Implementing Ecuador?s Climate Transparency System

Part I: Project Information

GEF ID
10818

Project Type
MSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **Yes**
NGI **No**

Project Title
Implementing Ecuador?s Climate Transparency System

Countries
Ecuador

Agency(ies)
UNEP

Other Executing Partner(s)
Ministry of Environment, Water and Ecological Transition (MAATE)

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, Type

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

Sector
Mixed & Others

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 2

Climate Change Adaptation
Climate Change Adaptation 1

Submission Date
4/25/2022

Expected Implementation Start
8/1/2022

Expected Completion Date
7/31/2025

Duration
36In Months

Agency Fee($)
188,860.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCM-3-8	Foster enabling conditions for mainstreaming mitigation concerns into sustainable development strategies through capacity building initiative for transparency	GET	1,988,000.00	123,605.00
		Total Project Cost($)	**1,988,000.00**	**123,605.00**

B. Project description summary

Project Objective

To strengthen the national transparency system in Ecuador to meet the requirements of the Enhanced Transparency Framework (ETF) under the Paris Agreement on Climate Change

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1. Strengthening institutional aspects of the National Climate Change Registry (NCCR)	Technical Assistance	1. The Government of Ecuador takes steps to develop policies and begins to track climate ambition based on a robust NCCR	Output 1.1. MAATE manages a fully operational National Climate Change Registry Output 1.2. MAATE is able to incorporate climate data into national planning processes and instruments in articulation with national planning entities	GET	489,785.00	40,085.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2. Enhancing the National Climate Change Registry	Technical Assistance	2. The MAATE produces more accurate climate information and reports in alignment with the requirements of the ETF	Output 2.1. MAATE has access and manages tools for increasing the accuracy and precision of the mitigation module of the NCCR Output 2.2. MAATE uses and manages processes, information flows, indicators and methodologies for operationalizing the adaptation module of the NCCR Output 2.3. MAATE has access to a roadmap and guidelines for the operationalization of the means of implementation module of the NCCR	GET	690,824.00	35,514.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 3. Capacity building and public engagement	Technical Assistance	3. Stakeholders demonstrate capacity to provide inputs to and draw information from the NCCR for their decision-making processes	Output 3.1. Stakeholders demonstrate increased awareness of the work, benefits, and impact of the NCCR as a result of gender-sensitive public engagement Output 3.2. Stakeholders demonstrate strengthened understanding of the NCCR following a long-term capacity building programme and a repository of climate change information	GET	594,164.00	35,514.00
Component 4. Monitoring and Evaluation	Technical Assistance	4. Project is effectively monitored and evaluated	Monitoring and evaluation products are delivered (see section 9)	GET	32,500.00	
				Sub Total ($)	**1,807,273.00**	**111,113.00**

Project Management Cost (PMC)		
GET	180,727.00	12,492.00
Sub Total($)	**180,727.00**	**12,492.00**
Total Project Cost($)	**1,988,000.00**	**123,605.00**

Please provide justification

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($)
Recipient Country Government	Ministry of Environment, Water and Ecological Transition (MAATE)	In-kind	Recurrent expenditures	123,605.00
			Total Co-Financing($)	**123,605.00**

Describe how any "Investment Mobilized" was identified

Not applicable. Note that co-finance was reduced from USD 1,080,057 to USD 123,605 as expected co-finance at the PIF was incorrectly calculated, considering a 4-year period and allocating entire costs of ministry operations (instead of adequate proportions) to the CBIT project. This was detected during the actual preparation and signing process of the in-kind co-finance letter from the MAATE.

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($)	Fee($)	Total($)
UNEP	GET	Ecuador	Climate Change	CBIT Set-Aside	1,988,000	188,860	2,176,860.00
			Total Grant Resources($)		**1,988,000.00**	**188,860.00**	**2,176,860.00**

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 **true**

PPG Amount ($)

50,000

PPG Agency Fee ($)

4,750

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNEP	GET	Ecuador	Climate Change	CBIT Set-Aside	50,000	4,750	**54,750.00**
				Total Project Costs($)	**50,000.00**	**4,750.00**	**54,750.00**

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	385		
Male	50	385		
Total	100	770	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

The direct beneficiaries of the project are those whose capacity is strengthened in the project's capacity building sessions. While most workshops contribute to strengthening the capacity of the participants, it is the capacity building sessions which are specifically considered here. Technical workshops include: - Under output 1.2, nine (9) capacity building workshops will be organised to align national planning processes with the National Plan for the Transition towards Decarbonization (NPTD or Ecuador?s Long-Term Strategy ? LTS) and the Nationally Determined Contribution (NDC) tracking and updating using the National Climate Change Registry (NCCR). The required institutional arrangements, procedures and protocols will be fixed for each component of the NCCR needed to update and monitor the implementation of the NDC and the LTS (greenhouse gas (GHG) inventory, projections, and scenarios/Mitigation/Adaptation/Climate finance) and obtain and monitor the information required for the Enhanced Transparency Framework (ETF) and the Biennial Transparency Reports (in a timely manner). - Under output 2.1, six (6) capacity building workshops will be delivered for the use of the guidelines for projections and mitigation potential estimation as well as the collection, compilation, processing and reporting of mitigation actions and test of the relevant templates (monitoring methodologies, energy, industrial processes and product use (IPPU), agriculture, land use, land use change and forestry (LULUCF) and waste) and four (4) capacity building workshops for the use of tools, protocols, and guidelines for monitoring and tracking the mitigation component of the NDC. - Under output 2.2, four (4) capacity building workshops will be delivered for the use of tools, protocols, and guidelines for monitoring and tracking adaptation. - Under output 2.3, three (3) capacity building workshops on tracking and reporting on climate finance flows will be delivered. - Four (4) additional workshops will take place to train data providers and data verifiers, under output 3.1. In addition to the workshops, the project will prepare training modules to support a local higher education institution on transparency themes (described in output 3.2). The project

will thus include a total of thirty (30) workshops and three (3) training modules for a local higher education institution. With an average of 10-15 participants in each workshop and training module. As the workshops are thematic and sectorial, an overlap is expected where individuals will partake in several. It is estimated that approximately 440 participants will be instructed using the training modules developed by the higher education institution at initial stages of the long-term capacity building program. Thus, the lower range estimate is considered, resulting in 770 unique individuals trained. There are also planned online sessions, but the overlap between the online and onsite is expected to be close to 100%. As the gender division within the institutions to be trained is reasonably even, the assumption is for a 50/50 split.

Part II. Project Justification

1a. Project Description

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

The new enhanced transparency framework (ETF) under the Paris Agreement

The Paris Agreement requires each Party to prepare, communicate and maintain successive NDCs (i.e., climate-related goals and related policy actions it intends to achieve within a certain time frame). It emphasizes that Parties shall pursue domestic mitigation measures to help achieve the NDC. The NDC must be communicated every five years and each new NDC represent a progression from the previous one. With the ratification of the Paris Agreement from 2015, Parties were requested to present their first NDC.

Decision 1/CP.21 requested that in 2020 countries which proposed 2025 targets in the first NDC submit their next NDCs, while countries with 2030 targets in this first NDC were requested to either update or re-communicate these. Ecuador submitted its first NDC in 2019 containing 2025 targets while in NDCs submitted in 2020 (and then 2021 due to pandemic situation) the updated NDC with 2030 targets was expected.

The information communicated in the NDC includes assumptions and methodological approaches for estimating and accounting for GHG emissions and, as appropriate, removals from these sectors, gases, categories, and pools. Accounting for GHG emissions and removals must be in accordance with the methodologies and common metrics adopted by the CMA[1][1]. The CMA has adopted the 2006 IPCC Guidelines for Parties to develop their national GHG inventories. Parties are encouraged to use the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands. The 2019 Refinement to the 2006 IPCC Guidelines was adopted and accepted during the forty-ninth session of the IPCC in May 2019 and adopted by the CMA in COP26 to be used on a voluntary basis for the implementation of the ETF.

Careful consideration by the Party of the specific methods (e.g., tiers from the 2006 IPCC Guidelines and the 2019 Refinement) that will be applied to estimate GHG emissions/removals from categories in the NDC, and whether the requisite data are available to estimate these emissions/removals, can help promote consistency in the application of methods over the implementation period of the NDC.

Under the article 13 of the Paris Agreement (ETF), biennial transparency reports (BTR) will replace the current biennial update reports (BURs) from 2024. In the BTRs, in addition to the information currently reported in the BURs, Parties have to provide information on the progress it is making in implementing its NDC.

The BTR serves two major roles: 1) To track progress in implementing and achieving the NDC and 2) It is the primary vehicle for a Party to transparently communicate information on its GHG inventory and its participation in and contribution to national, regional, and global efforts to mitigate and adapt to climate change. It is also where developed countries and other countries that provide support communicate the financial, technological, and capacity-building support they have provided and mobilized, and developing countries communicate their needs in those areas and the support they have received.

The submission of the BTR every two years is thus a way for Parties to highlight their domestic actions to mitigate and adapt to climate change, their cooperation with other countries in these efforts, as well as their progress towards achieving the goal(s) in their NDC.

Both the NDC and the BTR may also serve as a vehicle for the Party to submit an adaptation communication. Ecuador has submitted the adaptation communication with its first NDC in March 2019.

Key areas of enhancement of the new ETF compared to the current Measuring, Reporting and Verification (MRV) framework which are applicable to all Parties (with flexibility to those developing countries that need it in the light of their capacities) adopted by the CMA are, in 2018, the elaboration of guidance on information to increase clarity, transparency and understanding of the NDCs[2][2], information to provide in the adaptation communication[3][3], one set of modalities, procedures and guidelines (called MPGs)[4][4], and in 2021, the adoption of common reporting tables, common tabular formats and common outlines for the BTR and the national inventory document[5][5].

It is thus important for developing countries to make decisions regarding the institutionalization of its MRV Systems to ensure their capacity to provide high-quality data in the right formats and at the right time.

In the particular context of Latin America and the Caribbean countries, NDC tracking typically involves elements on adaptation, GHG emissions, climate finance and GHG reductions. These elements are to be reported to the UNFCCC in the BTRs from December 2024 every two years using the agreed modalities, guidelines, procedures, formats, and outlines. A holistic and integral approach towards data management is thus required to provide transparency information that also considers other global initiatives such as the Sustainable Development Goals (SDGs) and integrates swiftly into the country?s own national planning.

Main barriers for Ecuador to meet the demands of the Enhanced Transparency Framework under the Paris Agreement

The main barriers for strengthening Ecuador's transparency framework to meet the demands of the Enhanced Transparency Framework (ETF) under the Paris Agreement were identified in Ecuador?s Third National Communication (2017) and updated during the PPG preparation. In particular, a workshop organised on 3rd March 2020 allowed to collect difficulties and barriers to implement the ETF from more than 50 key stakeholders. They can be grouped into the following categories and are further elaborated in the baseline section of this document.

1. Lack of an integrated MRV system and insufficient institutional arrangements, procedures and protocols to allow for the collection of required data.

This barrier fundamentally reflects the early stages of adoption of an integral MRV system at the country level. While many parts of the system exist, and some of them are implemented on-demand at the time of preparing a National Communication or a Biennial Update Report, there is still no integrated system that works as a unit and that has a clear interconnection in all of its parts. Without an integrated MRV system in place, the only official source for climate change-related information are the National Communications and Biennial Update Reports that the Ministry of Environment, Water, and Ecological Transition develops, with input from sectorial institutions, for the UN Framework Convention on Climate Change (UNFCCC) and their periodicity does not guarantee updated information. During the development of the design of the NCCR, the Ministry of Environment, Water, and Ecological Transition has sent templates to the key institutions to collect information on the NDC but institutions have difficulties to report the information required due to a lack of arrangements, a manual, procedures or protocols and because the required information requested is not directly available or there is no enough capacity to treat the information to fit with the required formats.

Despite the importance that Ecuador has given to climate change as an integral part of its development policies and efforts, the only instance that is directly responsible for influencing all national and subnational actors and complying with international commitments is the Undersecretariat of Climate Change within the Ministry of Environment, Water, and Ecological Transition. The Undersecretariat is composed of three directions: the direction of climate change mitigation, the direction of climate change adaptation and the direction of sustainable production and consumption. Given that the monitoring of projects and programs with relation to mitigation and adaptation is usually carried out in the context of each initiative, and by using the methodologies and indicators established by each, the overall monitoring of these actions and their contribution towards Ecuador?s NDC is difficult and there is no single source to reflect these results where they can be easily accessed and interpreted. This lack of a central system is addressed in legal terms through the environmental law (Organic Environment Code ? OEC) and its regulation (ROEC).

Reliable, regular data flows required for a national transparency framework include defining the need for and uses of data, managing the delivery of existing information and the compilation of new data

specifically developed to fill previous gaps. In Ecuador, the source for several data sets still requires to be established, and only a few organizational mandates for the collection of data are already in place to secure the timely delivery of inputs. As will be discussed later, these gaps affect all the main components of a transparency system, to different extents: some elements, like the GHG inventory, have more developed procedures for the collection of data that has already been identified ? but even the inventories still have significant gaps that compromise the certainty of their results[6][6]. Other systems (mitigation actions, adaptation, NDC tracking, support needed and received) are even less developed.

Moreover, coordination between official entities, public research institutions and academia is still limited, often resulting in ?research islands? that remain isolated.

2. Limited technical capacities to design, implement and manage a complex, country wide climate transparency system.

Human and technical capacities at the Ministry hinder its ability to design and manage this climate transparency system and jeopardize the country?s compliance with the reporting requirements of the UNFCCC, making the exercise of gathering data rely completely on national communication and biennial update report projects, which have a limited duration and scope and depend on temporary, external consultants.

The level of ambition required to implement a fully integrated transparency system demands significant resources, and this is often a challenge in developing countries like Ecuador. The overall expertise required to design, implement and manage a transparency system is usually beyond the resources of the environment authorities, even in more developed countries. Ecuador lacks financial as well as technical resources, coordination skills and tools that are important for the smooth functioning of the transparency system, which encompasses managing large amounts of data that comes in periodically and requires to be classified, analysed, summarized, checked, and archived.

