Synthesis report of outcomes of Phase 1 for the implementation of ICAT activities in Belize

ICAT Initiative for Climate Action Transparency

Initiative for Climate Action Transparency – ICAT
Synthesis report of outcomes of Phase 1, lessons learned and relation to Phase 2

Deliverable #1

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BTR	Biennial Transparency Report
GHG	Greenhouse gas
ICAT	Initiative for Climate Action Transparency
ISPRA	Istituto Superiore per la Protezione e la Ricerca Ambientale
MPG	Modalities, Procedures and Guidelines for Article 13 of the Paris Agreement
MRV	Measuring, reporting and verification
NAMA	Nationally Appropriate Mitigation Action
NDCP	NDC Partnership
NCCO	Belize National Climate Change Office
NDC	Nationally Determined Contributions
SD	Sustainable Development
TC	Transformational Change
ToR	Terms of Reference
UNEP CCC	UNEP Copenhagen Climate Centre

Introduction

Belize has been engaging with the Initiative for Climate Action Transparency (ICAT) since January 2019 to develop a robust national measuring, reporting and verification (MRV) system for climate change. Activities started in March 2019 with an inception mission with staff from UNEP Copenhagen Climate Centre (UNEP CCC) and the Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), where national stakeholders were introduced to the scope of ICAT, preliminary information on new reporting requirements under the enhanced transparency framework of the Paris Agreement, and had the opportunity to express their challenges and needs in terms of enhancing the national transparency capacities, with a focus on NDC implementation. The main scope of the mission was to consult with relevant national stakeholders, the Climate Change Office's staff and other transparency/MRV related development assistance institutions and initiatives to identify inputs to identify the focus of ICAT support in Belize. The mission resulted in a draft work plan, associated budget, and timetable for ICAT activities.

The initial design of the work plan included four main outputs:

- Output 1. Reporting requirements for climate change at international and national level are mapped and integrated into national MRV systems
- Output 2. Institutional arrangements for data and information reporting and sharing within and between the institutions for climate change policies and actions are formalised
- Output 3: MRV tools and procedures are designed to facilitate reporting
- Output 4. GHG, Sustainable Development and Transformational Change impact assessment of selected NDC policy/action are performed including the design of a monitoring plan

Activities to achieve these outputs were kicked off by the first deliverable, the signing of the Project Cooperation Agreement and the ToR for recruiting a national consultant.

This report provides a synthesis of the outcomes of the implemented activities lessons learned and relation to Phase 2 activities including gaps and enhancements to be considered under the proposed new activities in relation to BTR alignment.

Approach and key results of Phase 1

To achieve the first output, *Reporting requirements for climate change at international and national level are mapped and integrated into national MRV systems,* it was first necessary to provide a clear overview and understanding of the expected reporting requirements under Article 13 of the Paris Agreement. For this, the UNEP CCC and ISPRA provided the NCCO with a report consisting of a description of the Modalities, Procedures and Guidelines (MPG) for Article 13, how these requirements would affect timelines for reporting and what is the requested information to be provided through Biennial Transparency Reports. This report formed the first part of Deliverable #2, the second part being a report which focused on identifying the information necessary to track the mitigation actions included in the country's NDC while responding to the MPG requirements on tracking mitigation policies and actions. It was identified that the information required to track mitigation policies and actions varies depending on the type of action as it includes both qualitative and quantitative information. The challenge in identifying relevant indicators is therefore reliant on the NDC mitigation actions to achieve the targets. It is difficult to identify concrete indicators if the actions are not properly established or defined.

Several reasons for the lack of clarity in the NDC targets was identified, such as sectors not measuring or collecting data on projects, lack of adequate information sharing among national institutions, lack of experience in providing information on targets coupled with lack of data for the country (i.e., not having a centralized data hub). Several mitigation initiatives are being implemented throughout the country of Belize, with the underlying challenge being the lack of monitoring and reporting of data. Some of the policies that are instrumental in achieving Belize's mitigation targets also fall short in streamlining climate change into their scope, e.g., in the case of the Waste sector, GHG emission reduction was not clearly stated as a scope, similarly to the Transport and Agriculture sectors, which may be one of the reasons for why concrete plans and approaches for tracking this data were not in place.

In addition to the identification of GHG impact indicators to track NDC actions, Belize also performed an exercise to identify and prioritize non-GHG impact indicators related to NDC actions, through stakeholder consultations, which results are provided in Deliverable #3. Non-GHG impacts provide decision makers with additional inputs that are highly relevant for national development and are therefore an important aspect needed in the process of decision making for prioritization and assessment of sustainable development contributions of climate policies. The assessment of non-GHG impacts went through two phases. In the first phase, stakeholders representing relevant sectors were presented with a list of SDG impact categories, using the ICAT Sustainable Development Methodology. Stakeholders identified relevant impacts correlated to national and sectoral policies, institutional polices and/or mitigation actions. Consultations were conducted via two channels, online consultations and google form surveys, as this exercise took place during Covid-19 restrictions on in person meetings. Subsequent to the impacts being identified, the non-GHG impacts were prioritized using a rank matrix using the ICAT Transformational Change Methodology. The consultation and validation sessions revealed that some identified non-GHG impacts were not climate change related, therefore those impacts were expelled from the final list. The non-GHG impacts that met the requirements were validated with a set of new and existing indicators aligning with the NDC, and the NAMA SD tool was used to provide a potential operationalization tool for the storage and tracking of the selected non-GHG indicators.

