



Establish an integral MRV/M&E system to enhance climate transparency in Paraguay

Part I: Project Information

GEF ID

10342

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT

NGI

Project Title

Establish an integral MRV/M&E system to enhance climate transparency in Paraguay

Countries

Paraguay

Agency(ies)

UNEP

Other Executing Partner(s):

Ministry of Environment and Sustainable Development

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, United Nations Framework Convention on Climate Change, Capacity Building Initiative for Transparency, Influencing models, Strengthen institutional capacity and decision-making,

Stakeholders, Type of Engagement, Information Dissemination, Civil Society, Private Sector, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Capacity, Knowledge and Research, Capacity Development

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

8/29/2019

Expected Implementation Start

6/1/2021

Expected Completion Date

5/31/2024

Duration

36In Months

Agency Fee(\$)

175,038.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-3-8		GET	1,842,500.00	350,000.00
Total Project Cost(\$)			1,842,500.00	350,000.00

B. Project description summary

Project Objective

To strengthen the transparency systems of Paraguayan institutions to meet the requirements of the transparency framework under the Paris Agreement on Climate Change

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Strengthening Paraguay's Transparency Monitoring System	Technical Assistance	1. MADES is able to trace Paraguay's climate change activities and provide high quality climate reports aligned with the Enhanced Transparency Framework under the Paris Agreement	1. Strengthened institutional arrangements to manage transparency activities through the SIAM Climate Change Module are adopted by MADES	GET	352,400.00	36,600.00
-	Technical Assistance		2. More accurate emission factors and activity data is made available to MADES for preparing GHG inventories	GET	407,640.00	54,900.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
-	Technical Assistance		3. Technical training and tools are made available to MADES and key stakeholders for implementing the national transparency system	GET	687,000.00	73,200.00
-	Technical Assistance		4. Mechanism to link the Climate Change Module of the SIAM with existing national planning processes and instruments is proposed for adoption by the relevant ministries	GET	187,960.00	18,300.00
Monitoring and Evaluation	Technical Assistance			GET	40,000.00	
Sub Total (\$)					1,675,000.00	183,000.00
Project Management Cost (PMC)						
	GET		167,500.00		167,000.00	
Sub Total(\$)			167,500.00		167,000.00	

Project Management Cost (PMC)

Total Project Cost(\$)

1,842,500.00

350,000.00

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Environment and Sustainable Development	In-kind	Recurrent expenditures	350,000.00
Total Co-Financing(\$)				350,000.00

Describe how any "Investment Mobilized" was identified

Not Applicable

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNEP	GET	Paraguay	Climate Change	CBIT Set-Aside	1,842,500	175,038
Total Grant Resources(\$)					1,842,500.00	175,038.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required

PPG Amount (\$)

45,000

PPG Agency Fee (\$)

4,275

Agency	Trust Fund	Country	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)
UNEP	GET	Paraguay	Climat e Change	CBIT Set-Aside	45,000	4,275
Total Project Costs(\$)					45,000.00	4,275.00

Core Indicators

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	50	50		
Male	50	50		
Total	100	100	0	0

Part II. Project Justification

1a. Project Description

a. Global environmental and/or adaptation problems, root causes and barriers that need to be addressed

Data collected since the 1950s have consistently shown that a) the concentrations of carbon dioxide and other gases in the atmosphere have risen very rapidly and b) these gases have created a greenhouse effect that have led to an increase in Earth's temperature and dangerous changes in climate patterns. Consequently, in 1992 world leaders gathered in Rio de Janeiro, Brazil for the United Nations Conference on Environment and Development (commonly known as the Rio Earth Summit) and agreed upon the adoption of the United Nations Framework Convention on Climate Change (UNFCCC).[1]¹ [2]² Paraguay ratified the UNFCCC in 1993 by law No. 251/93.

The UNFCCC's ultimate objective is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."³ Accordingly, in article 4 of the Convention, countries agreed to "develop, periodically update, publish, and make available (?) national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol" to contribute to the global fight against anthropogenic climate change. Likewise, article 12 of the UNFCCC asks for governments to periodically communicate information related to the implementation of the convention and other national actions to the group of countries that are part of the convention, also known as the Conference of the Parties (COP).⁴ This established a transparency system where non-annex 1 countries are to submit national communications (NCs) every four years, and biennial update reports (BURs) every two years. The decision allowed for flexibility, however, in the light of countries' capacities and level of support.

In 2015, countries convened in Paris at COP21 to adopt an international climate agreement. At this conference the Paris Agreement was adopted by the COP.

The Paris Agreement introduces the Enhanced Transparency Framework (ETF), which increases the reporting requirement for all non-annex 1 countries. While the Paris Agreement set the frames of the ETF, it was first in COP24 in Katowice that the rulebook for the framework was substantiated and decided upon^[5]. The rulebook incorporates new reporting requirements for all countries, which implies the need to increase capacity at the national and sub-national levels, as well as strengthening of institutional arrangements that allow the country to establish official and permanent mechanisms to manage information on climate change and to generate the reports and communications needed under the United Nations Framework Convention on Climate Change (UNFCCC). The Paris Agreement poses an additional challenge for developing countries, as it requires that they integrate long-term development planning and sustainability in the design and implementation of their MRV and M&E systems.

As a consequence of the COP24 decisions, many developing countries are facing challenges regarding the preparation of the biennial transparency reports (BTR), which will replace the BURs and include information to track progress on the NDC. In addition, a National Inventory Report should also be submitted, either as standalone report or part of the BTR. The BTR should include information related to climate change impacts and adaptation, and information on support needed and received; and the requirement to report through National Communications remains. Countries need to submit the first BTR by 2024. The period up to 2024 can thus be seen as a preparatory phase, where it is important for developing countries to improve and institutionalise the necessary transparency systems to feed into the BTRs. This includes the ones for GHG inventories, the Monitoring, Reporting and Verification (MRV) for mitigation actions, support needed and received, and Monitoring and Evaluation (M&E) systems for adaptation actions.

Thus, the transparency requirements under the Paris Agreement bring three main challenges for Paraguay. The first one refers to the need for an integrated holistic system that incorporates all aspects needed to comply with the ETF; second, the integration of these systems with other global initiatives such as the Sustainable Development Goals (SDGs) and other international agreements; and third, the use of the data provided by these systems to design public policies based on evidence.

The following root causes and barriers present a significant challenge that stands against the compliance with the requirements of the ETF:

Root causes

Lack of technical personnel employed to manage challenges arising from climate change. Paraguay, like many developing countries, faces numerous competing urgent demands for resources and attention from the government. This results in strained budgets for technical personal to manage these technical issues, and situations where the national climate change office is significantly understaffed compared to the need. This barrier is compounded by the fact that there are few qualified personal available in the country to fill the positions available.

Dependency on international support for both technical assistance and financing of the transparency related work. Highly related to the root cause above is the dependency on international support for transparency work. This manifests itself in various ways. First, many of the technical personal which are hired in Paraguay are on project specific contracts, with their financing tied to project budgets and timelines. Second, the work which is carried out, be it by the technical personal or consultants, is not financed by domestic but international funds. This results in a lack of ownership and direction of funds to where the international community defines the need, and not domestically.

Main barriers

The main barriers for strengthening Paraguay's transparency framework to meet the demands of the Enhanced Transparency Framework under the Paris Agreement are identified in Paraguay's second BUR[6]⁶:

Lacking of institutional framework and arrangements for reporting at the UNFCCC (NC, BURs, and ETF): Paraguay, as many developing countries, has basic institutional arrangements for the preparation of the GHG inventories that contribute to reporting; however these inventories need to be effectively framed within an information system in order to migrate towards the presentation of complete, comparable and verifiable reports. The county does not have a roadmap to establish the institutional arrangements needed to monitor the progress of the NDCs and the subsystems: MRV of mitigation, M&E of adaptation; and MRV of the financial support received and needed. Significant progress has been made in establishing a MRV system for REDD+ and there are plans to develop some elements of M&E of adaptation. However, there is no mechanism that integrates the implementation of the MRV of the financial support received and needed, the MRV of mitigation, and M&E of adaptation.

Regarding the MRV of the financial support received there is no common database; furthermore, agreements are needed to integrate the records of the support received by the public sector with those received by the civil society and other sectors.

Lacking of key information to improve the GHG inventories: Although in recent years improvements have been made in data collection and information gaps have been reduced for some sectors, the lack of complete data continues to be an important barrier to ensure that reports (NC and BURs) are comparable and verifiable. In this sense, as part of the preparation, presentation and review of the BUR and the NC, it has been possible to identify needs and opportunities to improve the levels of accuracy (tiers) of the activity data and emission factors of several subsectors of GHG inventory.

Increasing the accuracy of activity data and emission factors needs to be followed by the design of guidelines and protocols to ensure information quality and reduce uncertainty throughout the process. This barrier is closely related to the lack of inter-institutional coordination and the absent of an integrated system that could provide access to data to those responsible of preparing the reports.

Lack of indicators, baseline, guides, protocols and standardized tools to track the NDCs, and lack of staff trained to prepare high quality reports: Although Paraguay has proposed the idea of a system to monitor the progress of NDCs comprised of several sub-systems, this idea and the tools for each of these sub-systems need further development. Moreover, the institutions responsible for preparing the reports lack the adequate number of personnel to carry out the tasks, and the high turnover of personnel in key areas makes it difficult to maintain and strengthen teams. It is necessary to increase training and to develop information sharing tools that would help to build technical capacity in the different institutions that provide information to prepare the reports.

Lack of mechanisms and awareness to integrate climate data and projections into national planning processes. Paraguay is making strides towards mainstreaming climate change into its planning processes, but this is slowed by lacking awareness and capacity of the technical staff in the different actors involved in the planning decisions. In addition, it is not clear when climate considerations should be integrated into the decision material and processes.

b. Baseline scenario and any associated baseline projects

The barriers presented above present a challenge to Paraguay's abilities to report to the UNFCCC, in particular when the new requirements of the BTRs demand more elaborated and more frequent reports. However, despite this, Paraguay has started establishing an inventory system and made important progress in other areas.

Institutional framework

A proposal of a National Policy on Climate Change was issued in 2011, leading to the National Climate Change Law, Law 5875 of 2017^[7], which establishes the general framework and guidelines to plan and act on an urgent, adequate, coordinated and sustained manner to the effects of climate change in Paraguay. It created the National Directorate of Climate Change (DNCC by its Spanish acronym) - under the Ministry of Environment and Sustainable Development (MADES)- as the executive instance for national policies on Climate Change; and the National Commission on Climate Change (CNCC), as a collegiate, inter-institutional and consultative body for national policies on the matter.

Transparency reporting

Paraguay signed the Paris Agreement on April 22nd, 2016 and completed the ratification process on October 14th the same year. The country submitted its Third National Communication on September 15th, 2017 and its Second Biennial Updated Report (BUR2) on December 27th, 2018. The first National Determined Contributions was submitted on October 16th 2016. Currently, Paraguay is in the process of updating its NDC, which is led by MADES and will be validated by the National Commission on Climate Change.

According to the analysis of Paraguay's BUR2 conducted by a team of technical experts in accordance with the modalities and procedures contained in the annex to decision 20/CP.19^[8], the following needs were identified to facilitate the preparation of subsequent BURs:

- Improving the institutional arrangements for preparing NCs and BURs on a continuous basis.
 - Strengthening institutional capacity regarding MRV system implementation.
 - Designing and implementing an MRV system for mitigation actions that includes data collection, processing and analysis, including private projects, and a climate finance tracking system to facilitate the monitoring and reporting of information on financial resources received.
 - Developing and using higher-tier methodologies for the GHG inventory.
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- Developing the capacity of the inventory team and the institutions in charge of generating and providing data to carry out uncertainty analyses.
- Enhancing the national capacity to report mitigation actions.
- Identifying and formulating baselines, scenarios, methodologies and assumptions for estimating the effects of mitigation actions and monitoring its progress.
- Identifying gaps and constraints in the transparency system.
- Reporting the information generated by the working group on climate finance in the BUR.
- Assessing technology needs in a nationally determined manner.

Paraguay's Environmental Information System (?SIAM?)

Paraguay's Environmental Information System was initially implemented by MADES through Resolution 210, 2018. On August 30th 2019, a presidential decree (2.436/2019) officially created the Environmental Information System (SIAM by its Spanish acronyms) which is described as an integrated set of processes and technologies to collect, analyse, and manage environmental information aimed to generate knowledge, social participation, decision-making, and environmental management to achieve sustainable development. SIAM is operated by MADES and comprised of subsystems, also called modules, that bring together information related to MADES' competences. These modules are:

- *Biodiversity*: brings together functionalities related to protected areas, wildlife and fisheries.
- *Water*: it comprises functionalities related to water resources and their use by development projects, it helps to generate statistics about water use.
- *Development projects or permits and licensing*: comprise all the information and processes related to public or private projects and their environmental impact assessment.
- *Climate change*. To be developed by this project. Certain sub-systems exist, but are not yet integrated into a functioning module.

Thus, Paraguay contemplates the conceptual design and subsequent development of the Climate Change Module as part of its Environmental Information System. This module is currently in an initial phase; it is proposed that the CBIT project will contribute towards its development. This is further described in the alternative scenario section.

SIAM's Climate Change Module

Paraguay has an MRV 2020-2030 roadmap, developed by the Ministry of Environment and Sustainable Development, where one of the main goals is the creation of an MRV national plan. The establishment of an information management system to ensure tracking of progress of mitigation actions is one of the MRV priorities of Paraguay, as laid out in the roadmap. However, as will be discussed in the coming sub-sections, the development of the MRV system is only at an early stage. The government has identified that MRV instruments can inform national decision-making processes and the accomplishment of the article 13 mandate is one of the MRV development drivers in Paraguay. The MPGs of the ETF set the course for the MRV system.

Paraguay's MRV approach is holistic. The Third National Communication (TNC) noted that emissions, emission reductions, adaptation actions, climate finance, and REDD+ information are part of a systemic approach, encompassing the different aspects related to climate change action^[9]. While not yet developed, Paraguay has the vision that this integral MRV system will be **SIAM's Climate Change Module**.

As a system, the Climate Change Module is not yet past the vision state, with the majority of its components at an inception stage. The concept of the system is presented in the 2020 ? 2030 roadmap included in the second biennial update report (BUR2)^[10]. The figure below demonstrates how the different sub-systems currently exist to different degrees (the darker the shade of blue, the more complete they are). The last sub-system, MRV system for REDD+, is not part of the scope of this CBIT project, as the latter is addressed by other initiatives (see below under ?Other systems and initiatives of relevance?).

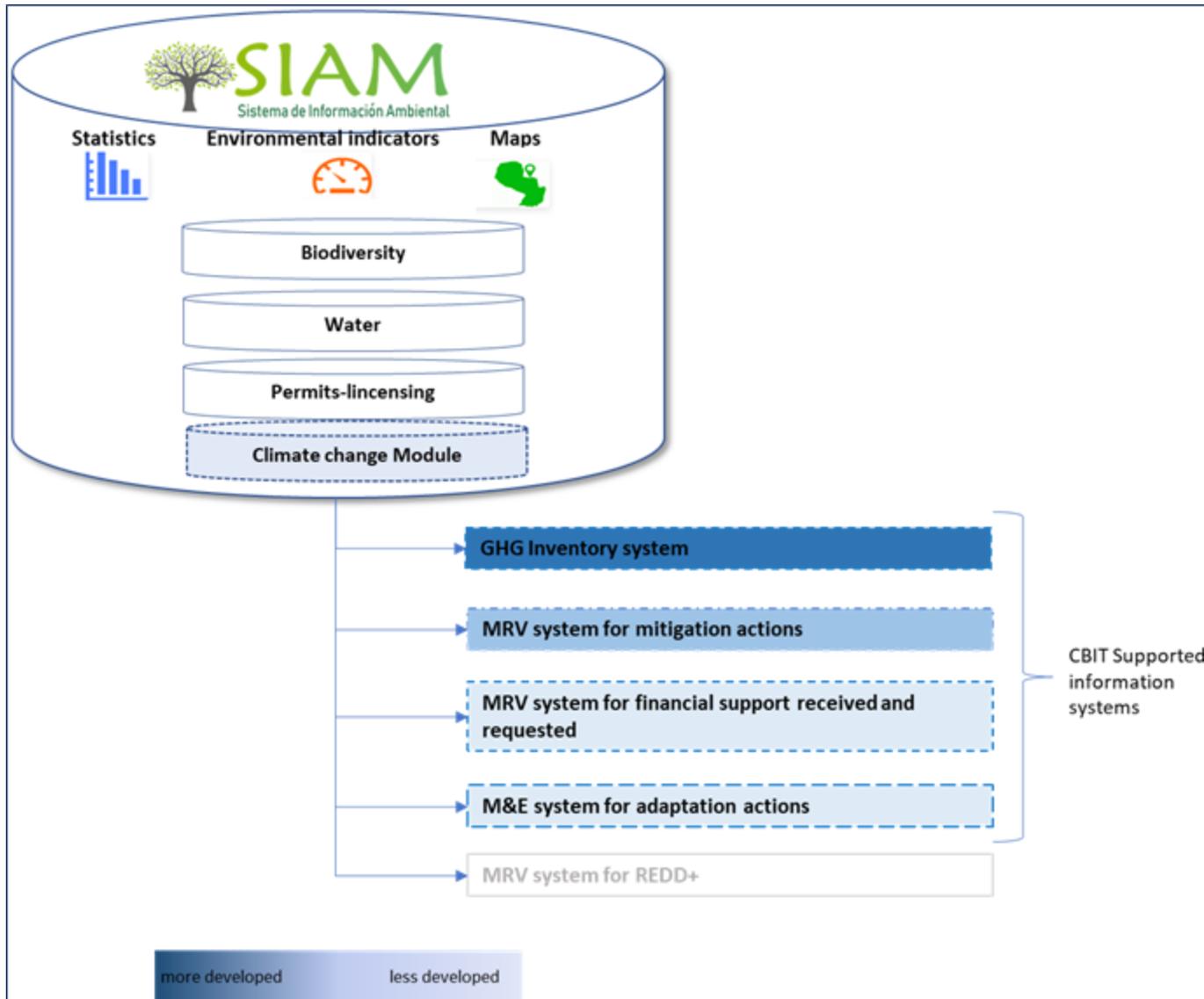


Figure 1. The status of the different sub-systems of the Climate Change Module of the SIAM

Paraguay's Current Arrangement for the GHG Inventory

In its fourth article, the National Climate Change Law establishes as guiding principles those of the Rio Declaration on Environment and Development, the UNFCCC, and the National Climate Change Policy. The National Climate Change Policy from 2011^[11] is based on the following principles i) sustainability, ii) precaution, iii) integrality, iv) subsidiarity v) transparency, vi) solidarity, vii) equity, and viii) responsibility.

Those principles are the basis for the institutional arrangements to manage climate change in Paraguay. One of the more important documents regarding the structure of the institutional arrangements is Resolution 275 of 2018 of the Ministry of Environment. This Resolution approved the National Mitigation Plan, the National Adaptation Strategy and the National Plan for Adaptation to Climate Change. This document includes guidelines, roles, and responsibilities of actors involved in the implementation of these strategies, plans, and policies.

Paraguay has made progress in the institutional arrangements required to consolidate its national GHG inventory as a first step towards a national information system for the management of climate change. The existing institutional framework consists of sectorial round tables where the relevant actors are present to collect the necessary data for the inventory. However, this is yet not a formal part of the SIAM, but operates as an individual system for the GHG Inventory.

These sectorial round tables were established by Resolution N° 04/2018^[12], which lists the specific institutions that are to participate in each table under the coordination of the DNCC. Following the structure of the 2006 IPCC Guidelines for National GHG Inventories, the resolution sets a total of four groups, namely, the ones used 1) for the energy sector, 2) industrial process and product use (IPPU), 3) waste and 4) agriculture, forestry, and other land uses (AFOLU). It also sets the general role of the roundtables, which is: i) to provide information and activity data, ii) to promote and adopt mechanisms for the systematization and collection of data, and iii) to coordinate with the institutions and organizations in each sector of any agreements, recommendations and results coming from the plenary of roundtables. However, this resolution is not operationalized, as it does not set the provisions of, *inter alia*, exactly which data, with which frequency, or within which format the data should be reported. Thus, inter-institutional cooperation agreements are needed to facilitate the exchange of information, data analysis, evaluation of mitigation measures and other actions that contribute to the development of GHG inventories and facilitate the preparation of national communications, biennial update reports, and tracking progress of NDCs as part of the implementation of the National Climate Change Policy. There is, however, no concrete plan for how these inter-institutional cooperation agreements will be implemented, or according to which timeline.

Among the institutions that provide data for GHG inventories are public and private institutions. The work is currently organized by sector (or sectoral round tables). The following table shows the institutions that integrate the sectoral round tables and serve as data providers for GHG inventories in Paraguay.

Sector	Name of the Institution	Sector	Name of the Institution.
Energy	Vice Ministry of Mines and Energy (VMME)	Waste	Environmental Quality Control Directorate (MADES)

	Paraguayan Petroleum (PETROPAR)		Ministry of Public Health and Social Welfare (MSPBS)
	ITAIP? Binacional		Tayi Ambiental*
	Vice Ministry of Transport		General Directorate of Statistics, Survey and Census. (DGEEC)
	Ministry of Industry and commerce (MIC)		Health Services Company (ESSAP)
	Yacyreta Binational Entity		Asuncion Municipality
	National Directorate of Civil Aeronautics (DINAC)		Mariano Roque Alonso Municipality
	National Electricity Administration (ANDE)		Luque Municipality
Industry	National Customs Directorate	AFOLU	Geomatics Direction (MADES)
	National Cement Industry (INC)		National Forest Institute (INFONA)
	General Directorate of Air. Ozone unit (MADES)		General Directorate for the Protection and Conservation of Biodiversity.
	Paraguayan Glass Factory *		Faculty of Veterinary Sciences
	Yguaz? Cementos*		National Service of Plant Quality and Health (SENAVE)
	Ministry of Industry and Commerce. Environmental Technical Department		Ministry of Agriculture and Livestock (MAG)
			National Service of Animal Quality and Health (SENACSA)
			Rural Association of Paraguay (ARP)*
			Vice Ministry of Livestock (MAG-VMG)
			Paraguayan Institute of Agrarian Technology (IPTA)

Table 1. Institutions that are data providers for the GHG inventories. (Source: MADES Resolution 04/2018)

An internal improvement proposal was developed under the project developing the third National Communication, published in 2017, for several sectors of the inventory including the energy, IPPU and waste sectors. It calls for further studies useful for generating activity data, along with re-evaluating the uncertainty ranges using national data, and improvement in coordination among institutions.

Since 2017, Paraguay has made effort to strengthen the capacities of its national technicians in the use of 2006 Guidelines of the Intergovernmental Panel on Climate Change (IPCC). The country has carried out several activities between 2015 and 2018, including: participation in the 'RedINGEI', the Latin American network for National GHG Inventories (Red Latinoamericana de Inventarios Nacionales de Gases de Efecto Invernadero), a south-south cooperation lead by Chile, funded by the Global Support Programme and jointly implemented by United Nations Environmental Programme (UNEP) and United Nations Development Programme (UNDP). The RedINGEI has helped Paraguay to improve technical capacity which made possible to perform and report the calculations of the GHG Inventory time series from 1990 until 2015, using IPCC's 2006 Guidelines for the first time. The network aims also to help member countries to standardize the GHG reports improving information sharing and capacity building among member.

In addition, for the Energy, IPPU and Waste sectors, IPCC software version 2.54 has been used. At the same time, the National Directorate of Climate Change established a file manual in order to store all the documentation used and the results obtained in the elaboration process of the GHG Inventory. This archiving system allows that the process is documented in a transparent manner. This facilitates its replicability for the development of future inventories.

MRV system for mitigation actions

The MRV 2020-2030 roadmap includes the conceptualisation of an MRV system for mitigation actions. The aim is to develop a system which monitors the progress of mitigation projects, actions, and policies, allowing the tracking of the NDC. The BUR2 elaborates a proposal for the AFOLU sector, but this is the furthest that Paraguay has come in terms of the conceptualisation of how the system is to operate. Thus, this sub-system is not fully operational in any of the sectors.

Paraguay's advances with an M&E Framework for Adaptation

In 2016 Paraguay developed a National Plan for Adaptation to Climate Change and a National Adaptation Strategy. The national plan prioritizes five sectors and two areas which transcend the others. These are:

1. Agriculture production and food security.

2. Hydrological resources - management, and risk reduction.
3. Health and epidemiology.
4. Infrastructure, transport and energy.
5. Environment, forests and vulnerable ecosystems.

Cross-cutting areas:

- Education and dissemination.
- Normative and legal aspects.

However, there are no indicators defined to monitor neither the state nor the progress in these sectors. In line with the National Adaptation Plan, four local plans and one sectorial plan were developed to be implemented. Paraguay is currently developing a proposal for the Green Climate Fund (GCF) Readiness funding to develop adaptation plans for the sectors identified in the National Adaptation Plan.

National Development Planning

Paraguay's national development planning process is guided by the National Development Plan 2030 (PND 2030). This multi-year, multidimensional strategic plan, formulated in 2014 and reviewed in 2019, aims to address the country's key challenges and articulates the government's strategic long-term development vision. The PND 2030 frames the engagement of the executive branch with other levels of government, civil society, the private sector and the legislative and judicial branches. Its implementation is led by the Technical Secretariat for Economic and Social Development Planning.

Although climate change is mentioned in the PND 2030, it is done in the context of general environmental goals, without any specific linkage to the process of setting and tracking nationally determined contributions.

Other systems and initiatives of relevance

Among other systems potentially relevant to this project, the following can be highlighted:

? The National Early Warning System (SAT), which is been develop by the National Emergency Secretariat (SEN) and the Directorate of Meteorology and Hydrology (DMH). The system includes a group of processes and tools through which a threat (natural or human caused) is monitored;

? The National Public Investment System (SNIP), which the government uses to plan, formulate, assesses and prioritize public investment projects totally or partially funded by the national budget,

? Recommendations Monitoring System (SIMORE plus), which the government uses to monitor progress towards the implementation of international human rights recommendations and the SDG targets.

