials (approximately 1-3 hours per call)
- Participation in dedicated 1-3 day working sessions (virtual and eventually in-person) twice a year.

Acknowledgement

Members of the Development Team will be acknowledged by name on the MRV Hub website and relevant documentation.

Review Group

Members of the Review Group may join at any point during the work crew activities and provide feedback on the priorities, assumptions, and methods used by the Development Team. Select Review Group members may be invited to contribute to the technical work of Development team and or be invited to join the Development Team, at the discretion of the Work Crew Lead.

Composition

- Any interested stakeholders, including from government, civil society, academia and business, expressing a technical interest regarding on-road mobile source GHG emissions.

Responsibilities

- At the discretion of the individual participant, provide written or verbal feedback on drafts of the guidance document. The Work Crew Lead ensures that due account is taken of all comments received.

Commitment

- Review documentation provided by Development Team. Provide written feedback at the discretion of the individual participant. Participate in at least one annual ad-hoc work crew call.

Acknowledgement

Review Group members will be acknowledged and recognized on the MRV Hub website.