

TERMS OF REFERENCE

Review GHG Emissions Inventory, create manuals, complete surveys, and capacity building workshops

Barbados - BA-G1004

Strengthening Institutional and Technical Capacity for Barbados to meet the transparency requirements of the Paris Agreement

1. Background and Justification

- 1.1. Article 13 of the United Nations Framework Convention on Climate Change (UNFCCC), Paris Agreement provides for an enhanced transparency framework aiming to build mutual trust and the effective implementation of the actions identified under the Nationally Determined Contribution (NDC). Currently Barbados is not sufficiently prepared to measure, report, and verify mitigation and adaptation actions, related policies, and corresponding finance in a concise and robust manner, nor efficiently able to generate forecasting scenarios and strategic information for policymakers (economic, investment, technological, etc.) needed to support transformational change.
- 1.2. Measurement for non-Annex I Parties applies both to efforts to address climate change and to the impacts of these efforts, including the level of GHG emissions by sources and removals by sinks, emission reductions and other co-benefits. Such measurement occurs at the national level. Reporting for non-Annex I Parties is implemented through the national communications and BURs. Parties are required to report on their actions to address climate change in their national communications, which include information on the GHG inventories, adaptation, mitigation actions and their effects, constraints and gaps, support needed and received, and other information considered relevant to the achievement of the objective of the Convention. Verification is addressed at the international level through International Consultation and Analysis (ICA) of Biennial Update Reports (BURs), which is a process to increase the transparency of mitigation actions and their effects, and support needed and received.
- 1.3. As a Non-Annex I Party to the UNFCCC, Barbados actively participates in its discussions, and is highly committed to the international negotiations process. Like many other SIDS, Barbados is not a major emitter of greenhouse gas emissions. In 2010, Barbados' emissions contributed an estimated 1,930 gigagrams (Gg) of CO₂ equivalent (CO₂e), which represent significantly less than 0.01% of global emissions of greenhouse gases. In addition to this, international shipping and international aviation emissions were estimated to be 103 and 410 Gg CO₂e respectively. In the 2021 NDC Updated, it is noted that total absolute emissions in the base year (2008) have been restated at 2,123Gg CO₂e, in comparison to 2015 NDC inventory emissions at 1,816Gg CO₂e.
- 1.4. In its 2015 NDC Barbados' stated the intention to achieve an economy-wide reduction in GHG emissions of 44% compared to its business as usual (BAU) scenario by 2030. In absolute terms, this translates to a reduction of 23% compared with the baseline year, 2008. As an interim target, the intention will be to achieve an economy-wide reduction of 37% compared to its business as usual (BAU) scenario by 2025, equivalent to an absolute reduction of 21% compared to 2008. In Barbados' updated NDC, Barbados set the aspirational goal to achieve a fossil fuel-free economy and to

reduce GHG emissions across all sectors to as close to zero as possible by 2030. This is supported by the recently approved Barbados National Energy Policy (2019-2030).

- 1.5. The Paris Agreement was a paradigm shift in the global climate change negotiations and policy. Article 13 of the Paris Agreement provides for an enhanced transparency framework. Article 13.1 of the Paris agreement states, “In order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties’ different capacities...”. Currently, Barbados does not have the arrangements in place to meet the requirements of the enhanced transparency framework under Article 13 of the Paris Agreement. Fundamentally, Barbados lacks the capacity and resources to comply with the Paris Agreement. There is no established MRV system that allows Barbados to effectively and comprehensively report mitigation and adaptation actions, policies, and to monitor the financial resources that have been received and allocated to address climate change. The main objective of this project is to strengthen Jamaica’s transparency framework through the design and implementation of a fully functional and harmonized domestic Monitoring, Reporting and Verification (MRV) system for the effective implementation of the country’s NDC and other transparency-related activities.

2. Objective

The objective of this consultancy is to review and update the country’s GHG emissions inventory (IPCC Guidelines), develop guidelines and carbon accounting tools, and design a national training programme on the IPCC greenhouse gas software and guidelines, and carbon accounting. The training will enhance the capacity of Barbados to prepare reports systematically and routinely to the UNFCCC and effectively implement actions identified in the NDC.

3. Scope of Services

There will be two components to the services which will be provided by the selected firm. In the first component the selected firm will work with a local university/tertiary institution and design and establish a course on the IPCC GHG software and guidelines, and carbon accounting. This course will then be taught by the local university/tertiary institution. The selected firm will train staff, lectures, and personnel.

In the second component the selected firm will also train government personnel, private sector representatives and non-governmental organizations on the IPCC GHG software and guidelines so that Barbados will be in a more effective position to comply with the transparency requirement of the Paris Agreement and prepare the required reports for the UNFCCC.