Each of these systems manages information that could be relevant to SIAM and its climate change module. An early warning system is in itself considered an adaptive measure, its relevance to SIAM will depend on the indicators chosen to report adaptation. The information managed by SNIP is already, in some extent, linked to SIAM's permits-licensing module. Likewise, information about financing that is managed by SNIP could be useful to the climate change module.

In addition to these systems, the list below includes projects which have an MRV component which are relevant to the CBIT project:

Donors	Project Name (Time span)	Description	Implementing agency
Global Environmental Facility (GEF)	Framework Program for the Sustainable Management of Water Resources of the River Plate Basin, in relation to the effects of variability and Climate Change - CIC ? Plata (2010-2015)	The objective of the project is to strengthen cross-border cooperation among governments to guarantee the management of the shared water resources of the basin in an integrated and sustainable manner, in the context of climate variability and change, capitalizing on opportunities for development.	UNDP
	Second Biennial Update Report of Paraguay. (2017-2019)	The objective of this project is to assist Paraguay in the process of preparation and submission of its Second Biennial Update Report to the UNFCCC.	UNDP
	Generating responsible demand for reduced deforestation commodities. (2017-2021)	The main objective of the project is to increase demand for Sustainable Meat Production.	UNDP

	<p>Asuncion Green City of the Americas.</p> <p>(2017-2022)</p>	<p>The objective of the project is to improve the quality of life in the Asuncion Metropolitan Area (AMA) and deliver multiple benefits through the integration of transport and solid waste management and green infrastructure into a framework for a sustainable and resilient city. It has been organized into five outcomes: 1) Enabling framework for a green sustainable city enhances integrated urban planning of the AMA; 2) Sustainable mobility and transport in the AMA for reducing GHG emissions from urban transport; 3) Improved chemicals and waste management system for reducing emissions of UPOPs, GHGs and toxic chemicals; 4) Emplacing and improving Protected Area management; 5) Dissemination of Lessons-learned, monitoring & evaluation.</p>	<p>UNDP</p>
	<p>Support to the reduction of GHG in the production of commodities.</p> <p>(2017-2022)</p>	<p>The main objective of the project is to support sustainable meat production, while conserving forests and safeguarding the rights of communities that depend on forests, with emphasis on the Chaco region.</p> <p>-</p>	<p>UNDP</p>
	<p>Fourth National Communication (FNC) and Third Biennial Update Report.</p> <p>(2019-2022)</p>	<p>The objective of this project is to assist Paraguay in the process of preparation and submission of its Fourth National Communication and Third Biennial Update Report to the UNFCCC.</p>	<p>UNDP</p>
<p>Green Climate Fund (GCF)</p>	<p>Poverty, Reforestation, Energy and Climate Change (PROEZA).</p> <p>(2017-2023)</p>	<p>Reducing the adverse effects of climate change in the country, while reducing rural poverty, fighting deforestation and mitigate greenhouse gas emissions. It will also support the transition to sustainable forest management to reduce the loss of the country's forest cover and improve the quality of life of some 17,000 vulnerable families in 64 municipal districts located in eight departments in eastern Paraguay.</p>	<p>Food and Agriculture Organization of the United Nations (FAO)</p>

	<p>Promoting private sector investments in energy efficiency in the industrial sector in Paraguay.</p> <p>(2019-2024)</p>	<p>Paraguay has a high hydropower capacity, yet industry is largely powered by traditionally inexpensive fuelwood (constituting 83 percent of industrial energy use), causing large amount of emissions from wood burning and associated deforestation. Hydropower is being increased as part of the country's long-term renewable energy goal. At the same time, zero deforestation laws in several regions have increased the price of fuelwood, a trend that is likely to continue. Despite these developments, Small and Medium Enterprises (SMEs) are still largely using biomass, and opportunities exist to shift their energy use to renewable sources in order to reduce emissions.</p> <p>Tools will be developed to generate an enabling environment for energy efficiency investments by SMEs, including standardized performance contracts, insurance contracts, and monitoring and verification systems. Concessional credit lines will be provided to local financial institutions and SMEs, whilst support will facilitate positive institutional, policy and regulatory environments for energy efficiency investments.</p>	<p>Inter-American Development Bank</p> <p>(IDB)</p>
	<p>REDD+ Results-based payments in Paraguay</p> <p>(2020-2025)</p>	<p>The project aims to implement the Forest Strategy for Sustainable Growth (EBCS). It is expected with the same: create capacities to develop the monitoring system for the implementation of the EBCS; and establish the governance and operating procedures of the Climate Change Fund to finance EBCS low-carbon plans.</p>	<p>UNEP</p>
<p>GCF</p> <p>(Readiness)</p>	<p>Strengthen mechanisms for access and financing of projects to address the challenges of climate change.</p> <p>(2017- 2020)</p>	<p>The objective of the project is to establish a framework for the National Designated Authority (NDA) and strengthen its coordinating role and support in the development and monitoring of proposals to be presented to GCF.</p>	<p>Development Bank of Latin America (CAF)</p>

	<p>Enhancing the role of Local Development Councils to contribute to the country's NDC implementation and access to climate finance.</p> <p>(2018- September 2020)</p>	<p>The project has four specific objectives; 1) prioritize emerging municipalities with the potential to contribute to the enhancement of the implementation of the NDCs. 2. Strengthen capacities of LDC in the twelve selected municipalities to mainstream climate change in their local development agenda and enhance stakeholder engagement. 3. Develop Climate Change Action Strategies and subsequent concept notes to access climate finance from the GCF. 4. Share best practices and lessons learned amongst local governments to serve as basis for the strengthening of regional and national climate change, gender and territorial strategies.</p>	<p>Avina Foundation</p>
<p>Adaptation Fund</p>	<p>Ecosystem-based approaches to reduce the vulnerability of food security to the effects of climate change in the Chaco region of Paraguay.</p> <p>(2019-2023)</p>	<p>Reduce the vulnerability of the population (agricultural producers, selected families, and indigenous communities) of the Chaco of Paraguay to the impacts of climate change on food security.</p> <p>The project is organized in three components: i) Knowledge management on vulnerability and climate change resiliency improved; ii) adaptive capacity in rural areas of greatest vulnerability strengthened through concrete agro-ecosystem based adaptation measures; and iii) capacity development and awareness to upscale effective implementation of adaptation measures at the national and local levels</p>	<p>UNEP</p>
<p>Forest Carbon Partnership Facility (FCPF)</p>	<p>Forests for Sustainable Growth.</p> <p>(2017-2020)</p>	<p>Support the Republic of Paraguay in the culmination of the preparation phase for REDD + based on the results of the UN-REDD + National Program.</p>	<p>UNDP</p>

European Union (EU)	Strengthening of Climate Action in Paraguay ^[13] ¹³ . (FAC PY) October (2019-2022)	The project seeks to transform the NDCs into tangible long-term actions, zero carbon development and resilient climate. It will work within the framework of three results: 1) Strengthened leadership and an ambitious vision of climate change promoted; 2) Design and planning of evidence-based mitigation actions; 3) Improvement of an environment suitable for alliances with the private sector.	UNDP
Spanish Agency for International Development Cooperation (AECID)	Incidence of climate change in energy planning: Screening for global assessment of the vulnerability and climatic risks of the energy system of Latin America and the Caribbean (Screen-LAC) (2019-2021)	This project aims to increase the resilience to climate change of the energy sector through a risk and vulnerability analysis of the infrastructure, and the determination of the changes that must be implemented in the planning and operation systems.	AECID
EUROCLIMA	Preparation of the Energy Balance in terms of Useful Energy (BNEU) (2019 ? 2021)	The project seeks to strengthen the technical capacity of the institutions in charge of energy planning in information management regarding the efficient use of energy, for the preparation and monitoring of energy efficiency policies and plans.	IDB
National Council for Science and Technology CONACYT	PINV18-1151. Emission factors of methane (CH ₄) and nitrous oxide (N ₂ O) from the management of manure and urine of bovines supplemented in extensive breeding. (2020-2022)	The project aims to estimate the emission factors of methane (CH ₄) and nitrous oxide (N ₂ O) from the manure and urine management of cattle supplemented in extensive breeding.	Faculty of Chemistry Sciences (FCQ/UNA)

Table 2. Projects with an MRV component relevant to CBIT

As described above, Paraguay is addressing climate change through various efforts - many of which will establish various elements of MRV / M&E. However, a coordinated and systemic approach is lacking to ensure that Paraguay meets the requirements of the ETF. This project presents an alternative scenario under which Paraguay can build upon existing efforts to establish a comprehensive MRV system.

c. Proposed alternative scenario with a description of project components, outcomes, outputs and activity/deliverables

Overview

This CBIT project aims to strengthen the transparency systems of Paraguayan institutions to meet the requirements of the transparency framework under the Paris Agreement on Climate Change. The project is organized into a single component, with M&E and PMC lines presented separately.

Output 1 will establish the institutional framework needed for data collection, management and reporting to ensure that the systems to enhance climate transparency in the country are efficient, functional and coordinated. **Output 2** will improve the quality and reliability of GHG inventories, particularly on activity data and emission factors of key subsectors, i.e. AFOLU, energy, IPPU and waste. **Output 3** will provide tools and guidelines needed in the remaining sub-systems of the transparency framework, i.e. (1) the MRV system for mitigation actions, (2) the MRV system for the financial support received, (3) the M&E system for adaptation actions^[14]¹⁴. With these sub-systems, the ministry's climate change module will be central to the management of information required by the country to prepare national GHG inventories, generate reports on climate change, and track and update its NDC. This output will also provide capacity building, training and a communication campaign to get the system going and ensure its adoption by all relevant stakeholders. **Output 4** will create a mechanism to link the information gathered through the systems established in this project with national planning processes, as well as the NDC updating process, and the formulation of the long-term low GHG emission development strategy (?Long-Term Strategy?, or LTS).

The CBIT project will develop tools and capacity to support institutions and build their capacity to deliver on the requirements of the ETF. These tools will serve to continuously train personnel, and by

strengthening South-South collaboration, will also allow Paraguay to incorporate lessons learned by other countries in the construction of their MRV systems. The entire process will be accompanied by the development of communication tools that help the government inform and connect with key stakeholders to communicate the different processes developed in the country to implement the ETF.

The CBIT project has been designed to achieve expected benefits based on at least two of the appropriate influence models referred to in the GEF Strategy 2020: (i) strengthening of institutional capacity and decision-making processes; (ii) establish multi-stakeholder partnerships.^[15]¹⁵

Component 1: Strengthening Paraguay's Transparency Monitoring System

Current Situation	Expected Change
Output 1	

There is a conceptual idea of the transparency system which, according to the Third National Communication, would include five subsystems: GHG inventories, MRV of mitigation, M&E of adaptation, MRV of received and necessary support, and MRV for REDD +. However, this has not yet been made effective, and there is no design that describes the NDCs' monitoring system or how it will be interconnected or what institutional arrangements will be necessary to carry out this monitoring.

There are lacking institutional frameworks and arrangements for reporting to the UNFCCC for the GHG inventories and reports included in the BTRs. Thus, for the preparation of GHG inventories that must be strengthened through general regulations (laws, decrees) or specific regulations (resolutions, agreements) between the data supplying institutions and those that are in charge of preparing the inventories.

There is no general overview of the different public information systems (SNIP, SIMORE plus, Early Warning System) that could assist the tracking of the NDCs or how they could connect with each other, as well as the institutional arrangements necessary to achieve this.

The transparency system has been implemented and is operational, including all five of its components[16]¹⁶. Furthermore, funding options have been assessed and implemented to ensure its sustainability.

Institutional arrangements are operational for the different sectorial round tables of the sectors included in the inventories, which allow completing GHG inventories on time for the fulfillment of the commitments assumed by the country under the UNFCCC.

National information systems (SNIP, SIMORE plus, early warning systems and risk management) that could be linked to the NDC tracking system have been analyzed and based on this analysis institutional arrangements have been established, increasing the connection among the different national planning processes.

Output 2

Key information missing to improve GHG inventories: In Paraguay, GHG inventories are prepared from basic data and with the exception of those provided by the national forest inventory, the information reported in BURs corresponds to the lowest degree of accuracy (tier 1). There is an identified need to improve activity data and increase accuracy of emission factors, at least to tier 2 for some key subsectors, as there is lacking information to improve this currently.	The country increases the accuracy of its GHG inventories through the use of improved activity data and emission factors developed for the country.
Output 3	
Lack of indicators, baselines, guides, protocols and tools to track the NDC. In the TNC, the idea of the structure of the NDCs monitoring system and its four subsystems has been introduced, but these need tools and guidelines to become operational. To reach this level of detail, the country needs to build technical capacities and strengthen its information systems.	The country has an effective transparency system, with indicators, procedures and trained technical personnel. SIAM's Climate Change Module and its connectivity with other systems that help to monitor NDCs have been evaluated and alternatives are available to ensure system sustainability.
Output 4	
There is no comprehensive vision of the different tools to be developed for monitoring NDCs and their connection to national planning processes.	There is a comprehensive vision of the NDC monitoring system and the connection mechanisms between this system and national planning are ensured.

Table 3. Current situation and expected change.

The following figure summarizes the functioning of the Climate Change Module within the SIAM once it is fully operational, as envisioned in the roadmap 2020 ? 2030 presented in the BUR2. This will be used as a base to schematize the work that is to be undertaken by the CBIT project in each of the sub-systems within the Climate Change Module.

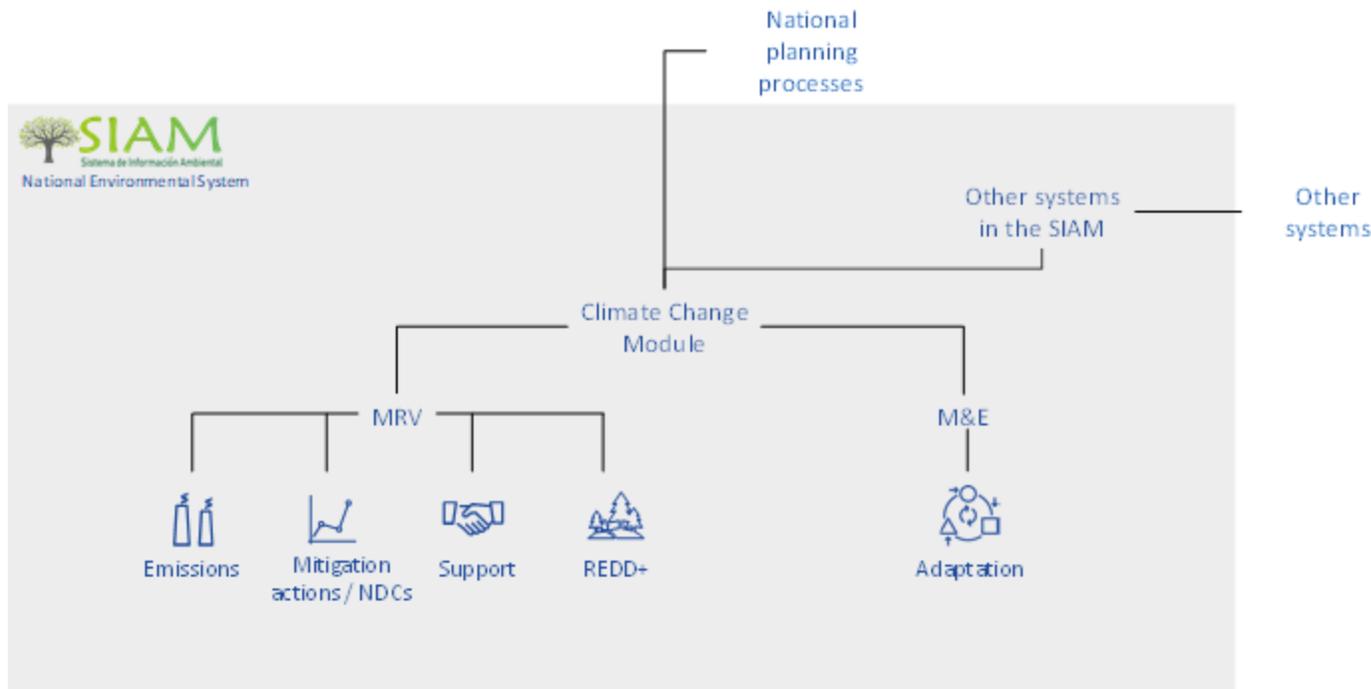


Figure 2. Schematic overview of the systems and sub-systems the project will improve and establish.

Outcome: MADES is able to trace Paraguay's climate change activities and provide high quality climate reports aligned with the Enhanced Transparency Framework under the Paris Agreement

Paraguay's CBIT project will, as described above, improve existing systems, and establish a number of sub-systems which together will enable Paraguay to monitor the implementation of its NDC on both the adaptation and mitigation side, as well as improve its GHG inventory, and track the financial support received. This will be achieved through four outputs which improve/establish the necessary institutional arrangements for the different systems; improve the GHG inventory; establish the systems necessary for NDC tracking.

Below is the list of outputs that are included within this outcome, together with corresponding activities.

Output 1: Strengthened institutional arrangements to manage transparency activities through the SIAM's Climate Change Module are adopted by MADES

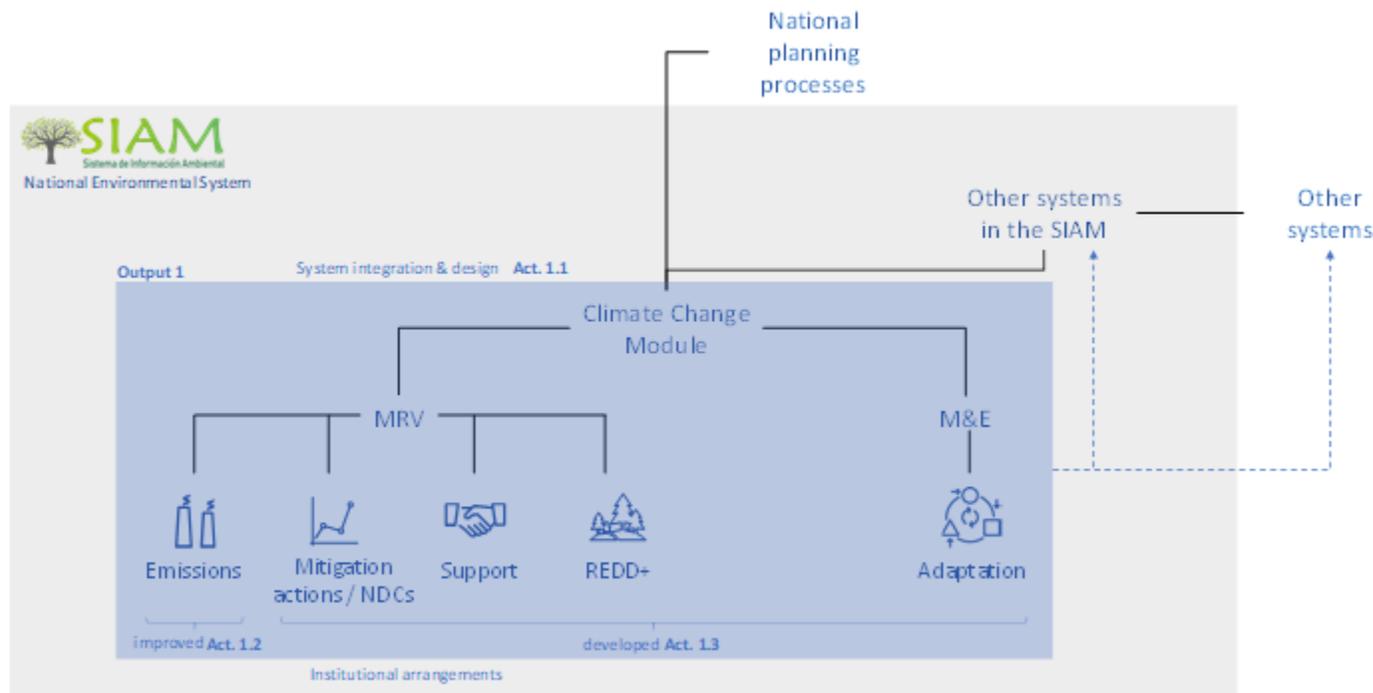


Figure 3. Schematic overview of the focus area for Output 1.

Output 1 provides detail design and implements the Climate Change Module that currently only existed as a concept. It focuses on the institutional arrangements required to collect, manage, and report the data, thus setting the ground for the remaining outputs. This includes the arrangements between the Ministry of Environment and Sustainable Development (focal point for the reporting to UNFCCC) and the line ministries who are responsible for supplying the necessary data. It also includes the institutional arrangements between the line ministries and their necessary data suppliers. This activity will take into account the design elements, legal agreements, regulation and other official guidance on data management produced by the National Government.

This output is realised through three activities which establish the institutional arrangements for the Climate Change module of the SIAM. The first activity focuses on the design elements of the system, integrating existing sub-systems into a cohesive transparency system. The second activity focuses on the GHG Inventory, which counts with institutional arrangements that need to be operationalized. For the different remaining elements of the Climate Change module, i.e. NDC tracking, support needed / received, REDD+ and adaptation, the roles and responsibilities and establishment of information

channels need to be designed and implemented. Institutional arrangements for the collection, management and reporting of data required for this purpose are presented further under activity 1.3 below.

The activities and deliverables of Output 1 will be undertaken primarily by the project's base team (chief technical advisor, and mitigation and adaptation specialists) as well as by a planning specialist. In addition, the first activity will have a consultancy supporting its development.

Activity 1.1. Detail design, pilot and advance in the implementation and connectivity between the Climate Change Module and other national information systems.

The CBIT project will support the conceptualization, design and piloting of the Climate Change Module, as part of the Environmental Information System (SIAM) as a necessary tool to track progress and update the NDC and other climate actions. This activity tackles the design elements of the system as a whole, i.e. the Climate Change Module. The concept design will consider the development of interoperability formats and procedures required between the information systems as well as the minimum functionalities required to advance in the tracking and actualization of national goals in climate change.

The results of this activity will be tested through a piloting phase considering all the design elements for at least one specific economic sector, GHG emission source or specific climate action in mitigation and/or adaptation. The piloting of the tools, methods, and data systems will demonstrate the operation of the system, allowing to reveal potential gaps that need to be filled and informing future reports such as the Fourth National Communication and the BUR3. The gaps can be in anything from the capacity of the personal, to how the data system works, or the methods used to collect certain information.

The project will seek to increase connectivity between institutions that provide data for both GHG inventories, NDC monitoring and other elements of the transparency system. It is under this activity the overall analysis is conducted, examining the linkages between the systems. In case the analysis reveals the need for institutional arrangements to be strengthened, changed or created, this is addressed under activities 1.2 and 1.3 below. Systems outside the SIAM will also be taken into account, i.e. existing systems whose connectivity or synergy with SIAM's Climate Change Module should be reviewed, such as the National Early Warning System, the National System for Public Investment (SNIP) and the Monitoring System for Recommendations Plus (SIMORE) Plus, among others.

This activity will include a conceptual and an implementing stage. The first one consists of the various inputs that will result from consultancies and that will inform the design of the Climate Change Module. These products (presented in detail below) will include an assessment of existing tools and the overall progress in the implementation of the Climate Change Module of the SIAM, as well as the functionalities required by the system and /or subsystems to meet the information and processing needs, according to the institutional capacities and sustainability requirements. The core team will review the information available in the sub-systems which are to constitute the SIAM climate change module. Moreover, their possibilities of interconnection with other information systems of key institutions will be carried out in order to identify technological tools best adapted to the each, including the need for basic equipment to ensure connectivity. Based on the existing systems and above analysis, this activity will develop the outlines of tools, methods and procedures to connect the Climate Change Module in the SIAM with other systems that help to monitor the NDC.

As explained in the baseline section, a gross conceptualization of the Climate Change Module is already available, so the project will be in charge of providing detail design and operationalization. At least two alternatives (platforms, applications, or others) will be proposed to interconnect or share institutional data in a harmonious way. The evaluation will include technical, operational, financial and sustainability aspects to select the alternative to be finally used. Likewise, the need to purchase computer equipment (hardware) that may be essential for the connection of the systems will be evaluated. To carry out this evaluation, the project will promote coordination among the IT Department of MADES and the other institutions involved such as the Ministry of Agriculture and Livestock, the Directorate of Meteorology and Hydrology, Ministry of Finance, the Ministry of Foreign Affairs, and the National Emergency Secretariat. In addition to this, a test phase will be implemented by measuring some of the indicators validated in Activity 3.1. After the implementation of this pilot test, an evaluation and adjustment of the chosen system will take place. Lastly, a specific deliverable has been set to identify means to finance the modules' operational costs beyond the duration of the CBIT project.

The second stage will consist of the implementation of the selected alternative and its adoption by relevant authorities in the MADES, which is the deliverable foreseen for this activity. ?Adoption? is to be captured by a resolution, decree or law that sets clear mandates to each of the sub-systems for the provision of reports that are compliant with chapters II (emissions / inventories sub-system), III (mitigation / NDC tracking sub-system), IV (adaptation sub-system), and VI (support needed & received) of the Katowice MPGs.

The following deliverable will result from this activity:

1.1.1 Climate Change Module of the SIAM adopted by MADES, as reflected in clear mandates & delegation of authority for each of the integrating sub-systems.

The deliverable will build upon the following products from specific consultancies:

1.1.1.1 Gap and needs assessment of the SIAM in regard to the Climate Change Module.

1.1.1.2 Baseline document with the diagnosis and evaluation of the systems and the possibility of connection with the SIAM climate change module.

1.1.1.3 Detailed design of the Climate Change Module and the interconnection mechanisms with other systems, with at least two alternatives (platforms, applications, or others) proposed for sharing institutional data.