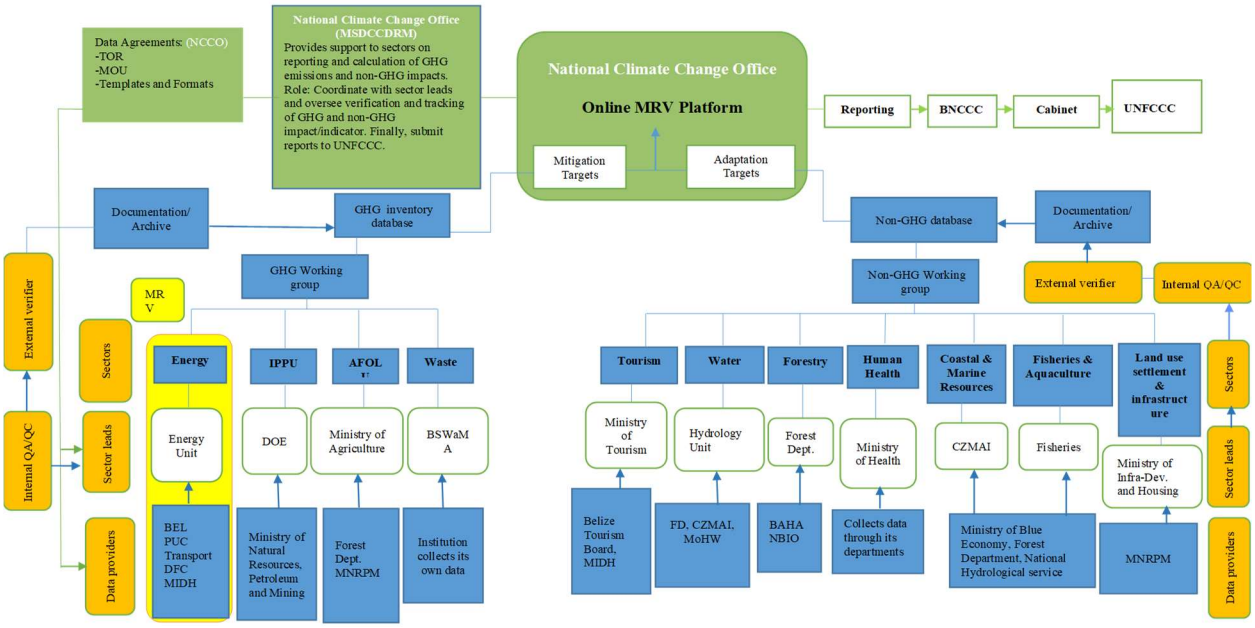
The Transformational Change Methodology and Sustainable Development Methodology were also used to assess the expected impacts of the Belize Agroforestry policy, which assessment is provided in Deliverable #6. The assessment consists of an ex-ante assessment of expected changes (for mitigation of GHG emission, sustainable development and transformational change) brought by the policy in comparison to the baseline scenario. Due to data availability and considering the time and resources available for carrying out the work, the assessment relied on qualitative approaches. The assessment highlighted for a more informed identification of hotspots to be monitored during project implementation, of opportunities, and possible areas of concern. This is highly relevant also considering the review and comparison with other outputs provided by the ICAT support in Belize, more specifically the identification and prioritization of GHG and sustainable development progress and impact indicators for the NDC actions.

The results from the prioritization exercise of GHG, non-GHG indicators and the Agroforestry assessment reveal that access to data and better quality of data is needed to better understand the impacts of NDC actions, as many of the prioritized indicators are currently not tracked by the national M&E systems. Overall, the sectors provided informative feedback on impacts and indicators. The consensus highlighted that non-GHG impacts can be tracked, but stakeholder engagement is fundamental to enable the tracking the NDC actions and targets. This process of stakeholder engagement should be continuous to ensure proper alignment of non-GHG impact monitoring in NDC tracking.

With the appropriate GHG and non-GHG indicators identified, taking into consideration national priorities and international transparency requirements, the following activity focused on analysing existing MRV practices used in Belize, which results are provided in Deliverable #4. Both formal and informal systems are used in Belize. Formal systems are described as sector-wide systems that collect and share data and information both internally and between institutions, with generally well defined procedures. Informal systems, on the other hand, are concentrated within individual institutions where data is not usually shared, partially due to a lack of established formal data-sharing agreements. It is imperative to build on these existing structures and processes and identify how these could be integrated into the enhanced national MRV system for climate change, in order to not replicate efforts and put undue burden on the national institutions. The analysis shed light on what information is already monitored in comparison to what should be monitored according to the selected GHG and non-GHG indicators. The identified gaps highlighted the need for institutional arrangements for data sharing and strengthened capacities, tools and procedures for data collection and reporting.

The need for formalized institutional arrangements for data sharing, tools and procedures to facilitate reporting was addressed in *Output 2. Institutional arrangements for data and information reporting and sharing within and between the institutions for climate change policies and actions are formalised*, and *Output 3: MRV tools and procedures are designed to facilitate reporting*, which results are consolidated in Deliverable #5, defining roles and responsibilities for MRV of the various relevant national institutions. The following structure was proposed:

Figure 1: Institutional Arrangements for Belize's National MRV System



Source: ICAT Phase 1 Deliverable #5 - Report on formalised reporting protocols between institutions, reporting templates, and a appointment of MRV platform

Given that there is no legislation or regulatory framework in place for climate change in Belize, the most feasible option to implement formalized data sharing was through MOUs by creating written formal arrangements between institutions to allow for the monitoring and tracking of climate change actions. MOUs, along with ToRs, were designed to consolidate and solidify agreements between parties involved in the national MRV system. The ToR were accompanied by the design of reporting templates to report on the implementation of the NDC and NDC actions.

Covid-19 had a disruptive impact on the sequencing and continuation of activities, leading to considerable delays, but also unexpected savings in moving from expected in person stakeholder consultations to virtual modalities. In addition, the expected expenses for national consultants were lower than anticipated. The achieved savings were used to implement additional activities, to enhance the impact of ICAT activities and the quality of the defined outputs. The lack of a legislative framework for climate change, which was identified as a central barrier was addressed by drafting a Climate Change Bill developed as Deliverable #7, setting the basis for a legislative framework which would amongst other establish the appropriate mandates for MRV and data sharing. The existence of segregated MRV approaches, both formal and informal, in the different institutions was addressed by the design and creation of a centralized online MRV platform and supplemented with manuals and training of stakeholders for the use of the platform, provided as Deliverables #9 and #10. Finally, a data entry technician was procured to address the need of lack of data, by preparing initial data needed to be used to track progress of implementation of NDC through identified indicators for the different sectors, which progress is provided in Deliverable #8.

Impacts of ICAT Phase 1 on Belize's transparency systems

The ICAT project has had deep impacts on the capacity of Belize to track the implementation of NDC actions, covering the definition of clear institutional arrangements, defining roles, responsibilities and providing data, information and tools to track NDC implementation. ICAT methodologies have also been applied and have guided the identification, classification, and prioritization of non-GHG indicators important for Belize in the process of decision making for the assessment and prioritization of climate policies.