The Firm will provide key recommendations on the computer hardware and software the MENB will require to continue the activities. The Firm will acquire and transfer the hardware and software to the MENB.

3.1. Key Activities

Updated GHG Inventory

Based on the GHG emissions inventory produced in 2021 as part of the Updated NDC

process, the firm will:

- Fill in the gaps of information and make on site visits to gather the inputs required for solid waste, energy, etc.
- Updated the calculations based on Barbados coefficients
- Identify areas and actions for carbon market potential

Develop Guidelines

The firm will produce the required material to ensure that further data collection is standardized for all GHG emissions sectors, upon IPCC guidelines.

Training

The selected firm will perform an assessment of the specific capacity needs at the key government institutions, private sector organizations and non-governmental organizations, that are involved in compiling the relevant data to prepare the greenhouse gas inventories for UNFCCC reporting. This needs assessment will be used to guide the delivery of the training at the key institutions and to make recommendations for the GHG Inventory Data Management System.

The consulting firm will be required to design a course and provide specific training in following specific areas:

- i. Introduction to MRV Systems and Transparency
- ii. Introduction to Carbon Accounting and GHG Inventory Management Systems
- iii. Carbon Accounting Methodologies and the basics of organizational GHG accounting,
- iv. Basics of project-level GHG accounting,
- v. GHG Accounting for Forest Inventories,
- vi. GHG Accounting for Forest and Other Land Use Projects,
- vii. GHG Accounting for Energy Efficiency Projects,
- viii. GHG Accounting for Renewable Energy Projects,
- ix. IPCC Guidelines Introduction, GHG Software and Cross Cutting Issues,
- x. IPCC 2006 Guidelines-Energy Sector,
- xi. IPCC 2006 Guidelines-Industrial Processes and Other Product Use
- xii. IPCC 2006 Guidelines - Agriculture,
- xiii. IPCC 2006 Guidelines -Forestry and Other Land Uses
- xiv. IPCC 2006 Guidelines – Waste

Purchase of equipment

The MENB has had limited capabilities to perform GHG emission inventories as they have limited computer hardware and software. The Firm will perform a needs assessment and provide a list of equipment that will have to be acquired for the MENB to continue its work, based on this assessment and after coordination with the MENB, the Firm will acquire, prepare and deliver the equipment to the MENB. Sector specific needs will also be acquired to support needs from other ministries, including energy, transport, waster and other key sectors for GHG emissions monitoring.

4. Expected Outcome and Deliverables

Based on the assessment undertaken, the expected outcome would be to gain full understanding of the opportunities for digitalization of the different aspects and stages of the MRV system, compare the different technologies available to implement such and the costs associated with the recommended technology architecture. Specific deliverables include:

- 4.1. Deliverable 1: Workplan and timeline based on publicly available data, workplan should include detailed list of data required or on-site visits to undertake to gather the data.
- 4.2. Deliverable 2: Updated GHG Emissions inventory and report on potential for carbon markets
- 4.3. Deliverable 3: Material to ensure standardization of data gathering in all IPCC sectors for solid mitigation baselines
- 4.4. Deliverable 4: Training of staff at tertiary institution and development of draft course outline
- 4.5. Deliverable 5: Report on an assessment of specific training requirements in key government offices, the private sector and non-governmental organizations and recommendations for the enhancement of the GHG Inventory Data Management System.
- 4.6. Deliverable 6: Finalization of the course at the tertiary institution, and training of representatives of representatives from government offices, the private sector and non-governmental organizations in IPCC GHG software and guidelines.
- 4.7. Deliverable 7: Based on all previous activities and an assessment of the needs of the MENB on the required hardware and software to continue operating adequately, the firm will buy and transfer the goods to the MENB.

TERMS OF REFERENCE

Design and develop a transparency process, including guidelines and protocols

Barbados - BA-G1004

Strengthening Institutional and Technical Capacity for Barbados to meet the transparency requirements of the Paris Agreement