1.1.1.4 Specification for necessary hard- and software.

1.1.1.5 Evaluation of the test (piloting) carried out and validated adjustment proposal.

1.1.1.6 Roadmap for the implementation of the Climate Change Module (according with the scope defined with the national government) and the supports including data bases, source codes, licenses, design documents as applicable.

1.1.1.7 Report: Means to finance the operational cost of the Climate Change Module and connected systems, including but not limited to allocation from the national budget.

Activity 1.2. Strengthen and improve the institutional arrangements for the national GHG inventory.

Through this activity, Paraguay will complete the development of institutional arrangements that are required to ensure the timely supply of the information required for the preparation of the National GHG Inventories. As described in the baseline, the outlines of the institutional arrangements already exist, and it is represented by resolution 04/2018 of the Ministry of Environment and Sustainable Development (MADES) that establishes round tables by sector. Following the structure of the 2006 IPCC Guidelines for National GHG Inventories, the resolution sets a total of four groups, namely, the ones used 1) for the energy sector, 2) industrial processes and product use (IPPU), 3) waste and 4) agriculture, forestry, and other land use (AFOLU). It also sets the general role of the roundtables, which is: i) to provide information and activity data, ii) to promote and adopt mechanisms for the systematization and collection of data, and iii) to coordinate with the institutions and organizations in each sector of any agreements, recommendations and results coming from the plenary of roundtables. However, this resolution is not operationalized, as it does not set the provisions of, *inter alia*, exactly which data, with which frequency, or within which format the data should be reported.

The government of Paraguay aims at improving the coordination among public institutions that contribute to the development of the GHG inventories. Considering this ongoing process, the CBIT project is expected to provide the necessary tools for the effective implementation of institutional arrangements.

The purpose of these arrangements is to facilitate cooperation for the development of GHG inventories to comply with the commitments established under the UNFCCC. It is also a commitment to share knowledge in the estimation of GHG emissions, emission factors, methodologies and activity data in the framework of the development of GHG inventories. This will be achieved through technical coordination meetings with the different stakeholders in each sector, as well as high-level meetings with decision-makers to ensure that the institutional agreements proposed are implemented.

With clear and strong institutional arrangements, together with the appropriate set of tools that will be developed as part of Output 2, it will be possible to obtain an adequate compilation of data in specific categories of the GHG inventory that require further disaggregation in order to meet quality and completeness criteria. A relevant example for Paraguay is the category 3A1, enteric fermentation, which is subdivided into at least 10 categories. In the same way, roles and responsibilities can be defined at the level of organizations and positions related to the generation and analysis of information.

This organization system will be continued and work arrangements within and among the round tables will be further enhanced by the project.

First, a general roadmap to develop the GHG inventories will be elaborated. Based on this roadmap the actions to establish the institutional agreements for each sector and institutions within sector will be followed. Both the technical and the decision-making levels will be part of the process.

The technical work will be coordinated through the sectoral round tables, while coordination at the decision-making level will be carried out through at least two high-level meetings with decision makers from the most relevant institutions within each sector. The first meeting will be to present the road map and the second to present the necessary agreements validated by the technical team of each of the round tables.

This activity results in the following deliverables, which will be submitted to MADES for adoption:

- 1.2.1 Report on international good practices for GHG inventories.
- 1.2.2. Roadmap for the operationalization of round tables for GHG inventories
- 1.2.3 Draft ministerial resolution operationalizing institutional arrangements for round tables for the GHG inventory process
- 1.2.4 Proposed methodologies for the preparation of GHG inventories, with implications for the institutional arrangements of the emissions sub-system of the climate change module and a roadmap for continuous improvement.
- 1.2.5 Two high-level meetings with decision makers to i) present the roadmap and ii) present the results for the operationalization of the roundtables

Activity 1.3. Develop institutional agreements for the remaining elements of the Climate Change Module of the SIAM

To date, there is no wholly conceptualized system regarding MRV of NDCs, support received and adaptation as is the case with GHG inventories, but rather, processes have been worked separately without a clear view of the system as a whole. This activity will define the data requirements, the institutions able to provide it, and the institutional arrangements needed to collect, manage and report the information required for the remaining systems of the Climate Change Module, i.e. NDC tracking, support received and REDD+ (from the MRV side), and adaptation (M&E).

The development of the institutional arrangements for the systems will begin with the identification of the institutions and their roles on the system and subsystems that will be established under Activity 1.1. During the design stage of this project, certain instances of cooperation and institutions that could primarily participate in each subsystem have been identified and are shown in the following table.

Additionally, as part of the National Communications and the Biennial Update Reports, various stakeholders have been involved under different forms of articulation, that should be taken into account as a starting point to establish the institutional arrangements needed to implement the different components of the MRV system.

Sub-system	Institutions
MRV system for mitigation actions	MADES, Ministry of Industry and Commerce (MIC), Ministry of Agriculture and Livestock (MAG) Paraguayan Industrial Union (UIP), Paraguayan Federation of Timber (FEPAMA), National Forest Institute (INFONA), Vice Ministry of Mines and Energy, Union of Production Guilds (UGP), Rural Association of Paraguay (ARP), Consortium of Ranchers for Agricultural Experimentation (CEA), Agricultural Association of Agua Dulce (APAD), CREA Groups Association, other relevant producer associations, academy.
MRV system for the financial support received and to establish guidelines to determine the support needed.	MADES, Technical Secretariat for Economic and Social Development Planning (STP), Ministry of Foreign Affairs (MRE), Ministry of Finance (MH). Sustainable Finance Board (MFS). Global Compact Network in Paraguay. Network of Environmental Organizations of Paraguay (ROAM), ONG's, cooperation agencies.
M&E of adaptation.	MADES, National Emergency Secretariat (SEN), Directorate of Meteorology and Hydrology (DMH), Ministry of Agriculture and Livestock (MAG), Ministry of Public Works and Communications (MOPC), Health Services Company of Paraguay (ESSAP), Ministry of Agriculture and Livestock (MAG), Ministry of Public Health and Social Welfare (MSPBS), Technical Secretariat for Economic and Social Development Planning.
MRV for REDD+	MADES, National Forest Institute, Federation for the Self-determination of Indigenous Peoples (FAPI), STP, Union of Production Guilds (UGP), Rural Association of Paraguay (ARP), Consortium of Ranchers for Agricultural Experimentation (CEA), Agricultural Association of Agua Dulce (APAD), CREA Groups Association, other relevant producer associations, academy.

Table 4. Subsystems of information of Climate Change and institutions.

Regarding the MRV subsystem of financial support received, it is important to mention that there is a working group within the CNCC, called the "Ad-hoc Finance Commission for Climate Change". The group is integrated by officials from the Ministry of Environment and Sustainable Development (MADES), the Technical Secretariat for Economic and Social Development Planning (STP), the Ministry of Foreign Affairs (MRE) and the Ministry of Finance (MH). This working group will be strengthened by the project within the framework of this activity in order to develop the necessary agreements for the development of this system.

In this subsystem it is foreseen to integrate not only the support received by the public sector but also the other sectors. In the interviews carried out during the design stage, three instances were specifically mentioned who could be important for the development of this subsystem: a) the Sustainable Finance

Board (MFS) made up of financial institutions; b) the Global Compact Network in Paraguay that brings together companies and non-business organizations and b) the Network of Environmental Organizations (ROAM). Concerning the necessary support, the project will help develop the guidelines from which the country could establish the support needed from different actors (public and private sector, NGOs, among others) both for management and implementation of actions regarding climate change.

Taking into account that there are no developments in the M&E System for adaptation in Paraguay, the CBIT project will advance in the identification of the different components to be developed as part of the Climate Change Module, as well as in the identification of the institutions that should be part of the system and their roles, for the definition of the institutional arrangements. Likewise, institutional arrangements to feed the M&E System of the Climate Change Module with other modules of the Environmental Information System (SIAM) will be established. Systems outside of the SIAM will also be considered. The early warning and risk management systems function well as a complement to the sub-system of M&E tracking for adaptation. Therefore, the existing institutional arrangements for these complementary systems will be reviewed. Institutions such as DINAC through the Directorate of Meteorology and Hydrology (DMH) and the National Emergency Secretariat (SEN) are important stakeholders to these arrangements.

In this regard, it is important to note that currently no institutional arrangements are in place to develop the M&E subsystem for adaptation, nor indicators or baselines. The CBIT project in coordination with other planned initiatives (such as the AECID project) will be essential to establish these tools. Adaptation plans for each sector are expected to be developed as a follow up to a National Adaptation Plan prepared in 2017[17]¹⁷. The CBIT project will coordinate with this sectoral approach for the establishment of institutional agreements. The NAP follow-up and the CBIT projects are both executed by MADES, which will facilitate the coordination between the two.

The REDD+ MRV agreements have been defined and there are advances toward the establishment of a coordination mechanism among the main institutions involved. In addition, other ongoing initiatives are focused at strengthening this system, therefore the CBIT project does not contemplate specific activities for the development of institutional arrangements related to the REDD +.

Taking into account these elements, institutional arrangements will be developed to collect, manage, and report the data. This includes the arrangements between the Ministry of Environment and Sustainable Development (focal point for the reporting to UNFCCC) and the line ministries who are

responsible for supplying the necessary data. It also includes the institutional arrangements between the line ministries and their necessary data suppliers. This activity must take into account the legal agreements, regulations or any other official guidance on data management produced by the National Government. The proposal will also draw from international and regional good practices.

Considering the heterogeneity in the development of the different systems, the roadmap for the NDC monitoring system and each of the subsystems that comprise it will be established as a starting point. This roadmap will guide the tasks to be carried out to design the institutional arrangements for each of the subsystems. As for the inventories, technical sessions, discussion workshops and high-level meetings will be required to present the roadmap and implement it.

The activities under this output are aligned with activities from the CBIT Programming Directions related to strengthening national institutions (a).

Deliverables to be adopted by MADES:

1.3.1 Report on international good practices for tracking NDCs, support received and adaptation

1.3.2 Proposal on institutional arrangements for the tracking of the NDC, support received and adaptation actions, including a map of the stakeholders, the data produced and reporting mechanisms

1.3.3 Methodology to track the progress of NDC, support received and adaptation actions, and their implications for the institutional arrangements of the Climate Change Module of the SIAM, including roadmap for continuous improvement process.

1.3.4 Two high-level meetings / workshops with decision makers to i) present 1.3.2 and ii) present the results of 1.3.3

Output 2: More accurate emission factors and activity data is made available to MADES for preparing GHG inventories.

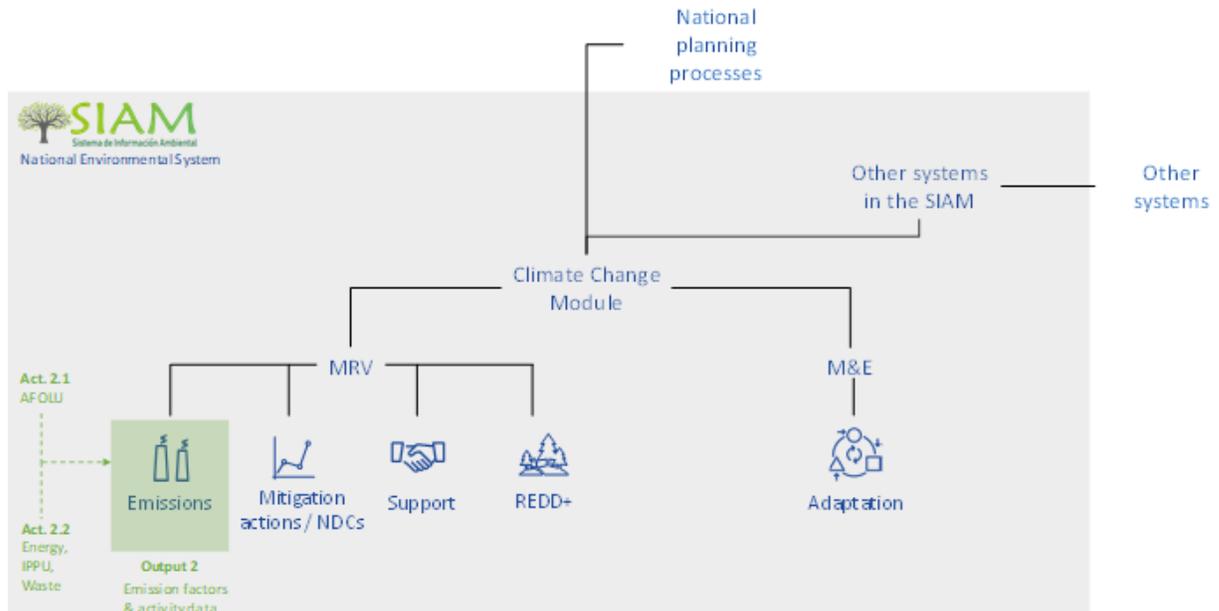


Figure 4. Schematic overview of the focus area for Output 2.

Output 2 provides support to comply with chapter II of the Katowice MPGs, which covers the requirements for the national inventory report of anthropogenic emissions by sources and removals by sinks of GHG. Paraguay has made progress towards the establishment of arrangements for compiling the GHG Inventory as part of the climate change module of the National Environmental information System (SIAM). It has institutional arrangements in place through sectoral round tables, as well as with the data suppliers of the line ministries. Nevertheless, it still requires tools to improve the accuracy of its reporting.

The BUR2, for instance, displays that while some of the key sub-categories^[18]¹⁸ do operate with emission factors on tier level 2, several key categories are still missing. Within the category of 3B of forestry, Paraguay's inventory is using tier level 2 emission factors for part of their calculations. However, for other key categories such as 3A1, enteric fermentation, Paraguay is relying on the IPCC default emission factors for all sub-categories. This is the same for 3C4 (Direct emissions from managed soils) and 1A3b (Road transport)^[19]¹⁹. Both activities under this output will increase the tier level of the prioritized sub-sector categories in their respective sector. Paraguay will be able to efficiently expand and make more accurate its activity data and set of emission factors, useful for improving its national GHG Inventory and the data to present under the ETF in terms of information aimed for clarity, transparency and understanding requirements under the UNFCCC and the Paris

Agreement. The activities defined under this output will allow the country to gain accuracy in the calculation of their GHG emissions following IPCC guidelines, through the development of local parameters and emission factors as well as bottom-up approaches.

Output 2 activities will be carried out through the hiring of two consultancies, one focused on the development of emission factors and activity data on the prioritized subsectors under the AFOLU category, and another focused on the development of emission factors and activity data of the prioritized subsectors under the categories of Energy, IPPU and Waste. The institutions selected to carry out these activities must foresee the mechanisms and tools that ensure the transfer of knowledge to the technicians of MADES and other institutions that are part of the CNCC and that due to their functions would benefit from this knowledge.

The base team of the project will be in charge of defining technical aspects of processes and support for the supervision of consulting contracts, as well as facilitating exchanges and meetings with national entities as required by the consulting team. The base team will be the ultimate responsible for the adoption of the deliverables, some of which will benefit from the products provided by the consultancies. Under this output, two sectorial consultancies will be carried out, one under each activity.

Activity 2.1. Development and improvement of emission factors (at tier 2) and activity data for prioritized subsectors of the AFOLU category in the National GHG Inventory.

While some sub-categories within land-use have reached tier 2 level such as 3B of forestry, there are some which remain on level 1 such as 3A1, enteric fermentation. Given the importance of the sector, increasing these to at least level 2 would further improve the certainty of Paraguay's inventory. To achieve this, the project will work in close collaboration with the Ministry of Agriculture and Livestock specifically with the Vice Ministry of Livestock; the National Service of Quality and Animal Health (SENACSA), the Rural Association of Paraguay (ARP), the agricultural guilds, and Universities.

Among the initiatives identified related to this activity there is a research project funded by the National Council for Science and Technology (CONACYT) called "Determination of the emission factors of methane (CH₄) and nitrous oxide (N₂O) from the management of manure and urine of bovine animals supplemented in extensive farming?". The project will be carried out by the Faculty of Chemistry Sciences (FCQ / UNA). Considering, the importance to strengthen synergies with this research project, the CBIT project will review the scope and complement actions that could help raise the emission factor to at least tier 2 for subcategory 3.A1 (enteric fermentation). For subcategories 3B,

close collaboration with representatives of the private sector will be sought in such a way that will be possible to collect and improve the information and estimates for the disaggregation of cropland and grassland.

The development of emission factors requires technical equipment, field and lab measurements; therefore, this activity will be coordinated with universities and academic units such as the Faculty of Chemical Sciences, the Faculty of Veterinary Sciences and the Faculty of Agricultural Sciences among others; other members of the National Climate Change Commission (such as the Rural Association of Paraguay, ARP) have also manifested interest in participating in these activities. The team will carry out a review of current emission factors under the AFOLU category, prioritizing according to the importance of the subsector for inventories, the availability of information or mechanisms to improve emission factors, among others. Appropriate methodologies will be based on national circumstances and ensures the replicability of the processes for the calculation of the emission factors at tier 2 for the prioritized AFOLU category, including the definition, collection and analysis of primary and secondary information, field work, data processing, compilation, quality assurance of information, and estimation of uncertainty.

Regarding activity data, Paraguay has identified proposals to improve its collection for several categories within the GHG inventory. These proposals are products from the Second Biennial Update Report of Paraguay, a GEF supported project, to prepare the latest inventory, and suggest improvement proposals within the IPCC sectors. As such, they are not matched with financing to implement the suggested improvements. The improvement proposals are the main deliverables of this activity, and include suggestions for better internal coordination, to improve emission factors and the generation and collection of activity data. The CBIT project focuses on the generation and collection of activity data, prioritizing sectors according to its contribution to the inventory and in close consultation with stakeholders through periodic meetings.

The improvement recommendation for Land Use, Land Use Change and Forestry (LULUCF) suggest a general improvement in the activity data of the sector, as this would improve the quality of the inventory. This implies an improvement in the disaggregation level of land data, especially spatial data.

Examples of activity data improvements identified by the improvement proposals are that for the category 3A1, enteric fermentation within the livestock sector, Paraguay has identified the need to further disaggregate the activity data for the livestock herd. This is necessary in order to refine the emissions calculation, as the type and age of the livestock is significant when calculating the enteric fermentation. As it is The Agricultural Statistics and Census Bureau of the Ministry of Agriculture and

Livestock (DCEA-MAG, from its name in Spanish) who is responsible for the collection of activity data, the improvement proposal sets out to discuss improvements with them.

The improvement of the activity data will also help to incorporate ICA's recommendations to the BUR2 of Paraguay by carrying out the analysis of the current state of the activity data and the improvement of those prioritized under the AFOLU category.

Deliverables to be submitted to and adopted by MADES:

- 2.1.1 Report on the prioritization of emission factors and activity data for the AFOLU sector.
- 2.1.2 Report on the baseline and current status of the emission factors and activity data of the prioritized AFOLU's subsectors and analysis of the current status according with the MGPs of the ETF of the Paris Agreement.
- 2.1.3 Improvement plan for GHG inventories to integrate methodologies and results for the collection of activity data and emission factors in prioritized AFOLU sub-categories.

This deliverable will use the following products from consultancies:

- 2.1.3.1. Improvement plan for emission factors for prioritized AFOLU sub-categories, from data acquisition to compilation, processing and reporting.
- 2.1.3.2. Improvement plan for activity data for prioritized AFOLU sub-categories.
- 2.1.3.3. Emission factors for the prioritized AFOLU sub-categories calculated based on the proposed methodology.
- 2.1.3.4. Activity data for the prioritized AFOLU sub-categories.

Activity 2.2. Development and improvement of emission factors (at least tier 2) and activity data for prioritized subsectors of the Energy, IPPU and Waste categories of the National GHG Inventory

Currently, and as part of ICA's recommendations as expressed in the BUR2, the country needs to improve the accuracy of its emission factors in the Energy, IPPU, and Waste categories, which are mostly in Tier 1. Moreover, improvement is also needed in the estimation of the uncertainties associated with those emission factors and the quality assurance processes.

This activity focus on supporting the improvement of the emission factors of Energy, IPPU and Waste subcategories. Emission factors to be improved will be selected based on a prioritization process that will take into account, among other aspects, the importance of the subsector for inventories, the availability of information and mechanisms to improve emission factors. Technical meetings with the institutions identified during the prioritization will facilitate the collection of information.

As mentioned in the baseline section, an internal improvement proposal was developed under the project preparing the third National Communication, published in 2017, for several sectors of the inventory including the energy, IPPU and waste sectors. It calls for further studies useful for generating activity data, along with re-evaluating the uncertainty ranges using national data, and improvement in coordination among institutions. Through this activity, the generation and collection of activity data under the categories of Energy, IPPU and Waste will be improved. Furthermore, improvement in these data will result in a better management of the inventories as a whole. This CBIT project will follow IPCC methodologies and build upon previous studies to define the best approach based on national data for the calculation of the emission factors at tier 2 for the prioritized Energy, IPPU, and Waste categories, including the definition, collection and analysis of primary and secondary information, field work, data processing, compilation, quality assurance of information, and estimation of uncertainty. This will result in specific emission factors for those prioritized subsectors of the Energy, IPPU, and Waste categories following the defined methodology

Improvement of the activity data will also help to incorporate ICA recommendations to Paraguay's BUR2, through the analysis of the current state of the activity data and the improvement of those that are prioritized. In close consultation with stakeholders, this activity will develop a detailed improvement plan and methodology for the collection and processing of activity data in the selected sector or sectors under the energy, IPPU and waste sub-categories, including spreadsheets for data collection and other tools.

Deliverables to be adopted by MADES:

2.2.1 Report on the prioritisation of emission factors and activity data for the Energy, IPPU and Waste sector.

2.2.2 Baseline and current status of the emission factors and activity data of the prioritized Energy, IPPU and Waste's subsectors and analysis of the current status according with the MPGs of the ETF of the Paris Agreement.

2.2.3 Improvement plan for GHG inventories to integrate methodologies and results for the collection of activity data and emission factors in prioritized energy, IPPU and waste sub-categories.

Input products from consultancies:

2.2.3.1. Improvement plan for emission factors for prioritized Energy, IPPU and Waste sub-categories, from data acquisition to compilation, processing and reporting

2.2.3.2. Improvement plan for activity data for prioritized Energy, IPPU and Waste sub-categories.

2.2.3.3. Calculated emission factors for the prioritized Energy, IPPU and Waste sub-categories.

2.2.3.4. Activity data for the prioritized Energy, IPPU and Waste sub-categories.

2.2.4 Report: information systems that support the preparation of the national GHG inventories, in order to identify the current condition of the systems, opportunities for improvement, mitigation actions, stakeholders involved, flows of information and methodology used.

The activities under this output are aligned with activities from the CBIT Programming Directions related to providing tools, training and assistance (d, e and f).

Output 3: Technical training and tools are made available to MADES and key stakeholders for implementing the national transparency system.

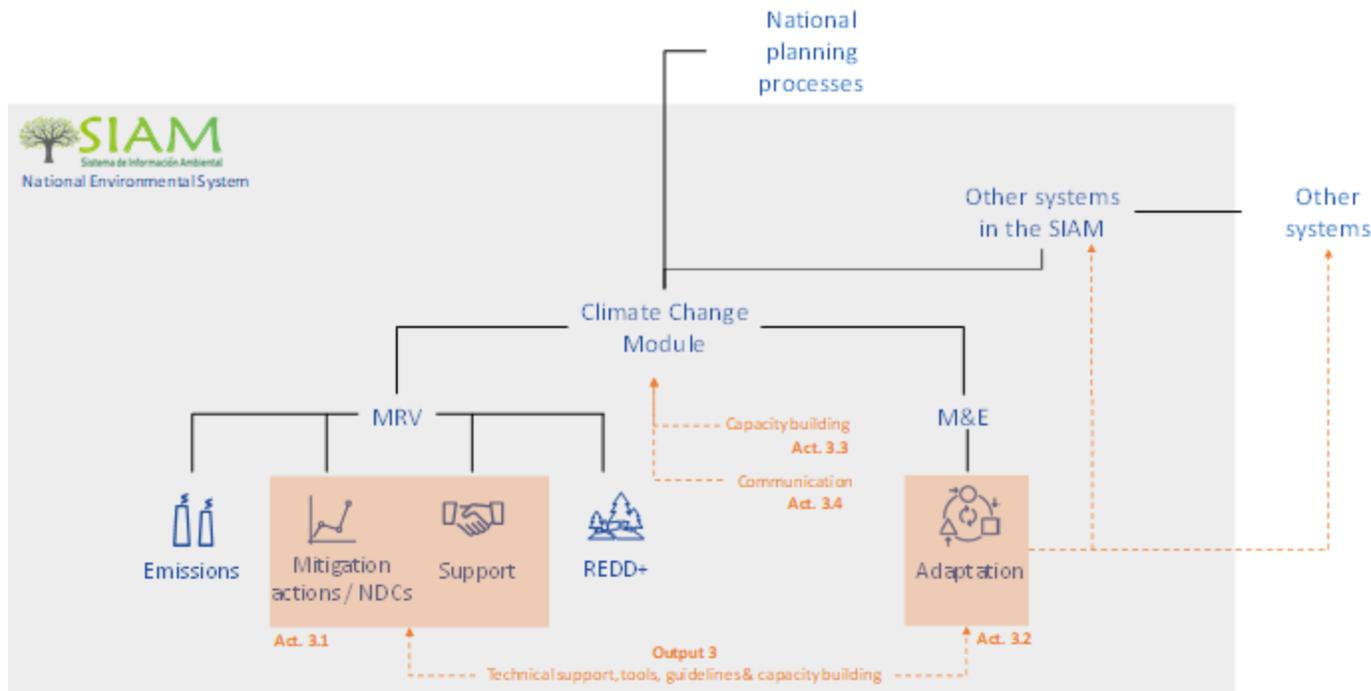


Figure 5. Schematic overview of the focus area for Output 3.