3. Limited integration of climate change considerations into political decision making.

The purpose of an efficient, fully integrated transparency system is not only the reporting in itself, but rather its usage to inform decision making processes that start in high level national development plans and spill over to more concrete (geographically and sectorial) structures. As reported in its Third National Communication (NC3) and confirmed by the key actors, Ecuador still needs to integrate climate variables, projections, baseline studies and recommended actions from its National Climate Change Strategy into its policies and budgets[7][7].

More generally, climate transparency is still not mainstreamed. Provision of data is still perceived as a burden or as a risk (e.g., collection of data for fiscal purposes), private actors show little interest in

transparency themes (as demonstrated through their scarce attendance to consultation rounds during the design phase) and the reports generated from existing mechanisms are unlikely to inform decision making, as these are seldomly consulted outside the environment sector or the academy.

Summary of barriers and root causes, and how they map into the project structure.

The following table summarizes main barriers and root causes that the CBIT project will aim to overcome.

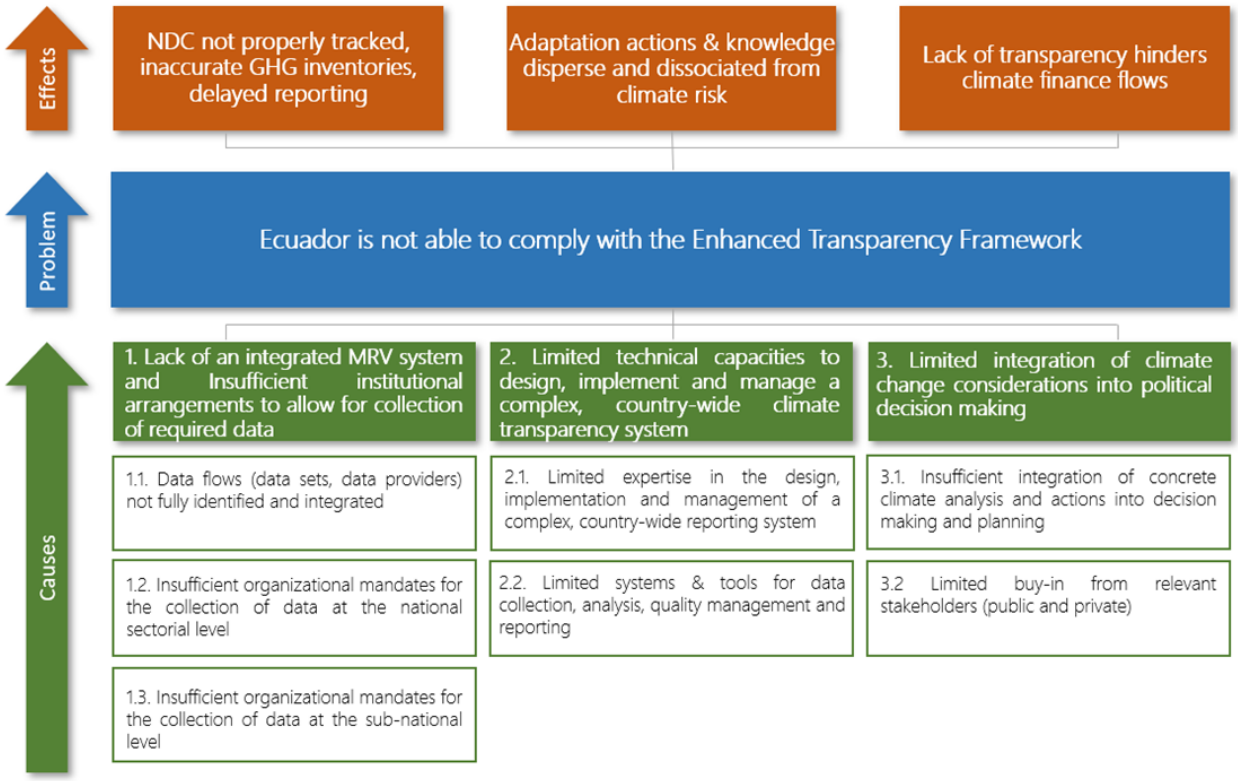
Table 1. Summary of barriers and root causes.

Barrier & root cause	Relevant baseline section(s)	Addressed by project output
1. Lack of an integrated MRV system and insufficient institutional arrangements, procedures and protocols to allow for collection of required data		
1.1. Data flows (data sets, data providers) not fully identified and integrated	a) Administrative organization of Ecuador b) General institutional framework of Climate Change in Ecuador d) Current MRV system e) The National Climate Change Registry (NCCR) f) Local information systems h) Other baseline actions and initiatives	1.1
1.2. Insufficient organizational mandates for the collection of data at the national sectorial level	a) Administrative organization of Ecuador: central government and DAGs b) General institutional framework of Climate Change in Ecuador c) National policies d) Current MRV system e) The National Climate Change Registry (NCCR) g) Long-term development planning in Ecuador h) Other baseline actions and initiatives	1.1
1.3. Insufficient organizational mandates for the collection of data at the sub-national level	a) Administrative organization of Ecuador: central government and DAGs b) General institutional framework of Climate Change in Ecuador c) National policies d) Current MRV system e) The National Climate Change Registry (NCCR) f) Local information systems g) Long-term development planning in Ecuador h) Other baseline actions and initiatives	1.1
2. Limited technical capacities to design, implement and manage a complex, country wide climate transparency system		
2.1. Limited expertise in the design, implementation and management of a complex, country-wide reporting system	a) Administrative organization of Ecuador: central government and DAGs b) General institutional framework of Climate Change in Ecuador c) National policies d) Current MRV system e) The National Climate Change Registry (NCCR) f) Local information systems g) Long-term development planning in Ecuador h) Other baseline actions and initiatives	1.1, 1.2, 2.1, 2.2, 2.3, 3.2
2.2. Limited systems & tools for data collection, analysis, quality management and reporting	a) Administrative organization of Ecuador: central government and DAGs b) General institutional framework of Climate Change in Ecuador c) National policies d) Current MRV system e) The National Climate Change Registry (NCCR) f) Local information systems g) Long-term development planning in Ecuador h) Other baseline actions and initiatives	2.1-2.3
3. Limited integration of climate change considerations into political decision making		

Barrier & root cause	Relevant baseline section(s)	Addressed by project output
3.1. Insufficient integration of concrete climate analysis and actions into decision making and planning	a) Administrative organization of Ecuador: central government and DAGs b) General institutional framework of Climate Change in Ecuador c) National policies d) Current MRV system e) The National Climate Change Registry (NCCR) f) Local information systems g) Long-term development planning in Ecuador h) Other baseline actions and initiatives	1.2
3.2. Limited buy-in from relevant stakeholders (public and private)	a) Administrative organization of Ecuador: central government and DAGs b) General institutional framework of Climate Change in Ecuador c) National policies d) Current MRV system e) The National Climate Change Registry (NCCR) f) Local information systems g) Long-term development planning in Ecuador h) Other baseline actions and initiatives	3.1, 3.2

These barriers challenge Ecuador's reporting to the UNFCCC, particularly considering the country expressed commitments under the Paris Agreement and that the new requirements demand more elaborated and frequent reports.

Figure 1. Problem tree



The following section presents a deeper discussion of the scenario in which these barriers currently materialize.

b. Baseline scenario and any associated baseline projects

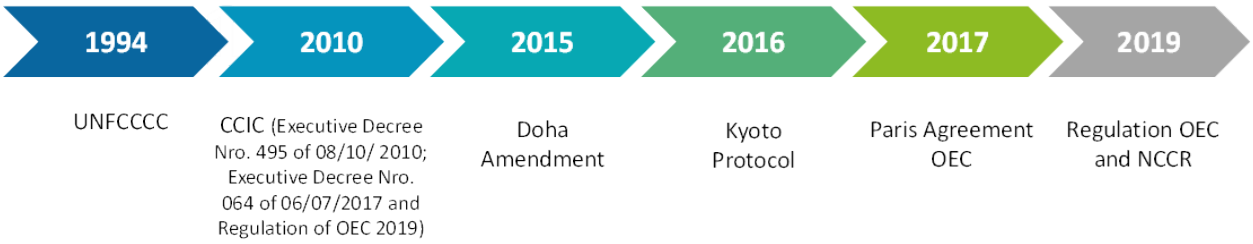
a) Administrative organization of Ecuador: central government and DAGs

Ecuador is a unitary, decentralized, representative, and intercultural republic. The 2008 Constitution introduced a series of reforms that bring forward the role of planning and defines decentralization and de-concentration as central aspects of the State. In terms of decentralization, two of the key elements are i) the establishment of clearly defined competences by the level of government, and ii) the rationalization of the resource transfers in accordance with territorial and equity criteria that are objective, concrete, measurable and predictable. Recipients of these funds are the so called Decentralized Autonomous Governments (DAGs) and their roles are regulated by the Organic Code for Territorial Organization, Autonomy and Decentralization (OCTOAD).

OCTOAD set various types of competencies and established the Council of National Competencies, that would organize the decentralization process. Competencies may be exclusive (when only one government level would retain full titularity) or concurrent (when titularity may belong to more than one government level)[8][8]. Thus, the central level retains exclusive competencies in the areas of defence, security, international relationships and economic policy, health, education, planning at the national level, migration, protected natural areas, biodiversity, national public companies, housing, natural disaster management and protection, energy resources and hydrocarbons, among others. Other topics (such as river basins management, planning at the local level, public services, transport, and transit, among others) are delegated to DAGs.

b) General institutional framework of Climate Change in Ecuador

Ecuador ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1994 and the Kyoto Protocol in 2016, accepted the Doha Amendment to the Kyoto Protocol in 2015, ratified the Paris Agreement and approved the Environmental Organic Code (EOC) in 2017, and in 2019 approved the regulatory decree of the EOC which established the creation of the National Climate Change Registry (NCCR) composed of a public repository and an MRV system. Through the NCCR, all information related to climate mitigation, adaptation and financing must be supervised and public access must be allowed.



In 2008, Ecuador was the first country in the world to recognize the rights of nature in the Constitution of the Republic, which is an aspect that strengthens the conservation and sustainable development approaches. Article 261 of the Constitution gives the exclusive competency of natural resources to the Central Government.

Mitigation and adaptation to climate change were declared as State policies, through Executive Decree No. 1815 of 1 July 2009. That same year, the Ministry of Environment approved the Ministerial Agreement 104, on 29 October 2009, in which it re-adjusted its organic structure for the creation of the Under-Secretariat of Climate Change (USCC), as the unit in charge of exercising the rectory on the subject, through various lines of action: mitigation, adaptation, vulnerability understanding, knowledge management / generation, understanding of the climatic phenomenon, capacity building in the subject, climate finance, among others.

Based on Executive Decree No. 495 of 2010, Ecuador currently counts with a Climate Change Interinstitutional Committee (CCIC), which, among other functions, has the role of coordinating, dictating, and facilitating the comprehensive execution of national policies relevant to climate change, the National Strategy for Climate Change, and the commitments assumed with respect to the application and participation in the UNFCCC and its instruments. Therefore, it has the responsibility of coordinating the National Climate Change Policy, that is, in climate adaptation, mitigation, and means of implementation. The CCIC is currently comprised of the Ministry of Environment, Water[9] and Ecological Transition (acting as the Chair of the Committee), other ministries (transportation, energy, economy, and finance, among others) and municipal, provincial, and rural representatives. It has presented yearly Work Plans since 2018, focusing on the implementation of Ecuador?s NDC and National Adaptation Plan (NAP).

Ecuador prepared a National Climate Change Strategy (NCCS) in 2012, which covers the 2012-2025 period and serves as a management instrument that guides and dictates the actions and measures needed to prepare the nation to face the events produced by climate change. In the NCCS, five

mitigation sectors and eight focus areas for adaptation are prioritized[10][10]. These sectors are thus reflected on all national reports to the UNFCCC.

In 2017, the Organic Code of the Environment was issued through the Official Registry Supplement No. 983. The Organic Environment Code (OEC) is the country's overarching environmental legislation, addressing elements such as climate change, protected areas, wildlife, forest heritage, environmental quality, waste management, environmental incentives, coastal marine zone, mangroves, access to genetic resources, biosecurity, biocommerce, etc. The OEC sets the Ministry of Environment (as of June 2021, Ministry of Environment, Water, and Ecological Transition, MAATE) as the national authority in charge of overseeing, planning, regulating, controlling, managing, and coordinating environmental matters. This is done through a National Decentralized Environmental Management System, with provincial DAGs retaining execution functions within their territories.

c) National policies

Ecuador ratified its commitment to the sustainable development goals (SDGs) and declared the 2030 Agenda as a public policy of the National Government (Executive Decree 371, signed in April 2018). The National Assembly adopted a resolution in which it commits itself to the implementation of the SDGs. At the local level, several decentralized autonomous governments have articulated their planning to fulfil the global agenda. The private sector, civil society and academia have also joined this national commitment, under the premise of walking together towards common objectives to ensure equal opportunities and a prosper life for all people. As the governing body for planning, the National Planning Secretariat ensures: 1) the alignment of the 2030 Agenda with the different planning instruments, 2) the monitoring and evaluation of the goals and indicators of the SDGs prioritized at the national level in coordination with the National Institute of Statistics and Censuses and 3) the dialogue between the different actors for the fulfilment of the commitments in the framework of the 2030 Agenda.

Ecuador is also a signatory to the Sendai Framework for Disaster Risk Reduction issued in 2015, thus recognizing the importance of addressing climate change as one of the drivers of disaster risk.

The National Territorial Strategy (NTS), which represents a constitutive part of the National Development Plan (NDP) 2021-2025, is mandatory for all institutions of the National Decentralized Participatory Planning Service (NDPPS) and guides the management of the natural resources, its infrastructure, human settlements, economic activities, equipment, and protection of natural and cultural heritage based on the objectives and policies of the NDP. The government's participatory planning process seeks to transition to a sustainable development model, as a result one of the guidelines for the NTS is centred around the territorial management for ecological transition.

Ecuador has developed a robust policy framework on climate change and made several instruments official, including the National Climate Change Strategy (NCCS), the first Nationally Determined Contribution (NDC) and the National Climate Finance Strategy (NCFS). The National Adaptation to Climate Change Plan (NACCP), and the long- term mitigation strategy, the National Transition Plan towards Decarbonization 2050 (NTPD), are currently under development.