1. Background and Justification

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3. Measurement for non-Annex I Parties applies both to efforts to address climate change and to the impacts of these efforts, including the level of GHG emissions by sources and removals by sinks, emission reductions and other co-benefits. Such measurement occurs at the national level. Reporting for non-Annex I Parties is implemented through the national communications and BURs. Parties are required to report on their actions to address climate change in their national communications, which include information on the GHG inventories, adaptation, mitigation actions and their effects, constraints and gaps, support needed and received, and other information considered relevant to the achievement of the objective of the Convention. Verification is addressed at the international level through International Consultation and Analysis (ICA) of Biennial Update Reports (BURs), which is a process to increase the transparency of mitigation actions and their effects, and support needed and received.
4. As a Non-Annex I Party to the UNFCCC, Barbados actively participates in its discussions, and is highly committed to the international negotiations process. Like many other SIDS, Barbados is not a major emitter of greenhouse gas emissions. In 2010, Barbados' emissions contributed an estimated 1,930 gigagrams (Gg) of CO₂ equivalent (CO₂e), which represent significantly less than 0.01% of global emissions of greenhouse gases. In addition to this, international shipping and international aviation emissions were estimated to be 103 and 410 Gg CO₂e respectively. In the 2021 NDC Updated, it is noted that total absolute emissions in the base year (2008) have been restated at 2,123Gg CO₂e, in comparison to 2015 NDC inventory emissions at 1,816Gg CO₂e.
5. In its 2015 NDC Barbados' stated the intention to achieve an economy-wide reduction in GHG emissions of 44% compared to its business as usual (BAU) scenario by 2030. In absolute terms, this translates to a reduction of 23% compared with the baseline year, 2008. As an interim target, the intention will be to achieve an economy-wide reduction of 37% compared to its business as usual (BAU) scenario by 2025, equivalent to an absolute reduction of 21% compared to 2008. In Barbados' updated NDC, Barbados set the aspirational goal to achieve a fossil fuel-free economy and to reduce GHG emissions across all sectors to as close to zero as possible by 2030. This is supported by the recently approved Barbados National Energy Policy (2019-2030).

6. The Paris Agreement was a paradigm shift in the global climate change negotiations and policy. Article 13 of the Paris Agreement provides for an enhanced transparency framework. Article 13.1 of the Paris agreement states, “In order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties’ different capacities...”. Currently, Barbados does not have the arrangements in place to meet the requirements of the enhanced transparency framework under Article 13 of the Paris Agreement. Fundamentally, Barbados lacks the capacity and resources to comply with the Paris Agreement. There is no established MRV system that allows Barbados to effectively and comprehensively report mitigation and adaptation actions, policies, and to monitor the financial resources that have been received and allocated to address climate change. The main objective of this project is to strengthen Jamaica’s transparency framework through the design and implementation of a fully functional and harmonized domestic Monitoring, Reporting and Verification (MRV) system for the effective implementation of the country’s NDC and other transparency-related activities.

7. Objectives

The objective of this consultancy is to improve the arrangements for transparency activities based on the design and development of a transparency process, including guidelines and protocols for adequate implementation.

8. Scope of Services and Key Activities

The consulting firm will prepare a detailed comprehensive assessment of the gaps and needs of various governments institutions, as it relates to transparency activities. In addition, there will be a review of the on the going initiatives at the national, sub-national and sectoral levels to support transparency-related activities, and how the ongoing process could be improved.

Key Activities will include:

- i. A review of the national communications and biennial update report processes, and identification of opportunities to improve these processes.
- ii. Identification of on-going initiatives at the national, sub-national and sectoral levels to support transparency-related activities conducted.
- iii. An analysis of the gaps, needs and requirements of various government institutions
- iv. Identification of appropriate measures for the improvement of transparency related activities.
- v. Purchase of goods and services based on the guidelines developed and gaps identified.

9. Deliverables

The expected deliverables will be a completed report on the review of the national communications and biennial update report processes and identification of possible

improvements to the process. A detailed analysis on ongoing transparency initiatives and measures to improve transparency activities. A report on the necessary measures and activities which are required in government departments to improve transparency activities.

The specific deliverables include:

- i. Technical report on the national communications and biennial update report processes and recommendations for improvements
- ii. A report on measures to improve transparency related activities, which includes an analysis of ongoing transparency activities
- iii. A report on the necessary capacity building activities which the Government of Barbados needs to improve transparency activities
- iv. List of equipment required for the implementation of the guidelines. The firm will acquire the material, tailor it to the GoB's needs and proceed to its transfer to the government authorities.

10. Qualifications and Experience of the Firm

The team should include, but not be limited, the following profiles

- i. The consultant should hold an advanced degree in Environmental Sciences, Engineering, Climate Science, Economics, or any field related to Environmental Management
- ii. At least 10 years' experience with an in depth understanding on climate change, UNFCCC, and transparency related activities
- iii. Good written and verbal communication skills in English.

TERMS OF REFERENCE

Development of an electronic tool that will calculate and track the progress towards achieving the NDC goals

Barbados - BA-G1004

Strengthening Institutional and Technical Capacity for Barbados to meet the transparency requirements of the Paris Agreement