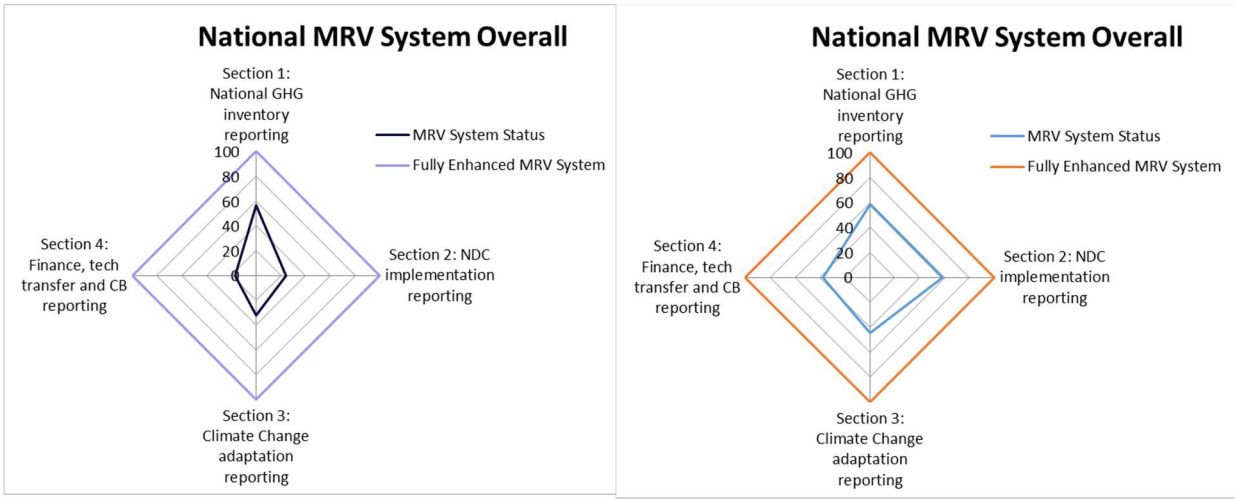
Upon the inception of Phase 1 activities, the CBIT self-assessment questionnaire was provided to the then focal point for the project to assess the state of transparency systems in Belize. The same questionnaire has been used in the inception phase of this Phase 2 to assess the progress of enhancement of the country's transparency systems during Phase 1. The following figures illustrate and compare the results of the questionnaire before Phase 1, and after Phase 1 implementation. Figures on the left side represent results from the questionnaire before the implementation of ICAT activities, while the figures on the right side show the results of the questionnaire after the implementation of ICAT activities.

As illustrated by

Figure 2, there has been considerable enhancement of the national transparency system overall, especially in the area of NDC implementation reporting, which has been one of the primary focus of Phase 1 activities. Systems to report finance, capacity building and technology development and transfer support needed and received seems also to have been enhanced considerably during Phase 1. Finally, Climate Change and adaptation reporting systems seem to have been slightly enhanced during Phase 1, while systems for GHG inventory reporting hasn't seen any considerable change. The latter is not unexpected as this was not the focus of Phase 1 support.

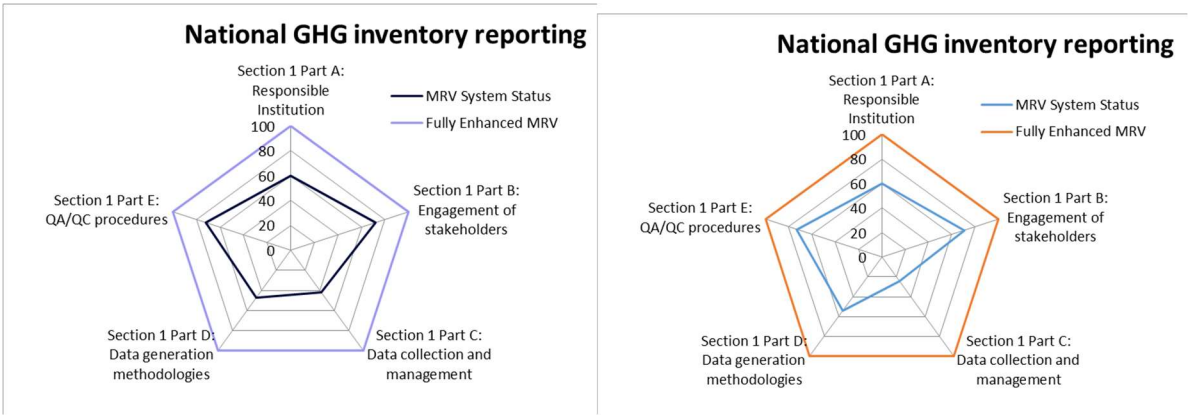
It should also be noted that not all changes should only be attributed to ICAT support. Belize is coordinating a variety of climate relevant support initiatives, both national and with international support, which directly and indirectly also supports its work towards an enhanced transparency framework, meaning that some of the developments should be attributed to other initiatives. One example is the enhancement of capacities through non-ICAT activities for NDC implementation monitoring, where Belize now has an NDC Update and Implementation Facilitator, assisting in cross-sectoral and cross-institutional coordination. Another example is the intensive work done on NDC costing and resource requirement for NDC implementation, not implemented through ICAT activities (although coordination between the initiatives was ensured).

Figure 2: Comparison of overall results of the state of transparency systems in Belize.



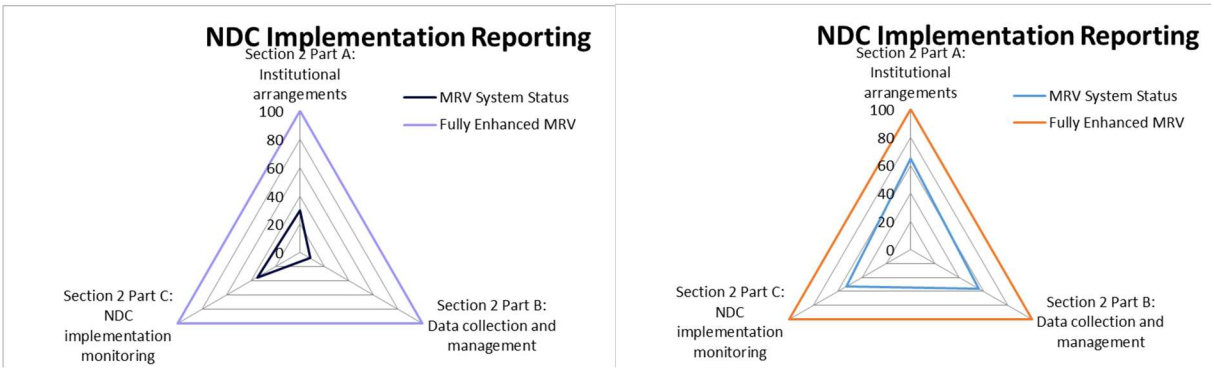
The system for GHG inventory reporting seem to have experienced a slight improvement in data generation methodologies, while experiencing decreasing capacity for data collection and management (see Figure 3). This development seemed to mostly be related to the availability of key datasets and indicators and availability of templates and guidelines, and the decreasing score might be related to different understanding of what is available and the needed completeness of indicators and templates between the different respondents to the questionnaire. It can also be related to an improved understanding over time of what is needed for completeness and enhancement of the GHG inventory system, leading to assigning a lower score when this information and understanding is internalized. In any case, the need for enhancing data collection and management for GHG inventory reporting has been identified, and although this is not the main focus of Phase 2 activities, a data entry technician will amongst other activities commence collecting and digitizing data, and enter it into the national online MRV platform, including GHG relevant data for the fourth greenhouse gas inventory. In addition, the score for this specific section is expected to improve over time when the application of formal agreements and collaboration in data collection from different sectors will be in place, through MoUs for data sharing, and the draft Climate Change Bill developed through ICAT Phase 1 support.