National Climate Change Strategy (NCCS) 2012-2025

The National Climate Change Strategy (NCCS) 2012-2025 (Ministerial Agreement 95, published in the Official Gazette Special Edition 9 of June 17, 2013) establishes the priority sectors for adaptation (Food sovereignty, agriculture, livestock, aquaculture and fishing; Productive and Strategic Sectors; Health; Water Heritage; Natural Heritage; Groups of priority attention; Human settlements; and Risk Management) and climate change mitigation (Agriculture; Land Use, Land Use Change and Forestry; Energy; Solid and liquid waste management; and Industrial processes).

The NCCS has been the basis for climate action since 2012 and was the foundation for setting goals in each of the sectors it prioritized and translating those into the NDC and the NACCP (the second currently under construction).

Ecuador?s First NDC

In March 2019, Ecuador made public its first NDC with a focus on mitigation and adaptation on 11 sectors, for the period 2020 ? 2025. Moreover, Decree 840 of 6 August 2019 stated that the commitments established by Ecuador in its NDC are mandatory for the competent entities according to the sectors covered by the measures proposed in such NDCs. Ecuador is planning to start the process of updating the NDC in 2024, so that it is presented in 2025 with both 2030 and 2035 targets. In terms of goals, Ecuador has set a 9% reduction target (unconditional scenario) and a 20.9% reduction target (conditional to receiving support) for the energy, agriculture, industry, and waste sectors below the business and usual scenario. Land use, land-use change, and Forestry (LULUCF) has a separate set of goals, namely, a 4% baseline target for an unconditional reduction and 20% subject to support receiveqd.

During the 2019-2021 period, the MAATE as the National Environmental Authority has worked together with various actors in the development of the Implementation Plan of the first NDC which was presented and approved by the Interinstitutional Committee on Climate Change (CCIC) and officially presented to the general public on May 2021. The Implementation Plan of the NDC of Ecuador constitutes the roadmap to guide the implementation of actions at the national, sectoral and local levels. It contains specific monitoring matrix of mitigation actions by sector and IPCC category as well as goals and indicators for the monitoring of the implementation of adaptation measures. Currently, mitigation initiatives have made advances in the capacity to measure and monitor GHG emissions. The Climate-Smart Livestock Farming project (under implementation) has established a baseline of direct emissions and their monitoring in the farming sector.

The National Climate Finance Strategy (NCFS)

The OEC and ROEC provide definitions for climate finance, climate finance management, the identification of climate finance needs and the roles and functions of a climate finance working group within the Interinstitutional Committee on Climate Change, which involves the Ministry of Economy and Finance, the Ministry of External Relations and The National Planning Secretariat. This group is meant to oversee the implementation of climate finance coming mainly from international sources.

Furthermore, ROEC establishes criteria for the channelling, reporting and monitoring of climate finance. At the end of June 2020, the Ministry of the Environment and Water (MAAE) and the Ministry of Economy and Finance (MEF) announced the launch of the Participatory Construction Process to prepare the NCFS, with the aim of having the participation and involvement of key actors to identify the current situation of climate finance, as well as the main gaps, challenges and factors that must be addressed in the strategy.

On February 23, 2021, the official launch of the National Climate Finance Strategy of Ecuador (NCFS) was held, an important step towards the consolidation of Ecuador's comprehensive climate change policy at the national, subnational and intersectoral levels, as well as also as a great opportunity to strengthen the joint work with the international community in the global fight against climate change, in the face of the increasing financing needs to meet the goals of the Paris Agreement and the objective of the Convention, especially in the post-COVID-19 era. The NCFS presents three strategic lines of action that outline its implementation: 1) Clear and effective governance of climate finance, 2) Consolidation of a financial system that integrates the climate approach across the board and 3) Effective and efficient access, management, allocation, and mobilization of climate finance. They include 83 actions to be implemented in the short term (until 2023), medium term (until 2026) and long term (until 2030) by actors and institutions from the public sector (national and subnational), private, financial, civil society, international cooperation, academia, and indigenous community.

The National Adaptation to Climate Change Plan (NACCP *? under development)*

Through the ?Green Climate Fund Readiness and Preparatory Support for National Adaptation Plan in Ecuador? project, the Government of Ecuador is working to develop a National Adaptation Plan (NAP) to reduce vulnerability to the impacts of climate change, build adaptive capacity in prioritized sectors, and facilitate the coherent integration of climate change adaptation into development planning processes, policies and strategies related to food sovereignty, agriculture, aquaculture and fisheries; productive and strategic sectors; health; water patrimony; natural heritage; and human settlements. The development of Ecuador?s NAP is following the directives of the NCCS and form an integral part of the country?s Nationally Determined Contribution to the Paris Agreement, as well as efforts to reach the goals outlined in the 2030 Agenda for Sustainable Development and Sendai Framework for Disaster Risk Reduction.

The project will contribute to increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions; increased resilience of health and well-being, and food and water security; increased resilience of infrastructure and the built environment to climate change threats; improved resilience of ecosystems and ecosystem services; strengthened institutional and regulatory systems for climate-responsive planning and development; increased generation and use of climate information in decision-making; strengthened adaptive capacity and reduced exposure to climate risks; and strengthened awareness of climate threats and risk-reduction processes. Ecuador began its NAP process in February 2017 with extensive consultations at all levels to guarantee a participative and gender-balanced approach, ensuring the participation of indigenous populations, and prevent the build-up of adverse social implications. The NAP is making use of all existing mechanisms and bodies (e.g., citizen council sectors) to enable as wide a participation of all relevant actors as possible.

National Plan for the Transition towards Decarbonization (NPTD *? under development)*

The plan is a long-term climate change management tool, which will define the roadmap to reduce Greenhouse Gas (GHG) emissions in different sectors of the economy and promote a just, ecological, and sustainable transition up to 2050. The project is led by the Ministry of the Environment, Water and Ecological Transition, with the financial administration of the Sustainable Environmental Investment Fund (FIAS), and the technical cooperation of the French Development Agency (AFD). It is being developed through a participatory process, and its aim is to identifying changes required in existing legislation and policies, as well as providing guidelines for updating the NDCs. This will be the basis of long-term development strategies.

The NPTD responds to the provisions established in Executive Decree No. 59 in particular what is stated in Art. No. 6 : "Develop and comply with priority public policies and public, private initiatives, in public-private and community alliances that promote the transition towards sustainable production and consumption systems, which lead Ecuador towards net zero emissions (...)".

It presents an opportunity to maximize benefits by aligning climate change policies with long-term economic planning, with ambitious plans. It also facilitates national debates at the highest level on the options that countries can take to build more inclusive low-carbon societies and meet the Sustainable Development Goals (SDGs).

The NPTD will have a long-term vision, which will allow achieving transformational change towards sustainable development and for which the decarbonization of the economy is sought; and technological, socioeconomic and environmental changes will be required, involving the public and private sectors, as well as ensuring the incorporation of the gender approach and the most vulnerable groups.

It has the following specific objectives: Establish in a participatory manner at the highest level the long-term vision of the country to achieve the decarbonization of the economy; participate in formulating sectoral policies that promote the reduction and capture of greenhouse gas emissions and the increase of sinks in the country; establish sectoral and intersectoral lines of action that change the model of development of the country towards the decarbonization of the economy; model and optimize GHG emission reduction scenarios in the strategic sectors; develop the plan for the implementation of the sectoral lines of action established, including the financing strategy, strengthening of capacities and transition and transfer of technology according to the national circumstances and formulate a strategy for gender equality in a scenario of decarbonization of the economy.

The NPTD is expected to be finalized in the end of 2022 / beginning of 2023.

d) Current MRV system

Ecuador?s reporting to the UNFCCC

Ecuador submitted its First National Communication in 2000, prior to the institutionalizatioof its CCIC and was made mainly by international consultants. Its Second National Communication was presented in 2012. It was created by international consultants and with the revision and approval of Sectorial Working Groups of the CCIC. The country submitted its First Biennial Update Report (BUR) in 2016, while its Third National Communication was submitted in 2017; the same year, Ecuador ratified the Paris Agreement through Executive Decree No 98 and in 2019 Ecuador submitted its first NDC.

A summary of the work and reports presented to UNFCCC (and those expected in the future) is presented below. Note that the second BUR is expected for 2022, whereas the first BUR was issued in 2016, i.e., a 6-year gap took place in between reports and that the first NDC was submitted in 2019 presenting 2025 targets whereas the new or updated NDC with 2030 targets was expected to be submitted in 2020-2021 and it will be submitted in 2025, i.e., a 4-year gap.

Table 2. Official reporting to UNFCCC.

Year	Milestone	Comments
2001	First National Communication (NC1)	Inventories for 1990, 1994, 2000
2011	Second National Communication (NC2)	
2016	First Biennial Update Report (BUR1)	Inventories for 1990, 1994, 2000, 2006, 2010 (?NGHGI 2010?), as well as mitigation actions and initial progress in terms of a climate change MRV.

Year	Milestone	Comments
2017	Third National Communication (NC3)	Includes inventories for 1990, 1994*, 2000*, 2006*, 2010, 20012 (?NGHGI 2012?), but also substantive information on mitigation actions, adaptation, support received & needed and outstanding barriers, and challenges. Main source for the design of this CBIT project. * Indicate revised estimate
2019	First Nationally Determined Contribution (NDC)	Chapters on national circumstances, GHG inventories (Inventories for 1990, 1994 (revised), 2000 (revised), 2006 (revised), 2010, 2012 (?NGHGI 2012?)), as well as details on mitigation but also adaptation actions, cross-cutting themes (e.g., gender), and barriers, challenges, and opportunities. The NDCs gained legally binding status in August of the same year.
2022*	Fourth National Communication (NC4)	Expected completion date. Project supported by the GEF with UNDP as implementing agency
2022*	BUR2	Project supported by the GEF with UNDP as implementing agency
2022*	National Adaptation Plan	Project supported by the GCF with UNDP as implementing agency
2023*	Long Term low carbon development strategy (NPTD)	Project supported by FIAS and AFD
2024*	First Biennial Transparency Report (BTR1)	The first BTR must be submitted by all Parties no later than 31 December 2024.
2025*	NDC update including the Adaptation Communication component	To start in 2024, including a stocktaking process of the commitments in the first NDC.

* *Expected completion date*

More specifically, the following table analyses the gaps in Ecuador according to the Modalities, Procedures and Guidelines (MPGs). The MPGs are based on a set of guiding principles and define the reporting information to be provided in the upcoming Biennial Transparency Reports. This table will be revisited after the proposed CBIT project is described (see Table 9 further below).

Table 3. Gaps in official reporting to UNFCCC for meeting the requirements of the ETF and the MPGs.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs
National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases (Chapter II of the MPGs)	Lack of sufficiently implemented national inventory arrangements.	Although Ecuador developed the National System for GHG Inventories (NGHGIS) which facilitates the collection, compilation, systematization, and processing of data for GHG inventories, it still lacks interconnectivity with the majority of the MRV systems of the National Climate Change Registry (NCCR). This has resulted in data flows not being fully identified, insufficient mandates for the collection of data at national sectoral levels, and insufficient organizational mandates for the collection of data at the sub-national level. The MPGs suggest that each Party should implement and maintain national inventory arrangements, including institutional, legal, and procedural arrangements for the continued estimation, compilation, and timely reporting of national inventory reports in accordance with these MPGs (Chapter 2, section B, paragraph 18 of the MPGs).
	Not applying the most recent international guidelines available for the national GHG inventory preparation.	Ecuador still uses the 1996 revised Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories for its national inventories of greenhouse gases. The MPGs state that each Party shall use the 2006 IPCC Guidelines and shall use any subsequent version or refinement of the IPCC guidelines agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). Furthermore, the MPGs state that each Party shall use methods from the 2006 IPCC Guidelines and that each Party should make every effort to use a recommended method (tier level) for key categories in accordance with those IPCC guidelines (Chapter 2, section C, paragraphs 20 and 21 of the MPGs).
	Not applying the most recent international metrics available for the national GHG inventory preparation.	Ecuador uses the global warming potential (GWP) values for 100-year time horizon from the Second Assessment Report (SAR). The MPGs state that each Party shall use the 100-year time-horizon global warming potential (GWP) values from the IPCC Fifth Assessment Report, or 100-year time-horizon GWP values from a subsequent IPCC assessment report as agreed upon by the CMA, to report aggregate emissions and removals of GHGs, expressed in CO2 eq (Chapter 2, section D, paragraph 37 of the MPGs).
	Not applying the most recent guidelines for the selection of the last inventory year	Ecuador submitted its Third National Communication (TNC) in 2017, where it presented the GHG inventory for the period of 1994-2012. The latest inventory year was 5 years prior to the reporting. The MPGs state that for each Party, the latest reporting year shall be no more than two years prior to the submission of its national inventory report; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead have their latest reporting year as three years prior to the submission of their national inventory report.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs
Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement (Chapter III of the MPGs)	Lack of implemented institutional arrangements to track its NDC.	Ecuador submitted its first Nationally Determined Contribution (NDC) in March 2019. Subsequently, a presidential decree was passed in August 2020 to give mandatory status to the NDC, and which established the requirement for ?a mechanism to measure, report and verify the progress made in terms of its implementation?. However, as of yet, no specific institutional arrangements are in place to track the progress of the NDC although the recent GCF proposal on the conceptual NCCR will develop documentation on procedures and processes to track NDC. The MPGs state that each Party shall provide information on the institutional arrangements in place to track progress made in implementing and achieving its NDC under Article 4, including those used for tracking internationally transferred mitigation outcomes, if applicable, along with any changes in institutional arrangements since its most recent biennial transparency report (Chapter 3, section A, paragraph 61 of the MPGs).
	Lack of procedural arrangements related to the implementation and achievement of its NDC.	Ecuador has elaborated an implementation plan for its first NDC and is in the process of designing and establishing the required procedural arrangements necessary for the successful implementation and achievement of the goals in its NDC. The MPGs state that each Party shall provide information on legal, institutional, administrative, and procedural arrangements for domestic implementation, monitoring, reporting, archiving of information and stakeholder engagement related to the implementation and achievement of its NDC under Article 4 (Chapter 3, section A, paragraph 62 of the MPGs).
	No set of indicators for the operationalization of the tracking of its NDC were available at the time of the first NDC submission.	Ecuador has set targets for mitigation and adaptation in its first NDC and has developed indicators for tracking of these commitments in its implementation plan. The MPGs state that each Party shall identify the indicator(s) that it has selected to track progress towards the implementation and achievement of its NDC under Article 4. Indicators shall be relevant to a Party?s NDC under Article 4, and may be either qualitative or quantitative (Chapter 3, section C, paragraph 65 of the MPGs). Furthermore, Parties shall: (i) provide the information for each selected indicator for the reference point(s), level(s), baseline(s), base year(s) or starting point(s); (ii) provide the most recent information for each selected indicator for each reporting year during the implementation period of the NDC under Article 4; (iii) compare the most recent information for each selected indicator with to track progress made in implementing its NDC under Article 4; and (iv) provide an assessment of whether it has achieved the target(s) for its NDC under Article 4 (Chapter 3, section C, paragraphs 67-70 of the MPGs).