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- 1.3 As a Non-Annex I Party to the UNFCCC, Barbados actively participates in its discussions, and is highly committed to the international negotiations process. Like many other SIDS, Barbados is not a major emitter of greenhouse gas emissions. In 2010, Barbados' emissions contributed an estimated 1,930 gigagrams (Gg) of CO₂ equivalent (CO₂e), which represent significantly less than 0.01% of global emissions of greenhouse gases. In addition to this, international shipping and international aviation emissions were estimated to be 103 and 410 Gg CO₂e respectively. In the 2021 NDC Updated, it is noted that total absolute emissions in the base year (2008) have been restated at 2,123Gg CO₂e, in comparison to 2015 NDC inventory emissions at 1,816Gg CO₂e.
- 1.4 In its 2015 NDC Barbados' stated the intention to achieve an economy-wide reduction in GHG emissions of 44% compared to its business as usual (BAU) scenario by 2030. In absolute terms, this translates to a reduction of 23% compared with the baseline year, 2008. As an interim target, the intention will be to achieve an economy-wide reduction of 37% compared to its business as usual (BAU) scenario by 2025, equivalent to an absolute reduction of 21% compared to 2008. In Barbados' updated NDC, Barbados set the aspirational goal to achieve a fossil fuel-free economy and to reduce GHG emissions across all sectors to as close to zero as possible by 2030. This

is supported by the recently approved Barbados National Energy Policy (2019-2030).

- 1.5 The Paris Agreement was a paradigm shift in the global climate change negotiations and policy. Article 13 of the Paris Agreement provides for an enhanced transparency framework. Article 13.1 of the Paris agreement states, “In order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties’ different capacities...”. Currently, Barbados does not have the arrangements in place to meet the requirements of the enhanced transparency framework under Article 13 of the Paris Agreement. Fundamentally, Barbados lacks the capacity and resources to comply with the Paris Agreement. There is no established MRV system that allows Barbados to effectively and comprehensively report mitigation and adaptation actions, policies, and to monitor the financial resources that have been received and allocated to address climate change. The main objective of this project is to strengthen Jamaica’s transparency framework through the design and implementation of a fully functional and harmonized domestic Monitoring, Reporting and Verification (MRV) system for the effective implementation of the country’s NDC and other transparency-related activities.

2. Objectives

The objective of this consultancy is to perform assessment of the institutional arrangements across ministries for transparency-related activities, it will include a specific analysis of on-going initiatives at the national, sub-national and sectoral levels to support transparency-related activities, as well as gender report. The outputs of these assessments will be used to identify specific capacity building activities to improve the arrangements for transparency activities as well as the basic structure of the platform that should be built to ensure a concrete transparency system.

3. Scope of Services and Key Activities

The consulting firm will prepare a detailed comprehensive assessment of the gaps and needs of various governments institutions, as it relates to transparency activities. In addition, there will be a review of the on the going initiatives at the national, sub-national and sectoral levels to support transparency-related activities, and how the ongoing process could be improved.

Key Activities will include:

- i. A review of the national communications and biennial update report processes, and identification of opportunities to improve these processes.
- ii. Identification of on-going initiatives at the national, sub-national and sectoral levels to support transparency-related activities conducted.
- iii. An analysis of the gaps, needs and requirements of various government institutions
- iv. Identification of appropriate measures for the improvement of transparency related activities.
- v. A gender assessment
- vi. A report on the needs and basic requirements to build a digital platform in which all the data will be uploaded, monitored, verified, and reported.

4. Deliverables

The expected deliverables will be a completed report on the review of the national communications and biennial update report processes and identification of possible improvements to the process. A detailed analysis on ongoing transparency initiatives and measures to improve transparency activities. A report on the necessary measures and activities which are required in government departments to improve transparency activities.

The specific deliverables include:

- i. Technical report on the national communications and biennial update report processes and recommendations for improvements
- ii. A report on measures to improve transparency related activities, which includes an analysis of ongoing transparency activities
- iii. A report on the necessary capacity building activities which the Government of Barbados needs to improve transparency activities
- iv. A gender assessment
- v. A report on the needs and basic requirements to build a digital platform in which all the data will be uploaded, monitored, verified, and reported.
- vi. Hardware and Software acquisition: based on the consultancy the firm will acquire all the required software and hardware and transfer the goods to the MENB by the end of the consultancy with full property rights.

5. Qualifications and Experience

The consulting firm should include, but not be limited with profiles such as:

Climate change Transparency Specialist

- Hold an advanced degree in Environmental Sciences, Engineering, Climate Science, Economics, or any field related to Environmental Management
- At least 10 years' experience with an in depth understanding on climate change, UNFCCC, and transparency related activities
- Lead the development of guidelines, manuals, and other programmatic tools to assist countries in preparing their NCs and BTRs, taking into account lessons from BURs;
- Provide technical assistance to country teams in the field on national MRV systems (design, implementation, and review), in response to country needs;
- Identify and capture capacity building and technical backstopping support needs based on Barbados' Transparency and Reporting requirements;
- Good written and verbal communication skills in English.