The third output completes the set of tools required for individual systems to achieve a full-fledged macro-system, i.e. the Climate Change Module within the SIAM. This output is in line with the Enhanced Transparency Framework of the Paris Agreement and the Katowice Decisions, and seeks an early implementation of the elements contained in the Katowice Climate Package in the country. In particular, this output will provide support to comply with the requirements set out in chapters III (?Information necessary to track progress made in implementing NDCs under Article 4 of the Paris Agreement?), IV (?Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement?) and VI (?Information on financial, technology development and transfer and capacity-building support needed and received under Articles 9-11 of the Paris Agreement?) of the MPGs.

Output 3 completes the development of the sub-systems in the MRV and M&E side (activities 3.1 and 3.2, respectively), and provides the capacity building, training and communications campaigns required to ensure the system is adopted by all relevant stakeholders (activities 3.3. and 3.4). As presented before, Paraguay's climate Progress Monitoring system consists of improving five sub-systems. These are (1) the MRV system for mitigation actions, (2) the MRV system for financial support received and the guidelines to determine the support needed, (3) the M&E system for adaptation actions, and (4) the MRV system for REDD+. The set of sub-systems are completed with (5) the GHG Inventory system, which is another component that is essential for an integral system, and was addressed individually in

Output 2 due to its weight in the system. Once all five systems are in place, they will allow Paraguay to track its climate actions and needs through the information they provide.

Regarding the sub-system for MRV of mitigation actions, the BUR2 identifies that while there has been progress in developing a MRV system for mitigation actions in the AFOLU sector, the system is not yet operational. Indicators need to be developed for all sectors, and the information pathways need to be defined and agreed. Furthermore, the tools and methods to collect the necessary data to track the indicators need to be determined.

The sub-system to track of financial support received, and the guidelines to determine the support needed also need to be strengthened. The type of information to be collected will be studied by the Ad-hoc Finance Commission for Climate Change set up within the CNCC. According to the consultations carried out during the design phase of this proposal, there are some systems that need to be strengthened, such as the National System of Non-Refundable International Cooperation that operates in the Technical Secretariat for Economic and Social Development Planning (STP) under the responsibility of the General Directorate for Development Cooperation. During the consultation process, the need of a unified database or information system to record the support received by civil society institutions and the private sector to address climate change has been identified. The CBIT project will facilitate the design and implementation of this subsystem within the SIAM's Climate Change module. In the case of the support received, the Information System will be developed, while, for the support needed, guidelines and criteria will be established in accordance with the MGPs of the Enhanced Transparency Framework.

The M&E subsystem (i.e. Monitoring and Evaluation of adaptation actions), requires a comprehensive design. The subsystem needs to take into account the different reporting requirements that are part of the MGPs of the Enhanced Transparency Framework and the information related to adaptation to climate change under Article 7 of the Paris Agreement. Additionally, this sub-system needs to develop indicators to follow the implementation of adaptation measures. This will be done for each of the five sectors which are prioritized in the National Adaptation Plan developed in 2016: (1) agriculture production and food security; (2) hydrological resources - management, and risk reduction; (3) health and epidemiology; (4) infrastructure, transport and energy; (5) environment, forests and vulnerable ecosystems.

The other sub-system, MRV for REDD+ and all of its components (REDD+ registry, national strategy, safeguards system and national forest emissions reference level), is mainly being developed in a

separate project, different than the CBIT. This is described in the baseline section. The CBIT project will ensure to integrate its workings with the other sub-systems and due to the implications in the SIAM architecture it is necessary to keep the MRV REDD+ System on the track to ensure their consistent and harmonized development and implementation.

Activities 3.1 and 3.2 will be carried out through two consultancies for the development of indicators, guidelines, protocols, and audiovisual materials that will accompany the developing strengthening and updating of information systems. The project base team will be in charge of supervising and offering technical support for the development of these consultancies, in accordance with the directives of the national government.

Once the system is operational, this output will establish a permanent capacity building action to facilitate its use and implementation. The capacity building activities under 3.3 will be carried out through one of the universities in the country's National Commission on Climate Change, which will be in charge of designing and implementing courses and training modules as well as providing specialized learning material. The selected institution will also have the support and technical inputs of the project's base team to guide the development of educational materials and capacity building activities. The selection of the institution that will carry out this consultancy will be based, among other aspects, on the profile of the institution and its current programs that could ensure sustainability of training activities beyond the scope of the project.

Finally, activity 3.4 will undertake the required communications campaigns to enforce ownership of the system. It will be carried out through the hiring of a public engagement specialist that will develop the activities and deliverables. This consultant will also support the project team to identify the most appropriate communication tools to socialize the guides and protocols to be developed.

The base team will be in charge of supervising and reviewing products delivered by consultancies, coordinating meetings, interaction with stakeholders and ensuring adoption by MADES authorities.

The activities under Output 3 are aligned with the CBIT Program Orientations activities related to providing tools, training and assistance (d, e, h, i) and supporting the improvement of transparency over time (j, k)

Activity 3.1. Development of indicators, protocols and mitigation formats for monitoring the NDC and tracking support needed/received.

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Among other requirements within the Rulebook agreed in Katowice under COP24, developing countries must submit, as part of their BTR, the information necessary to track progress made in implementing and achieving its NDCs (chapter III of the Katowice MPGs). In addition to this, chapter VI of the MPGs sets the guidelines for the reporting of financial, technology development and transfer and capacity-building support needed and received. These two elements complete the MRV side of the Climate Change Module, and require the development of indicators to monitor its progress and allow reporting under the Enhanced Transparency Framework.

MRV for NDC tracking

The MRV subsystem for NDC will include all actions proposed by the country to reduce emissions ? existing and future ones. This activity will focus on the development of indicators for this subsystem. Likewise, the technical work will be deepened in the sectoral mitigation plans that are being formulated under the process of updating the NDCs. The National Climate Change Mitigation Plan has been taken as a guide to develop this activity. The aforementioned document specifically proposes sectorial plans that are being defined by the national Government. Considering this, the CBIT project will review data, actors and information flows, and assess the need to improve the tools, protocols or existing guides for NDC tracking through sectorial mitigation indicators. It will establish and improve their measurement methodology and baseline from which to report progress.

Projects such as the Results-based Payments and PROEZA financed by the GCF as well as the Forests for Sustainable Growth project financed by the FCPF are working directly in the forestry sector, for this reason the CBIT project does not contemplate the development of indicators for these programs. Additionally, through the project Strengthening of Climate Action in Paraguay (FAC PY), further mitigation plans will be developed. The CBIT project will coordinate with FAC personnel to generate the synergy needed between projects to develop mitigation indicators.

An important aspect to consider at the time of reviewing indicators will be the concordance with other indicators proposed at the national level, such as those set forth in the 2030 National Development Plan and those expressed by MADES in its Resolution 84/2018, which establishes environmental indicators. The development of indicators will also be aligned with the process of updating the Paraguayan NDCs, to ensure that they can remain relevant.

The development of indicators and the monitoring processes of the NDC require the definition of guides and protocols for data and information management. The proposed guidelines and reporting formats will be based on the best national and regional standards, but with enough flexibility to cover the particularities of the prioritized sectors. Likewise, audiovisual materials that can be used in social networks that accompany the guides or protocols will be designed. This with the purpose to better communicate with the public regarding the progress of the NDC, making it transparent. A meeting with key stakeholders will take place to identify gender aspects that should be considered in their formulation. The products under this activity will allow to prepare and deliver index cards (sheets) of each of the indicators proposed for monitoring the mitigation component of the NDC, including the methodological description of the construction and calculation of each indicator in accordance with the information requested by the MGPs of the Enhanced Transparency Framework, included in deliverable 3.1.1.

MRV for support needed & received

In turn, the MRV for support needed & received will consider four main categories: financial support, technology development, capacity building and transparency-related activities. Indicators, tools, forms and processes are needed for this subsystem as well. For this, work will be done directly with the institutions that are members of the finance table within the CNCC. The Sustainable Finance Table, the Global Compact Network in Paraguay and ROAM, could in some way support the development of these indicators, especially those related to the funds received or necessary that are channeled by entities other than public ones.

This development will be aligned with the process of updating the NDC of Paraguay, to ensure that the indicators can also be used with the updated NDC and that the set of indicators will be useful for its monitoring. As indicators are developed, guidelines and protocols will be prepared to manage the defined data and information.

For deliverable 3.1.1, as illustrated below, a consultancy will produce a number of products which will feed into the system. These are specified below. Within these, 3.1.1.5. Compendium of audio-visual materials, and their respective guides, will produce communication material to be spread in social media. The purpose of the material is to communicate the progress of the NDC, and its tracking system, to the public. The audio-visual material can include short video clips, illustrations, or other interactive tools, depending on what is relevant and most appropriate.

Deliverables under activity 3.1 will be adopted by MADES:

3.1.1 Workshop: Improvements in the MRV system

3.1.2 Report identifying ETF flexibility provisions to be used, and recommendations for improvements, for the MRV system.

3.1.3 Recommendations for improvement of indicators formulated for tracking the NDC.

3.1.4 Validated processes, information flows, indicators and methodologies for monitoring NDCs and support received

Related products from consultancies:

3.1.4.1 Document with validated indicators for tracking NDC and support received

3.1.4.2 Document with respective methodological descriptions for each progress indicator for the tracking NDC and support received

3.1.4.3 Roadmap prioritizing processes, tools, protocols and guides to be adjusted/improved/updated to comply with the ETF requirements for tracking NDC and support received

3.1.4.4 Document with existing, improved and new tools, protocols and guides for the progress indicators of NDC and support received

3.1.4.5 Compendium of audio-visual materials and their respective guides.

3.1.4.6 Report on tracking of gender aspects relevant to a MRV system

3.1.4.7 Review of best practices and lessons learned from the creation of indicators of active member countries of the CBIT Global Coordination Platform

Activity 3.2 Design and develop the M&E System for adaptation, as well as indicators, protocols and formats required for its operationalization.

As mentioned above, the Katowice rulebook agreed at the COP24, establishes the modalities, guides and procedures for transparency reporting by all countries. In its chapter IV, it provides the requirements for reporting on climate change impacts and adaptation. This activity will focus on supporting the development of the adaptation M&E subsystem, as well as the development of guide formats and protocols associated with the preparation of transparency reports on its adaptation components. The process of updating the NDC of Paraguay was under revision at the time of the designing of this CBIT project, therefore the development of indicators mentioned under this activity will need to start from the analysis of the mentioned actualization. It is also important to highlight that a sectoral NAP project is expected to take place as a follow up to the 2017 NAP. In this sense, as the

CBIT project progresses, it will coordinate with the NAP project in the development of indicators for each sector, to complement them if necessary.

Taking into account the diversity of stakeholders involved in the adaptation subsystem, processes must be analyzed to identify those that need to be developed. The adaptation M&E subsystem considers the different components of vulnerability, risk and adaptation analysis to climate change. Taking into account that the ETF under the Paris Agreement introduces elements to be developed by the countries in the presentation of the reports on adaptation, the CBIT project will carry out an analysis of the current state of the country for the reporting of that information. This in order to structure the M&E subsystem to allow reporting under the ETF based on the planning, implementation and monitoring of adaptation actions that the country periodically defines within the framework of other instruments and reports such as the NAP, National Communications (NC) and Adaptation Communications, as well as their articulation with other adaptation-related action frameworks such as the Convention on Biological Biodiversity, the Sendai Framework, the United Nations Convention to Combat Desertification, among others.

This activity will start with an assessment of the current state of the information systems that support the processes for reporting vulnerability, risk, adaptation actions, and the information associated with these issues including stakeholders, sources and flows of information and methodologies. It will also undertake a mapping of reporting commitments under the three conventions (UNFCCC, the Convention on Biological Diversity - CBD and the United Nations Convention to Combat Desertification, UNCCD), as well as for the SDGs, considering indicators, type of data reported, and gaps in terms of indicators and data should be considered. It will analyze and propose possible synergies among the different reporting frameworks and data management used by the environmental information system in the country, taking into account information sources, information management platforms and stakeholders involved.

A consultancy will produce numerous products to feed into the indicators and methodologies for the M&E system, including workshops to validate indicators and methodologies. For the product of 3.2.1.7, "Compendium of the audiovisual materials and their respective guides", similar communication products as described in the previous activity will be created.

The following deliverables are to be adopted by MADES:

3.2.1 Evaluation of synergies and possible coordination between M&E adaptation system and early warning, risk management systems, the National Public Investment System (SNIP).

3.2.2 Report identifying ETF flexibility provisions used, and recommendations for improvements, for adaptation.

3.2.3 Document with recommendations for improvement of indicators formulated for the adaptation component.

3.2.4 Workshop: Integrating adaptation into the transparency system

3.2.5 Proposal of institutional arrangements for connectivity between SIAM's Climate Change Module, early warning and risk management systems, and the National Public Investment System (SNIP).

3.2.6 Validated processes, information flows, indicators and methodologies for adaptation M&E

Related products from consultancies to be used as inputs for this deliverable:

3.2.6.1 Document with validated indicators for the adaptation sub-system

3.2.6.2 Document with respective methodological descriptions for each progress indicator for the adaptation sub-system

3.2.6.3 Prioritization of processes that require tools, protocols or guides in the M&E subsystems for adaptation

3.2.6.4 Report: mapping responsibilities and identifying synergies between the three Rio conventions, and the SDGs.

3.2.6.5 Document identifying which tools, protocols and guides needs to be adjusted/improved/updated to comply with the ETF requirements for adaptation

3.2.6.6 Document with existing, improved and new tools, protocols and guides for the progress indicators of the adaptation sub-system

3.2.6.7 Compendium of the audiovisual materials and their respective guides.

3.2.6.8 Design of the M&E System for adaptation based on the MPGs of the Reinforced Transparency Framework.

3.2.6.9 Review: good practices and lessons learned in adaptation M&E, resilience and vulnerability by the member countries of the CBIT Global Coordination Platform

Activity 3.3 Establish a National Capacity Building System for all matters related to Climate Transparency.

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The level of technical capacity of the personal is described as a barrier for Paraguay to meet its reporting commitments under the Enhanced Transparency Framework. Paraguay's BUR2 identifies the need to increase technical capacity for both the GHG inventory, and the monitoring systems under the Climate Change Module of the SIAM. This activity will establish a National Capacity Building System for a number of stakeholders.

To accomplish this, specific actions will be developed during the project, but intended to remain accessible and easily updated once the project finishes. As a starting point, the capacity building processes carried out to date will be reviewed. This activity will be coordinated with MADES's Direction for Environmental Education.

The development of this system will be built based on existing alliances between different institutions. In this sense, the National Commission on Climate Change (CNCC) has been identified as an ideal space to propose the creation of the System, considering that the Ministry of Education and Sciences (MEC), CONACYT, and various academic units and civil society organizations are members of the CNCC. The preparation of a Strategic and Operational plan will be elaborated as a starting point to develop this activity. In line with this, one of the local academic institutions that are part of the National Commission on Climate Change [20]²⁰ will be engaged to carry out the capacity building sessions of the personal. This with the intention to create a sustainable capacity building system where the know-how is hosted in an academic environment closely connected to these topics.

In addition to the institutions that will be part of the Capacity Building System (MADES, CONACYT, MEC, Universities, etc.), it has been identified that many of the technical capacities are dispersed in different institutions due to the high rotation of technical personnel. This constitutes a problem when requiring technical support. To address this barrier the activity will create a national network that brings together technicians and specialists.

The generation of material and planning of capacity building sessions will also be informed by the outcomes of activity 4.1. Through this, lessons learnt from how other countries in the region are addressing and preparing for the ETF will be integrated in Paraguay's capacity building mechanism.

Deliverables to be adopted by MADES:

3.3.1. National Capacity Building System (SNCC)

For which the following products will be required:

3.3.1.1 Strategic and operational plan for the establishment of the National Capacity Building System, including a study identifying target audiences.

3.3.1.2 SNCC Year 1 Operational Plan

3.3.1.3 SNCC Year 2 Operational Plan

3.3.1.4 Training of trainers course, taking into account an assessment of the local training offer in relation to transparency

3.3.1.5 Training modules for the relevant data suppliers and platform users in the different sectors

3.3.1.6 Formation of the national network of technicians and specialists for building capacities in climate transparency

Activity 3.4 Communication of the processes associated with climate transparency in Paraguay.

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Transparency coupled with communication could accelerate climate action in Paraguay. MADES has identified communication as a key element to ensure the development of a transparency system. Under this activity, the project will help MADES to implement an inclusive communication plan to reach the stakeholders involved in the reporting process and the general public.

The communication plan will ensure that project activities and strategies reach to key stakeholders with precise information about agreed institutional arrangements, the implementation of the climate change module and training tools available. Furthermore, the communication plan will help to identify and share significant information that could steer further actions to achieve transparency. The mechanism will include regular dissemination of project related activities: processes and strategies associated with the improvement of information on climate change, the design and development of the components of the Climate Change Module, capacity building processes and the South-South exchange program for Climate Transparency. The Engagement Plan will identify aspects in the system that are relevant to vulnerable communities (for instance, in terms of adaptation) and include specific strategies and targets for the latter.

The following deliverables will be adopted by MADES:

3.4.1 Public engagement mechanism (design & execution), including dissemination of project related activities

3.4.2 Inclusive Communications and Engagement Plan, including templates for communication materials.

3.4.3 Annual report on communication activities.

Output 4. Mechanism to link the Climate Change Module of the SIAM with existing national planning processes and instruments is proposed for adoption by the Technical Secretariat for Economic and Social Development Planning.

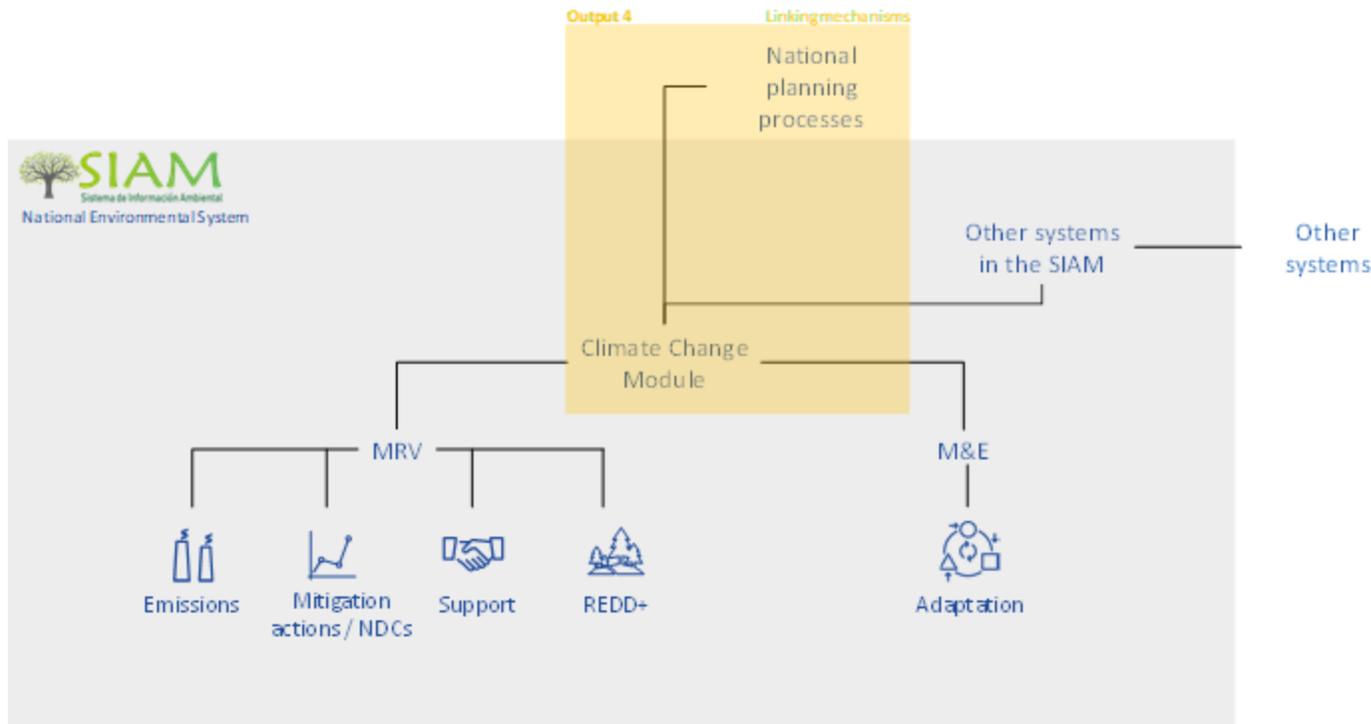


Figure 6. Schematic overview of the focus area for Output 4.

Fulfilling the NDCs depends on the national priority they are given. Paraguay has long established priority-setting processes, led by the Technical Secretariat for Economic and Social Development Planning (STP, from its acronym is Spanish), and reflected in national development plans. The current plan - the National Development Plan 2030 (PND 2030)- was formulated in 2014 and reviewed in 2019.

The likelihood of climate change actions being implemented successfully is dependent on such actions being recognized within this national planning and the corresponding finance regime. As NDCs develop, the integration of climate change actions into national development planning will be necessary if the resources for implementation are to be secured, both domestically and from international sources. In parallel, national development planning needs to consider the impacts of climate change to create more sustainable, resilient and inclusive growth in the longer term^[21]²¹. Furthermore, in its Article 4, paragraph 19, the Paris Agreement states that all Parties should strive to formulate and communicate long-term (i.e. 50 years) low greenhouse gas emission development strategies (LTS), which again would require a bridge between NDCs and development planning.

This output will analyze possible connections between national processes and the transparency system that is to be established by this CBIT project. The activity will analyze where, when, and how the information generated in the NDC's progress monitoring system is relevant to the country's development planning process and propose measures to ensure its inclusion. These connections intend to maintain consistency between the two instances, establishing coordination and integrating NDC spending into national budget planning. At the national planning level, the project will coordinate with the STP in order to maintain consistency with the PND 2030. In this sense, the identification of indicators to be carried out in Activity 3.1 will seek to maintain concordance with the National Development Plan, as well as with other existing tools, such as Resolution 84/2018 of MADES that establishes environmental indicators.

The PND 2030 has been aligned to the SDGs, so by taking key indicators of the PND for the process of reporting the progress of the NDCs, it would also be facilitating the reporting of the country's compliance with these goals. The project will seek a mechanism to link the information produced in the transparency system with the existing platform for monitoring the SDGs.

With the support of the Technical University of Denmark (DTU), the planning specialist will lead the single activity under this output. The products feeding into this output's deliverable will be the basis for the mechanism for aligning the Climate Change Module of the SIAM with national development planning.

Work under this output will also build upon experiences, good practices and lessons learned of other countries in the region. For instance, the peer exchange network for inventories, i.e. the Red INGEI. Active since 2016, Red INGEI successfully fostered exchange between countries in the region, an element that was crucial for accelerating the implementation of the GHG inventory sub-module of Paraguay's transparency system^[22]. Thus, the linkage between long-term planning and the transparency system will follow a similar approach.

The mechanism for aligning the transparency system with the national planning will cover various aspects. First, the transparency system needs to be integrated into national coordination instances in charge of the development planning. In Paraguay, this instance is coordinated by the STP, which is also responsible for consolidating the development plan with sectoral and sub-national planning, and as such a key stakeholder for this output. The second element will be the integration of reports from the climate transparency system into the PND's own evaluation mechanism, including the harmonization of indicators and results from modelling analyses that involve cross-cutting issues, like energy and

elements relevant to climate change adaptation (e.g. access to essential services). Finally, the articulation of the NDC with the budget planning processes will aim to ensure that funds are readily available for climate action; this final aspect will have the Ministry of Finance as the key government stakeholder.

Deliverables to be proposed to the relevant actors[23]²³:

4.1.1 Assessment and identification of regional best practices for the integration of transparency systems into long-term planning

4.1.2 Work plan for participating in regional activities to obtain best practices and lessons learned

4.1.3 Mechanism for the alignment of long-term planning with the NDC

For which the following products will be prepared:

4.1.1.1 Proposal of a national coordination instance to align national planning processes with the NDC and LTS updating and formulation processes

4.1.1.2 Report on how to harmonize indicators between NDC and LTS updating and formulation processes

4.1.1.3 Report on modelling and analysis methods for supporting LTS and NDC.

4.1.1.4 Integration of NDC in the national budget planning

4.1.1.5 Proposal of LTS modelling, including capacity building support needed

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4.1.4 Inter-ministry workshop for the integration of climate transparency system with existing national planning processes

4.1.5 Annual report on participation in regional activities and best practices and lessons learned obtained (3 reports in total)

-

Output 4 is aligned with the CBIT Program Orientations activities related to providing tools, training and assistance (d, e, h, i), and supporting the improvement of transparency over time (j, k).

d. Alignment with GEF Focal Area and/or Impact Program strategies

This CBIT project is addressing GEF Focal Area Climate Mitigation 3-8 ?Foster enabling conditions for mainstreaming mitigation concerns into sustainable development strategies through capacity building initiative for transparency?.

The GEF-7 Climate Change Focal Area Strategy aims to support developing countries to make transformational shifts towards low emission and climate-resilient development pathways. The CBIT, as per paragraph 85 of the COP decision adopting the Paris Agreement, complies with this Focal Area Strategy by:

- ? Strengthening national institutions for transparency-related activities in line with national priorities;
- ? Providing relevant tools, training and assistance for meeting the provisions stipulated in Article 13 of the Agreement; and
- ? Assisting in the improvement of transparency over time.

e. Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

The CBIT programme is designed to improve mandatory reporting of signatories of the UNFCCC. As such this project is financed on full agreed cost basis. In the case of this programme, eligible activities have been described in the GEF document Programming directions for the Capacity Building Initiative for Transparency (GEF/C.50/06). The activities of this project are consistent with the scope of the programming directions. Cofinancing is not a necessary requirement for this project. However, there is

a foundation of activities that are considered cofinancing and have been considered when estimating in-kind co-finance of USD 350,000 as indicated in table C.

Paraguay's current efforts within the field of transparency are substantial and on many different fronts. The increased requirements introduced by the ETF, and the need to comply with the MPGs of Katowice, increases the necessary effort, and also demands more resources. The CBIT project serves well to close that increased gap through its additional resources.