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs
Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement (Chapter IV of the MPGs)	Lack of sufficiently implemented national arrangements for assessing and addressing climate change adaptation.	Although Ecuador established the adaptation module of the National Climate Change Registry to reduce climate risks through adaptation action, the institutional arrangements are insufficient to allow for the collection of the required data at both the national and sub-national levels. For instance, this hinders the continued update of the developed indicators in the currently under development National Adaptation Plan to measure climate risk reduction through adaptation action. The MPGs suggest that each Party should implement institutional arrangements and governance, including for assessing impacts, addressing climate change at the sectoral level, decision-making, planning, coordination, addressing cross-cutting issues, adjusting priorities and activities, consultation, participation, implementation, data governance, monitoring and evaluation, and reporting. However, it is important to highlight that this information is not mandatory, but it allows developing countries to show their adaptation efforts (Chapter 4, section A, paragraphs 104-106 of the MPGs).
	Lack of a monitoring and evaluation system of adaptation	The adaptation module of the National Climate Change Registry of Ecuador has developed a vulnerability indicator to measure enabling conditions for adaptation such as vulnerability and risk assessments, designing of adaptation measures, and integration of adaptation in policies and institutions. However, other indicators are still in the process of being proposed and require to be further developed. Therefore, the completeness of the monitoring and evaluation of adaptation actions in Ecuador is not sufficient. The MPGs suggest that each Party should report on the establishment or use of domestic systems to monitor and evaluate the implementation of adaptation actions. Parties should report on approaches and systems for monitoring and evaluation, including those in place or under development (Chapter 4, section F, paragraphs 112 of the MPGs). It is important to highlight that this information is not mandatory, but it allows developing countries to show their adaptation efforts (Chapter 4, section C, paragraphs 105 of the MPGs).
Information on financial, technology development and transfer and capacity-building support received under Articles 9-11 of the Partis Agreement (Chapter VI of the MPGs)	Lack of methodology to track and report on international and domestic climate finance flows and the support needed is not quantified.	According to the MPGs, developing country Parties should provide information on financial, technology development and transfer, and capacity-building support needed and received under Articles 9?11 of the Paris Agreement (Chapter 6, paragraph 118 of the MPGs). Although Ecuador reports this information in Chapter 6 of the Third National Communication, due to data gaps and insufficient institutional arrangements for systematic periodic data gathering, not all the information provisions of the MPGs are met. Ecuador is therefore partially prepared to meet the ETF reporting requirements described in the MPGs concerning the Articles 9?11 of the Paris Agreement although it is not mandatory. In addition, the NCFS should be implemented by using a methodology to track international support needed and received.

e) The National Climate Change Registry (NCCR)

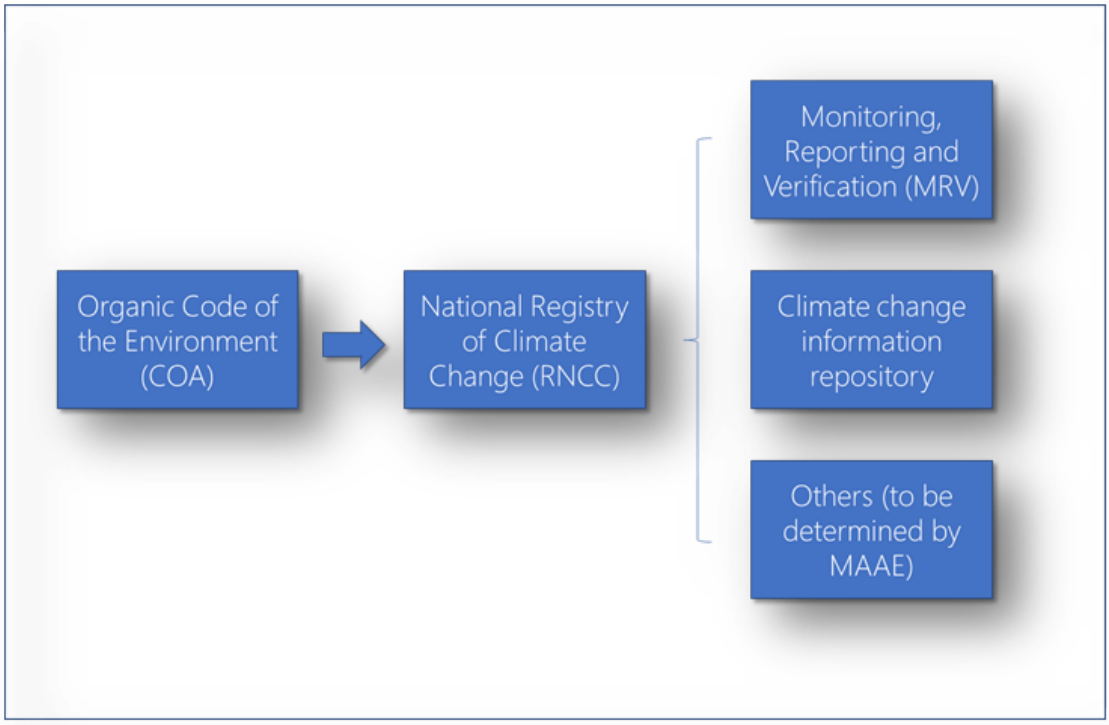
Ecuador approved a national environmental law (OEC, Official Gazette Supplement 983 of April 12, 2017) and its regulation (ROEC, Executive Decree 752 of May 21, 2019), which offered even more details for climate change policies and actions nationally, by providing details on processes for updating and validating NDCs, definitions on what climate adaptation, mitigation and climate finance entail, responsibilities for non-governmental actors and subnational governments and established a National Climate Change Registry (NCCR), composed of a public repository and an MRV system. Through the NCCR all information related to mitigation, adaptation and finance must be monitored and public access should be granted.

In article 254, the OEC establishes the creation of the National Registry of Climate Change (NCCR), which is to be managed by the National Environmental Authority, i.e., the Ministry of Environment, Water and Ecological Transition (MAATE). The NCCR is the official overarching transparency framework in terms of Climate Change. The Regulatory Decree for the OEC (2019) establishes additional aspects, which are presented in the table below.

Table 4. The NCCR as established by the 2019 Regulatory Decree of the OEC.

Article in the Regulatory Decree of the OEC	Content
715	Nesting of the NCCR within the Integrated Ecological Transition System for Environment and Water (IETSEW) and establishment of the MAATE as the competent authority
716	The Regulatory Decree also states that the NCCR will consist of a) an MRV system, b) a Climate Change Information Repository, and c) other elements to be determined by the MAATE.
717	Defines the MRV system as the tool within the NCCR which aims at measuring, monitoring, reporting and verifying the impact of any mitigation and adaptation measures implemented, assessing their contribution to national and international climate change goals. In particular, the MRV should reflect: - GHG emissions, in a consistent and transparent manner and avoiding double counting. - changes in vulnerability and the management of climate risks, - financial flows required, received, executed for climate change management
718-719	Defines the Climate Change Information Repository as the tool within the NCCR to organize, store, preserve, and manage the interchange, development and filing of information related to climate and climate change, indicating minimum contents for the type of information to be stored. This includes data on programs, plans, projects, and strategies related to mitigation and adaptation at different government levels and sectors; assessment of financial needs prepared by private, public, and academic sectors; an updated database on existent climate finance sources; published GHG inventories, climate projections; past actions undertaken, and others[11][11].
720	Requirement to share data upon request by the MAATE and mention of the need to interconnect the NCCR with other existing information systems.

Figure 2. Nesting and composition of the NCCR

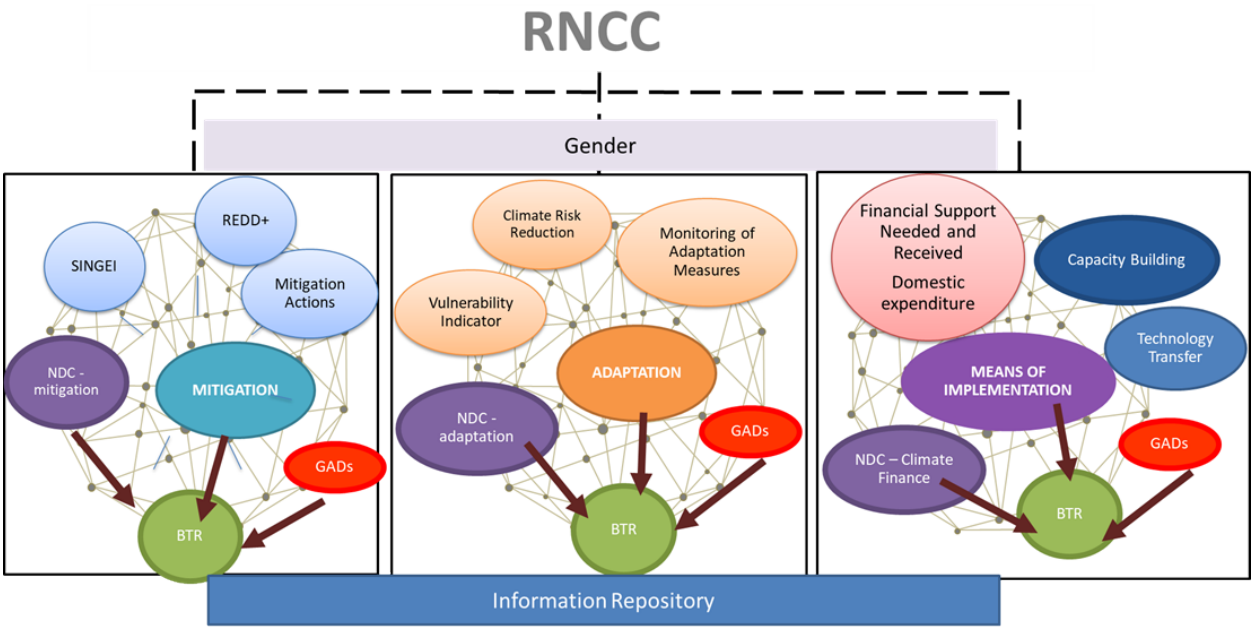


As the National Authority with competence in the matter, the MAATE has the mandate to coordinate the collection of required data from all relevant actors and government levels, and the intersectoral entities that get prioritized are mandated to participate and share information that is required by the MAATE in a timely manner, through the mechanisms that are set to this end[12][12]. However, with the only exception of the GHG inventory (discussed below), the intersectoral entities, the information required, and the mechanisms for sharing it remain undefined. Thus, although the country already has a regulatory framework that sets the mandate to implement a National Registry of Climate Change, the requirements in the OEC and its regulatory decree are still at a very high level, without providing specific details on the design of processes, arrangements, timelines, and other guidance needed for its operationalization.

In 2019, Ecuador concluded the conceptualization of the NCCR to operationalize the OEC and the country?s international commitments from the Paris Agreement. The NCCR is expected to be aligned with the modalities, procedures, and guidelines (MPGs) of the Enhanced Transparency Framework in climate mitigation, adaptation, and means of implementation to fulfil with reporting obligations under the Paris Agreement and to keep track of the progress in terms of all matters related to Climate Change.

The National Climate Change Registry is expected to follow the structure depicted on Figure 3 and will be linked to other national systems like the Environmental Information System (EIS or SUIA for its acronym in Spanish). The EIS is a web application that was developed for the management of procedures and projects aimed at the control, registration, maintenance, and preservation of the environment at the national level and at the service of all citizens.

Figure 3. Proposed Ecuador?s National Climate Change Registry Structure.