Climate change and Gender Specialist

- Hold an advanced degree in Social Studies, Climate Science, Economics or any field related to Environmental Management and social sciences
- At least 5 years' experience with an in depth understanding on climate change, UNFCCC, and transparency related activities
- A good understanding of the climate change, gender, and sustainable development agenda issues in Barbados

- Strong interpersonal skills with ability to establish and maintain effective work relationships with people of different social and cultural backgrounds;
- Strong track record with producing high quality research and strong quantitative skills in economic analysis, sociology, or simulation/ scenario modeling;
- Proven knowledge of communication tools, excellent writing skills;
- Excellent coordination and collaboration skills, with ability to work under time pressure and handle multiple activities and projects concurrently;
- Ability to work independently and to participate effectively in a team-based information sharing;

Data Visualization and platform Creation Specialist

- Hold an advanced degree in Technology and Digital studies along with a specialization in Climate Science, Governance or any field related to Environmental Management
- At least 5 years of work experience in climate mitigation and /or adaptation; with a focus on transparency and MRV systems
- Knowledge on development of guidelines, manuals, and other programmatic tools to assist countries in preparing their NCs and BTRs, taking into account lessons from BURs; as well as on national MRV systems (design, implementation, and review),
- Good understanding of the local context and well-established networks in the country, specially within the M&E systems and governance platforms for data collection and reporting.

TERMS OF REFERENCE

Barbados Climate Change Knowledge Platform established to provide and share information to stakeholders

Barbados BA-G1004

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2. Objectives

- 2.1. The objective of this assessment is to explore the application of enabled technologies, including but not limited to Distributed Ledger Technologies (DLT) to support the different aspects of a domestic MRV system.
- 2.2. The assessment will also help the Barbados identify with the key stakeholders who will participate in creating and enhancing MRV related processes, including objectives of digitalizing climate transparency processes, collect and store climate related data (GhG inventories, BURs, NatComs, etc.), provide training source materials for national capacity building and serve as the national one-stop-shop for everything related to climate change in Barbados.
- 2.3. The firm should acquire all the required software and hardware and transfer the goods to the MENB by the end of the consultancy with full property rights.

3. Scope of Services

- 3.1 The selected consultancy firm will prepare a comprehensive technology assessment, recommend technology architecture (including technical specifications for the design of a the MRV system) and provide an implementation roadmap for platform, incorporating the following:

4. Key Activities

- 4.1. **Data Collection.** This aspect of the consultancy will focus on the enhancement of the current GHG inventory data collection process and climate finance tracking module of the CNKT platform, including the activities as follows:
 - Review existing processes in the collection and input of data for 6 key sectors (energy, transport, agriculture, industries, waste, and forestry). This should include the methodological and visual description of technical guidelines, data formats and processes involved in the GHG inventory process, description of timeframes for each process flow and identification of entities/individuals responsible for providing

the data for each relevant sector.

- Identify datasets and collect best available information on the provision and receipt of climate finance support (concessional and non-concessional) towards adaptation and mitigation efforts in collaboration with the MENB and other key ministries. The review should include a description on types of financial flows (public bilateral and multilateral).

4.2. Data Reporting/Emission Calculation. This aspect of the consultancy will focus on the enhancement of the current GHG inventory process and the establishment of a climate finance tracking virtual module/feature within CNKT platform, including the activities as follows:

- Review and assess the functionality of the current GHG Inventory Database Management System, recommend steps for the enhancement and technical needs for a digital platform, including technological architecture, automation approaches to data collection and input, etc.
- Recommend levels of climate finance detail that should be feasible/acceptable for the CNKT platform and best technology to develop such tracking module/system feature.
- Recommend best technology to host-link the finance tracking module/system feature to a GIS based map for tracking such investments island-wide¹.
- Recommend technical approach for the national investment tracking systems (i.e., PYMSec), if in place, etc.
- This section of the assessment must include a comparative analysis of technologies available in the market and potential costs.

4.3. Data Verification. This aspect of the consultancy will focus on the verification dimension of the MRV system, including the activities as follows:

- Recommend technologies to automate data verification process flow.
- Recommend system routine digital tools to measure and control Quality Control and Quality Assurance.
- Identify climate related data storage units/departments within government and recommend a data management solution including storage modalities and registry functionality.
- Recommend data security protocols in accordance with best international standards and practices.

4.4. Capacity Building Virtual Module. This aspect of the consultancy will focus on the capacity building including the activities as follows:

- Recommend infrastructural technology to house a virtual capacity building center, web-based seminars, store course materials and video lectures, etc.

4.5 Hardware and Software acquisition

The firm should acquire all the required software and hardware and transfer the goods to the MENB by the end of the consultancy with full property rights.

¹ The mapping operations relating to the Climate Change Division's activities are currently undertaken by the University of the West Indies Mona GeoInformatics.