Paraguay counts with a 2020-2030 roadmap for the MRV system which identifies necessary steps to establish an integral transparency system which would facilitate reporting to the UNFCCC. The roadmap lacks the necessary funding however to be implemented. The CBIT project thus will address these identified needs and plans, advancing Paraguay's development of a functional transparency system.

As described above, Paraguay has a conceptual idea of how its Environmental Information System should look. It consists of several different modules, wherein the Climate Change module is one. Paraguay has developed an initial conceptualisation of this, but lacks the funds to realise it. The CBIT project will thus fund the development of part of this module.

Paraguay has an established GHG Inventory process, however there is room for improvement in some aspects. Output 1 will, as just described, formalise the institutional arrangements. Moreover, as identified by the latest BUR, there is a need to update to country specific emission factors in numerous categories, and to improve the activity data collection. This is a continuous work Paraguay is carrying out through several projects, and the CBIT project will also contribute to this process. This through Output 2 which will establish country specific emission factors for categories within respective the AFOLU and the Energy sectors. Moreover, the output will also improve activity data collection within the two sectors as well.

Through Output 3, several sub-systems will be either improved or established. These are the system for mitigation actions, for support needed and received, and the system for M&E of adaptation actions. These systems, together with the MRV system for REDD+ which is supported by another project, are necessary to track the implementation of the NDC, and additional elements required by the MPGs for the BTRs. The CBIT project will advance each system, though in different degrees. For the mitigation actions, the CBIT project will strengthen the current system to a functional system; likewise for the support received. For the support needed, the CBIT project will establish the general framework for this system. However, as it is depended on detailed gap analysis between what exists and what is

needed to achieve certain goals, this goes beyond the technical support of the project. Likewise, for adaptation, the CBIT project will be aligned with any work under related to sectoral adaptation plans, a current (although yet unfunded) line of work indicated in the current NAP. Under the CBIT project, Output 3, the overall framework for monitoring and evaluation of adaptation efforts will be laid out, together with aggregated-level indicators. However, the development of sector-specific indicators, will be carried out by the sectoral NAP project. This will require a high level of coordination, which can be assured as the two projects would report to the same position within MADES. The coordination is further described in the coordination section below.

Through Paraguay's current transparency system, lacking capacity is identified as an issue. The CBIT project establishes a national capacity building system which will train the necessary stakeholders in the various systems which are established. This is done in collaboration with a local university as to create a system outliving the project time span. The CBIT project will develop the necessary course material in collaboration with local university staff, plan and execute the capacity building modules. There are also funds dedicated to fund the local universities engagement in this. This is meant to lay the foundation for the capacity building system. This capacity building system thus addressed an underlying need, and will do so in a sustainable manner.

In developing Paraguay's transparency system to become more encompassing, an opportunity to connect it to national planning processes arises. The national planning processes in question is the updating process of the NDC, and the formulation of the Long-term Strategy. Output 4 identifies the interlinkages of the processes, and how they can feed into each other. Furthermore, it develops methods and guidelines of how to use the generated information in the NDC updating and the long term strategy formulation process.

f. Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

This project will indirectly lead to increased mitigation and adaptation efforts through improved tracking of NDC implementation. This project will increase the quality and availability of climate data for Paraguay through the systems which are to be established. In addition, the establishment of NDC progress tracking system will allow Paraguay to see improvements in both mitigation and adaptation efforts as the NDC is being implemented. Furthermore, the project will establish the linkages between the tracking of the implementation of the NDC and the updating process of the NDC. The project thus establishes a mechanism to facilitate increasing Paraguay's commitment in the NDC. Moreover, given

the linkage between the NDC and the SDGs, and the integration of this linkage into the progress tracking systems, Paraguay will have better information of how its climate work is contributing to sustainable development. These effects will translate to a higher ambition when presenting the next NDC in 2024, and for the consecutive ones as well.

This project will monitor the main indicators from the CBIT tracking tool, especially Indicator 3-*Quality of MRV Systems*, and Indicator 5-*Qualitative assessment of institutional capacity built for transparency-related activities* proposed under Article 13 of the Paris Agreement. The baseline and target has been set during the project development phase.

g. Innovativeness, sustainability and potential for scaling up

Innovation

This project builds on the innovative approaches used when creating arrangements for the future GHG inventory system, and will adjust it to fit the context for the different aspects of the Integral MRV System. The establishment of an Integral MRV system for NDC implementation is, in itself, a novelty in the Paraguayan context, as it creates a system where there were none before.

Sustainability

The financial sustainability is addressed through activity 1.1, where various ways to finance the transparency system will be explored, including private and public finance sources. This will allow the established system to continue to be operational after the end of this project.

As described above, the current system of preparing reports to comply with the UNFCCC requirements is dependent on international capacity and financial support. This project will address this by building the capacity in Paraguay to create the necessary MRV and M&E systems, including a capacity building system which will ensure that capacity is retained in existing institutions. The capacity building system -which will serve as the ?operation manual? for SIAM?s Climate Change module- will be developed in collaboration with local universities that are part of the National Commission on Climate Change. By engaging with existing academic institutions which are already part of the national commission, the

project will ensure that such capacity building efforts are continued beyond GEF funding. In this direction, initial conversations with the National University of Asunción and the Catholic University have been positive, and formal negotiations will take place once project execution starts.

The capacity building module of the project will be assigned to one of the universities in the National Commission on Climate Change. This institution will design and provide training on the use of the transparency system, and budget has been allocated to this purpose as part of Output 3. However, after the CBIT project ends, the university will continue to be a part of the National Commission on Climate Change, which is an institutional body designated by the National Climate Change Law (Law N° 5875/2017). Thus, it will be in their own interest to incorporate the training on transparency developed during the CBIT project as part of their curricula. This is expected to reduce the cost of on-going capacity building for the system (beyond GEF funding) and contribute to its overall sustainability.

Scaling up

There is considerable potential to scale up the activities of this project. The entire system is conceived with a modular logic, allowing for new pieces in the corresponding sectors (energy, IPPU, AFOLU, waste and others) to be integrated as needed. For example, the established capacity building system for the different sectors can be built upon to add other components as well. While the specific material for this purpose would have to be developed (and funding identified), the structure established by this project can be utilised, reducing implementation costs. This is the case for both the inventory process and the NDC. As the latter is updated, and perhaps expanded in its scope, the structure established by this project can easily shift focus into any additional sub-sector or serve as a basis to increase the resolution of current sub-sectors, as needed. The REDD+ sub-system is another example of how the modular system allows for the integration of additional components. While this sub-system (which could also be considered a part of the mitigation component) is being developed outside of this CBIT project, it will be seamlessly integrated into the SIAM Climate Change Module.

[1] UNFCCC Secretariat. "First steps to a safer future: Introducing the United Nations Framework Convention on Climate Change." August 16, 2016. Accessed February 20, 2018.
http://unfccc.int/essential_background/convention/items/6036.php.

[2] At the Rio Earth Summit of 1992 two other international conventions pertaining to the environment were adopted, namely: United Nations Convention on Biological Diversity (CBD) and the United Nations Convention to Combat Desertification (UNCCD).

[3] UNFCCC Secretariat. "First steps to a safer future: Introducing the United Nations Framework Convention on Climate Change." August 16, 2016. Accessed February 20, 2018. http://unfccc.int/essential_background/convention/items/6036.php.

e UNFCCC Secretariat. "First steps to a safer future: Introducing the United Nations Framework Convention on Climate Change." August 16, 2016. Accessed February 20, 2018. http://unfccc.int/essential_background/convention/items/6036.php.

[5] UNFCCC, 2018. "Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018". Decision 18/CMA.1.

[6] The barriers are described in detailed throughout the BUR2, but are summarised in a table format on page 34.

[7] <https://www.bacn.gov.py/archivos/8712/Ley%205875.pdf>

[8] http://www.ciesin.columbia.edu/repository/entri/docs/cop/FCCC_COP19_dec20.pdf

[9] Secretary of Environment, 2017. Tercera Comunicaci?n Nacional de Paraguay a la Convenci?n Marco de las Naciones Unidas sobre el Cambio Clim?tico (English: *Third National Communication to the UNFCCC*). Project funded by the GEF, in collaboration with UNDP.

[10] MADES, 2018. Segundo Informe Bienal de Actualizaci?n sobre Cambio Clim?tico ante la Convenci?n Marco de las Naciones Unidas sobre el Cambio Clim?tico (English: *Second Biennial Update Report to the UNFCCC*)

[11] <https://www.undp.org/content/dam/paraguay/docs/Politica%20Nacional%20CC.pdf>

[12] http://dncc.mades.gov.py/wp-content/uploads/2019/10/Res_4_18_mesa_ingei.pdf

[13] <http://dncc.mades.gov.py/wp-content/uploads/2020/01/PRODOC-NDC-FIRMADO.pdf>

[14] The MRV System for REDD+ is an important sub-system for the Climate Change Module of the Environmental Information System. However, as described in the baseline section, there are several projects working on developing this system. It is thus not part of the project to develop the MRV System for REDD+, though its connections to the remaining systems will be taken into account in the design and development of these.

[15] https://www.thegef.org/sites/default/files/publications/2015003101SPAspa_LowRes_2.pdf

[16] The project will not address the institutional arrangements for the MRV for REDD+ which will be implemented by other initiatives.

[17] However, no specific funding or timeline exists as of this moment.

[18] Paraguay's key categories can be found on page 73 of its BUR2.

[19] A complete list of which emission factors are used for the different categories can be found on page 170 in the BUR2.

[20] During project preparation, the two academic institutions within the CNCC (i.e. the National University of Asunci?n and the Catholic University) were approached and showed interest in participating in the project.

[21] Bird, N., Monkhouse, C. and Booth, K. (2017) ?Integrating international climate change commitments into national development planning ? 10 propositions for success?. *Climate and Development Knowledge Network*

[22] MADES, 2018. *Segundo Informe Bienal de Actualizaci?n sobre Cambio Clim?tico ante la Convenci?n Marco de las Naciones Unidas sobre el Cambio Clim?tico* (English: Second Biennial Update Report to the UNFCCC), p. 68

[23] Depending on the deliverable, these are the Technical Secretariat for Economic and Social Development Planning or the Ministry of Finance.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.



Figure 7. Map of Paraguay.

Coordinates for Asuncion, Paraguay: 25.2637° S, 57.5759° W

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

N/A

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

This CEO Endorsement Document has been prepared through extensive consultation with representatives of the Ministry of Environment and Sustainable Development and the members of the National Commission on Climate Change (CNCC). Two missions by the UNEP DTU were carried out the first one during PIF preparation and the second to interview key stakeholders and to discuss the project during a consultation workshop. These were in December 2018 and in March 2020.

The consultation workshop aimed to discuss the ETF of the Paris Agreement and the challenges it represents. Based on this, the project idea, planned activities, ongoing initiatives, the role of the different institutions in the framework of CBIT project activities and the most appropriate channels for consultation and dissemination of information were discussed. In addition to the workshop, interviews were held with representatives of the STP, the Ministry of Women and the Federation of Self-Determination of Indigenous Peoples (FAPI) in order to deepen the actions proposed by the project and discuss specify gender approach to be considered in the project.

The elaboration of the document has been discussed in more than ten (10) virtual meetings, interviews with key stakeholders, a first consultation workshop and a follow up virtual meeting; furthermore the draft document has been distributes among the 33 members of the CNCC and revised by the representatives of the Ministry. Recommendations received during the consultation process have been included in the document and are reflected on the addition of activities under Output 3 and also in the proposed institutional arrangements for the project. The project document has also been validated through two workshops held in July 2020. The first workshop was an internal MADES consultation, where the project was presented and received feedback from the different offices. The second workshop was a wider validation workshop with other government and private participants.

In the project identification phase, key documents have been reviewed to develop this concept. These documents - the National Communications, Biennial Update Reports, and other key documents - have been developed through a participatory stakeholder approach.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component or Output)
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Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component or Output)
<p>Intersectoral</p> <p>Includes: Government Organizations, NGOs, Academia, and Private sector representatives.</p>	<p>National Commission on Climate Change (CNCC from its Spanish acronyms)</p>	<p>This commission was created by the Law 5875 from 2019. In the chapter IV, articles 9-11 are given its members and functions. This body is a key part for this project due to its responsibilities regarding the support and cooperation to the Ministry of Environment and the Climate Change Directorate.</p> <p>This is an interinstitutional commission with representatives from 35 institutions and groups, including government, academia, private sector, civil society and indigenous institutions. The CNCC's task is to provide its point of view and advice on climate change related policies.</p> <p>This commission is a consultative and deliberative instance with the aim of supporting and advising the climate change policy implementation. As part of this commission, national stakeholders are represented, including the Indigenous Paraguayan Institute (INDI) and others considered key part of the information management process to ensure the tracking of the climate action in Paraguay.</p>	<p>Feedback on the different steps in the process as it brings together a wide range of stakeholders to the project.</p> <p>The CNCC will be a consultative body for the CBIT project. Therefore, it will be involved in outputs 1 through 4.</p>

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component or Output)
Academia	<ul style="list-style-type: none"> - National University of Asunci?n. - Catholic University Nuestra Se?ora de Asunci?n. 	As members of the CNCC, these institutions are well positioned to contribute with the project's outcome.	Provide inputs regarding the system design (Output 1), the emission factors and activity data (Output 2) and potential institutions in charge of setting up the capacity building system (Output 3). An agreement with any of these institutions for the capacity building system will have the advantage of retaining capacities in local universities, which would be able to add the training generated under the CBIT project as part of their curricula.
NGO	The Network of Environmental Non-Governmental Organizations of Paraguay (ROAM);	Articulation with environmental NGOs in Paraguay	Provide feedback regarding project design and the implementation of tools (outputs 1.1-1.3).
Government	Ministry of Agriculture and Livestock (MAG, from its name in Spanish)	Responsible for advocating and suggesting policies which promote and strengthen agricultural production and food security of Paraguay.	Feedback of the process of improving the collection of activity data, construction of indicators, participation in the training processes and strengthening of technical capacities. Output 1. and activities 2.1, 3.4, 3.5 and 3.6

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component or Output)
Government	The Agricultural Statistics and Census Bureau of the Ministry of Agriculture and Livestock (DCEA-MAG, from its name in Spanish)	Responsible for collection of activity data for the agricultural sector.	Feedback of the process of improving the collection of activity data as part of the Output 2.
Government	National Forest Institute (INFONA, from its name in Spanish)	Responsible for the generation and collection of activity data for the forestry sector.	Feedback of the process of improving the generation and collection of activity data as part of the Output 2.
Private sector	Industrial/Farmers Associations (ARP, UIP, UGP)	Private sector actors are key players in the compilation of activity data, and in the implementation of mitigation and adaptation actions. The agriculture sector is especially important. Receiving their input and their buy-in for proposed MRV/M&E systems is important for the success of this project.	Contributing with their expertise when upgrading emission factors and improving activity data collection under Output 2, as well as being consulted when establishing the MRV and M&E systems under Output 3.
Government	Ministry of Finance	Responsible for public finance in Paraguay.	Interaction on the definition and consensus of indicators linked to climate finances and the assistance on the identification of mechanisms of financial sustainability of the integrated monitoring system of Climate Change of Paraguay under Output 3. The Ministry of Finance is part of Ad-hoc Finance Commission for Climate Change of the CNCC.

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to the project (identified by Component or Output)
Government	Ministry of Women's Affairs	Responsible for advocating and suggesting policies which include a gender perspective.	Feedback on the process of indicator development for the NDC progress monitoring (activities 3.1 and 3.2), and in the capacity building programme (activity 3.4)
Government	Technical Secretary for Economic and Social Development Planning (STP)	Responsible for national planning systems; monitoring and evaluation of public management; public investment and external financing, as well as public statistics. The General Directorate of Statistics, Surveys and Censuses (DGEEC) reports to this secretariat.	Member of Ad-hoc Finance Commission for Climate Change of the CNCC, body in charge of coordinating the actions for the MRV system of the Support received Output 3. Connect national planning processes with the information generated (Output 4)
Indigenous peoples	Federation for the self-determination of indigenous peoples	FAPI is a federation made up of 13 organizations of Indigenous Peoples of Paraguay. The organization is part of the CNCC and has also been participating for several years in the design of the Safeguard System for REDD +. Their participation in the project would be related to the mentioned system and in Output 3 in the activities related to capacity building	Participation related with the MRV of mitigation (Output 3. Activity 3.1) capacity building activities (Output 3, Activities: 3.4). FAPI is also part of the CNCC consultative instance of the project.

Table 5. Main stakeholders and their participation on the project.

In accordance with the consultation process carried out, it has been agreed that existing entities such as the National Commission on Climate Change should be strengthened as the main consultation channel for the project. Ordinary and extraordinary meetings of the CNCC will be used as a space for the dissemination of the actions and for the validation of the processes.

In addition, the need to establish a communication activity within the project that ensures the effective dissemination of the information produced and the agreements reached has been raised during consultation. To address this recommendation, a specific activity regarding communication has been included under Output 3.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Overview

The Global Environment Facility (GEF) and the UN Environment Programme (UNEP) have made strong commitments to gender-responsive approaches throughout their work, and it is therefore highly important that this CBIT project aligns to these mandates. Furthermore, the Paraguayan Government has a National Gender Strategy in the face of Climate Change and the Ministry of Women of the country has created a Gender and Environment unit whose representative is an active member of the National Commission on Climate Change (NCCC), main consultative body for this CBIT project.

UNEP Gender Equality and the Environment

As the lead organization to coordinate environmental matters within the United Nations System, UNEP has the responsibility to model good practice and drive the achievement of the system's gender equality mandate in all its environmental-related activities, including assessments and analyses, norms, guidelines and methods.

Methodology

According to GEF, gender analysis refers to "a critical examination of how differences in gender norms, roles, power structures, activities, needs, opportunities and rights affect men, women, girls and boys in a certain situation or context. It includes collection and analysis of sex-disaggregated data and gender information to understand gender differences and gaps, determine gender differentiated impacts and risks, to identify measures to avoid adverse gender impacts, and to uncover and act on opportunities to address gender gaps and inequalities relevant to the activity."

Using the above definition as a guidance, a review of the information available was carried out in order to analyse gender differences and inequalities relevant to the subject of the project. The following framework is employed, dividing the analysis into four domains as illustrated below. In each domain, an aspect particularly relevant to this project is highlighted. In short, the gender analysis will shed light on gender differences in access to information, on to what degree men and women participate in formal decision-making processes in Paraguay, what beliefs and perceptions shape this, and how this is reflected in current laws and policies. This analysis provides the fundament for the Gender Action Plan, which is subsequently presented.

Access to Assets

Includes information on gender relations that affect access to the necessary resources to be a productive participant in communities. In this project, it is access to information that is highlighted.

Beliefs and Perceptions

This includes the cultural belief system or norms about what it means to be a man or woman in a specific society. These beliefs affect men and women's behaviour, participation and decision-making capacity. They also facilitate or limit men and women's access to education, services, and economic opportunities.

Practices and Participation

These are the norms that influence men and women's behaviour and the structures that determine the activities they engage in, as well as their roles and responsibilities. This dimension captures information on men and women's capacity to participate in different types of economic, political, and social activities, and their decision-making abilities.

Institutions, Laws, and Policies

This dimension focuses on information about men and women's different formal and informal rights, and how they are dissimilarly affected by policies and rules governing institutions.

Main findings

Beliefs and Perceptions: attitude towards gender in Paraguay

According to UNDP's Gender Inequality Index (GII)[1], Paraguay ranks 98th out of 189 countries (2019), an improvement from its previous position (117th in 2018).

In Paraguay, the importance of recognizing and acting on the differences between men and women's access to societal resources has followed the global trend and gained in importance over the last decade. This is illustrated by the creation of the Ministry of Women in 2012 through Law 4.675/2012, which elevated the Secretariat of Women to a ministry. The Ministry works towards its mission to formulate public policies and to change societal norms in order to achieve equality between men and women, and eliminate all forms of discrimination towards women.

The Ministry of Women is a key stakeholder who has been consulted in the CEO endorsement phase. Moreover, the Ministry of Women has created a Gender and Environment unit whose representative is an active member of the National Commission on Climate Change (CNCC). The CNCC is a consultative body for any government action regarding climate and the environment, and it is also the main consultative body for this CBIT project. There is thus a good foundation in terms of beliefs and perceptions which facilitates the mainstreaming of gender into the CBIT project.

Access to assets: access to information

In recent years significant progress has been made in terms of increase access to public information in general and regarding climate change in particular; nonetheless much remains to be done specially to reach rural communities. Climate change information is produced mainly in Spanish and MADES' budgetary constraints make it difficult to translate important policy documents into Guaraní which is the second official language of Paraguay and the one most spoken in rural areas.

No sex-disaggregated data on access to public information about climate change is available to assess possible differences between men and women in this regard. Climate change is perceived in the country mostly as an environmental issue and MADES is identified by the general public as the main institution in charge of providing official environmental information. According to the Unified Portal of Public Information only 0.3% (81 out of 31.453) of public request through the portal is directed to MADES showing the need to increase the reach of MADES as a source of information.

Practices and Participation

In view of the objective of this CBIT project and the involvement of public institutions, another relevant data to consider are those related to women's equal participation and representation in decision-making process. According to the Paraguayan Secretariat of Civil Servant (SFP) there has been an increase in the number of women working in several areas of government. In the executive branch, women represent the majority of the personnel (56%)[2]; while in local government (municipalities) women represent only 33 % of the personnel. This is thus important to keep in mind for systems designed for the local level, and where consultations are to be held with local levels of government; certain care needs to be taken to ensure getting the perspectives of each gender in these consultations.

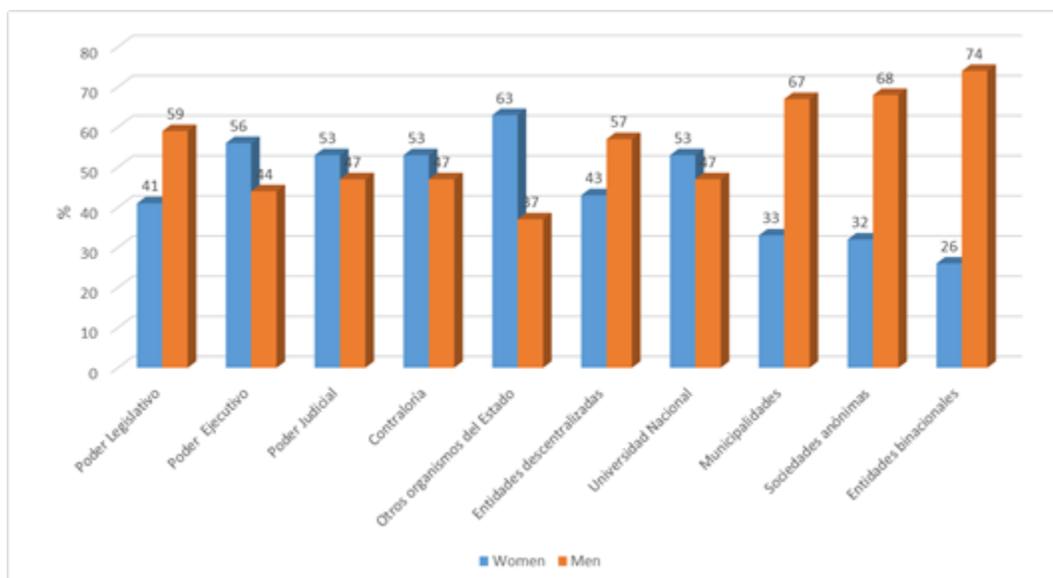


Figure 8. Composition of the civil service in Paraguay. (Source SFP: 2016)

Institutions, laws and policies: gender in current policies and strategies

Paraguay has a National Gender Strategy in the face of Climate Change (ENGCC), which aims to actively and effectively promote the incorporation of the gender perspective in the adequacy, preparation, coordination, monitoring, and evaluation of public policies on climate change, as well as in the actions of civil society, in order to achieve the well-being of the population, respecting the needs and interests of men and women.

The ENGCC was designed based on four pillars: strengthening institutional capacities; financing; education, communication and citizen participation; knowledge management and technology. The Strategy stresses the need to deepen the research on the conditions of inequality as a function of climate change, promoting the dissemination and access to information to address these inequalities.

Developing gender sensitive indicators is an ongoing work for MADES. It is currently working to update its NDCs as well as to design a plan for the National Gender and Climate Change Strategy, in order to incorporate specific indicators to translate into actions across different sectors. Moreover, the indicators for mitigation which are to be developed in this project will also be gender sensitive and able to be gender disaggregated.

Up to this point, some trainings and capacity building on gender and climate change have taken place especially during the elaboration of the Third National Communication, in which more than 800 women leaders were trained[3]. According to data shared by MADES during a global workshop on Gender and NDCs in 2019, further work is needed to mainstream gender equality into the planning processes, considering that in 45% of the assessed cases, the institutions did not include a gender approach for internal planning (Fig. 12).

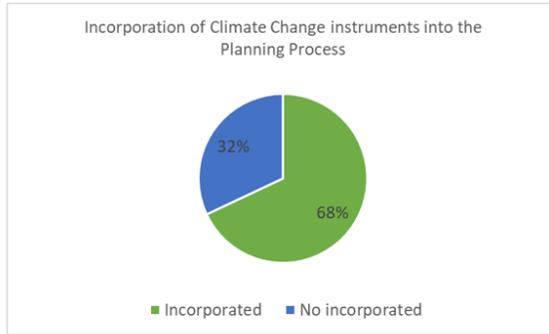


Figure 11. Share of public institutions incorporating climate change instruments into institutional internal planning.

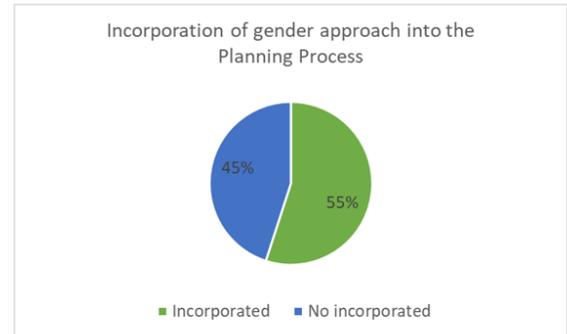


Figure 12. Share of public institutions incorporating a gender approach into the internal planning process.