Figure 3: Comparison of National GHG Inventory Reporting System



The NDC Implementation Reporting System has seen great improvements during Phase 1 (see Figure 4). Especially in the area of data collection and management, in large part driven by the ICAT work on establishing indicators for tracking NDC actions, and the establishment of a web-based information system for managing the data on indicators. Institutional arrangements have also been enhanced, inter alia thanks to higher degree of ownership by line ministries, and the existence of an NDC implementation plan. NDC implementation monitoring has also been enhanced, mainly through the definition of non-GHG metrics for monitoring.

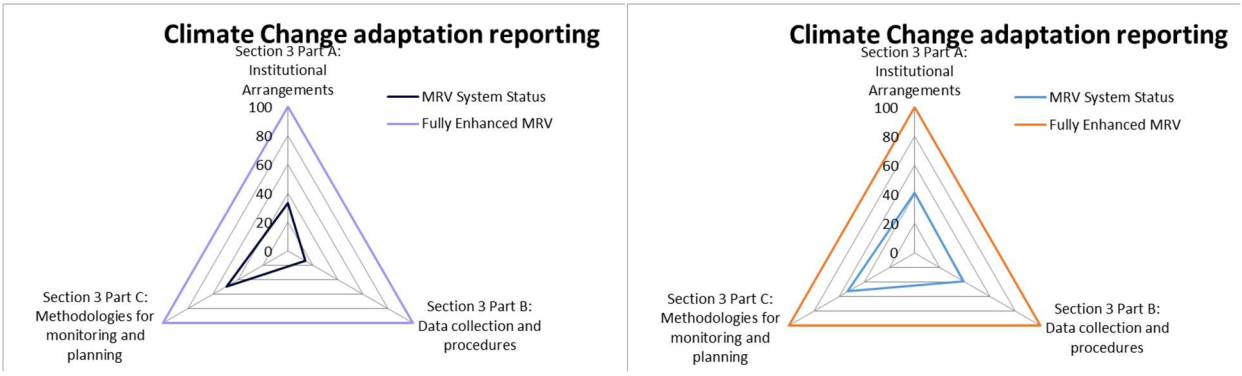
Figure 4: Comparison of National NDC Implementation Reporting System



The system for reporting on adaptation has also improved, especially in the field of data collection and procedures (see .

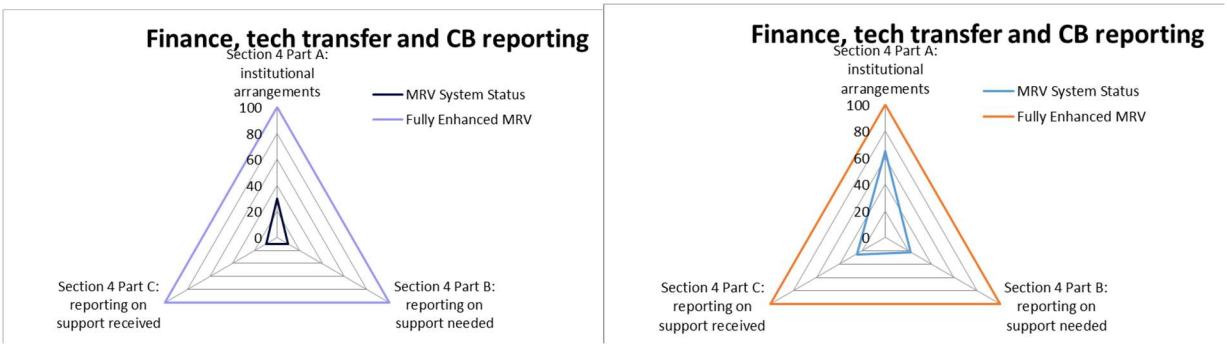
Figure 5). This is aligned with the results for NDC Implementation reporting (Figure 4), as ICAT activities didn't treat mitigation and adaptation sectors separately in general, but rather looked at the more overall system. Scores for both NDC implementation and adaptation reporting could be enhanced by the incorporation of sub-national and non-state actors into the national MRV system, which is expected as part of the activities in Phase 2.

Figure 5: Comparison of Climate Change Adaptation Reporting System



Capacities in the system for reporting Finance, Capacity Building and Technology Development and Transfer support needed and received have also increased during Phase 1 (see Figure 6), although this improvement might mostly be related to the extensive work implemented inter alia through NDC Partnership support, focusing the financial aspects of NDC implementation. Although, ICAT support has contributed slightly to these results through the establishment of the online MRV platform and identification of central indicators.

Figure 6: Comparison of Finance, Capacity Building and Technology Development and Transfer Reporting System



Response from stakeholders on ICAT outcomes and enhancement of national MRV system and capacities

A survey has been circulated to the wider set of stakeholders that have participated in ICAT events and activities in order to assess the perceived impacts of ICAT activities beyond the NCCO and internal systems for transparency. The survey at the time of writing had 10 respondents (3 males and 7 females) from the following institutions, with respective roles:

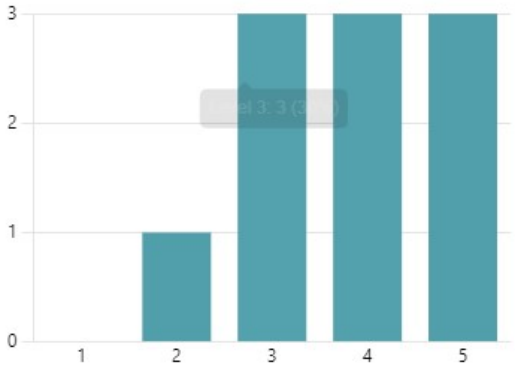
Table 1: Respondent classification for survey om ICAT impacts