5. Expected Outcome and Deliverables

5.1. Based on the assessment undertaken, the expected outcome would be to gain full understanding of the opportunities for digitalization of the different aspects and stages of the MRV system, compare the different technologies available to implement such and the costs associated with the recommended technology architecture. Specific deliverables include:

- Deliverable 1: Technical proposal and inception report with results from the data collection and input assessment.
- Deliverable 2: Report on data reporting assessment and recommendations for the enhancement of the GHG Inventory Data Management System.
- Deliverable 3: Final Report including data verification and technology infrastructure recommendations; including (costing) and a roadmap for the implementation of a digital platform
- Deliverable 4 : the Firm will provide a list of equipment to be bought, and transferred to the MENB, with resources of the present contract. The proposal budget needs to include a specific component for acquisition of software and hardware.

6. Project Schedule and Milestones

6.1 The project is expected to begin July 01, 2023 and to be completed twelve (12) months thereafter. Traveling and workshop costs are included in the consulting firm's budget. The schedule and milestones will be defined by the firm in agreement with the IDB and captured by the first deliverable (the inception report).

7. Reporting Requirements

7.1 Every report must be submitted to the Bank in an electronic file. The report should include cover, main document, and all annexes. Zip files will not be accepted as final reports, due to Records Management Section regulations.

7.2 In addition to the deliverables outlined in Section 5, the consulting firm will also provide the IDB with brief progress updates via email in relation to the approved workplan.

8. Acceptance Criteria

8.1 Reports will be reviewed by the Team Leader and the Climate Change team in the MENB. Acceptance of deliverables are contingent on addressing any comments provided by these parties within revised versions of the submissions.

8.2 Additionally, the consulting firm is required to participate in technical meetings (by video/teleconferencing) as necessary to discuss any matter considered important for the timely implementation of the project. The timing of the meeting will be determined as needed.

9. **Other Requirements**

- a. Candidates will be provided with data and documentation to assist in the achievement of the objectives outlined in Section 2.

10. **Supervision and Reporting**

The consultancy will be supervised by Jennifer Doherty-Bigara, Climate Change Specialist, of the Climate Change and Sustainable Development Division, Inter-American Development Bank, and coordinated with the MENB.

11. **Schedule of Payments**

- a. Payment terms will be based on project milestones or deliverables. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required. The Bank wishes to receive the most competitive cost proposal for the services described herein.
- b. The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule*	
<i>Deliverable</i>	%
1. Inception report	15%
2. Report on data Reporting Assessment and recommendations	65%
3. Final report	20%
TOTAL	100%

*budget for hardware and software acquisition must be included as a side component.

12. **Qualifications of Team Members**

The consulting team should have experts with:

- Degrees in computer sciences or relevant fields/thematic areas required to carry out the activities described above.
- A minimum of 10 years' experience working on DLTs.
- Experience in data management and project management are required.
- Understanding of MRV systems would be an asset.
- Experience in development of knowledge platforms would be an asset
- Professional experience working on technical assistance/loan programs under multilateral institutions such as the IDB, EU, World Bank, or similar bodies would be an asset.
- Experience working in the Caribbean region would be an asset.

Other Skills:

- Knowledge of climate change mitigation/adaptation

- IT skills, including the use and manipulation of complex databases and spreadsheets and knowledge of specialized software packages
- Excellent communication skills, good working relationship with the government and other organisations, and ability to collect and analyse data and information.
- Facilitation and leadership skills with ability to relate to broad range of stakeholders.
- Trustworthiness and integrity and a demonstrated ability to work independently in challenging environments
- Have a flexible approach and persistence to optimize results.
- Demonstrated skills in project preparation and report writing
- Excellent ability to communicate in English, both written and spoken.

TERMS OF REFERENCE

Production of transparency manuals and protocols, for reference material and training under the virtual platform developed for MRV purposes under the PA.

Barbados

BA-G1004

Strengthening Institutional and Technical Capacity for Barbados to meet the transparency requirements of the Paris Agreement