- Women's overall contribution to achieve mitigation and adaptation targets is mentioned in several national climate change documents; however, quantitative data is lacking.
- Sex-disaggregated data is not being consistently collected. Although, this is changing rapidly and it's expected that more sex-disaggregated data will be available in the near future.
- There is a need to increase awareness on gender among stakeholders and provide useful ideas and tools to take action.

The CBIT project will contribute to close some of the gaps identified above. The lacking quantitative data for both who's contributing in the actions, and climate change effect will be addressed with care in the development of indicators for the various systems, and in the capacity building activities.

Gender Action Plan for this project

The main responsible for the implementation of the Gender Action Plan will be the Public Engagement and Gender Specialist. The table below shows the gender action plan considering the project cycle.

Action	Description	Project Phase

Project Implementation		
Project Management	<p>Training on gender will be provided (including introduction to UNEP and GEF gender policies) to members of the project team (or e-learning ? see: Gender & Environment).</p> <p>Knowledge about gender sensitive practices are included in the ToRs for key positions within the project as a desirable trait.</p> <p>Adopt an adaptive management approach allowing for adjustment of strategies and activities to address gender-related issues as they arise.</p>	Implementation & monitoring
Capacity building	<p>Strategies to ensure women's participation in workshops will be adopted, particularly in those areas where women are under-represented.</p> <p>Gender approach will be used to develop project training material, protocols and other publications.</p>	Implementation & monitoring (Activities: 3.1; 3.6)
Monitoring Gender		
	Key gender indicators integrated in the project logframe will be monitored on a regular basis.	Implementation & monitoring

Table 6. Gender Action Plan in the Project cycle.

In other words, the project will take care to include women in the implementation of the project, from the project board and project management team to consultants, and from training to active participation in consultation workshops. In this sense, project management and monitoring will be gender-sensitive, including gender-disaggregated indicators showing who is involved and whose views are represented.

In short, gender considerations will be cross-cutting in this project, in the terms both of its products and its processes. Indeed, with its focus on transparency, shedding light on how women and men participate in climate change-related decision making, the project will contribute to women's equal engagement in and benefit from climate change action. Following CBIT Programming Directions, the GEF Policy on Gender Mainstreaming and its Gender Equality Action Plan and the UN Environment Gender Policy.

Moreover, Paraguay will benefit from the Global Coordination Platform activities on gender. Mainly, under its Output 2.4 "Assistance provided to countries with integrating the UNFCCC Gender Action Plan into enhanced transparency frameworks" of the PIF approved GEF project "Global Capacity Building Initiative for Transparency (CBIT) Platform Phase II A: Unified Support Platform and Program for Article 13 of the Paris Agreement

In addition, this project aims to mainstream gender considerations into general project management. Through including knowledge about, and experience with gender mainstreaming in the Terms of Reference for various key personnel in the project, it is ensured that gender considerations are mainstreamed. In particular, besides the public engagement and gender specialist, the planning expert must also have demonstrated experience with gender mainstreaming in their background. Gender mainstreaming experience is explicitly considered an asset for the rest of the positions in the team (i.e. the CTA, the mitigation, and the adaptation specialists).

[1] The GII measures gender inequalities (i.e. 0 indicates complete equality and 1 indicates complete inequality) in three important aspects of human development: reproductive health, measured by maternal mortality ratio and adolescent birth rates; empowerment, measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education; and economic status, expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older.

[2] However, it is important to consider these figures under the light shed by additional information. For example, the share of seats in parliament that are held by women shows a value of only 16% according to [data compiled by the 2019 Gender Inequality Index from UNDP](#). Therefore, further inequalities may arise from the uneven access to decision-making positions.

[3] SEAM/PNUD/FMAM. 2017. Tercera Comunicaci?n Nacional de Paraguay a la Convenci?n Marco de las Naciones Unidas sobre el Cambio Clim?tico. Proyecto TCN e IBA. Asunci?n, Py. 532P.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Private sector representatives are essential to consult in the establishment of an Integral MRV system as they are key entities to implement many of actions needed to mitigate and adapt to climate change. This includes both small private actors, such as farmers, but also large private actors such as companies within industry. These have been engaged in the project preparation phase, as described above, but are also key actors in a number of the outputs of the project. Under Output 1, the strengthening and consolidation of institutional arrangements will include arrangements to get data from private actors. Under Output 3, "Technical support, training and tools developed and provided to Paraguay to track the implementation of its NDC and support received" private sector actors are essential actors in a number of ways: under activity 3.1., in the process to develop and prioritize indicators for tracking the NDC, private sector voices will be key to decide what is feasible in terms of what activity data one can be collect in a simple manner. Within activity 3.1, private sector actors will likely be a key audience as data providers for some of the capacity building courses.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

The following table describes the key risk for the project implementation including operational, environmental, institutional, technical and political. COVID-19 and Climate Change related risks are discussed further in the sub-sections below.

Risk	Risk level rating - probability	Risk level rating - impact	Mitigation
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<p>Uncertainty around the duration and evolution of the current COVID-19 outbreak and its impact on the country's economic outlook and public sector priorities.</p>	<p>Medium</p>	<p>Medium</p>	<p>Risks related to the pandemic have two components. The first is the one related with the restriction of circulation, which would affect mainly workshops and related capacity building activities. This aspect of the risk would be mitigated mostly through remote work, on which MADES has had successful experiences during the first months of the initial outbreak.</p> <p>The second component is related with procurement processes, which can be paralyzed or slowed down depending on the evolution of the pandemic. In this context, at the beginning of project execution, the project timeline and dates of execution of all project activities will be re-evaluated taking into consideration any on-going risks due to COVID-19. Moreover, the project budget will be incorporated into the Ministry's budget, in turn a part of the national budget and thus approved yearly in congress. This creates a strong commitment to prioritize and execute project activities, thus mitigating this aspect of the risk.</p> <p>In addition, MADES will cross-train staff so that if a member contracts COVID-19 and is on leave, during their recovery the project can continue.</p>
<p>Institutional: high personnel turnover</p>	<p>High</p>	<p>Medium</p>	<p>Part of the current staff, as described above, is highly dependent on international finance and is usually employed on a consultancy/project basis. This creates a high turnover. This will be mitigated by creating a system which is less dependent on international finance, and thus can create more stable conditions for employees, encouraging them to stay longer.</p>
<p>Institutional: National institutions not having sufficient capacity to collaborate with the CBIT team.</p>	<p>Medium</p>	<p>Medium</p>	<p>The capacity building system which will be established will train national institutions, both public and private actors, in aspects necessary to facilitate collaboration.</p>

<p>Political / financial: Lack of political will and resources to finance operational costs of the Integral MRV system beyond GEF funding</p>	<p>High</p>	<p>Medium</p>	<p>As the current system hardly is financed through public funds, a change in this implies an increased allocation of resources, if no other means can be identified. There is a risk that such a request would not be approved politically. The mitigation measures include:</p> <ul style="list-style-type: none"> - a thorough analysis of this issue will be prepared as part of the project (product 1.1.1.7) and its considerations will be integrated in the system design. This analysis will provide detailed cost estimates, together with a proposal on alternatives to finance the continuing operation of the system. - Politically, the project will show how the Integral MRV system not only serves to report to the international level, but also serves Paraguay's domestic planning needs (Output 4). - The capacity building module of the project will be assigned to one of the universities in the National Commission on Climate Change. This institution will design and provide training on the use of the transparency system, and budget has been allocated to this purpose as part of Output 3. However, after the CBIT project ends, the university will continue to be a part of the National Commission on Climate Change, which is an institutional body designated by the National Climate Change Law (Law N° 5875/2017). Thus, it will be in their own interest to incorporate the training on transparency developed during the CBIT project as part of their curricula. This is expected to reduce the cost of on-going capacity building for the system (beyond GEF funding) and contribute to its overall sustainability.
<p>Organizational: capacity built not retained.</p>	<p>Low</p>	<p>Medium</p>	<p>The project will create a capacity building system which can build the capacity of new staff, thus centralizing the knowledge management.</p>
<p>Knowledge: Country works isolated from other countries and do not take advantage of existing tools and methodologies</p>	<p>Low</p>	<p>Low</p>	<p>The knowledge management system created for the project, and especially the use of the information available on the CBIT Global Coordination Platform and the south-south peer exchange activities will mitigate this risk.</p>

<p>Climate change: Climate change related events affects project implementation, or country priorities.</p>	<p>Low</p>	<p>Low</p>	<p>As most of the project activities will take place within the capital of Asuncion, it is unlikely that any major weather event spurred on by climate change will affect implementation significantly. Some national travel is planned within the project, but these can be rescheduled in the case of major disturbance.</p> <p>Regarding the country's priorities, a significant climate change related weather event is likely to underline the importance of having monitoring and evaluation systems for climate action. Moreover, this project is financially insulated as it counts with its own funding.</p>
<p>Social: The world economic development adversely affects Paraguay's economic and social development, causing social tensions which could change political priorities.</p>	<p>Low</p>	<p>Medium</p>	<p>Social tensions and protest towards government in these situations usually include demands for more transparency. Thus, it is rather likely that such protests could increase the urgency of the project.</p> <p>Even so, the CTA will work in close coordination with the National Project Director to ensure that the project keeps abreast of such developments, and can have a continuous discussion to ensure its relevance with shifting priorities.</p>

Table 7. Project Risks.

Additional information related to the climate risk assessment

(i) How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately?

Following IPCC (2012)[1], **hazard** is defined as the potential occurrence of a natural or human-induced physical event that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, and environmental resources[2]. **Exposure** is

employed to refer to the presence (location) of people, livelihoods, environmental services and resources, infrastructure, or economic, social, or cultural assets in places in which hazard events may occur. **Vulnerability** is defined as the propensity or predisposition to be adversely affected, and it encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. In the context of the assessment of climate impacts, **risk** results from the interaction of vulnerability (of the affected system), the likelihood of the occurrence of a climate related hazard, and exposure to the latter.

This section discusses climate risks in the context of a) the duration of the project and its activities, but also (and more importantly) in the context of b) the transparency system that will be established and is expected to exist well beyond the timeframe of this CBIT project. Climate risks are its very core: all of its outputs have been designed and shaped precisely from the need to raise awareness on climate risks - and provide tools to mitigate them.

Paraguay stands out as one of the South American nations with greatest vulnerability to climate change[3], albeit with moderate exposure indices. In particular, Paraguay's vulnerability stems mostly from its high sensitivity and its developing adaptive capacities. With one of the lowest per capita GDPs of the LAC region and an economy that is highly dependent on the agriculture sector, climate vulnerability is exacerbated by high levels of land degradation in the east and south areas of the country. Hazards in Paraguay are limited to variations in temperature and precipitations, without extreme events such as hurricanes and tsunamis. Thus, climate events are expected to take the form of floods associated to El Niño phenomenon, droughts associated with La Niña, intense precipitations, heat waves and frosts. The direct impact of these hazards affects mostly rural activities, on which the country is highly dependent.

The proposed project will take place mostly on the capital, Asuncion, an autonomous district surrounded by the Central department. The latter is one of the areas with the lowest vulnerability indices according to various projected scenarios, ranging from 'medium-low' to 'very low' in the period comprised between 2020 and 2050 due to their high adaptive capacity. On the other extreme, the set comprised by the departments Alto Paraguay, Boquerón and Presidente Hayes (northwest of the country) show the highest vulnerability due to a combination of high sensitivity with poor adaptive capacity[4].

Potential climate-related effects that have been taken into consideration include:

? **Disruptions in data collection and data storage systems and infrastructure.** As the central activities in this project will take place in Asuncion (low vulnerability) and involve mostly historical data that already exists in cloud servers, it is highly unlikely that the activities themselves are affected by the

type of extreme events that could strike the central region. However, the transparency system that is to be established by this CBIT project will outlive the latter's specific activities, requiring periodic collection and processing of data from all over the country. This CBIT project will thus ensure that the system has embedded procedures, guidelines and protocols for the collection of data that consider the various ranges of vulnerability to climate risks throughout the country ? an element that will be introduced mainly in the context of Output 2 (e.g. in terms of activity data) and Output 3 (e.g. for the update of support needed and adaptation requirements).

? **Difficulties to undertake capacity building activities.** Training activities, workshops and meetings could be adversely impacted by extreme climate events. In this case, however, most activities are to take place in Asuncion, a location that can be easily reached from all over the country, has a low exposition to climate hazards and the highest adaptation capacity in the country.

? **Change in stakeholder priorities.** When a vulnerable country is impacted by extreme climate change effects, political priorities, investor's interests and co-financing availability might shift. While this may adversely affect the outputs of a CBIT project -since the latter targets institutions and needs political attention and interest to be successfully implemented- it is expected that any negative impacts attributable to climate change will result in an *increased* interest in the project's outputs. Moreover, the system that is to be established as part of this project will ensure that awareness of climate change impacts is embedded in national long-term planning, as discussed in the description of Output 4.

Thus, being a short-term (i.e. three years) project based in a low vulnerability region of the country and focused almost entirely on the creation, compiling, storage and processing of climate information, this project can be deemed low risk in terms of climate change. Moreover, the objective of the project beyond its own duration is precisely to provide a transparency system that can both keep track of mitigation actions and enhance Paraguay's adaptation efforts.

(ii) Has the sensitivity to climate change, and its impacts, been assessed?

The projections considered in the Third National Communication evaluate sensitivity and lack of capacity to cope and adapt (?adaptive capacity?) as the main components of vulnerability[5]. Sensitivity, defined as the degree in which a system can be affected by climate hazards, was evaluated at the department level taking into consideration land, water, health, and ecosystem resources for two different Representative Concentration Pathway (RCP) scenarios, RCP 4.5 (intermediate) and RCP 8.5 (worst-case), for the periods 2021-2030, 2031-2040 and 2041-2050.

The activities under this project are not likely to be compromised by climate-related events, whereas the transparency system that will be established by it (and remain operational long after the GEF project has ended) are expected to have a positive contribution to the resilience and adaptive capacities of Paraguay.

(iii) Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with?

As noted in the response to (i) and (ii), climate impacts pose a low risk for this project. Resilience practices were included in the project's activities as well as the outputs that will endure after its technical completion:

? **In terms of data collection and data storage systems and infrastructure**, the project will design resilient systems able to withstand the threats posed by the type of extreme events that, depending on the region, may affect the collection of the raw data as well as its processing and ulterior storage. This will be reflected mostly through the outputs preparing guidelines, procedures and protocols, namely, Output 2 and Output 3. It is expected that the project will develop the capacities needed to update these outputs as needed in the future, beyond GEF funding (see e.g. deliverable 1.1.1, product 1.1.1.7).

? **In terms of difficulties to undertake capacity building activities**. During its execution, the project will ensure the safety of the personnel and the stakeholders. In the unlikely event that activities need to be postponed due to warnings, the safety and integrity of the people will always be a priority, and the project will only return in its course when safety can be assured. Online options will be preferred when possible to save resources for travel as a default position in the project.

? **In terms of stakeholder priorities**. Output 4 will link the Climate Change Module of the SIAM with the national planning process. This way, awareness of climate change impacts is expected to be explicitly taken into account in the national long-term planning and funding.

(iv) What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?

Technical measures considered will include cloud-based solutions and systematic backups of relevant information. Creating technical and institutional capacity, as well as systems that generate the required information to address climate risks, are among the very objectives of this CBIT project.

COVID-19 risk and opportunities

As in the rest of the Latin American region, the COVID-19 pandemic has had a dramatic impact in Paraguay. In December 2020, the number of cases displays an upward trend, [adding pressure to the health care system](#). The country has established a 'smart lock-down' system consisting of four phases, which groups activities according to risk levels.

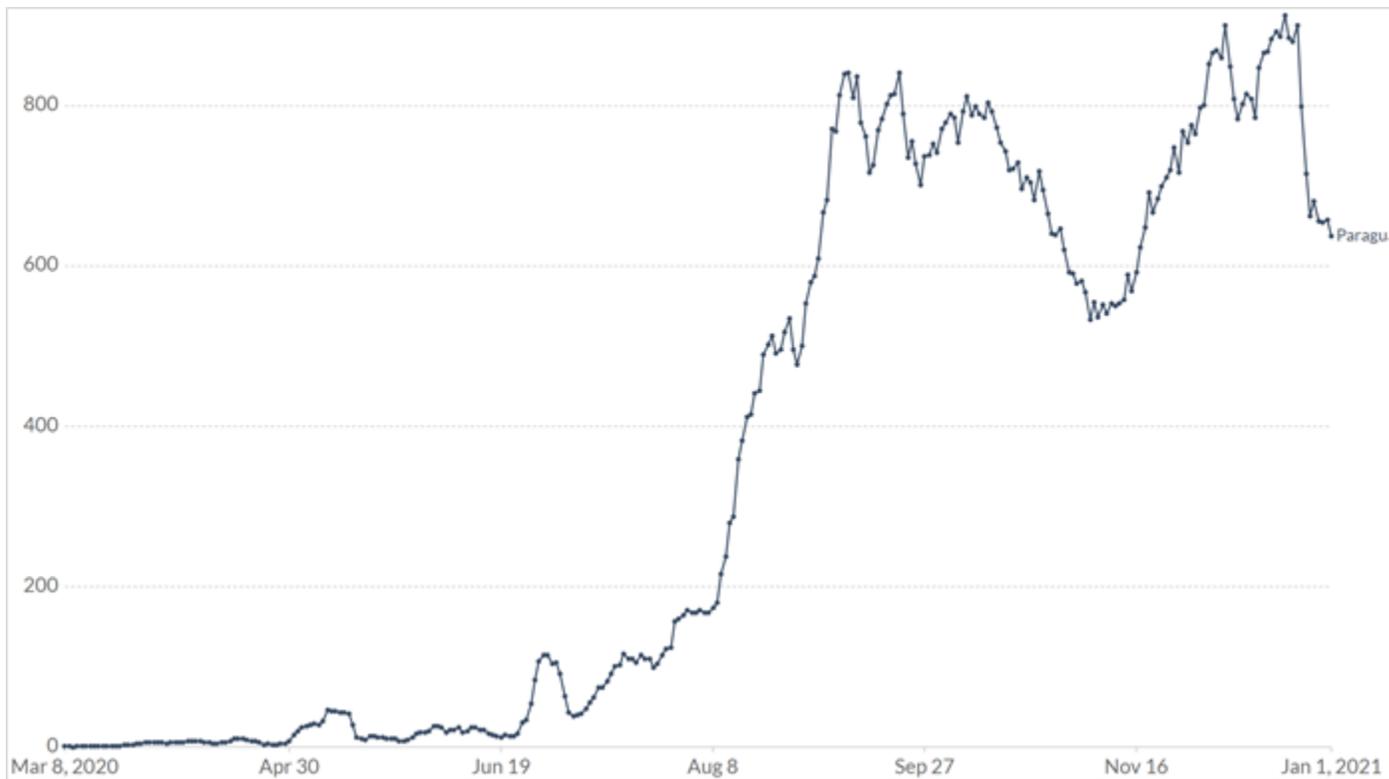


Figure 9. COVID-19 Impact in Paraguay, as captured by the daily new confirmed COVID-19 cases (7-day rolling average). *Source: JHU CSSE COVID-19 Data* (compiled by [Our World in Data](#))

Ways in which the COVID-19 pandemic can potentially affect the project are discussed below:

Risk

- Lockdown and movement restrictions: mobility restrictions and the need for social distancing due to the pandemic could lead to reduced possibility for activities that have traditionally required in-person participation, such as workshops, meetings, trainings and consultations.
- Slowdown of procurement processes, i.e. procurement processes can be paralyzed or slowed down depending on the evolution of the pandemic and the offices it affects.
- Staff turn-over due to the illness: long leave periods to recover from the symptoms can cause delays in the execution of project activities.

Mitigation measures

As of December 2020, government activities follow a unified protocol ruled by [Resolution N°187/2020](#), which was established to ensure the safety of the state workers and the general public. However, due to the nature of the pandemic, a dynamic approach will be pursued to accommodate to various contingent scenarios:

- In the event of mobility restrictions and the need for social distancing, alternative and innovate forms of meeting organization and communication will be implemented (i.e. using online platforms). The impacts of the pandemic in 2020 have meant that such technologies are already becoming commonplace and acceptable for usage by a broad range of stakeholders.
- As for the procurement risk, at the beginning of project execution the project timeline and dates of execution of all project activities will be re-evaluated taking into consideration any on-going risks due to COVID-19. Moreover, the project budget will be incorporated into the Ministry's budget, in turn a part of the national budget and thus approved yearly in congress. This creates a strong commitment to prioritize and execute project activities, thus mitigating this aspect of the risk.

- MADES will add staff and cross-train staff so that if a staff member contracts COVID-19 and is on leave during their recovery, the project can continue.

Opportunities

With Ministries of Finance around the world releasing billions of dollars in stimulus packages, to fight COVID-19, transparency is more crucial than ever. The COVID-19 crisis has demonstrated the importance of transparency in building trust which represent a great opportunity for this CBIT project. The timing of the project could enable Paraguay to further guide activities which will be vital for maintaining momentum for action on climate change. In particular, in October 2020 the country issued an Economic Recovery Plan (*Plan de Recuperaci3n Econ3mica, Paraguay*), prepared by the Ministry of Finance, which aims at a new stage of economic development that is more inclusive and more resilient. The plan has three pillars: i) social protection; ii) investment and employment and iii) finance for growth. The information that will result from the transparency system to be implemented by this project will serve as a key input to orient greener investments, whereas the linkages with the national planning process will ensure a long-term impact.

[1] IPCC, 2012: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp.

[2] Given the relatively short timeframe involved in this CBIT project (three years), the term *hazard* will focus on the occurrence of extreme events rather than on long-term climate variability. Hazards deriving from long-term variations in average temperature and precipitations will be relevant (and considered) in the implementation of Output 4, which will focus on the relationship of the transparency system and planning processes.

[3] Development Bank of Latin America, *Vulnerability Index to climate change in the Latin American and Caribbean Region*, 2014

[4] Investigaci3n para el Desarrollo (ID) and Centro para el Desarrollo de la Investigaci3n Cient?fica (CEDIC), 2016. *Evaluaci3n de la vulnerabilidad y la capacidad para enfrentar a los desaf?os y oportunidades del Cambio Clim?tico en Paraguay*. CONACYT, Programa Paraguayo para el Desarrollo de la Ciencia y Tecnolog?a. Asunci3n, Paraguay.

[5] Investigaci3n para el Desarrollo (ID) and Centro para el Desarrollo de la Investigaci3n Cient3fica (CEDIC), 2016. *Evaluaci3n de la vulnerabilidad y la capacidad para enfrentar a los desaf3os y oportunidades del Cambio Clim3tico en Paraguay*. CONACYT, Programa Paraguayo para el Desarrollo de la Ciencia y Tecnolog3a. Asunci3n, Paraguay.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Institutional arrangements:

The Executing Agency (EA) of this CBIT project will be the Ministry of Environment and Sustainable Development (MADES, from its name in Spanish), and UNEP is the Implementing Agency (IA), as is described in the GEF Focal Point letter (Annex N).

The general development of the project will be achieved by a base team (technical assistants, mitigation and adaptation specialists), under the overall coordination of the project's Chief Technical Advisor, who will facilitate interaction and development with the different actors of the National Government. In addition to the core team, the project includes specific technical support in the form of consultancies.

Division of tasks has been arranged to ensure a clear separation of roles and responsibilities. A specific team specialist will be assigned to lead each output. In a similar manner, one specialist will be assigned to lead each consultancy, which in turn is set to deliver one or more products. These are then used as inputs and their results integrated together, as needed, with the products resulting from other consultancies by the assigned team specialist into context-specific deliverables, as shown in the project's workplan. The full list of products expected from each consultancy and deliverables from the team's specialists are available in Annex K: Indicative Terms of Reference for Project Personnel, Consultants and Subcontracts. The Chief Technical Advisor (CTA) provides general oversight and harnesses the deliverables to achieve the project's intended outcomes and objectives. This arrangement is represented in the figures below.

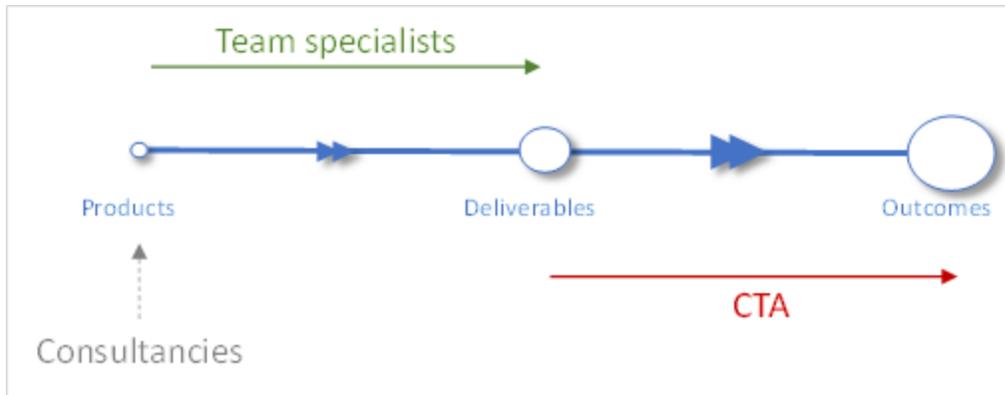


Figure 10. Schematic overview of roles and responsibilities

This project implementation structure, highlighting the specialists leading each output, is presented in the following figure.