Affiliated institution	Role within the institution
National Climate Change Office	Country focal point
Ministry of Agriculture, Food Security and Enterprise	Monitoring and Evaluation Officer
Ministry of Health and Wellness	Focal point
Belize Forest Department	Observer
Ministry of Economic Development	Economist II

MTDR	MTDR representative - Technical Officer
Mining Unit, Ministry of Natural Resources, Petroleum and Mining	Sector focal point
Coastal Zone Management Authority and Institute	N/A
National Hydrological Service, Ministry of Natural Resources, Petroleum, and Mining	Sector Expert
Ministry of Youth, Sports & Transport	Department focal point

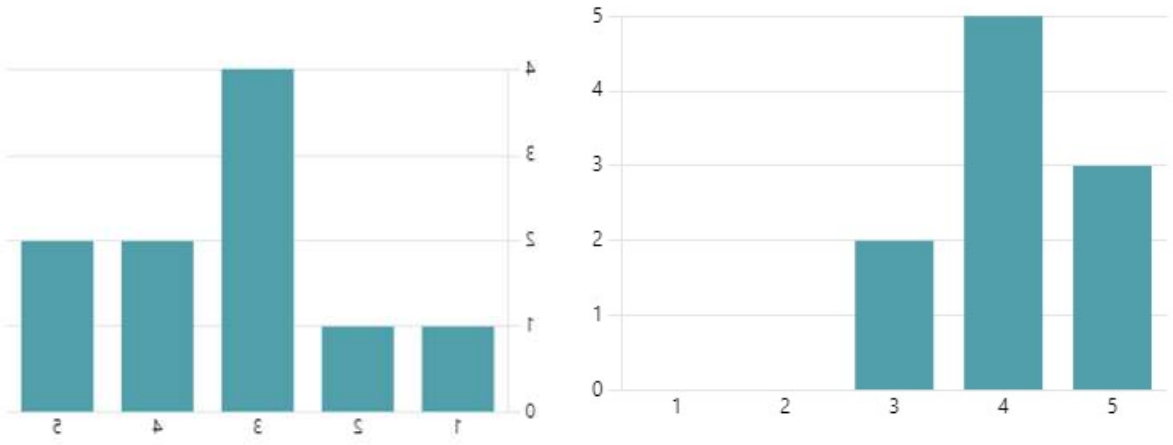
When asked about the alignment of ICAT activities to the national and their own institutional transparency needs and priorities, the respondents provide an average rating of 3.8 on a scale from 1 to 5 (1: not aligned, 5: fully aligned):

Figure 7: Stakeholders own assessment of alignment of ICAT activities to the national and their own institutional transparency needs and priorities



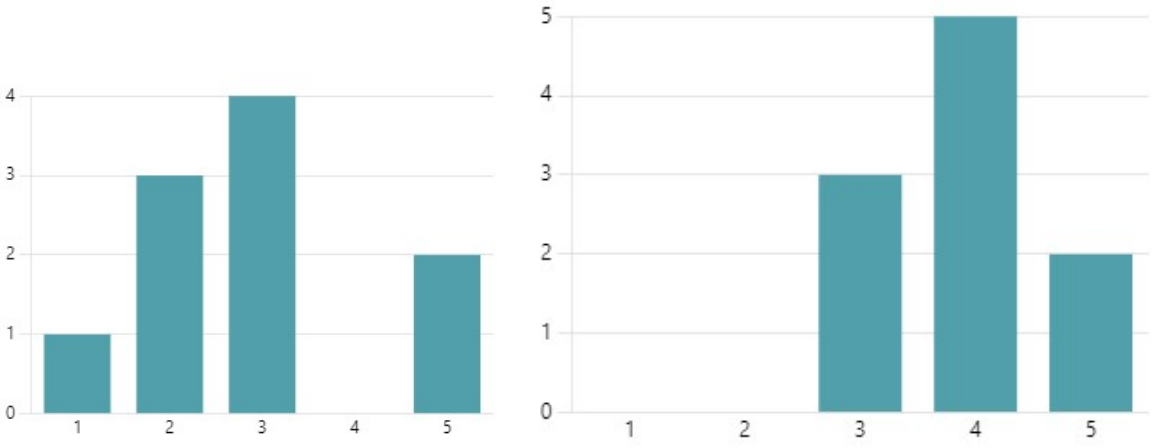
When assessing the stakeholders' knowledge and understanding of reporting requirements on climate change data and information for you and your institution before the ICAT project started, stakeholders rated their understanding with an average of 3.3 a scale from 1 to 5 (from 1: little to no knowledge, to 5: clear understanding). While their score for their knowledge and understanding after ICAT activities received an average score of 4.1.

Figure 8: Stakeholders own assessment on their knowledge and understanding of reporting requirements for them and their institutions before (left) and after (right) implementation of ICAT activities



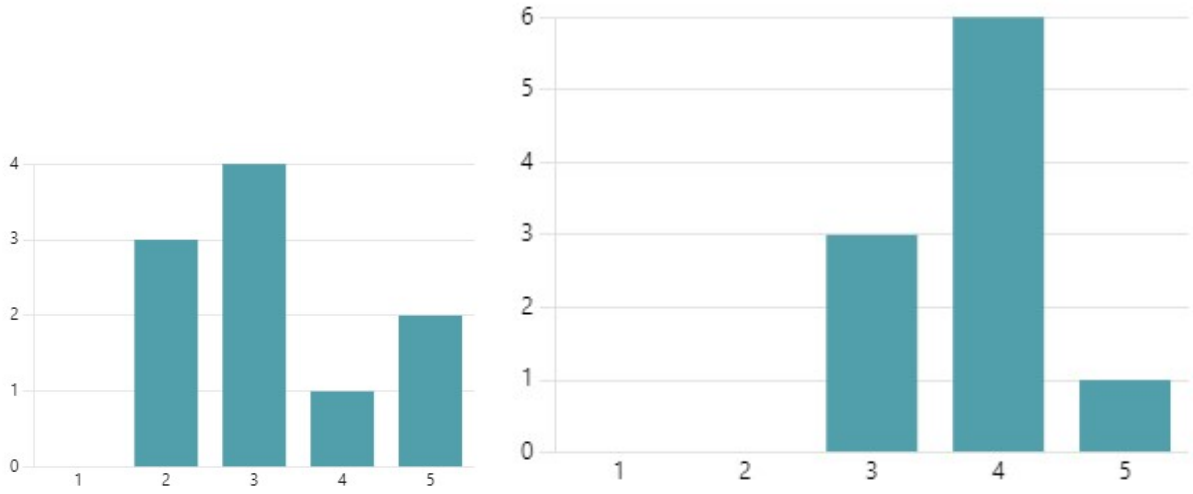
When assessing the clarity of institutional arrangements for data and information reporting and sharing within and between the institutions for climate change policies and actions, before ICAT activities, stakeholders assessed the clarity to be 2.9 on average on a scale from 1 to 5 (1: no understanding, 5: clear understanding) while their score increased to 3.9 after ICAT activities.