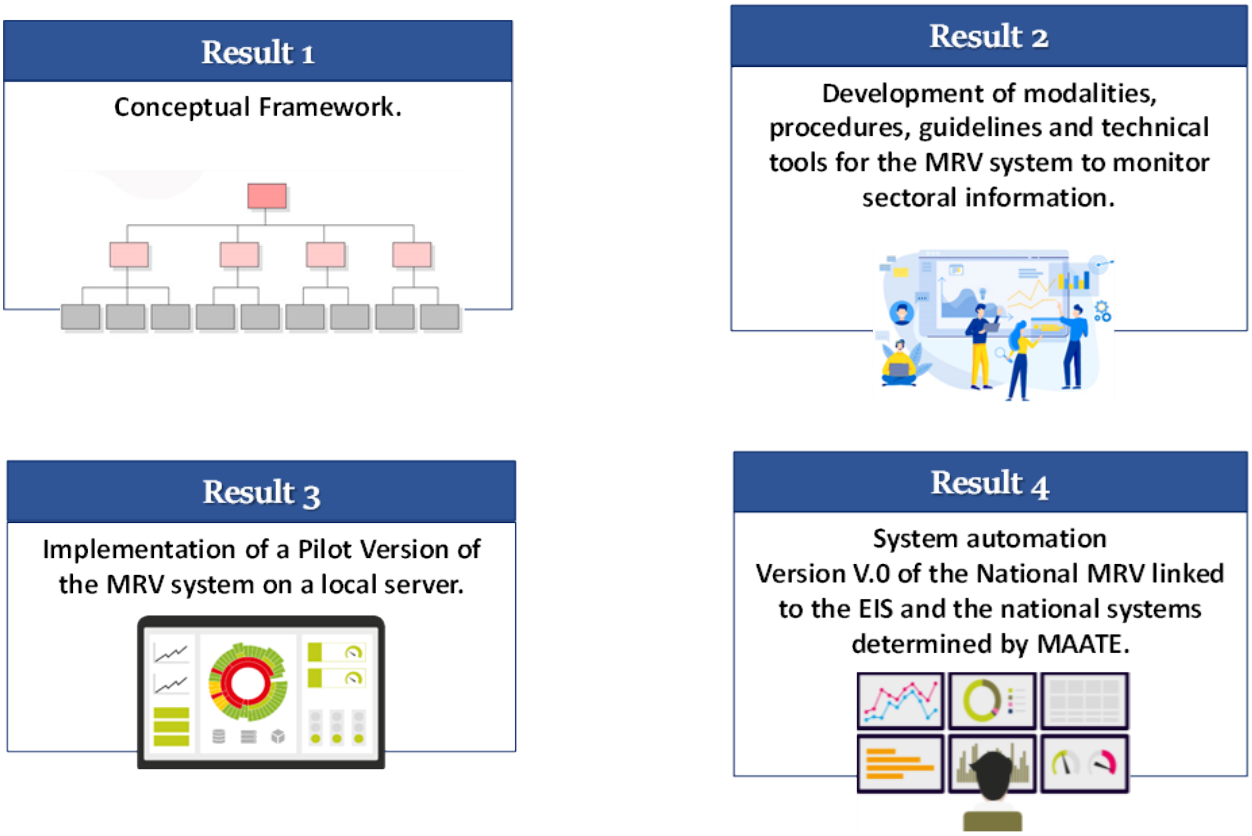


Ecuador is currently implementing a GCF readiness proposal to determine the components of the NCCR and develop the tools needed for the operationalization of the MRV system, focused on the NDC, including the modalities, procedures, methodologies, and guidelines, setting up a pilot phase that will be limited to a specific sector for the mitigation and adaptation components, and will ultimately automatize the process to embed it into national systems and requirements, in a pilot version. Through its implementation, this project, in parallel with the CBIT project, will set in place a measuring, reporting and verification system and enable the tracking of mitigation and adaptation efforts of the NDC as well as domestic and international climate finance flows and the impacts of funded activities. It is expected that this information be analysed at the national and subnational levels for iterative feedback into the investment planning process.

This NCCR will enable Ecuador to monitor its climate action and the advancements in fulfilment of national commitments, track domestic and international climate finance flows and the impacts of funded activities and offer a source of information for decision making to key stakeholders at various levels. The main beneficiary is the Ministry of Environment, Water, and Ecological Transition because of its position as the manager of the NCCR, but indirect beneficiaries include sectoral governmental institutions, who will be enabled to monitor and report on climate change activities within their competences and non-governmental stakeholders at all levels, who will be able to consult and access the data that the NCCR will provide.

The system consists of three components and a repository, which will be presented in the following sections. The GCF readiness project will be finalised in November 2022 providing the results illustrated in the figure below.

Figure 4. GCF Readiness project results.



1. Mitigation component

The Ministry of Environment Water, and Ecological Transition (MAATE) prepared a concept for the operationalization of a mitigation MRV, which includes specific criteria as well as differentiating measuring and management indicators depending on the type of action. The mitigation module of the National Climate Change Registry (NCCR) foresees several MRV systems: the National GHG Inventory System, REDD+, and Mitigation Actions, as well as tracking and updating the NDCs on mitigation. It will provide inputs for the creation of Biennial Transparency Reports from the mitigation aspect.

While some of the MRV Systems within the Mitigation Component are already operational, the development of others is in progress or to be started. The status of each sub-system in the mitigation component is described below.

A. National GHG Inventory System

Inventory systems for GHG are usually the most developed items in national transparency systems. After performing ad-hoc estimates in 2001 and 2011, Ecuador developed a system that facilitates the collection, compilation, systematization, and processing of data for GHG inventories - a system that would become known as the National System for GHG Inventories (NGHGIS). This is the main forerunner of the NCCR, and as the latter, is operated and managed by the Ministry of Environment, Water, and Ecological Transition. In terms of interconnectivity, there is work underway to provide a link between REDD+ projects and the NGHGIS[13][13].

Nevertheless, the NGHGIS -the most developed system in the NCCR- is still lacking interconnectivity with the majority of the MRV systems of the Registry, and inventories are still based on the 1996 revised Intergovernmental Panel on Climate Change (IPCC) Guidelines for national inventories of GHG (see e.g., Table 5 below).

Its main milestones can be summarized as follows:

Table 4. GHG inventories milestones.

Year	Reporting instruments	Published data
2001	NC1	Inventories for 1990, 1994, 2000
2011	NC2	Inventories for 1990, 1994, 2000, 2006
2014	Preparation of the NC3	Creation of the ?GHG Inventories Work Group? by the USCC, which later results in the organization of NGHGIS
2016	BUR1	Inventories for 1990, 1994, 2000, 2006, 2010 (?NGHGI 2010?)
2017	NC3	Inventories for 1990, 1994*, 2000*, 2006*, 2010, 2012 (?NGHGI 2012?). * Indicates revised estimate

The latest results from the GHG inventories are presented in the figures and tables below. The time series analysis shows that the most important sectors in terms of emissions are Energy and LULUCF; latest key categories (including LULUCF) are reproduced in the table below.

Figure 5. Evolution of GHG emissions (1994 - 2012).[14][14]

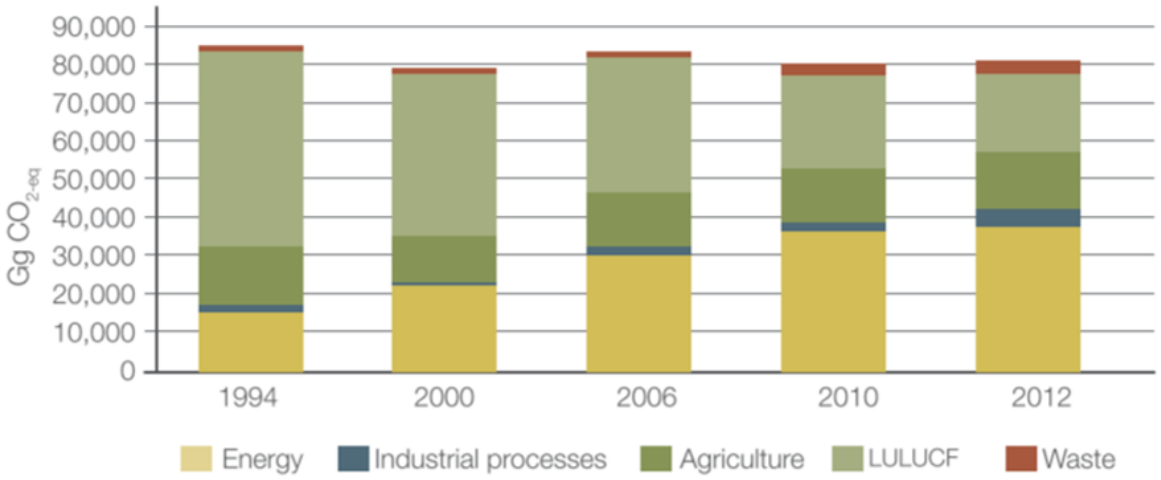


Figure 6. 2012 GHG emissions by sector.[15][15]

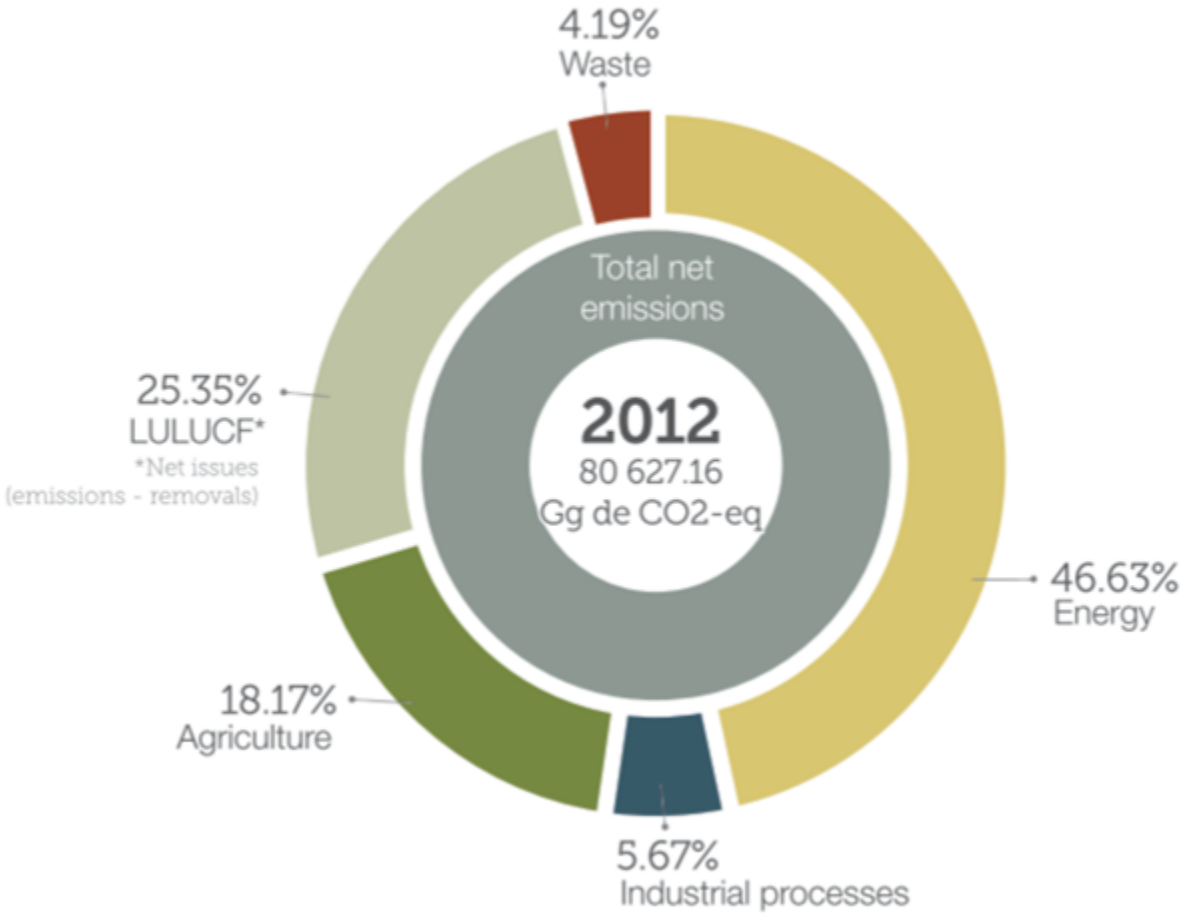

4.19%
Waste
Total net emissions
2012
80 627.16
Gg de CO2-eq
25.35%
LULUCF*
*Net issues
(emissions - removals)
46.63%
Energy
18.17%
Agriculture
5.67%
Industrial processes

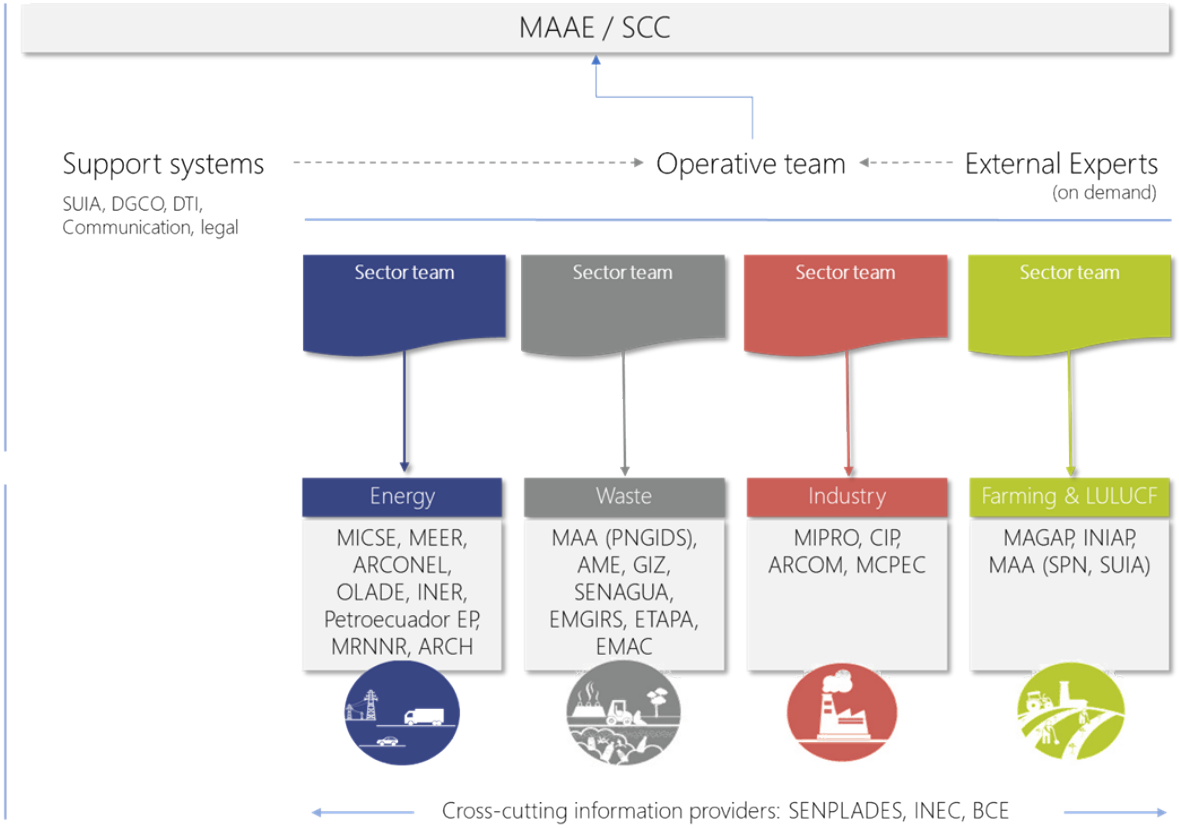
Table 5. Key categories in the 2012 GHG inventory.[16][16]

1996 IPCC code	1996 IPCC category	Sector	GHG	Accumulated emissions (%)
5B2	Emissions from land converted into farming land	LULUCF	CO_2	32
5A1	Changes in forest stocks (tropical forests)	LULUCF	CO_2	48
1A3	Emissions from Road transport	Energy	CO_2	61
1A1	Stationary emissions from energy industries	Energy	CO_2	71
4D	Direct N_2O emissions from agricultural land	Agriculture	N_2O	76
4A	Methane production as a by-product of enteric fermentation of domestic cattle	Agriculture	CH_4	82
1A2	CO_2 from stationary sources: manufacturing and construction	Energy	CO_2	86
2A1	CO_2 from cement production	Industrial processes	CO_2	90
6A	CH_4 from solid waste disposal	Waste	CH_4	92
1A4	CO_2 emissions from stationary sources: residential	Energy	CO_2	94
4C	CH_4 from rice cultivation	Agriculture	CH_4	95
5C2	CO_2 from soil converted to grasslands	LULUCF	CO_2	96

As per the figure below, the institutional framework of the National GHG Inventory System of Ecuador consists of sectorial round tables, providing information upon the signature of official agreements. A GHG Inventory Working Group is organized into sectorial sub-groups led by identified focal points, often with the support of external consultants funded by international cooperation projects for specific periods of time and to meet specific tasks within each institution.