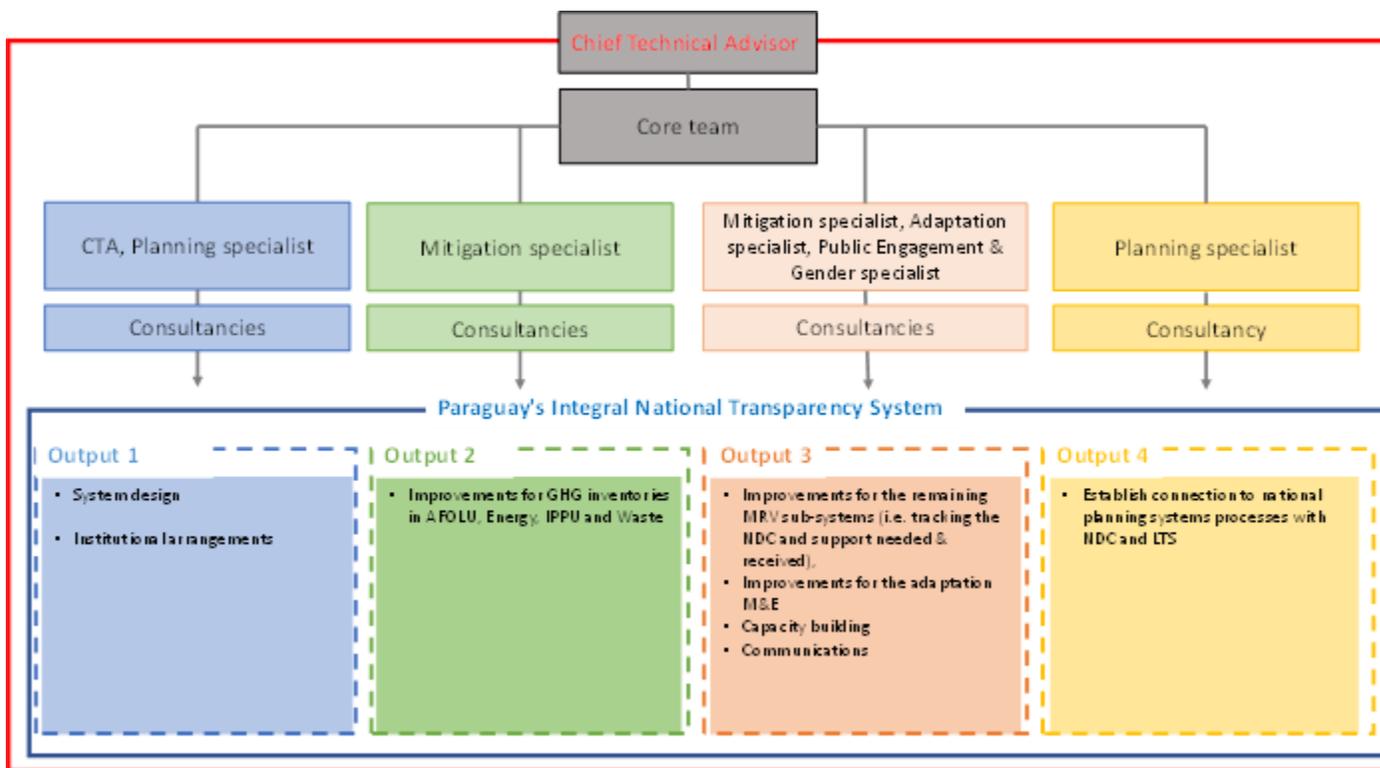


Figure 11. Schematic overview of the core teams and consultancies involvement across the project.

On a strategic level, the project will establish a Steering Committee that will meet two times a year to ensure the advance of the project, share information and provide leadership for the key institutions involved, and will ensure the integrated coordination of activities. This Steering Committee will be formed by representatives from MADES, the Ministry of Foreign Affairs, UNEP (as Implementing Agency) and the CTA of the project. This Committee will utilize the established National Climate Change Commission as an advisory committee. The Commission convenes four times pe year, as defined by Article 11, f) in the Law establishing the Commission. It will treat CBIT project related issues as they appear.

The National Commission on Climate Change was established by the National Climate Change Law, N? 5875 from 15th of September 2017. The advisory committee's role is to provide recommendations on whether to approve outputs of the project, and provide quality control. This is in-line with its mandate as established by Article 11 of the above mentioned. The members of the committee include various public institutions and ministries, academic institutions, civil society representatives as well as from the private sector. The complete list can be found in the table in Annex H.

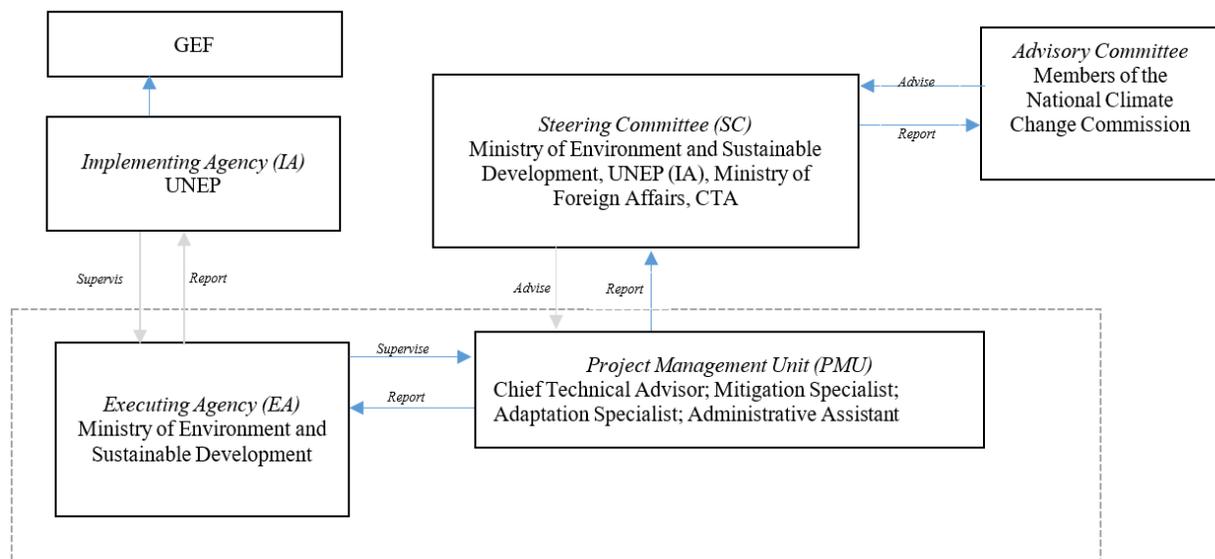


Figure 13. Institutional arrangements of the project.

Coordination with other initiatives:

One highly relevant GEF funded projects which are currently under preparation and will be implemented for the first years of this project is the GEF project to prepare the Fourth NC and the Third BUR. This both count with the Ministry of Environment and Sustainable Development as the Executive Agency, which

will allow for a high level of coordination between the projects. The two projects will have the same national focal point, which in this project also will be the National Project Director. As the National Project Director is represented in both projects? governance structure, a high degree of coordination will be possible.

As described above, this is important as there are considerable areas where synergies can be generated, including in the design and operationalisation of the national inventory system, and establishment of the climate change module.

Another important project is the formulation of the sectoral adaptation plans, which deepen the National Adaptation Plan issued in 2017. The implementation period of the CBIT project is expected to take place during the design phase of the sectoral NAPs, so it is expected that the CBIT project will create the overall framework for adaptation reporting within the BTRs, and also develop the indicators to monitor the progress of adaptation actions at the aggregate levels. The sectoral NAP project will develop local and sectorial adaptation plans and indicators aligned with the general framework.

Similar to above, the two projects also shares the national focal point within the Ministry of Environment and Sustainable Development. This facilitates coordination, as this project's National Project Director will play a similar role in the NAP project.

The project will also allow Paraguay to actively participate in the GEF financed CBIT Global Coordination Platform jointly implemented by UNDP and UNEP. This is further described under Knowledge Management below.

The following table revisits the projects presented in the baseline, adding their relevance to the CBIT project, and how interaction will take place.

Donors	Project Name and time span	Description	IA
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GEF	CBIT Global Coordination Platform	<p><u>General Description:</u> This project provides streamlined support and capacity building at the country, regional, and global level to enable Non Annex I countries under the UNFCCC and developing countries under the Paris Agreements to better respond to reporting requirements and to catalyze increased ambition within country NDCs.</p> <p><u>Relevance to this CBIT Project:</u> the platform facilitates sharing of information, knowledge and peer learning at the regional and global level</p>	UNDP / UNEP
GEF	<p>Framework Program for the Sustainable Management of Water Resources of the River Plate Basin, in relation to the effects of variability and Climate Change - CIC ? Plata</p> <p>(2010-2015)</p>	<p><u>General Description:</u> Strengthen cross-border cooperation among governments to guarantee the management of the shared water resources of the basin in an integrated and sustainable manner, in the context of climate variability and change, capitalizing on opportunities for development.</p> <p><u>Relevance to this CBIT Project:</u> The outputs of this project are relevant for when developing institutional arrangements for the data flows (Output 1) and when designing the capacity building systems for the various systems established and improved through the project.</p>	UNDP

GEF	<p>Second Biennial Update Report of Paraguay.</p> <p>(2017-2019)</p>	<p><u>General description:</u> The objective of this project is to assist Paraguay in the process of preparation and submission of its Second Biennial Update Report to the UNFCCC.</p> <p><u>Relevance to this CBIT Project:</u> Although this project finalized and the second BUR was submitted to the UNFCCC in December 2018, the results are key to the CBIT project because it will build upon those results and lessons learned.</p>	UNDP
GEF	<p>Generating responsible demand for reduced deforestation commodities</p> <p>(2017-2021)</p>	<p><u>General Description:</u> The main objective of the project is to increase demand for Sustainable Meat Production.</p> <p><u>Relevance to this CBIT Project:</u> Livestock is a likely sector for which the emission factors shall be enhanced to Tier 2. Therefore, this project will provide insights to activity 2.1 emission factors for more emitting categories.</p>	UNDP

<p>GEF</p>	<p>Asuncion Green City of the Americas. (2017-2022).</p>	<p><u>General description:</u> The objective of the proposed project is to improve the quality of life in the Asuncion Metropolitan Area (AMA) and deliver multiple benefits through the integration of transport and solid waste management and green infrastructure into a framework for a sustainable and resilient city. It has been organized into five outcomes: 1) Enabling framework for a green sustainable city enhances integrated urban planning of the AMA; 2) Sustainable mobility and transport in the AMA for reducing GHG emissions from urban transport; 3) Improved chemicals and waste management system for reducing emissions of UPOPs, GHGs and toxic chemicals; 4) Emplacing and improving Protected Area management; 5) Dissemination of Lessons-learned, monitoring & evaluation</p> <p><u>Relevance to this CBIT Project:</u> Outcome 5 of the Asuncion Green City of the Americas project will define and develop a monitoring system for the sustainable development of the city, and includes institutional capacity building of relevant institutions, and development of indicators and the setting up of a monitoring platform.</p>	<p>UNDP</p>
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GEF	<p>Support to the reduction of GHG in the production of commodities (2017-2022)</p>	<p><u>General Description:</u> The main objective of the project is to support sustainable meat production, while conserving forests and safeguarding the rights of communities that depend on forests, with emphasis on the Chaco region.</p> <p><u>Relevance to this CBIT Project:</u> Livestock is a likely sector for which the emission factors shall be enhanced to Tier 2. Therefore, this project will provide insights to activity 2.1 emission factors for more emitting categories as well as for the development of indicators for monitoring the progress of NDCs (activity 3.1).</p>	UNDP
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GEF	<p>Fourth National Communication (FNC) and Third Biennial Update Report</p> <p>(2019-2022)</p>	<p><u>General Description:</u> The objective of this project is to assist Paraguay in the process of preparation and submission of its Fourth National Communication and Third Biennial Update Report to the UNFCCC.</p> <p><u>Relevance to this CBIT Project:</u> The CBIT project is expected to contribute largely to the FNC and BUR3, as well as the FNC and BUR3 will support the CBIT project. Output 2 of CBIT includes work to elevate emission factors to at least tier 2 level for the most emitting categories and also improve the activity data collection, besides support the country to consolidate the institutional arrangements for the preparation of the inventory; all this activities will serve to enhance the preparation of the reports. Also, Output 3, that includes, the development of indicators for monitoring the progress of the NDCs, and Output 1 that helps to establish the institutional agreements needed, will contribute to establish and sustain the integrated MRV & M&E system and to report on mitigation and adaptation actions and the progress made.</p>	UNDP
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<p>GCF</p>	<p>Poverty, Reforestation, Energy and Climate Change (PROEZA). (2017-2023)</p>	<p><u>General Description:</u> Reducing the adverse effects of climate change in the country, while reducing rural poverty, fighting deforestation and mitigate greenhouse gas emissions. It will also support the transition to sustainable forest management to reduce the loss of the country's forest cover and improve the quality of life of some 17,000 vulnerable families in 64 municipal districts located in eight departments in eastern Paraguay.</p> <p><u>Relevance to this CBIT Project:</u> The progress made on its different components: Planting the Future, Sustainable Landscapes and Responsible Markets, and Good Governance and Law Enforcement will become a source of information for activity 3.1. Indicators for monitoring the progress of the NDC as well as activity 3.2. Tools, guidelines, and protocols for the relevant institutions are developed.</p>	<p>FAO</p>
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<p>GCF</p>	<p>Promoting private sector investments in energy efficiency in the industrial sector in Paraguay</p> <p>(2019-2024)</p>	<p><u>General description:</u> Paraguay has a high hydropower capacity, yet industry is largely powered by traditionally inexpensive fuelwood (constituting 83 percent of industrial energy use), causing large amount of emissions from wood burning and associated deforestation. Hydropower is being increased as part of the country's long-term renewable energy goal. At the same time, zero deforestation laws in several regions have increased the price of fuelwood, a trend that is likely to continue. Despite these developments, Small and Medium Enterprises (SMEs) are still largely using biomass, and opportunities exist to shift their energy use to renewable sources in order to reduce emissions.</p> <p>Tools will be developed to generate an enabling environment for energy efficiency investments by SMEs, including standardized performance contracts, insurance contracts, and monitoring and verification systems. Concessional credit lines will be provided to local financial institutions and SMEs, whilst support will facilitate positive institutional, policy and regulatory environments for energy efficiency investments.</p> <p><u>Relevance to this CBIT Project:</u> The project includes activities to develop MRV methods, including indicators, appropriate to the national circumstances of Paraguay. Furthermore, the project will coordinate this development with the relevant key actors in Paraguay. The CBIT project will align the activities to develop indicators and MRV systems for mitigation with this project's activities.</p>	<p>IDB</p>
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GCF	<p>REDD+ Results-based payments in Paraguay for the period 2015-2017.</p> <p>(2020-2025)</p>	<p><u>General Description:</u> The project aims to implement the Forest Strategy for Sustainable Growth (EBCS). It is expected with the same: create capacities to develop the monitoring system for the implementation of the EBCS; and establish the governance and operating procedures of the Climate Change Fund to finance EBCS low-carbon plans.</p> <p><u>Relevance to this CBIT Project:</u> REDD+ monitoring system will be developed with this project; therefore it will be relevant to CBIT's Output 3.</p>	UNEP
GCF (Readiness)	<p>Strengthen mechanisms for access and financing of projects to address the challenges of climate change.</p> <p>(2017- 2020)</p>	<p><u>General Description:</u> The objective of the project is to establish a framework for the NDA and strengthen its coordinating role and support in the development and monitoring of proposals to be presented to GCF.</p> <p><u>Relevance to this CBIT Project:</u> It is expected to link the systems that will be established in product 3 of the CBIT project and the monitoring system for proposals to be submitted to the GCF that this project will develop, it will be especially important to monitor the financial support received from the GCF.</p>	CAF

<p>GCF (Readiness)</p>	<p>Enhancing the role of Local Development Councils to contribute to the country's NDC implementation and access to climate finance.</p> <p>(2018- 2020)</p>	<p>General Description: The project has four specific objectives; 1) prioritize emerging municipalities with the potential to contribute to the enhancement of the implementation of the NDCs. 2. Strengthen capacities of LDC in the twelve selected municipalities to mainstream climate change in their local development agenda and enhance stakeholder engagement. 3. Develop Climate Change Action Strategies and subsequent concept notes to access climate finance from the GCF. 4. Share best practices and lessons learned amongst local governments to serve as basis for the strengthening of regional and national climate change, gender and territorial strategies.</p> <p>Relevance to this CBIT Project: The project could provide tools for evaluating the capacity of local governments to integrate adaptation actions into local development plans. CBIT's activity 3.1 would benefit from the results of this project.</p>	<p>Avina Foundation</p>
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<p>Adaptation Fund</p>	<p>Ecosystem-based approaches to reduce the vulnerability of food security to the effects of climate change in the Chaco region of Paraguay.</p> <p>(2019-2023)</p>	<p><u>General Description:</u> Reduce the vulnerability of the population (agricultural producers, selected families, and indigenous communities) of the Chaco of Paraguay to the impacts of climate change on food security.</p> <p>The project is organized in three components: i) Knowledge management on vulnerability and climate change resiliency improved; ii) adaptive capacity in rural areas of greatest vulnerability strengthened through concrete agro-ecosystem based adaptation measures; and iii) capacity development and awareness to upscale effective implementation of adaptation measures at the national and local levels</p> <p><u>Relevance to this CBIT Project:</u> Agricultural and Livestock Production is among the prioritized sectors of the country's NDCs. Therefore, activity 3.1. Indicators for monitoring the progress of the NDC as well as activity 3.2. Tools, guidelines, and protocols for the relevant institutions will focus on the development of the M&E systems that will allow to incorporate the MPGs of the Enhance Transparency Framework in its adaptation component. When developing the indicators in the above mentioned activities, the projects will build on each other's work, depending on which has reached further.</p>	<p>UNEP</p>
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FCPF	Forests for Sustainable Growth. (2017-2020)	<p><u>General Description:</u> Support the Republic of Paraguay in the culmination of the preparation phase for REDD + based on the results of the UN-REDD + National Program.</p> <p><u>Relevance to this CBIT Project:</u> it constitutes a guiding document for the management of policies, actions and measures that contribute to the implementation of the NDCs presented by the country to the international community, within the scope of the Paris Agreement of the UNFCCC, it will be taken into consideration for the CBIT Output 1 Institutional agreements for the integrated NDC Monitoring System.</p>	UNDP
EU	Strengthening of Climate Action in Paraguay[1]. (FAC PY) October (2019-2022)	<p><u>General Description:</u> The project seeks to transform the NDCs into tangible long-term actions, zero carbon development and resilient climate. It will work within the framework of three results: 1) Strengthened leadership and an ambitious vision of climate change promoted; 2) Design and planning of evidence-based mitigation actions; 3) Improvement of an environment suitable for alliances with the private sector.</p> <p><u>Relevance to this CBIT Project:</u> Both projects are complementary, it is expected that the sectoral mitigation plans to be elaborated with this project as well as the update of the NDCs can incorporate the monitoring indicators that will be developed by the CBIT project. This project constitutes an important element to reinforce the participation of the private sector which will complement CBIT's actions.</p>	UNDP

<p>Spanish Agency for International Development Cooperation (AECID)</p>	<p>Incidence of climate change in energy planning: Screening for global assessment of the vulnerability and climatic risks of the energy system of Latin America and the Caribbean (Screen-LAC)</p>	<p><u>General Description:</u> This project aims to increase the resilience to climate change of the energy sector through a risk and vulnerability analysis of the infrastructure, and the determination of the changes that must be implemented in the planning and operation systems.</p> <p><u>Relevance to this CBIT Project:</u> Results from this project can deepen the knowledge of the potential impacts of the climate on the energy system, showing the elements of the energy system most vulnerable to climate change, in addition to providing relevant information for activities 3.1 and 3.2 of the CBIT project.</p>	<p>AECID</p>
<p>EUROCLIMA</p>	<p>Preparation of the Energy Balance in terms of Useful Energy (BNEU).</p>	<p><u>General Description:</u> The project seeks to strengthen the technical capacity of the institutions in charge of energy planning in information management regarding the efficient use of energy, for the preparation and monitoring of energy efficiency policies and plans.</p> <p><u>Relevance to this CBIT Project:</u> The final report of the project will provide detailed information on energy use, allowing in this way to improve estimates of GHG emissions from the energy sector.</p>	<p>IDB</p>

National Council for Science and Technology CONACYT	PINV18-1151. Emission factors of methane (CH ₄) and nitrous oxide (N ₂ O) from the management of manure and urine of bovines supplemented in extensive breeding. (2020-2022)	<u>General Description:</u> The project aims to estimate the emission factors of methane (CH ₄) and nitrous oxide (N ₂ O) from the manure and urine management of cattle supplemented in extensive breeding. <u>Relevance to this CBIT Project:</u> the results of this project could be important for the development of Activity 2.1 of CBIT project.	Faculty of Chemistry Sciences (FCQ/UNA)
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Table 8. Ongoing projects and their relevance to the CBIT Project.

[1] <http://dncc.mades.gov.py/wp-content/uploads/2020/01/PRODOC-NDC-FIRMADO.pdf>

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

- National Action Program (NAP) under UNCCD.

Paraguay's plan from 2003 describes plans to establish a monitoring system for various aspects of the combat against desertification. It emphasizes the establishment of a national system which should the data already collected and monitored in sectors such as health, metrological services, and agricultural production. Paraguay has developed a National Action Plan for the Combat of Desertification 2018-2030. In this, the concept of the national monitoring system to track the progress towards achieving both the strategic objectives, and the operational. The plan includes the definition of progress indicators and a data collection system.

The CBIT project includes the development of indicators for the tracking of the NDC, which includes adaptation. While the extent of these indicators will be decided at a later stage, the development will take this plan into account and identify synergies between the two sets of indicators.

- ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury.

Paraguay is currently developing an ASGM NAP. It was approved for implementation by the GEF on the 3rd of February 2016, and the project has yet to close. From the 'Enabling Activity' GEF request document, the project will not establish any monitoring frameworks which could be built upon by the CBIT project.

However, the increased capacity of the stakeholders of the project in relation to information flow management, and the experiences in peer learning will serve well to prepare the actors for this project too.

- Minamata Initial Assessment (MIA) under Minamata Convention.

Paraguay participates in a multi-country project funded by the GEF, aimed to increase the capacity of Paraguay, Bolivia, Chile and Dominican Republic to implement the Minamata Convention on Mercury. The project includes an output to perform national and regional assessment of needs and challenges to implement the necessary conventions. This includes establishing better MRV systems for the substances governed by the convention. The increased knowledge of gaps and needs in environmental governance system in Paraguay serves the purpose to illustrate where potential gaps and needs are for those systems which will be established under CBIT.

- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD.

Paraguay submitted its first NBSAP in 2003 and a second NBSAP in 2016. This text focuses on the second NBSAP, which highlights the need to establish monitoring system in order to track how different activities, such as tourism, affect the biodiversity of the country. In the action plan for 'water resources', it includes the establishment of monitoring systems for the quantity and quality of water resource. As 'water resources' is one of the prioritized adaptation sectors, the CBIT project will likely establish a monitoring system for water resources. While the indicators will be defined at a later stage, they will be aligned with Paraguay's priorities. The action plan for forestry also includes the establishment of a monitoring system.

- National Communications (NC) under UNFCCC.

Paraguay has submitted three NCs in respectively April 2002, December 2011, and January 2017. The third NC describes Paraguay's current situation in terms of climate change impacts, adaptation and mitigation, and also the barriers, gaps and needs in terms of institutional, technical and financial aspects. Examples of institutional limitations are limited availability of protocols and manuals for data handling, and a tendency to view climate change as purely an environmental theme. This project will address both these issues mainly through outputs 2 and 3.

Identified technical limitations are the lack of a centralized data base for climate data, and it calls for technical support to implement mechanisms such as MRV systems. Since this, as described in the baseline section above, Paraguay has advanced with the centralized data base system, and this project will build further on this. Moreover, this project will provide the resources for Paraguay to build its capacity to improve its MRV system.

An identified financial limitation is to receive financial support to fund the implementation of the MRV system. The CBIT project addresses this need, and will also explore ways to maintain the established system.

This project is thus well aligned with the third NC.

- National Determined Contribution (NDC)

This project will establish the necessary MRV and M&E systems to track the progress of Paraguay's NDC. The project thus aligns with the NDC, and also provides an important tool to implement the NDC in an effective and efficient manner.

- Technology Needs Assessment (TNA) under UNFCCC.

Paraguay completed a TNA in 2002. It identifies the technological transfer needs in all the IPCC sectors. It does not include the establishment of an MRV or M&E system.

- National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD.

Paraguay's GEF funded project to conduct the NCSA was approved for implementation on the 24th of January 2006, and the project was completed on the 24th of October 2011. The assessment highlights the need to develop specialized technical capabilities and form teams. The CBIT project supports this objective through the creation of a team dedicated towards transparency aspects, and also through capacity building throughout the public and private institutions.

Paraguay is wrapping up a second NCSA, through which the SIAM was developed. It also includes outputs, *inter alia*, which aim to develop training programmes on improved data and information management, to develop indicators and tools, and to improve decision-making processes towards implementing the Rio Conventions. While the final reports are not available yet, the experiences of this project will inform the CBIT project in its implementation.

- National Implementation Plan (NIP) under POPs.

Paraguay's NIP was submitted to the Secretariat of the Stockholm Convention on POPs on the 21st of June 2010. The plan identifies the lacking institutional capacity to effectively monitor and enforce rules of the convention within Paraguay as one of the prioritized areas to improve.

The work to establish a national monitoring system of POPs carries similarities to establishing an MRV framework for the NDC progress in aspects of institutional arrangements, and capacity building systems. As this work has been carried out, the establishment of MRV systems under the CBIT project will learn from the previous experiences and good practices of the POPs system.

- Biennial Update Report (BUR) under UNFCCC

Paraguay has submitted two BURs to the UNFCCC; the first in December 2015, and the second in December 2018. The preparation of this PIF has drawn much on the second BUR; its main points are thus reflected throughout this document. To highlight a few, the BUR2 identifies some main limitations for Paraguay to meet the commitments made under the UNFCCC. These are, *inter alia*, lack of technical staff to support climate action, high dependence on international cooperation in technical and financial aspects, and difficult to obtain official and reliable data to prepare the reports. As mentioned, this project aims to address exactly these limitations.