Figure 9: Stakeholders own assessment of the clarity of institutional arrangements for transparency before (left) and after (right) implementation of ICAT activities



When assessing the existence and usefulness of tools and procedures for reporting, before ICAT activities, stakeholders assess the availability to be 3.2 on average on a scale from 1 to 5 (1: no tools, 5: available useful tools). While their score increased to 3.8 after ICAT activities.

Figure 10: Stakeholders own assessment of availability and usefulness of tools and procedures for reporting before (left) and after (right) implementation of ICAT activities



Of the 10 respondents, 5 stated they had been involved in GHG, Sustainable Development and Transformational change impact assessment using ICAT methodologies. Some of the respondents must have misinterpreted the question, as there was only one policy in the Forestry sector that was assessed. Nevertheless, it illustrates that ICAT activities, even though not applying Assessment Guides have supported stakeholders in understanding approaches to assess the impact of their policies and actions, e.g., through the identification of GHG and non-GHG indicators.

The following are selected statements provided by respondents on the contribution to enhancing transparency capacities, including the assessment of climate impacts.

The ICAT project has improved the departmental collaboration to improve data sharing and reporting mechanism.
The project has helped us to keep track of mitigation and adaptation indicators and assess how well we are performing against those indicators.
The ICAT project improved institutional arrangements building on existing procedures and making them more formal and clearer in the way it should be conducted. Areas of improvement could be direct linkages or alignment with BTR reporting requirements and assisting the country in being ready for submitting its first BTR by December 2024.
This assessment has helped improve the projection of the department progress on understanding and building capacity to assess the climate impact on the Forest sector by engaging on amending the policies and put in place sustainable measures to protect our standing forest.
The assessment provided clear guidelines on how to assess the possible impacts that a climate change policy could have both before and after its implementation
Provided clarification of specific activities that the tourism sector needs to improve NDC for Belize. It has helped me understand the importance of climate change resilience and how to monitor it.

In identifying potential areas of improvement and work going forward, respondents highlighted the following:

- More capacity is needed, including refresher workshops.
- The need to enhance the incorporation of health aspects in transparency to ensure an integrated approach to Health in Climate Change, which would produce more awareness, improvements, and overall outcomes.

Review of NDC Tracking Framework

Roles and responsibilities must be clearly defined for data collection and sharing to facilitate the implementation and monitoring of Belize's targets outlined in the NDC. This is fundamental in determining the success of the national monitoring, reporting and verification (MRV) system to ensure transparency. There is currently no legislation for climate change in Belize and the government therefore relies on its National Climate Change Policy, Strategy and Master Plan (NCCPSMP) to guide the short, medium, and long-term processes of climate change adaptation and mitigation. To make up for the lack of a legislative framework, Belize uses formalization instruments such as Memorandum of Understandings (MOUs) accompanied by Terms of References (TORs) to facilitate data sharing and reporting. This is an effort to ensure data availability, guaranteeing access to data, and establishing collaboration amongst organizations. The main objective of establishing these arrangements under the ICAT Phase 1 project was to support institutions in reporting and data sharing to allow a consistent flow of information especially when tracking the progress of Belize's Nationally Determined Contribution (NDC).

In the case of Belize, as stated in Deliverable 5 of the ICAT Phase 1 project, government ministries are prime points of contacts to provide support for the development and mobilization of the MRV system. Therefore, these institutions were recommended to act as sector leads, with the responsibility to draft summary reports, monitor GHG and non-GHG impact indicators and coordinate with data providers to collect climate change data, and act as liaison to the National Climate Change Office (NCCO). The NCCO shall coordinate with sector leads and key stakeholders across sectors to ensure input in the national MRV processes. A separate recommendation was also made to utilize sectoral working groups into the MRV system's structure as a secondary means of verification. The working groups are designed to address either adaptation or mitigation topics covering both GHG and non-GHG impacts, and consisting of governmental institutions, research organizations and other public and private sectors.

Deliverable 5 recognized and addressed that to demonstrate progress in tracking Belize's NDC targets and other climate change actions, arrangements related to data providers and sector leads needed to be clearly defined. Therefore, these were established under phase 1 comprising of the monitoring capacity of GHG and non-GHG impact and progress indicators, reporting frequency and data quality. Roles and responsibilities were defined, MOUs were drafted, and reporting templates were developed, and these were all integrated among each other.

Institutional arrangements

Strong institutional arrangements are the core of an MRV system. Identification of institutional responsibilities for data collection, data analysis, reporting, quality control and quality assurance is a necessity. Therefore, the review of the NDC tracking framework begins with the review of its institutional arrangements which were established under the ICAT-Belize Phase 1 project.

The overall coordination of the reporting framework falls under the responsibility of the National Climate Change Office (NCCO) as the lead entity for climate change management in Belize. Further roles identified were then placed with the different sectors to support the MRV system. These mitigation sectors are consistent with those under the Intergovernmental Panel for Climate Change (IPCC) and with which Belize reports – Energy, IPPU, AFOLU and Waste. The sectors reporting on non-GHG emissions, i.e., the adaptation sectors, were taken from the NDC – Tourism, Water, Forestry, Health, Coastal and Marine Resources, Fisheries and Aquaculture, and Land Use Settlement and Infrastructure. Therefore, the MRV system to track NDC progress follows suit and is broken down into two sections – mitigation (reporting on GHG emissions data) and adaptation (non-GHG related information).

Sector leads represent lead institutions who are responsible for tracking and providing information on the sector specific NDC actions to the NCCO who is the overall coordinator for overseeing the tracking of the entire NDC. The NCCO also functions as the compiler for collected information and ensuring timelines are adhered to, notwithstanding the drafting of data agreements, TORs, templates, and document management.

The institutional arrangements were formalized with the use of Memorandums of Understanding (MOUs) between sector leads and the NCCO to allow data collection and sharing in a procedural manner.