Even though the agreements presented on Figure 6 have proven to work appropriately at the national level, there is still a need to draft specific inter-institutional cooperation agreements at the local level from which more specific data could be collected to improve the National GHG Inventory System. Data gaps are often an issue that requires using default values or local expert assumptions.

Figure 7. Institutional Arrangements for the Preparation of National GHG Inventories in Ecuador. Acronyms in of the institutions supplying data (in Spanish).[17][17]



Acronyms of the institutions supplying data: *Ministry of Coordination of Strategic Sectors (MICSE), Agency for the Regulation and Control of Hydrocarbons (ARCH), Ministry of Hydrocarbons (MH), Agency for the Regulation and Control of Electricity (ARCONEL), Latin American Energy Organization (OLADE), Ministry of Energy and Non-renewable resources (MRNNR), National Institute of Statistics and Census (INEC), Central Bank of Ecuador (BCE), National Institute of Energy Efficiency and Renewable Energies (INER), Andean Cement Association (UNACEM), National Cement Union (UCEM), Ministry of Industries and Productivity (MIPRO), Chamber of Industries and Production (CIP), Agency for the Regulation and Control of Mining (ARCOM), Ministry of Coordination of Production, Employment and Competitiveness (MCPEC), Technical Secretariat: Ecuador Plans (formerly, SENPLADES, National Secretariat of State Planning); Ministry of Agriculture, Farming, Aquaculture and Fishery (MAGAP), Ministry of Environment, Water, and Ecological Transition (MAATE), National Programme for the Integral Management of Solid Waste (PNGIDS), Ecuadorean Association of Municipalities (AME), Water Secretariat (SENAGUA)*[18][18]*, Public Metropolitan Utility for Water and Sanitation of the Quito Metropolitan District (EPMAPS),Under-secretariat of Natural Patrimony (SPN), Unique Environmental Information System (SUIA)*

In terms of the accuracy of the data of the National GHG Inventory, the vast majority of methods for estimating emissions follow a Tier 1 approach, with only a few of them using country specific emission factors (Tier 2) and none of them reaching a Tier 3 level. The NC3 provides a detailed analysis of the areas with room for such improvements, where a national emission factor would have a greater impact in terms of accuracy and certainty.

International cooperation has played a major role in the improvement of the NGHGIS. At the moment, for example, the Initiative for Climate Action Transparency (ICAT) of Ecuador is expected to strengthen the capacity of the institutions that collect and provide information of activity data to the system[19][19]. However, the dependence on external consultants comes at a cost in terms of the development of skills for government technicians.

As reported by MAATE, Ecuador has made efforts to strengthen the capacities of its national technicians in the use of 2006 Guidelines of the Intergovernmental Panel on Climate Change (IPCC) for upcoming estimations of the GHG inventory, to be presented in the 2nd BUR and the 4th National Communication. Ecuador has taken place in several domestic South-South cooperation activities with the Latin American Network of GHG Inventories (NGHGI network), as countries in the region face common barriers in data collection and management. These workshops have significantly improved the capacity of national data suppliers.

The country considers that a larger amount of capacity building activities via domestic and South-South cooperation workshops will further enhance the quality of the GHG inventory overall. Capacity building processes (such as the one described with NGHGI network) are not yet institutionalized, and the NC3 reports limited involvement of the academia, public and private research institutes, and industries as one of the main challenges for the development of the NGHGIS.

B. Mitigation actions (NAMAs, REDD+ and other mitigation actions)

In its NC3, Ecuador presents mitigation actions in five key sectors, i.e., energy (47% of 2012 GHG emissions), LULUCF (25%), agriculture (18%), industry (6%) and waste (4%). Some of these mitigation actions are arranged as NAMAs, the most advanced of which belong to the energy sector. These are the NAMA for the development of hydro power plants, the Programme of Energy Efficiency/Fuel Replacement in Cooking (PEC), an energy efficiency and generation project in the oil sector (OPG&EE) the Programme of Energy Efficiency in the public and residential sectors, the NAMA for freight and passenger transport. At present, the MAATE in coordination with the Agency for Regulation and Control of Energy and Non-Renewable Natural Resources (ARCENRNR) is developing a web platform to automate and interconnect the existing MRV Systems of these NAMAs with the MRV for the electricity sector as a whole. Even though this will result in the interconnection of these NAMAs, as of yet there are no arrangements for their interconnection -or that of similar mitigation activities- with other MRV Systems within the mitigation module of the NCCR.

Another exiting mitigation action is the NAMA for climate-smart livestock, and future mitigation actions include REDD+ projects[20][20].

C. NDC tracking

One of the ultimate goals of the National GHG Inventory System and the MRV of mitigation actions is to allow for the tracking of Ecuador?s NDCs. As mentioned earlier, the first NDC was submitted in March 2019, covering the period 2020-2025. Presidential Decree N?840 was passed on August 6th of the same year, giving mandatory status to the NDC and establishing the requirement of ?*a mechanism to measure, report and verify the progress made in terms of its implementation*?[21][21]. The Implementation Plan for the NDC presents indicators for the tracking of initiatives under the unconditional scenario, having as a main impact indicator Gg CO2-eq emissions per year for all sectors, and more specific indicators for monitoring the initiatives have been designed according to the particularities of each sector. However, neither the design nor the specific arrangements for the operationalization of this sub-system are yet available.

2. Adaptation module

Adaptation to climate change is one of the main lines for the realization of the vision expressed for 2025 in the National Climate Change Strategy (NCCS). The NCCS sets out the reduction of social, economic, and environmental vulnerability to the impacts of climate change as a fundamental objective to guide adaptation efforts. Sectors prioritized by the NCCS are: 1) Food Sovereignty, Agriculture, Livestock, Aquaculture and Fisheries; 2) Productive and strategic sectors (e.g., energy); 3) Health; 4) Water heritage; 5) Natural heritage; 6) Human settlements; and a) Priority care groups[22][22], and b) Risk management being understood as cross-cutting sectors.

The adaptation module of the National Climate Change Registry was conceptualized to include various ?blocks with the concept of reducing climate risks through adaptation action at its centre. Following IPCC (2012)[23][23], 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. 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.

The adaptation module will update data on vulnerability and risk, as well as their connection with the adaptation measures that are implemented. The generated and systematized information will contribute to the Repository and MRV sub-systems and, as a result, will allow tracking and updating the adaptation side of the NDC and provide inputs for the creation of Biennial Transparency Reports from the adaptation?s perspective. As with the rest of the components in the NCCR, a specific interphase for the interaction with DAGs is foreseen.

The MRV sub-systems within the Adaptation Component of the Registry are at different stages of development. A vulnerability indicator has been approved, including its calculation procedures. Calculations are carried out not only at the sectorial level (the six prioritized sectors for adaptation by the NCCS) but also disaggregated to the local level (Provinces, Municipalities and Parishes). The indicator measures the enabling conditions for adaptation such as: vulnerability and risk assessments, designing of adaptation measures, and integration of adaptation in policies and institutions. Regarding the impact of adaptation actions, specific indicators have already been proposed[24][24] and will be further adjusted to the scope required from a sector and local-specific context. Moreover, the National Adaptation Plan (NAP), to be developed by 2022 with the aid of the GCF Readiness and Preparatory Support Programme, is expected to advance further on the development of indicators and an MRV system to measure its own effectiveness in terms of i) the level of integration of adaptation into the development planning at sectoral, territorial and local levels; ii) the increased resilience and / or the reduced vulnerability at the sectoral, territorial and local levels; and iii) gender focus mainstreaming. While the NAP project is expected to include a strategy for collection of data that will feed into the indicators to measure climate risk reduction through adaptation action, the required institutional arrangements for the collection and continued update of these indicators -national and at the DAG level-have not yet been addressed. Likewise, a platform for the visualization of georeferenced information resulting from the adaptation module is also lacking.

Another challenge for the adaptation module has to do with knowledge management. During the preparation of the NC3, for instance, the MAATE traced 127 studies related to adaptation in the Ecuadorian water sector alone, with similar figures for other prioritized sectors[25][25]. A common challenge has to do with the harmonizing of the results and the variables of analysis, with methodological dispersion often referred as a barrier for interpretation. Although these publications are traced and compiled with the assistance of consultants for the preparation of documents such as National Communications, no formal repository nor means to track and identify relevant academic work exist.

3. The Means of Implementation module

A National Climate Finance Strategy was published in 2021, which included among the enabling conditions required for its implementation, the operationalization of an MRV system for climate finance[26][26]. The means of implementation component of the National Climate Change Registry is expected to be focused on support received (and how it was used) as well as further support needed (in terms of capacity building, enabling conditions, technology transfer, etc.), both of which are reported in various transparency documents, most notably, NCs, NDCs and BURs/BTRs.

Ecuador has experience in the application of the Climate Public Expenditure and Institutional Review (CPEIR), a methodological framework developed by UNDP that quantifies the climate relevant expenditure out of the total national budget. This methodology has proven successful, as it was applied in the country?s NC3[27][27]; however, so far there is no systematic or periodic application to ensure consistency and comparability of the resulting time series, and any support that does not go through the treasury needs to be manually assessed and compiled. The same is the case in terms of capacity and technology needs, which are currently assessed on an ad-hoc basis for the preparation of reports.

With additional funding from the NDC Support Program, the MAATE, in collaboration with the MEF, finished the implementation of the Private Climate Expenditure Investment Review (PCEIR), Climate Budget Tagging (CBT), Investment and Financial Flows (IFF) assessment, and CPEIR in 2021. The projects had the purpose of meeting the country?s objective of supporting the domestic private sector with their contribution to the NDC, for both the conditional and the unconditional scenarios. Which was done via the development of a sectorial climate change finance strategy to meet the implementation of the NDC, in all the country?s mitigation sectors. The projects also focused on proposing domestic institutional arrangements and tools for the sharing of information among the Ministry of Economy and Finance, the Ministry of Planning, and the Ministry of Environment, Water, and Ecological Transition to ensure that the actions that are aiming to meet the NDC are reflected in sectorial priorities, plans, and public budgets. During the implementation of the projects, adjustments were made to the methodologies to meet the country?s needs in terms of information available, institutional arrangements, among others, and quantitative results were obtained.

f) Local information systems

Reporting systems at the DAG (i.e., subnational) level exist. While these are not designed for the purpose of climate transparency, they do generate information that is relevant for the tracking of climate actions. Currently, the DAGs have several information platforms, such as:

? National System for Municipal Information (NSMI): run by the Association of Ecuadorean Municipalities, it includes information of water and sanitation, waste management, transport, and institutional capacity, among others.

? Information System for the Decentralized Autonomous Governments (ISDAG): captures the information required to calculate the Goal Achievement Index ? a performance indicator tied up to the country?s and the DAG?s own local development plan.

? DAG-level information from the National Institute of Statistics and Census

? Consortium of Autonomous Provincial Governments of Ecuador (CAPGE), which owns a platform for the creation of capacities at the provincial DAG level.

While these platforms can be used to validate the information that serves as inputs for tracking climate action, they currently work in an isolated manner and do not always report to the central government. Lack of coordination prevents the MAATE from identifying and collecting available data and integrating it into climate transparency reporting.

g) Long-term development planning in Ecuador

Long-term development planning has various points of contact with transparency systems. For example, by reflecting and integrating the NDCs, a National Development Plan can unlock funds and resources to this end both on the national budget but also when it comes to external funding. Setting national climate targets as a top priority in the long-term development planning can also release funds that are needed for the transparency system itself.

According to article 280 of the Constitution of Ecuador, the National Development Plan is the instrument that provides ground to public policies, programs, and projects, as well as the programming and execution of the national budget and investments. A National Planning Council -which includes representatives from different levels of government, foresees citizen participation and is chaired by the President of the Republic- is the body in charge of approving the National Development Plan. At the sub-national level, DAGs also follow their own planning, aligned with the national guidelines. Compliance with the goals set in the national and local plans have budgetary consequences to the DAGs, as national resources are distributed according to a formula that takes these elements into account[28][28].