1. Background and Justification

- 1.1 Article 13 of the United Nations Framework Convention on Climate Change (UNFCCC), Paris Agreement provides for an enhanced transparency framework aiming to build mutual trust and the effective implementation of the actions identified under the Nationally Determined Contribution (NDC). Currently Barbados is not sufficiently prepared to measure, report, and verify mitigation and adaptation actions, related policies, and corresponding finance in a concise and robust manner, nor efficiently able to generate forecasting scenarios and strategic information for policymakers (economic, investment, technological, etc.) needed to support transformational change.
- 1.2 Measurement for non-Annex I Parties applies both to efforts to address climate change and to the impacts of these efforts, including the level of GHG emissions by sources and removals by sinks, emission reductions and other co-benefits. Such measurement occurs at the national level. Reporting for non-Annex I Parties is implemented through the national communications and BURs. Parties are required to report on their actions to address climate change in their national communications, which include information on the GHG inventories, adaptation, mitigation actions and their effects, constraints and gaps, support needed and received, and other information considered relevant to the achievement of the objective of the Convention. Verification is addressed at the international level through International Consultation and Analysis (ICA) of Biennial Update Reports (BURs), which is a process to increase the transparency of mitigation actions and their effects, and support needed and received.
- 1.3 As a Non-Annex I Party to the UNFCCC, Barbados actively participates in its discussions, and is highly committed to the international negotiations process. Like many other SIDS, Barbados is not a major emitter of greenhouse gas emissions. In 2010, Barbados' emissions contributed an estimated 1,930 gigagrams (Gg) of CO₂ equivalent (CO₂e), which represent significantly less than 0.01% of global emissions of greenhouse gases. In addition to this, international shipping and international aviation emissions were estimated to be 103 and 410 Gg CO₂e respectively. In the 2021 NDC Updated, it is noted that total absolute emissions in the base year (2008) have been restated at 2,123Gg CO₂e, in comparison to 2015 NDC inventory emissions at 1,816Gg CO₂e.
- 1.4 In its 2015 NDC Barbados' stated the intention to achieve an economy-wide reduction in GHG emissions of 44% compared to its business as usual (BAU) scenario by 2030. In absolute terms, this translates to a reduction of 23% compared with the baseline year, 2008. As an interim target, the intention will be to achieve an economy-wide reduction of 37% compared to its business as usual (BAU) scenario by 2025, equivalent to an absolute reduction of 21% compared to 2008. In Barbados' updated NDC, Barbados set the aspirational goal to achieve a fossil fuel-free economy and to

reduce GHG emissions across all sectors to as close to zero as possible by 2030. This is supported by the recently approved Barbados National Energy Policy (2019-2030).

1.5 The Paris Agreement was a paradigm shift in the global climate change negotiations and policy. Article 13 of the Paris Agreement provides for an enhanced transparency framework. Article 13.1 of the Paris agreement states, “In order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties’ different capacities...”. Currently, Barbados does not have the arrangements in place to meet the requirements of the enhanced transparency framework under Article 13 of the Paris Agreement. Fundamentally, Barbados lacks the capacity and resources to comply with the Paris Agreement. There is no established MRV system that allows Barbados to effectively and comprehensively report mitigation and adaptation actions, policies, and to monitor the financial resources that have been received and allocated to address climate change. The main objective of this project is to strengthen Jamaica’s transparency framework through the design and implementation of a fully functional and harmonized domestic Monitoring, Reporting and Verification (MRV) system for the effective implementation of the country’s NDC and other transparency-related activities.

2 Objectives

The objective of this consultancy is to develop the material needed for the implementation and training under the virtual MRV platform under the PA Transparency requirements.

3 Scope of Services and Key Activities

The consulting firm will develop the material needed to execute all data collection, monitoring, reporting and verification, as well as will train the required public servants to operate the platform.

Key Activities will include:

- i. Development of guidelines, manuals, operating guidebooks for each component of the MRV digital platform
- ii. Identification of public servants to be trained
- iii. Deliver the required trainings and support the GoB for a year during the first year of implementation of the MRV digital platform
- iv. Printed material and hardware will have to be budgeted under the consultancy. Acquisition of equipment will have to be assessed, a list of recommendations submitted to the approval of the MENB and acquired to be transferred to the MENB.

4 Deliverables

The specific deliverables include:

- i. All material for the implementation and successful operation of the MRV digital platform
- ii. Trainings of all components and trainees
- iii. 24/7 Support and follow-up of the GoB
- iv. Equipment acquisition.

5 Qualifications and Experience

The team should include, but not be limited, the following profiles

- i. The consultant should hold an advanced degree in Environmental Sciences, Engineering, Climate Science, Economics, or any field related to Environmental Management
- ii. At least 10 years' experience with an in depth understanding on climate change, UNFCCC, and transparency related activities
- iii. Good written and verbal communication skills in English.

TERMS OF REFERENCE

Barbados Climate Change Knowledge Platform established to provide and share information to stakeholders

Barbados BA-G1004

Strengthening Institutional and Technical Capacity for Barbados to meet the transparency requirements of the Paris Agreement