- United Nations Development Assistance Framework (UNDAF) for Paraguay 2020-2024

Paraguay's UNDAF describes the priorities in regards to environmental protection, and sustainable development. The document describes the desired changes in how national institutions and sub-national institutions increase their natural resource management capacity, so as to achieve a sustainable use of these.

The document identifies a weakness in the governance of environmental issues, and identifies that an increased policy focus together with investments can generate a better management of the issues. This is

also reflected in that the UN organisation establishes as one of their priorities to support the strengthening of institutions and regulations to advance sustainable production and consumption. The CBIT project adds to this by creating transparency system which increased Paraguay's possibility to better manage the development of its policies. The document further emphasises the importance of having a gender perspective mainstreamed in this work; something the CBIT project will do as well.

- Others

National Development Plan, 2014-2030.

The National Development Plan (PND, from its Spanish acronym) defines the axes and strategic objectives, policy priorities and lines of action for inclusive and sustainable development in Paraguay. In the short term, the PND serves as a reference for the definition of programs and allocation of public resources, while establishing indicators for monitoring of the actions and for the verification of compliance with the Objective set by the Government. In the medium term, the implementation of the PND involves the alignment of strategic objectives with the priorities promoted every five years, with political and institutional mechanisms to take into account and shape the strategic direction of the PND for development by 2030. The PND has three lines of action:

- ? Poverty reduction and social development[1].
- ? Inclusive economic growth.
- ? Paraguay's insertion into the world

The plan also includes environmental sustainability as a theme transcending these goals, emphasizing the need to reduce pollution from industry and plan and control the use of natural resources.

A key strategy under area 3 is for Paraguay to comply with the requirements of the UNFCCC, in a manner in line with national priorities. The CBIT project aids in implementing this strategy.

The monitoring and evaluation of the progress of the PND is the mandate of the National Secretary of Development Planning (STP, from its Spanish acronyms). The monitoring and evaluation of the PND will be done in coordination with the Ministry of Finance. Moreover, the implementation work of the public institutions will be done by the National Council of Evaluation of Public Management (CNE, from its Spanish acronym). This council was created with the purpose to evaluate the implementation of the PND, and meets biannually. The National Statistics Bureau is tasked with providing the Council with the necessary information to perform evaluations, and the STP counts with technical resources to perform necessary studies.

The monitoring system set up for the PND is interesting for the CBIT project. As described in the activities under Output 3, the CBIT project will review and align with the existing systems. Contact will be taken during the project preparation phase to inform them of the possibility to use the information of the MRV and M&E systems to evaluate policies needed to realize the NDC.

[1] This strategic priority includes specific objectives in terms of gender equality.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

The CBIT project in Paraguay will create knowledge through the development of indicators for NDC monitoring in mitigation, adaptation and means of implementation. Activities 3.1 and 3.2 will also develop the tools, protocols and guidelines of how data is supposed to be collected. An essential part in managing this knowledge is through Output 1 as it will ensure the institutionalization of the developed knowledge. This will allow for better information sharing between different institutions in the country, which also can act to reduce the challenges when staff leaves positions, as the counterpart in another institution will maintain part of the knowledge on their side.

The main knowledge management system is however established under Output 3 with the establishment of a national capacity building system. This will ensure that the knowledge is institutionalized in one place. Through the training-of-trainers approach, and through having both online and onsite training sessions, it builds a robust system which can reach many of the necessary stakeholders in Paraguay. The capacity building system will be established through a partnership with a local academic institution whom later will take over the role and responsibility of running the capacity building system for technical personal. The staff of the academic institution will collaborate with the national team and international consultants in activity 3.4, where capacity building material will be developed, and the virtual and/or on-site sessions will be held. There are funds set aside to finance their participation in this.

Furthermore, this national project will allow the country to participate in the CBIT Global Coordination Platform providing and receiving inputs. The material available on the CBIT Global Coordination Platform will expand during the course of this project, as more countries are advancing in the implementation of their CBIT projects. Paraguay will contribute to the information through primarily Output 3 and 1.4.

It is defined as the task of several members of the team to identify suitable aspects of Paraguay's CBIT project to share, and prepare the document in coordination with the CBIT Global Coordination Platform team. Similar, it is also their task to identify which best practices available on the Platform are relevant for Paraguay, and facilitate the peer-exchange going beyond reading the material on the platform. The responsibility has been distributed like this as it is the personnel with the technical knowledge whom best know the needs and details of Paraguay; it is thus those who can identify what is relevant.

Moreover, Paraguay will contribute with the south/south efforts from the CBIT Global Coordination Platform, and also participate in other countries' in the region south/south workshops.

Towards the general public of Paraguay, this project includes a substantial communication component in activity 3.4. Through this, the knowledge generated in the project will also be communicated and shared with a larger audience, increasing the knowledge of Paraguay's climate commitments, plans and how these are monitored and progressing.

In terms of budget, the main knowledge management elements in the deliverables add up to USD 123,200, as shown in the table below:

Deliverable	Description	Estimated value for Knowledge management (USD)
1.1.1	Climate Change Module of the SIAM. In particular, the detailed design of the Climate Change Module and the interconnection mechanisms with other systems, with at least two alternatives (platforms, applications, or others) proposed for sharing institutional data (product 1.1.1.3)	40,000
3.3.1	National Capacity Building System. In particular, training of trainers course, taking into account an assessment of the local training offer in relation to transparency; the training modules for data suppliers and platform users in the different sectors, and the formation of the national network of technicians and specialists for building capacities in climate transparency (products 3.3.1.4, 3.3.1.5 and 3.3.1.6, respectively)	40,000
3.4.1	Public engagement mechanism (design and execution), including regular dissemination of project related activities (processes and strategies associated with the improvement of information on climate change, the design and development of the components of the Climate Change Module, capacity building processes and the South-South exchange program for Climate Transparency)	14,400
3.4.2	Communications and Engagement Plan, and the editable pieces of communication materials of the plan.	14,400
3.4.3	Annual report on communication activities.	14,400
Total estimated budget		123,200

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The project will follow a detailed Supervision Plan (available in Annex J). Progress will be reviewed yearly through the Project Implementation Review (PIR), which is the tool foreseen in the GEF's Project and Program Cycle Policy. The purpose of the PIR is to assess project performance, to analyze whether the project is on track, what problems and challenges it encountered, and which corrective actions are required so that the project can achieve its intended outcomes by project completion in the most efficient and sustainable way. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented. In between PIRs, the project team shall prepare and present intermediate internal progress reports (the 'Half Yearly Progress Reports') to update project data and facilitate management. Developments in project execution will be monitored through regular follow-up meetings between the Implementation Agency and the Chief Technical Advisor.

In-line with UNEP's Evaluation Policy and the GEF's Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation (TE) commissioned by the Evaluation Office of UNEP (EOU).

The EOU will be responsible for the TE and liaise with the UNEP Task Manager throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes:

- i. to provide evidence of results to meet accountability requirements, and
- ii. to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP and executing partners.

The direct costs of the evaluation will be charged against the project evaluation budget. The TE will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. TE must be initiated no later than six months after operational completion.

The draft TE report will be sent by the EOU to project stakeholders for comments. Formal comments on the report will be shared by the EOU in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalized and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

A summary of the planned M&E activities is provided in Annex J. The total GEF contribution for M&E activities (including the Inception Workshop and the Terminal Evaluation) is US\$ 40,000.

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?

Describe the socio-economic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The integrated climate change module of the Environmental Information System will improve Paraguay's knowledge of its own efforts to curb emissions and build resilience. Moreover, as the system is developed, its linkages with other environmental data will also be analysed, established and / or improved. These strengthened systems will enable Paraguay to better track and manage its natural resources, thus allowing for interventions to be planned, executed and evaluated quicker. The climate change module of the SIAM will provide the public with up-to-date statistics, indicators and geographical information about climate change causes and impacts in Paraguay, both for decision-making in the private sector or by citizens, and for the government itself for policy-making. Paraguay's economy is centred mostly in agriculture and cattle farming, two sectors that are directly dependant on the impacts of climate change[1]. The adaptation M&E module of the SIAM will serve to provide information about climate change impacts on agriculture, including evidence on increasing droughts that could help farmers make informed decisions about irrigation practices and enable the government to prioritise sector resources toward drought management programmes for those affected.

Paraguay's planned climate actions will require public intervention in the form of investments. With better climate data systems, Paraguay will be able to better track and evaluate the impact of the policies, introducing adjustments to achieve better outcomes. This increased efficiency can free up resources for other public investments and interventions, which in turn could benefit Paraguay socio-economically. For example, based on the calculations under the mitigation MRV sub-system, the government of Paraguay will have the ability to quantify the impacts of NAMAs -not only in terms of GHG, but also in relation to the creation of jobs, the reduction of energy costs and the need for subsidies-, thus leaving the country in a better position to manage and steer its progress. Thus, this aspect of the system is expected to increase political buy-in for climate policy[2].

Another important benefit lays on the linkage with the national planning processes. The wide array of data compiled throughout SIAM's different sub-modules will provide a solid basis for informed national policymaking on climate and other related matters, an element that will be fully developed as part of Output 4. A virtuous cycle is expected to result from the combination of coherent data that improves the consistency of projections and business-as-usual scenarios and leads to the further refinement of the country's NDCs.

[1] Secretar?a del Ambiente, *Third National Communication of Paraguay to the United Nations Framework Convention on Climate Change*, 2016 p. 288.

[2] Partnership on Transparency, *National benefits of climate reporting*, 2018 pp. 19-21.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification *

PIF	CEO Endorsement/Approval	MTR	TE
Low			

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

An assessment of the environmental, social and economic impact of the project was undertaken by the UNEP team, assessing that the project is a low-risk project in terms of its potential impacts, its probability and significance. It was assessed towards a series of nine environmental, social and economic indicators, namely: 1. Biodiversity, natural habitat and Sustainable Management of Living Resources; 2. Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes; 3. Safety of Dams; 4. Involuntary resettlement; 5. Indigenous peoples; 6. Labor and working conditions; 7. Cultural Heritage; 8. Gender equity; 9. Economic Sustainability.

The assessment noted that special care should be taken to take a participatory approach and include gender considerations both in the project development and in the implementation of the project. These points have been incorporated during the development of the CEO Endorsement document and will be further considered during its implementation.

Supporting Documents

Upload available ESS supporting documents.

Title

Module

Submitted

Title	Module	Submitted
Environmental, Social and Economic Review Note	CEO Endorsement ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Project Objective	Objective level Indicators	Baseline	End of project Target	Means of Verification	Assumptions & Risks	UNEP MTS reference
The transparency system of Paraguay meets the requirements of the transparency framework under the Paris Agreement on Climate Change	Indicator A: Improvement in the quality of institutional capacity for transparency based on GEF score 1 to 4 as per Annex IV of CBIT programming directions.	Baseline A: 2 MADES is the designated institution by law to coordinate actions regarding climate change policy in the country. However the institution has limited staff and capacity to support and coordinate the implementation of transparency activities under Article 13 of the Paris Agreement.	End-of-project target A: 4 By the end of the CBIT project, MADES will have an organizational unit with standing staff and improved capacity to coordinate and implement transparency activities. These activities will be integrated into the national planning process and financial alternative sources to carry out future transparency activities will be identified. [Reports produced in the country (BUR, NC, BTR) incorporate new data and documented methodology. Institutional arrangements established to ensure consistency of reports.	Relevant national institutions are willing to contribute to the enhanced transparency framework and actively incorporate knowledge and take action in their respective institutions.	UNEP MTS 2018-2021 Climate Change Objective: Countries increasingly transition to low-emission economic development and enhance their adaptation and resilience to climate change

	Indicator B: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment (gender disaggregated). [GEF-7 Core Indicator 11]	Baseline B: 0	End-of-project target B: At least 100 direct beneficiaries. Women: 50 Men: 50 Total: 100	Project reports and capacity building attendance lists.	Users find relevant knowledge and training material for their needs.	
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Project Outcomes & Outputs	Outcome level Indicators	Baseline	End of project Target	Means of Verification	Assumptions & Risks	MTS Expected Accomplishment
Outcome: MADES is able to track Paraguay's climate change activities and provide high quality climate reports aligned with the Enhanced Transparency Framework under the Paris Agreement	Indicator C: Improvement in the quality MRV system based on GEF score 1 to 10 as per Annex III of CBIT programming directions. While this is a subjective rating, the guidance for the ratings provides direction for benchmarking the quality of the MRV system	1 Measurements are carried out by some institutions, although reporting is not completely regular, some verifications are in place but data is poor for many important subsectors	4 By the end of the project improved measurement system is expected for key categories that will allow for a most periodic and strong monitoring and reporting.	Ratings are based on indicators 2-4 below.	Relevant national institutions are willing to contribute to the enhanced transparency framework and actively incorporate knowledge and take action in their respective institutions.	Expected Accomplishment (b): Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies

<p>Output 1. Strengthened institutional arrangements to manage transparency activities through the Climate Change Module of the SIAM are adopted by the MADES</p>	<p>Indicator 1: percentage of sub-systems in the Climate Change Module that have institutional arrangements in place</p>	<p>25% (the GHG inventories sub-system has existing institutional arrangements for the collection of data)</p>	<p>100% (i.e. all four sub-systems have institutional arrangements)</p>	<p>Government documents</p>	<p>Relevant national institutions are willing to contribute to the enhanced transparency framework</p>	
<p>Output 2. More accurate emission factors and activity data are made available to MADES for preparing GHG inventories</p>	<p>Indicator 2: Percentage of tier 2 emission factors for the AFOLU, energy, IPPU and waste sectors of the national GHG inventory</p>	<p>0%</p>	<p>50% (based on a prioritizing within the sectors)</p>	<p>Government documents</p>	<p>Relevant national institutions are willing to contribute to the enhanced transparency framework</p>	

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Basic Information

GEF ID

10342

Countries

Paraguay

Project Title

Establish an integral MRV/M&E system to enhance climate transparency in Paraguay

GEF Agency(ies)

UNEP

Agency ID

UNEP: 1743

GEF Focal Area(s)

Climate Change

Program Manager

Milena Vasquez

PIF

Part I ? Project Information

Focal area elements

1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes this project is aligned with the CCM focal area strategy and the CBIT programming directions.

Agency Response

Indicative project/program description summary

2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: We suggest Table B is further broken down into different project components that show how the resources will be allocated to the 3 different outputs listed under component 1 currently, and activities as described are added as outputs. This will also allow the project to budget M&E as a separate component if it chooses to.

11/5/2019: Comment above was incorporated. Cleared.

Agency Response

UNEP 10/14/2019: Table B budget has been broken down into the three different Outputs, so the resources allocation is now visible.

Co-financing

3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: In-kind cofinancing of \$350,000 is listed. Please consider adding co-financing to the PMC row, considering PMC activities are usually financed from the GEF project financing and co-financing source.

We also note that the description included under "Describe how many any "investment Mobilized" was identified" does not need to be filled out in this case as there is no cofinancing that falls in that category.

11/5/2019: Co-financing was added to the PMC and explanation for investment mobilized has been removed. Comment cleared.

Agency Response

UNEP 10/14/2019: In discussion with the Ministry of Environment and Sustainable Development, the possibility of using part of the co-finance for the PMC was agreed. USD 50,000 of in-kind cofinance related mainly to office space and materials has been added under PMC.

The explanation of how investment mobilized was identified has been removed.

GEF Resource Availability

4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes the proposed financing is in line with GEF policies and guidelines. At this time there are sufficient resources from the CCM CBIT set aside indicative allocation.

Agency Response

The STAR allocation?

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

The focal area allocation?

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

The LDCF under the principle of equitable access

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

The SCCF (Adaptation or Technology Transfer)?

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

Focal area set-aside?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes the proposed financing is in line with GEF policies and guidelines. At this time there are sufficient resources from the CCM CBIT set aside indicative allocation.

Agency Response

Impact Program Incentive?

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

Project Preparation Grant

5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes the PPG requested is within the allowable cap.

Agency Response

Core indicators

6. Are the identified core indicators in Table F calculated using the methodology included in the correspondent Guidelines? (GEF/C.54/11/Rev.01)

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes.

Agency Response

Project/Program taxonomy

7. Is the project/ program properly tagged with the appropriate keywords as requested in Table G?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes.

Agency Response

Part II ? Project Justification

1. Has the project/program described the global environmental / adaptation problems, including the root causes and barriers that need to be addressed?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes.

Agency Response

2. Is the baseline scenario or any associated baseline projects appropriately described?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes, the baseline scenario is very clearly described and identifies the key needs and gaps of the country to meet the enhanced requirements, and how priorities have been identified.

Agency Response

3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: In general yes, the alternative scenario proposed addresses the barriers identified in the baseline and covers all key aspects of the requirements under the enhanced transparency framework. Per our comment above, please consider reorganizing the project into various project components with their corresponding outcome and series of outputs (which are right now described as activities).

Further, we note that the political risk identified is a very important issue to take into account in project design. At the moment there are no specific outputs that focus on connecting the capacity-built and strengthened information of the CBIT project to the wider national agenda and thus ensure political buy in to support these activities in the future via national budgets.

11/5/2019: The above comments have been incorporated. Cleared.

Agency Response

UNEP 10/14/2019: The advice of showing the budget breakdown per Outputs has been followed. However, experience shows that in small projects such as CBIT projects all activities lead to one main Outcome, so we prefer to keep the structure as it is.

In order to address the political risk, an activity (3.6) has been added under output 3 which will link the information generated through these systems with the national processes.

4. Is the project/program aligned with focal area and/or Impact Program strategies?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes, the project is aligned with the GEF-7 climate change focal area strategy.

Agency Response

5. Is the incremental / additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Not really. The incremental reasoning of the project is well described throughout the proposal with regards to how this CBIT support will build on a strong baseline and identified gaps to help Paraguay meet the requirements under the Paris Agreement's enhanced transparency framework. Suggest to strengthen this section with this understanding in mind instead of what is included at the moment (further, there is no full agreed cost basis for CBIT activities.)

11/5/2019: The incremental reasoning of this CBIT project has been better explained in this section. Comment cleared.

Agency Response

UNEP 10/14/2019: The section has been strengthened with additional paragraphs describing better the incremental reasoning of the project (p.19 and 20)

6. Are the project's/program's indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes.

Agency Response

7. Is there potential for innovation, sustainability and scaling up in this project?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes.

Agency Response

Project/Program Map and Coordinates

Is there a preliminary geo-reference to the project's/program's intended location?

Secretariat Comment at PIF/Work Program Inclusion

Not necessary, this is a national capacity-building project.

Agency Response

Stakeholders

Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes. To date engagement has been limited to key government stakeholders, but additional stakeholder engagement will take place during the PPG phase.

Agency Response

Gender Equality and Women's Empowerment

Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes, there is some articulation on how the gender context will be taken into account and will be further developed during PPG phase.

Agency Response

Private Sector Engagement

Is the case made for private sector engagement consistent with the proposed approach?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes key private sector stakeholders will be engaged during project implementation.

Agency Response

Risks to Achieving Project Objectives

Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes risks and measures are adequately identified.

Agency Response

Coordination

Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined? Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes, this project will coordinate with the recently approved climate change enabling activity project being implemented by UNDP as well as with the CBIT Global Coordination Platform and the regional South-South network.

The Ministry of Environment and Sustainable Development has been identified as the executing agency. Please confirm with the government whether all execution activities can be carried out by this agency.

11/5/2019: As the agency knows, the implementation and execution roles on GEF projects are meant to be separate per policy and guideline. The GEFSEC will analyze any requests for dual role playing by an agency at the time of CEO endorsement and only approve those cases that it deems warranted on an 'exceptional' basis. We strongly encourage the agency to look at third party options as a preferred way forward. We also strongly encourage the agency to discuss any and all options for execution that do not include the government with the GEFSEC early in the PPG phase. The technical clearance of this PIF in no way endorses any alternative execution arrangement.

Agency Response

UNEP 10/14/2019: In discussion with the government, it has been confirmed that the Ministry of Environment and Sustainable Development cannot carry out the financial execution of the project. The financial execution will have to be done by another entity. UNEP-ROLAC is being considered as one of the potential organisations. It will depend on the number and type of transactions need and which organisation is best suited to do this. During the preparation phase, an important task will be to identify the most suitable organisation to provide financial and administrative execution to the Ministry.

Consistency with National Priorities

Has the project/program cited alignment with any of the recipient country's national strategies and plans or reports and assessments under relevant conventions?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: The PIF outlines several national priorities with which this project is aligned. We do note that it seems to have missed a section on the NDC specifically.

11/5/2019: NDC alignment information has been added. Cleared.

Agency Response

UNEP 10/14/2019: Text on the alignment and benefit to the NDC has been added (p27).

Knowledge Management

Is the proposed 'knowledge management (KM) approach' in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project's/program's overall impact and sustainability?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: Yes.

Agency Response

Environmental and Social Safeguard (ESS)

Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?

Secretariat Comment at PIF/Work Program Inclusion

Agency Response

Part III 'Country Endorsements

Has the project/program been endorsed by the country's GEF Operational Focal Point and has the name and position been checked against the GEF data base?

Secretariat Comment at PIF/Work Program Inclusion

9/27/2019: We note that the PIF was endorsed by the former OFP Carlos Vecca (valid at time of submission). However, please submit an updated OFP letter from the current OFP Mrs. Graciela Soledad Miret Martinez. Please also try to submit it as a PDF or Word document so it is clearer to read and shows the total on the table.

11/5/2019: Updated Endorsement Letter was submitted. Comment cleared.

Agency Response

UNEP 10/14/2019: A new letter signed by the new GEF Operational Focal Point has been uploaded to the portal.

Termsheet, reflow table and agency capacity in NGI Projects

Does the project provide sufficient detail in Annex A (indicative termsheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table in Annex B to assess the project capacity of generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat Comment at PIF/Work Program Inclusion

n/a

Agency Response

**GEFSEC DECISION
RECOMMENDATION**

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?

Secretariat Comment at PIF/Work Program Inclusion

Not yet. Please address minor comments above.

11/5/2019: Agency has addressed all technical comments. PM recommend PIF technical clearance and PPG approval.

ADDITIONAL COMMENTS

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.

Secretariat Comment at PIF/Work Program Inclusion

Review Dates

	PIF Review	Agency Response
First Review	9/27/2019	
Additional Review (as necessary)	11/5/2019	
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		

PIF Recommendation to CEO

Brief reasoning for recommendations to CEO for PIF Approval

ANNEX C: Status of Utilization of Project Preparation Grant (PPG).

(Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: US\$ 45,000			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (US\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent to date</i>	<i>Amount Committed</i>
ROLAC	4.000	4.000	-
UNEP DTU Partnership ? Staff	11.400	11.400	-
Local Consultant	18.000	8.100	9.900
Travel	5.600	2.799,5	-
Consultation Workshops	6.000	1.335,09	-
Total	45.000	27.634,5	9.900

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

02. Goods					74,600	74,600		74,600	
Hardware and software (activity 3.2 & 3.3)					65,600	65,600		65,600	MADES
Laptops					9,000	9,000		9,000	MADES
07. Contractual services company					15,000	15,000	12,000	27,000	
Annual audits						0	12,000	12,000	MADES
Communication materials (activity 3.4)					15,000	15,000		15,000	MADES
08. International Consultants	280,000	345,000	260,000	120,000	1,005,000	30,000		1,035,000	
Consulting 1.1 CC module	280,000					280,000		280,000	MADES
Consulting 2.2 Improvement of GHG inventories		120,000				120,000		120,000	MADES
Consulting 2.1 Improvement of GHG inventories		225,000				225,000		225,000	MADES
Consulting 3.1 NDC indicators			95,000			95,000		95,000	DTU
Consulting 3.2 Design and development of M&E system			165,000			165,000		165,000	MADES
Consulting 4.1 Alignment between the transparency system and national planning				120,000		120,000		120,000	DTU
Terminal evaluation						0	30,000	30,000	UNEP Evaluation Office
09. Local Consultants					62,000	62,000		62,000	
Consulting 3.3 Local University					62,000	62,000		62,000	MADES
10. Salary and benefits/Staff Costs	61,200	62,640	194,895	54,000	372,735		155,500	528,235	

Adaptation specialist	18,000		64,080		82,080			82,080	MADES
Administrative assistant (procurement)					0	32,400		32,400	MADES
Administrative assistant (reporting)					0	32,400		32,400	MADES
CTA	16,200		4,455		20,655	90,700		111,355	MADES
Mitigation specialist	9,000	62,640	18,360		90,000			90,000	MADES
Planning specialist	18,000		18,000	54,000	90,000			90,000	MADES
Public Engagement and Gender Specialist			90,000		90,000			90,000	MADES
12. Travel			23,280	1,560	24,840			24,840	
International travels (output 3)			14,700		14,700			14,700	MADES
National travels				1,560	1,560			1,560	MADES
National travels (output 3)			8,580		8,580			8,580	MADES
14. Other operating costs			12,425		12,425			12,425	
Miscellaneous			6,425		6,425			6,425	MADES
Translations			6,000		6,000			6,000	MADES
11. Training, Workshops, Meetings	11,200		44,800	12,400	68,400	10,000		78,400	
Final workshop					0	6,000		6,000	MADES
Inception workshop					0	4,000		4,000	MADES
Workshop (activity 3.1)			8,400		8,400			8,400	MADES
Workshop (activity 3.3)			2,800		2,800			2,800	MADES
Workshop (activity 3.4)			33,600		33,600			33,600	MADES
Workshop (activity 3.5)				2,800	2,800			2,800	MADES
Workshop (activity 4.1)				9,600	9,600			9,600	MADES
Workshops (activity 1.2 and 1.3)	11,200				11,200			11,200	MADES
Total general	352,400	407,640	687,000	187,960	1,635,000	40,000	167,500	1,842,500	