The 2021-2025 National Development Plan (NDP) is aligned to international commitments as laid out in the Agenda 2030 and its 17 Sustainable Development Goals, among which climate action is considered. It establishes five strategic areas, and a total of sixteen objectives, as depicted below:

Table 6. Ecuador's National Development Plan (2021 - 2025)

Area	Objectives

Economy and job creation	1. Increase and foster, in an inclusive manner, job opportunities and improved working conditions 2. Promote an economic system with clear rules that encourages foreign trade, tourism, investments, and the modernization of the national financial system 3. Increase productivity and competitiveness in the agricultural, industrial, aquaculture, and fishing sectors, under a circular economy approach 4. Guarantee a sustainable and transparent management of public finance
Social	5. Protect families, guarantee their rights, eradicate poverty and promote social inclusion. 6. Guarantee free access to quality, integral health 7. Boost capacities in the citizenship, and promote innovative, inclusive, and quality education in all levels 8. Create new opportunities and welfare for rural areas, with emphasis in the people and nationalities
Integral security	9. Guarantee the safety of the citizens, public order and risk management 10. Guarantee national sovereignty, territorial integrity, and State security
Ecological transition	11. Preserve, restore, protect, and make sustainable use of natural resources 12. Promote sustainable development models, applying climate change adaptation and mitigation measures 13. Promote an integrated management of water resources
Institutional	14. Strengthen the State?s capacities with emphasis on the administration of justice and efficiency in control and regulation, with independence and autonomy 15. Foster public ethics, transparency, and anti-corruption efforts 16. Promote regional integration, strategic insertion of the country in the world and ensuring the rights of people migrants

Moreover, with the support of the *Agence Fran?aise de D?veloppement* (AFD) the country is currently preparing its National Decarbonization Strategy 2050, known as the ?National Plan for the Transition towards Decarbonization? (NPTD). As mentioned, this plan will have a long-term vision, with a horizon to 2050 ? the year in which the country aims to reach its decarbonization stage. The plan is being developed through a participatory process, providing guidelines for updating the NDCs, which consider gender and the basis of long-term strategies. Similarly, the National Adaptation Plan (NACCP) is currently under preparation with the support of the Green Climate Fund and has a long-term vision. It contemplates the development of climate adaptation data in four components: vulnerability analysis, climate risk analysis, adaptation measures design and mainstreamed climate change at the local and sectorial level. Lastly, as previously mentioned, the National Climate Finance Strategy (NCFS) is the country?s long-term strategy for climate finance.

h) Other baseline actions and initiatives

The list below includes projects which have an MRV component. This table is later revisited in the coordination section (see Table 16), after the alternative scenario has been presented in detail.

Current projects include:

Table 7. Projects associated with transparency systems relevant to CBIT.

Project	Description	Actors, Timeframe
?Fourth National Communication 2016-2022 and Second BUR of Ecuador 2016 ? 2022? USD grant amount: 852,000	The objective of this GEF project is to assist Ecuador in preparing and submitting its Fourth National Communication and Second Biennial Update Report to the UNFCCC. To the extent possible and based on the stages of development in which these two projects and the CBIT proposal will coincide, the CBIT project will aim to inform and suggest technical changes so that the progress made with the CBIT project are reflected on these two reports.	Project funded by the GEF, with the Ministry of Environment, Water, and Ecological Transition as Executing Agency and UNDP as Implementing Agency, 2018- present. The Second BUR of Ecuador will be presented in the first quarter of 2022, while the Fourth National Communication will be presented in the last quarter of 2022.

Project	Description	Actors, Timeframe
?NDC Support Programme? USD grant amount: 1,650,300	The First Period of the NDC Support Programme undertook the initial conceptualization of the domestic MRV System (National Climate Change Registry). In its second phase, the project focused on the development of an investment plan that will enable the generation of additional mitigation initiatives framed in the conditional component of Ecuador?s NDC and that will help raise the mitigation ambition of the NDC. The progress achieved by this project in each of the three components of the conceptualization the MRV is described below: Proposal of MRV for Mitigation: the project made a conceptual and methodological description of a domestic MRV system, with a focus on the Energy Sector (NAMAs)? Electrical Subsector. From this effort, MAATE worked with ARCENRNR on a pilot web platform that develops and interconnects these systems. Proposal of MRV for adaptation: the project included a conceptualization of the MRV for adaptation, which has been already finalized. Nevertheless, the creation of its methodological framework has not been finalized. Proposal of MRV for Means of Implementation: the project included a conceptualization of the MRV for climate finance (support needed and received), which has been already finalized (concept level). Nevertheless, this conceptualization did not include specific methodologies for its implementation and operation. The Second Period of the NDC Support Programme in the creation of a Sectorial Finance Strategy of the NDC in all the country?s mitigation sectors. In addition, it will develop institutional arrangements and tools for the sharing of information relevant for the management of domestic climate finance, involving public and private sectors stakeholders.	Ministry of Environment, Water, and Ecological Transition, CCIC, Private sector, DAGs, Academia, Civil Society, Power Generation / Electricity Sector, ARCENRNR ? the Electricity Regulation and Control Agency of Ecuador. Multiple donors. UNDP as Implementing Agency, First Period: 2017 ? 2019 Second Period: 2020-2021

Project	Description	Actors, Timeframe
?Initiative for Climate Action Transparency (ICAT)?	The Initiative for Climate Action Transparency (ICAT) of Ecuador is expected to strengthen the capacity of the institutions that collect and provide information of activity data to the National GHG Inventory System (NGHGIS). This will lead to having more robust information reported in a more transparent manner. To achieve this, a prioritization of sectors and categories was undertaken, so that the activities focused on developing capacities where they were most needed. ICAT focused on the following sectors: agriculture, industrial processes, waste management and energy. Given that ICAT worked partially in the sectors of agriculture, industrial processes, waste management and energy, focusing on the calculation of the mitigation impact of fuel usage in these industries, this CBIT project will need to take that information into account as inputs for the capacity building on tools that will be developed for those sectors.	Ministry of Environment, Water, and Ecological Transition, UNEP-DTU Partnership, Sectorial Stakeholders from the Energy, Industry, Agriculture, LULUCF, and Waste Sectors, ICAT Timeframe: 2019-2021
?National Transition Plan towards Decarbonization 2050?	Preparation of Ecuador?s 2050 decarbonization plan (NPTD). This plan will have a long-term vision, with a horizon to 2050 ? the year in which the country aims to reach its decarbonization stage. The plan is being developed through a participatory process, providing guidelines for updating the NDCs, which consider gender and the basis of long-term strategies.	Ministry of Environment, Water, and Ecological Transition, AFD Timeframe: 2022 - 2023
?Green Climate Fund Readiness and Preparatory Support for National Adaptation Plan in Ecuador? USD grant amount: 3,000,000	Ecuador is currently working on its National Adaptation Plan (NAP) with support of the GCF Readiness Proposal and UNDP. The national plan prioritizes two mainstreamed sectors of Risk and Priority care groups, and six thematic sectors. The experiences of this plan and its results will inform this CBIT project, specifically as it relates to the adaptation component of the proposed National Climate Change Registry. The CBIT project will build on the indicators and numeric objectives set by the National Adaptation Plan with regards to the adaptation components of the NDC so that the measuring and monitoring of these indicators and objectives is reflected in the NCCR and is an input to the development of the NAP.	Ministry of Environment, Water, and Ecological Transition, UNDP, CCIC Timeframe: 2019-2022

Project	Description	Actors, Timeframe
?Green Climate Fund Readiness and Preparatory Support for Ecuador? USD grant amount: 300,000	This proposal was meant at implementing activities that would allow the NDA to build up national capacities and processes, engage different stakeholders in consulting and policy development processes, support access to finance, develop a country work program, and involve the private sector in climate change-related projects and activities.	Ministry of Environment, Water, and Ecological Transition, UNDP, GCF Timeframe: 2016-2017
?Ecuador NDA Institutional Strengthening and Digitalization Process? EUR grant amount: 450,000	This proposal had the objective to support the NDA, as the main beneficiary of the readiness, to have a better organization to improve complementarity and coherence between the activities of the GCF and the activities of other relevant institutions, to better mobilize the full range of financial and technical capacities ? focusing on the optimization of organization and human capacities inside the organization ? and to enhance the efficiency and transparency of the processes of the NDA by implementing digital solutions.	Ministry of Environment, Water, and Ecological Transition, GIZ, GCF Timeframe: 2020-2021
?Enhance the capacity of Decentralized Autonomous Governments to access and manage climate finance in Ecuador and contribute to the implementation of the NDC? USD grant amount: 559,516	The proposal aims to strengthen the capacities of the Decentralized Autonomous Governments (DAGs) at the province level in Ecuador to be able to access climate finance from the Green Climate Fund and other sources of finance for the implementation of strategic and prioritized climate change-related activities.	Ministry of Environment, Water, and Ecological Transition, Fundaci?n Avina, GCF Timeframe: 2019-2021

Project	Description	Actors, Timeframe
"Generation of a Conceptual Framework for the National Climate Change Registry of Ecuador (NCCR) and Design of a Version V.0 of the Measuring, Reporting and Verification (MRV) system as part of the NCCR? USD grant amount: 379,641 (GCF readiness)	Under this project Ecuador has evaluated the existing MRV practices against each other and against national regulations, as well as international requirements by the UNFCCC and the Transparency Framework of the Paris Agreement, has elaborated the conceptual NCCR (scope, components, and subcomponents) and has identified the relevant actors and their roles in the operationalization of the NCCR. Through this project, Ecuador will design a prototype of the NCCR, developing methodologies, tools, and guidelines to monitor and report on its subcomponents and follow up on adaptation, mitigation and means of implementation activities in line with international requirements. The prototype will include a working pilot for the MRV system including the necessary documentation, procedures and processes to run it and measure the components of Ecuador?s NDC. The pilot will be limited to one sector (to be determined by the same project in its last stretches), establishing an indicator linked to the NDC for the mitigation and adaptation components and involving government institutions in charge of monitoring those actions implemented. After this prototype is tested the NCCR will be designed in a preliminary version. The scope of this Version V.0 of the system will be scalable to cover all the components of Ecuador?s NDC.	Ministry of Environment, Water, and Ecological Transition, GCF Timeframe: 2021-2022
Technical assistance services, to plan, develop and implement an interactive mapper based on geographical information system (GIS) EUR grant amount: 120,000	Under this project, Ecuador developed and implemented an open source interactive mapper based on a geographic information system (GIS) from which information generated by MAATE on i) climate projections, ii) climate risks, iii) adaptation measures, and iv) climate change vulnerability indicators which can be viewed and downloaded.	Ministry of Environment, Water, and Ecological Transition, Euroclima

As per the table above, Ecuador is addressing climate change through diverse efforts. Many of these will involve one or more MRVs, but an overall systemic approach, with the coordination needed to ensure that Ecuador meets the requirements of the ETF, is still lacking.

The following section presents an alternative scenario where Ecuador can build on its existing efforts to establish an integral MRV system.

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

Overview

This CBIT project aims to strengthen the transparency systems of Ecuador to meet the requirements of the transparency framework (ETF) under the Paris Agreement on Climate Change. In doing so, the country is expected to streamline the collection, management, processing, and production of high-quality climate information for the purpose of international reporting meeting the requirements of transparency, comparability, consistency, accuracy, and completeness. In addition, climate information will be used as an important decision-making tool at the national and sub-national level.

The project is organized into three components:

? **Component 1** focuses on completing the design and connecting the system with both the sources of data and the planning instances where this data is most likely to have a valuable impact. It 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 functional, coordinated, and efficient. This component builds upon the high-level legislation provided in the OEC and the one-sector prototype version of the NCCR to be designed by the GCF readiness proposal, providing the instructions and processes for its full operationalization. Thus, component 1 focuses mainly on barriers 1 (i.e., lack of an integrated MRV system and insufficient institutional arrangements to allow for collection, monitoring and use of required data) and 3 (limited integration of climate change considerations into political decision making) of the problem tree depicted in Figure 1.

? **Component 2** provides enhancements that improve the quality and completeness of the information in line with the requirements of the ETF. With a strong focus on technical aspects, component 2 will enhance the system by providing capacity building to MAATE and key external stakeholders and refined guidelines, templates, and tools to improve the quality and reliability of the climate information that results from the NCCR and its three components, i.e., mitigation, adaptation and means of implementation. Thus, component 2 focuses mainly on barrier 2 of the problem tree, contributing to the creation of technical capacities to design, implement and manage a complex, country-wide climate transparency system. Lastly, this component also contributes to the sharing of lessons learned at an international level through the CBIT Global Coordination Platform.

? **Component 3** closes the circle by focusing on the stakeholders that will interact with the NCCR, both as data providers but also as users of the processed information and reports. Thus, this component provides a communication and engagement plan in parallel with a capacity building programme to be led by a national educational institution. Both elements are required to facilitate a smooth adoption by relevant public and private stakeholders and to create a pool of certified experts in transparency. A permanent capacity building mechanism will be established through a partner academic institution after receiving training from the project, including through 21 capacity building workshops under the two previous components. By partnering with a local academic or research institution, it is expected that this capacity building will go beyond GEF funding, providing a pool of qualified trainers while also ensuring that a steady flow of new human resources can be formed in the country after the CBIT project?s end. Thus, by building the national capacity required to elaborate climate change assessments and making this information available in a user-friendly and integrated manner, component 3 also contributes to the integration of climate change considerations into the private and public decision-making processes (barrier 3), as well as in the constant creation of the required capacities (barrier 2).

The approach for the creation of capacities in this project is two-fold. On one hand -as part of components 1 and 2- a number of training and workshops will take place during the execution phase of this project. These will be led by the consultants appointed by the project together with the project?s base team, and target short and medium-term gaps and needs identified by MAATE for the mitigation, adaptation, and means of implementation component of the NCCR, i.e. the application of procedures needed for its operationalisation as well as the technical requirements to monitor and evaluate the progress and achievement of the NDC, GHG emissions, adaptation measures and financial support needed and received (outputs 1.2, 2.1, 2.2, and 2.3). This is summarized below in Table 9 (subsection ?Addressing existing gaps?).

On the other hand, the capacity building mechanism in component 3 aims at the long-term creation of capacities by mainstreaming climate change in local higher education institutions. The process to achieve this is described under output 3.2.

Project activities will be undertaken by a Project Management Unit (PMU) consisting of a base team (a chief technical advisor (CTA), a senior transparency expert, an IT expert, a process expert, a gender specialist and a junior administrative and technical officer). A series of consultancies (which can bring in international experts, as needed) have been included for specific assistance and in order to supply the necessary technical inputs for each of the outputs. Further details on the project?s governance and the assignment of roles and responsibilities can be found on the section ?Institutional arrangements and coordination?, as well as on the project?s workplan (Annex K). Detailed terms of reference for staff and consultancies are available in Annex H.

The following sections describe the components and outputs in this CBIT project. Deliverables are included for each of the outputs. After each of the three components have been described, the project description is closed with a discussion on the intended impact. This last subsection will discuss how the gaps identified in the baseline will be closed (Table 9), the desired transformation compared to the baseline Table 10, as well as the project?s theory of change (Figure 9).