1. Background and Justification

2. Article 13 of the United Nations Framework Convention on Climate Change (UNFCCC), Paris Agreement provides for an enhanced transparency framework aiming to build mutual trust and the effective implementation of the actions identified under the Nationally Determined Contribution (NDC). Currently Barbados is not sufficiently prepared to measure, report, and verify mitigation and adaptation actions, related policies, and corresponding finance in a concise and robust manner, nor efficiently able to generate forecasting scenarios and strategic information for policymakers (economic, investment, technological, etc.) needed to support transformational change.
3. Measurement for non-Annex I Parties applies both to efforts to address climate change and to the impacts of these efforts, including the level of GHG emissions by sources and removals by sinks, emission reductions and other co-benefits. Such measurement occurs at the national level. Reporting for non-Annex I Parties is implemented through the national communications and BURs. Parties are required to report on their actions to address climate change in their national communications, which include information on the GHG inventories, adaptation, mitigation actions and their effects, constraints and gaps, support needed and received, and other information considered relevant to the achievement of the objective of the Convention. Verification is addressed at the international level through International Consultation and Analysis (ICA) of Biennial Update Reports (BURs), which is a process to increase the transparency of mitigation actions and their effects, and support needed and received.
4. As a Non-Annex I Party to the UNFCCC, Barbados actively participates in its discussions, and is highly committed to the international negotiations process. Like many other SIDS, Barbados is not a major emitter of greenhouse gas emissions. In 2010, Barbados' emissions contributed an estimated 1,930 gigagrams (Gg) of CO₂ equivalent (CO₂e), which represent significantly less than 0.01% of global emissions of greenhouse gases. In addition to this, international shipping and international aviation emissions were estimated to be 103 and 410 Gg CO₂e respectively. In the 2021 NDC Updated, it is noted that total absolute emissions in the base year (2008) have been restated at 2,123Gg CO₂e, in comparison to 2015 NDC inventory emissions at 1,816Gg CO₂e.
5. In its 2015 NDC Barbados' stated the intention to achieve an economy-wide reduction in GHG emissions of 44% compared to its business as usual (BAU) scenario by 2030. In absolute terms, this translates to a reduction of 23% compared with the baseline year, 2008. As an interim target, the intention will be to achieve an economy-wide reduction of 37% compared to its business as usual (BAU) scenario by 2025, equivalent to an absolute reduction of 21% compared to 2008. In Barbados' updated NDC, Barbados set the aspirational goal to achieve a fossil fuel-free economy and to reduce GHG emissions across all sectors to as close to zero as possible by 2030. This

is supported by the recently approved Barbados National Energy Policy (2019-2030).

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7. Project Manager- Duties and Responsibilities.

7.1. The project manager will coordinate the delivery of all the project activities and act as liaison between the project stakeholders. The project manager will be responsible for the implementation of the project, including mobilization of all project inputs, supervision of project staff, consultants, and oversight of sub-contractors. The project manager will also be responsible for monitoring progress against the implementation plan, budgeting and reporting and act as secretary of the Project Steering Committee. The project manager will liaise with the Climate Change Division, relevant government departments, stakeholders involved in the project and the Inter-American Development.

7.2. Duties and responsibilities specifically include:

- i. Overall project management,
- ii. Working with project stakeholders to ensure that the project delivers as planned in the Technical Cooperation Document,
- iii. Ensure technical coordination of the project with other relevant international and national projects,
- iv. Prepare and finalize, where appropriate, the Terms of Reference for the consultants and subcontractors and to undertake the necessary procedures for recruitment, procurement and contracting,
- v. To supervise and coordinate, where appropriate, the activities of project staff, consultants, and sub-contractors,
- vi. Ensure proper management of funds, consistent with IDB and GEF requirements, as well as budget planning and control,
- vii. To prepare and ensure timely submission of relevant reports as required by the Climate Change Division, IDB and the GEF
- viii. To undertake any activities that may be assigned by Climate Change

Division.

8. Qualifications and Experience

The project team should include the following qualifications and experience:

- i. A post graduate degree in Environmental science, Climate Change Science, Engineering, Economics, or other discipline related to the technical and environmental dimensions of climate change, and professional experience of at least five (5) years in the area of climate change interinstitutional actions or policies
- ii. Experience and technical ability to manage projects and a good technical knowledge in the fields related to climate change mitigation and adaptation actions,
- iii. A comprehensive understanding of UNFCCC process and issues, including the Paris Agreement, national determined contributions, national communications, biennial update reports, MRV systems and the obligations of developing countries under the UNFCCC and the Paris Agreement.
- iv. Knowledge of the IPCC GHG software and guidelines, and on greenhouse gases emission sources and methodologies for sectoral or national emission inventories.
- v. Effective interpersonal and negotiation skills proven through interactions with project stakeholder groups, including senior government officials, private sector, non-governmental organizations, and other technical groups.
- vi. The ability to effectively coordinate a complex, multi-stakeholder project and to lead, manage and motivate to achieve results.
- vii. Good capacities for strategic thinking, planning and management and excellent communication skills both in English are essential.
- viii. Knowledge of IDB project implementation procedures, including procurement, disbursements, and reporting and monitoring along with experience in the implementation of gender action plans.

9. Reporting

The Project Manager will be under the overall guidance and report to the MENB. The Project Manager will work in the Climate Change Division.