Prioritization of indicators for NDC tracking

As per chapter III of the Modalities, Procedures and Guidelines (MPGs) for the transparency framework, each Party shall identify the indicator(s) that it has selected to track progress towards the implementation and achievement of its NDC under Article 4. Indicators shall be relevant to a Party's NDC under Article 4 and may be either quantitative or qualitative. Each Party shall provide the information for each selected indicator for the reference point(s), level(s), baseline(s), base year(s) or starting point(s) and shall update the information in accordance with any recalculation of the GHG inventory, as appropriate. The most recent information shall be provided for each selected indicator pursuant to that previously listed to track progress made in implementing the NDC under Article 4.

The MRV system established under the ICAT project aligns with Belize's updated Nationally Determined Contribution (NDC). It covers 11 sectors, 16 targets and a total of 182 indicators. The sectors are Forestry, Coastal and Marine, Energy, Transport, Agriculture, Human Health, Tourism, Water, Waste, and Infrastructure. As per the Enhanced Transparency Framework, it is necessary for Belize to prioritize which of its NDC indicators will be used to report on the progress towards the implementation and achievement of its NDC.

The updated NDC represents increased ambition across sectors, targets, and detail. Ambition has been integrated, inter alia, through expanded sectoral targets, in existing targets, and expanded coverage of gases covered in targets to include N_2O and CH_4 in AFLOU interventions. It includes a quantifiable reduction target of avoiding cumulative emissions across all sectors of 5,647 Kt CO2e between 2021 and 2030. The key sector targets include a 63% increase in greenhouse gas (GHG) removals related to the Agriculture, Forestry and Other Land Use (AFOLU) sector, and an increase to 75% of renewable energy in electricity generation. Targets also include sectoral actions to build resilience and develop capacity to adapt to the impacts of climate change in key economic sectors and supporting systems.

Considering that Belize's NDC was updated with increased ambition and has a quantifiable reduction target of avoiding cumulative emissions across all sectors, it is recommended that the prioritized indicators include those that will best reflect this new ambition and overall target. Given that the quantifiable emission reductions are within the AFOLU and energy sectors, it is recommended that the quantifiable indicators from these sectors be prioritized. These will assist in quantitatively tracking the progress and achievement of the NDC. These indicators can be seen in the table below which are alongside their related target and action.

As evident in the table below, five (5) indicators are chosen for prioritization. These indicators were selected for prioritization due to them being quantifiable and representing the sectors and targets that were key in the update of the NDC. It is recommended the same set of indicators should be used during and at the end of the implementation for tracking progress towards implementation and achievement of NDCs. This will ensure consistency throughout the process. It is important to note that while these are being suggested as the prioritized indicators, final decision relies on the National Climate Change Office to decide on the use of any or all of these indicators when reporting on the progress for achieving and implementing its NDC.

Table 2 Prioritized indicators for trakcing NDC implementation and achievement

	Indicator	Target	Action
Agriculture	**Avoided methane emissions from livestock by 2025**	Avoided emissions of at least 4.5 ktCO2e related to agriculturally driven land use change by 2025	Promote the reduction of agricultural GHG emissions through implementing effective livestock management that involves changing the feeding
	Tons of emission reduced from		

	the number of farms adapted altering crop cultivation methods		practices of livestock to include more optimal nutrient levels
	Tons of emissions reduced from the number of farmers implementing effective livestock management		
Energy Sector	**Tons of emission reduced from high carbon electricity sources**	Avoid emissions from the power sector equivalent to 19 KtCO2e per year through system and consumption efficiency measures amounting to at least 100 GWH/year by 2030	Reduction in transmission and distribution losses from 12% to 10% by 2030 resulting in reduced electricity demand and better quality of supply
	Emissions (tCO2e) avoided with new renewable energy projects by 2025	Avoid 44 KtCO2e in the national electricity supply by 2030 through the introduction of expanded capacity from renewable energy sources	Achieve 75% gross generation of electricity from renewable energy sources by 2030 through the implementation of hydropower, solar, wind and biomass, including in the tourism sector

Reporting templates for NDC tracking

Under the ICAT-Belize Phase 1 project, a dedicated excel tool was adapted using the NAMA SD Tool which allows for the evaluation of sustainable development (SD) performance indicators and SD results but has been adjusted to fit the purpose of tracking the selected non-GHG indicators of relevance to Belize. The tool is linked to Sustainable Development Goals (SDGs) aiming to track information on environmental conservation, economic growth, social and institutional impacts.

The consultant also took into consideration the common tabular formats for reporting the information necessary to track progress made in implementing and achieving NDCs which came out of the UNFCCC COP26 in 2021. These tables are referenced to be used for collecting and reporting data. It is reported that they are to be compiled by the NCCO since they are the institution acting as final repository for the overall data on NDC implementation. As mentioned, these tables were taken from UNFCCC's Guidance operationalizing the modalities, procedures and guidelines for the enhanced transparency framework referred to in Article 13 of the Paris Agreement, Decision -/CMA.3. The tables include, among others:

- Description of selected indicators,
- Definitions needed to understand NDC,
- Methodologies and accounting approaches-consistency with Article 4, paragraphs 13 and 14 of the Paris Agreement and with decision 4/CMA.1
- Tracking progress made in implementing and achieving the NDC under Article 4 of the Paris Agreement

MRV Tool

The NAMA SD tool, henceforth referred to as the MRV tool, was customized and became the recommended tool for monitoring non-GHG impacts. It details the SD benefits covering different domains (environment, social, economic) and is aligned with the SDGs. The tool has three main components which are "selection of indicators", "MRV for the sector", and "monitoring sheet". Each sector included in the tool assisted in the identification of the non-GHG impacts. It is also noted that the indicators developed

were aligned with the NDC implementation plan.

The MRV tool includes all the NDC actions and their corresponding indicators that is accessible through a drop-down menu. It contains fields for baseline value, target value, and intervention value that should be completed by the sector leads. The unit of measurement can also be recorded for each indicator. The tool also contains a calculation field for Nationally Appropriate Improvements (NAIs). NAIs estimated (ex-ante), monitored (ex-post), and project success are automatically calculated as the baseline, project and target values are inputted. NAIs will allow the overall ambition and success of a particular NDC action to be assessed.

The monitoring sheet is the last component of the MRV tool that shows the results and progress. The baseline value and target value applied will demonstrate how improvements have been made overtime.

Due to the COVID-19 pandemic and restrictions that were consequently put in place, funds for in-person consultations were reallocated to the development of on online platform (described in the following section). This occurred in the latter stages of the project, therefore, the MRV tool and its functions were integrated unto this platform. This eliminated the use of the excel-based tool and allowed the NCCO to advance to a web-based system. This system was designed and developed to upload data and information relating to climate change, i.e., creating a management information system. A detailed review of this system is to be done under activity 1.3 by UNEP CCC counterparts.

Online MRV Platform

Belize has, as part of ICAT phase 1, developed and integrated in its national MRV system an online MRV platform to track the implementation of its NDC and national climate policies to facilitate reporting from multiple stakeholders and institutions, consolidate data and information on climate policies and their progress of implementation, and facilitate the formulation of Biennial Transparency Reports (BTR) to the UNFCCC.

The platform is built with a modular approach with different interlinkages between modules. The modules include: ‘

- Proposal Management
  Which includes a platform for creating, sharing and uploading documents related to new proposed projects and support activities, including creation of working groups.

- Frameworks
  Which includes input field to create, edit and upload new climate related frameworks, policies, and programmes like the NDC, the National Climate Change Policy Strategy and Master Plan, Low Emission Development Strategy etc.

- Planning
  Which includes goals, targets, actions, and indicators related to actions and targets. The targets are also connected to their respective SDG contribution.

- Implementation
  Which allows to add interventions/actions (i.e., activities aimed at the contribution to goals and targets), and add related indicators related to actions contributing to goals and targets.

- Activities
  Which provides an overview of national and international support initiatives contributing to the interventions/actions and related goals and targets.

- Monitoring

Listing indicators and related data towards the achievement of targets.

- Settings
  Which allows to edit stakeholders and units.

Figure 11: Menu of Online MRV Platform modules

Stakeholders have received training on the use of the platform and have been provided with a manual providing users with a step-by-step guidance through the functions of the platform. Data is currently being populated into the system. Data entry is a time requiring task, and very much reliant on stakeholder inputs.

The effectiveness of the system will mainly depend on the availability of data, but the input fields and system's functionality also have an impact on the potential facilitation of reporting by the system. The following observations illustrate potential areas of improvement going forward.

Enhanced cross linkages between modules

The different modules are partially interlinked and refer to each other. Although, in many cases users need to navigate between different modules to access all the information, as not all the information is linked together. Especially in the case of indicators, it would facilitate the user friendliness if indicators were also directly linked to targets, and not only actions, in order to track the achievement of targets without having to manually extract data on each action and sum these separately.

Defining frequency of reporting

The system's input field on indicators currently do not specify the needed frequency of reporting. This is relevant information to communicate to the data providers for them to be aware of their needed minimum interaction with the system. This field should be added and ideally connected to an automated notification, so the assigned data entry stakeholder is reminded of the need to submit data by the system.

Ability to filter and extract indicators

The system currently lists all indicators, but to facilitate tracking of NDC action implementation it should be possible to filter and extract indicators by units, actions, and targets. This feature would facilitate the tracking of targets and NDC actions. Especially related to the quantitative targets, this feature would greatly facilitate reporting and the workload of staff.

Increased alignment with Biennial Transparency Reports

In order to further facilitate the reporting to the UNFCCC, there are some input fields that should be considered to align with the reporting templates for BTR provided by the modalities, procedures and guidelines (MDG) for Article 13 of the Paris Agreement and related decision. These fields include Gases Affected and status of implementation of mitigation policies and actions. In general, it would further facilitate reporting, if data and information on mitigation actions could be directly extracted in the BTR format.

NDC Partnership Plan Tool

Outside of the ICAT-Belize Project, the NCCO had also been receiving support from the NDC Partnership

(NDCP) to update its Nationally Determined Contribution (NDC) and to develop an NDC Implementation Plan. Upon completion of both activities, the NDCP recognized the need by several countries to create an online tracking tool for their NDC implementation plans. Therefore, Belize's NDC is also included on the NDCP Tool where the NDC Implementation Facilitator regularly updates the status of activities.

Relation to Phase 2 Activities

With institutional arrangements developed, an online platform created with guidance from the excel-based MRV tool, the NDCP Tool, and reporting templates, there are many measures in place that contribute to tracking the progress made in implementing and achieving Belize's NDC. However, there is still room for improvement.

Alignment is needed between the online platform developed under ICAT and the NDCP tool. The NDCP tool serves the same purpose as the online MRV platform with the main difference being that the online platform is a nationally owned system and has a broader scope being that it has the ability to track more than just the NDC while the NDCP is designed exclusively for country NDCs but is owned and managed by an international entity. Belize has control over management and improvement of the online platform. The alignment between these two tools is needed to avoid duplicating efforts by stakeholders who have access to both systems. The online MRV platform can further be enhanced to facilitate BTR reporting for the NCCO by cross-referencing NDC relevant indicators from climate interventions to sectoral and overall national targets, and incorporating better alignment between inputs of data and BTR reporting tables, e.g., on the gases affected by interventions and status of implementation.

Strong institutional arrangements were developed with the roles and responsibilities clearly stated. These were consulted with the identified sector leads to ensure they were in agreement with what was being proposed. This also ensured that the institutional arrangements would be supported and complied with.

As it relates to the prioritization of the indicators for NDC tracking, a total of five indicators were recommended that could be used to track the progress and achievement of Belize's NDC, especially as it relates to the updates within the NDC. The five indicators can be further prioritized based on national circumstances and as the National Climate Change Office sees fit as they are responsible for reporting to the UNFCCC.

Stakeholder engagement is fundamental to enable the tracking of the NDC actions and their targets, and improved sectoral capacities for reporting will be needed. In addition, many of the actions will be implemented at the sub-national level and by non-state actors, enhancing the integration of these classes of stakeholders would also contribute to the transparency capacities in Belize. The needs described above are addressed in Phase 2 with the following intended outputs and related activities:

- Enhancing sector-level support and integration into the national climate change MRV system for Belize

This output will provide support to two priority sectors on data and statistics in the framework of the MRV system and design a sector-level MRV system to support implementation of climate change-related activities.

- Strengthening national and institutional capacities and tools to support the implementation of the national climate change MRV system developed under ICAT Phase I

The output will be achieved by providing training and capacity building to national stakeholders involved in the MRV system, and by improving the functionality of the MRV tools and procedures to advance data collection and reporting.

- Non-state and subnational action guide piloted for a selected sector and municipality and facilitating their inclusion in the national CC MRV system

The output will consist of the application of ICAT's non-state and subnational action guide for the integration of a selected sector and municipality.