Component 1: Strengthening institutional aspects of the National Climate Change Registry (NCCR)

Outcome 1: The Government of Ecuador takes steps to develop policies and begins to track climate ambition based on a robust NCCR

As discussed in the baseline section, Ecuador has an encompassing environmental law -the OEC- that sets broad mandates for the creation of a National Climate Change Regime. In article 254, the OEC establishes the creation of the registry, which is to be managed by the National Environmental Authority, i.e., the Ministry of Environment, Water, and Ecological Transition. The latter is to define ?the criteria, scope and procedures for the registry, as well as the activities that are to be registered?[29][29]. The Regulatory Decree to the OEC further clarifies that the objective of the MRV system in the NCCR is to ?*measure, monitor, report and verify the impact of mitigation and adaptation measures, evaluating their contribution to national and international climate change targets, which should reflect:*

a) The results of greenhouse gas emissions, consistently and transparently, to avoid double accounting.
b) Results related to vulnerability reduction and climate risk management in the face of the effects of climate change.
c) Financial resource flows received, implemented, and required for climate change management, and
d) Others determined by the National Environmental Authority?[30][30].

As discussed in the baseline (see e.g., Table 6), Ecuador is currently implementing a GCF readiness proposal to determine a one-sector prototype of the NCCR.

Building on the results from the GCF readiness project, the CBIT project will expand this prototype to all the reporting sectors, setting in place a fully operational measuring, reporting and verification system that enables the tracking of mitigation and adaptation efforts as well as domestic and international climate finance flows and their impacts.

This component of the CBIT proposal will aim at implementing the necessary activities to revise the preliminary version of the NCCR on the basis of the experience gained and turn it into the final version that will be put into operation and made available to all the users identified by the Ministry of Environment, Water, and Ecological Transition.

This component thus aims to provide a detailed design following the results of the pilot test and the preliminary automatized version of the NCCR and to set the institutional arrangements needed for its sector-wide operationalization. Besides from its natural function as main database for the preparation of BTRs, NCs and the tracking and updating of NDCs, the NCCR is also expected to play a fundamental role in Ecuador?s planning and decision-making processes. Component 1 builds on the latest advances provided by other projects concerned such as this GCF readiness project and other projects related to the improvements to data collection, such as ICAT (also executed by the MAATE).

The NCCR enables Ecuador to monitor its climate action and the advancements in fulfilment of national commitments, track domestic and international climate finance flows and the impacts of funded activities and offer a source of information for decision making to key stakeholders at various levels.

This first component will likewise focus on the integration of the NCCR with the national planning process. This will be accomplished by strengthening MAATE's capacities to act as a link between the transparency system and the country?s existent development-planning instances, i.e., by creating bridges between the NDC updating process, the 2050 National Decarbonization Plan (NPTD) and the National Development Plan (NDP).

Output 1.1. MAATE manages a fully operational National Climate Change Registry

The purpose of the National Climate Change Registry is to become the main and centralized MRV system for Climate Change Mitigation, Adaptation, and Means of Implementation.

Based on the different level of development of the components of the National Climate Change Registry, the CBIT project will make final adjustments to the conceptualization and design of the proposed Registry and all its components and interconnect or integrate currently isolated MRV platforms.

Using the baseline analysis and after an assessment of the requirements and functionalities for the NCCR to fulfil the MPGs of the Enhanced Transparency Framework, this output will provide a roadmap for the operationalization and improvement of each module, including but not limited to the timeframe comprised by the CBIT project.

Following a modular format, the NCCR will be nested in the Integrated Ecological Transition System for Environment and Water (IETSEW) and will interconnect to other existing information systems internal and external to MAATE, such as sectoral and local systems, within the latter to ease the sharing of climate change data. Thus, the CBIT project will assess that the design will include the development of interoperability formats and procedures required between all the current information systems as well as their minimum functionalities required to advance in the tracking and updating of national goals in climate change. Furthermore, the CBIT project will develop a protocol for the efficient addition and interconnection of upcoming modules/platforms of the MRV components so that the National Climate Change Registry operates smoothly.

To produce a gender-responsive transparency system, it is important to include gender considerations. This will require a reflection on which data should be collected to endow the system with enough resolution to capture gender biases in fundamental elements such as the NDCs, Adaptation Plans and the NAMAs.

Essential for the improvement of the system will be the preparation of a detailed data collection plan, i.e., an exhaustive inventory of the information that the system would ideally require, together with the status of each. This deliverable will also serve as the basis for the prioritization exercises for the improvement of the system under the other outputs of this component.

Another fundamental aspect related to the sustainability of the entire system has to do with the involvement of stakeholders. While component 3 (discussed below) prepares an engagement strategy that is focused on communicational aspects, output 1.1 will assess collaboration opportunities from a technical point of view, focusing on which actor is better equipped for which piece of data and/or which process in the NCCR and which collaborations will need to be formalised. One deliverable will thus explore the legal and procedural requisites for technical collaboration with academia, research institutions (such as the National Institute of Farming Research, NIFR, or the National Institute for Energy Efficiency and Renewable Energies, NIEERE), and public and private universities throughout the country.

This output will also assess operational costs based on the proposed structure and required improvements, together with the identification of financial means to support the transparency system. This will include plausible internal and external funding opportunities both for retaining and developing the team of national experts and for gathering and compiling the required data. Fundraising activities can include lobbying for internal resources (e.g., national projects, national and sub-national budget funds, ministry resources) and scanning the horizon for external ? local and international ? funding sources (private sponsors, funding to support reporting under the convention, international projects) in line with the NCFS.

Lastly, output 1.1 will also focus on the creation of a detailed process manual for the operation of the RNCC. This will start with the preparation of an inventory of all processes, including, *inter alia*, contact with existing data suppliers, contact with new data suppliers, establishment of monthly / semi-annual / annual data collection cycles, data collection itself, feedback round with information providers for adjustments or corrections, channeling of raw data to the corresponding modules, notification to those responsible for each module, collection and compilation of results and data processed in each module, preparation of reports, dissemination of reports in the media and publication in the observatory, notifications to users of the information, coordination with statistical offices, coordination with planning offices, etc.). The next step will performance an assessment of the process currently undertaken and the identification of bottle necks, duplication, synergies and any potential gains in terms of efficiency. An improvement plan will be executed throughout the duration of the project, and a detailed process manual will be made available as the design phase ends.

Deliverables:

1.1.1. Analysis report of Latin American countries concerning their transparency architecture and approach to climate transparency (benchmarking and case studies);
1.1.2. Detailed assessment report of the design of the NCCR developed under the GCF readiness, including responsible authorities, mission, functions, and its interconnection with other systems.

1.1.3.	Report mapping which component(s) will provide which piece of information to each report to the Convention (NC, BTR, updated NDC) and will serve for tracking the implementation of the NDC as well as monitoring the NAP, the long-term strategy of decarbonisation 2050 and the climate finance flows.
1.1.4.	Detailed Data Collection Plan by module, including all the information required to run the system, assessment of templates required for collection, and mapping the entity / sector / government level providing the data, and their current status (e.g., periodically received, occasionally received, rarely received, needed but not received, etc.)
1.1.5.	Design of information flows for the data collection plan, per sector, type, and origin of the information
1.1.6.	Inventory of processes required for the operation of the NCCR
1.1.7.	Improvement plan for the current processes involved in the operation of the NCCR
1.1.8.	Process manual for the operation of the NCCR
1.1.9	Report presenting considerations for designing a gender-responsive NCCR: information required to be able to capture gender inequality in Ecuador?s climate actions as well as design elements concerning the system?s outputs.
1.1.10.	Report: lessons learned from the GCF readiness pilot test, difficulties encountered, mitigation actions, proposed instruments for formalisation of collaboration opportunities, technical synergies, and potential partners for the NCCR.
1.1.11.	Report specifying the necessary resources for the sustainability of the system (human and physical assets, including hardware and software and databases maintenance, management and updates, source codes, licenses, design documents as applicable).
1.1.12.	Report: results from the quality and testing phase for the entire system
1.1.13.	Roadmap for the full operationalization and further improvement of the NCCR.
1.1.14.	Report: Cost estimates and means to finance the full operation of the NCCR in the long term.
1.1.15.	National Workshop for the validation of the NCCR to stakeholders.
1.1.16.	V1.0 of the NCCR

To fully operationalize the NCCR, Ecuador will need to implement the remaining institutional arrangements required to ensure the timely supply of the information required for the consolidation of the National Climate Change Registry, with the inclusion of more data, better quality data and more disaggregated data at the sectorial level. As described in the baseline, some arrangements are already in place (most notably, those for the GHG inventories, the development of an implementation plan for the NDC and the start of the conceptual design of the NCCR), but the remaining sub-components (elements in the mitigation component such as NDC tracking, as well as the entire adaptation and means of implementation components) still lack robust and agreed arrangements in terms of organizational mandates, data flows and stakeholder engagement. Since many sources of information may overlap -providing data to more than one of the components- this output takes a cross-cutting approach to avoid duplication of efforts, thus maximizing efficiency.

This output thus includes the formalisation and refinement of arrangements between the MAATE (focal point for the reporting to UNFCCC and the ministry in charge of the NCCR) and the line ministries that are responsible for supplying the necessary data, but also support between sectorial ministries and their own Data Sharing Agreements and Memorandum of Understanding with their own data suppliers. These institutional arrangements shall include minimum commitments by each party as well as channels of communications to enable the resolution of technical elements. The institutional arrangements should also allow for their own evaluation as part of their continuous improvement plan.

The purpose of these institutional arrangements is to facilitate cooperation for the full operation of the National Climate Change Registry to comply with the commitments established under the OEC and the United Nations Framework Convention on Climate Change. This is expected to complete the full operationalization of the mitigation, adaptation, and means of implementation components of the NCCR.

The country has had satisfactory results in the provision of data with key stakeholders in the private sector, such as the cement industry within the Industrial Processes and Product Use (IPPU) sector. In fact, within the IPPU sector, the production of cement and lime have upgraded to Tier 2, thanks to the disaggregation of data (especially those related to the production and composition of clinker). This upgrade is a result of appropriate institutional arrangements that have allowed for the subscription of confidentiality agreements with this specific sector. The idea is to identify the prioritized sectors and stakeholders involved with whom the government shall establish institutional arrangements and confidentiality agreements in order to ensure that timely, high-quality data is fed into the NCCR.

Deliverables:

1.1.17. Report for the prioritized information required by sector and institutions for GHG inventory compilation, mitigation actions and adaptation measures monitoring and evaluation and climate finance flows tracking.
1.1.18. Draft Ministerial Resolution setting sectoral arrangements for the collection of information in the GHG inventory sectors and prioritised NDC mitigation and adaptation sectors.
1.1.19. Template(s), technical specifications and draft(s) for Data Sharing Agreements and/or Memorandum of Understanding with sectoral institutions at the national level and procedures for reporting to MAATE and the NCCR.

As discussed in the baseline section, DAGs are a fundamental actor in the overall governance structure of Ecuador. While most information will be captured at the sectoral level, further refinement will require an interconnection at the sub-national level. As mentioned in the baseline, although some information systems already exist at the DAG level, they currently operate in isolation from each other and not always feed into the central government. In this sense, the CBIT project would support in the establishment of institutional arrangements and linkages between the systems, allowing to efficiently capture information that is already available.

The following deliverables build upon the Data Collection Plan produced in deliverable 1.1.4, refining and improving its results at the DAG level and assessing the information that DAGs are currently developing on their platforms that could serve to inform the National Climate Change Registry. It will also prioritize which organizational mandates should be established at the subnational level, including a mapping of actors that are necessary for each of them, in close coordination and consultation with sub national jurisdictions (DAGs) representatives such as the Association of Ecuadorian Municipalities (AEM), and the Consortium of Autonomous Provincial Governments of Ecuador (CAPGE) and the National Counsel of Rural Parishes of Ecuador (NCRPE). These institutional agreements should include at least: the type of information to be presented, the information management mechanisms to follow, and the periodicity of reporting. The agreements should include clauses for their own evaluation as part of their continuous improvement plans (QA/QC processes).

Additional deliverables to achieve these goals:

1.1.20. Prioritized inventory of information available at the DAG level (parishes, provincial, municipal)
1.1.21. Template Memorandum of Understanding and Data Sharing Agreement with municipal, parishes, provincial DAGs
1.1.22 Lessons learned from the participation in the CBIT Global Coordination Platform
1.1.23. Roadmap for the implementation and adoption of sub-national level institutional arrangements

Output 1.2. MAATE is able to incorporate climate data into national planning processes and instruments in articulation with national planning entities

Ecuador is currently preparing the National Plan for the Transition towards Decarbonization (NPTD), which is the country?s long-term low greenhouse gas emission development strategy, as required by article 4 paragraph 19 of the Paris Agreement with a 2050 horizon. The NPTD, together with the National Action Plan on Climate Change, will provide a framework for updating the NDCs. 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.

Furthermore, a National Development Plan (NDP) is the instrument that provides ground to public policies, programs, and projects, as well as the programming and execution of the national budget and investments. A National Planning Council -which includes representatives from different levels of government, foresees citizen participation and is chaired by the President of the Republic- is the body in charge of approving the National Development Plan. At the sub-national level, DAGs also follow their own planning, aligned with the national guidelines. Compliance with the goals set in the national and local plans have budgetary consequences to the DAGs. At the time of preparing this proposal, the 2021-2025 National Development Plan was presented and adopted in Ecuador.[31][31] The NDP (called ?*Plan Nacional de Creaci?n de Oportunidades 2021-2025*?, ?National Plan for the Creation of Opportunities 2021-2025?) is aligned to international commitments as laid out in the UN?s Agenda 2030 and its 17 Sustainable Development Goals, among which climate action is considered.

This output will analyse possible connections between national processes and the transparency system, in particular those of relevance to the setting and the materialization of climate ambition in mitigation and adaptation. The activity will analyse 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 long-term policies (i.e., NPTD, NAP, NCFS, NDC and the NDP), establishing coordination and integrating NDC spending into national budget planning.

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 Ecuador, this instance is coordinated by the National Planning Council, 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 NDP?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 involve the Ministry of Economy and Finance as the key government stakeholder. Coordination can take place under the scope of the Climate Change Interinstitutional Committee (CCIC), chaired by the MAATE.

Under this output, eight (8) capacity building workshops will be organised to prepare MAATE and other stakeholders to align national planning processes with the NPTD (Ecuador?s Long-Term Strategy) and the NDC tracking and updating using the NCCR. Regional and international best practices will be compiled from national sources and the CBIT Global Coordination Platform. The required institutional arrangements will be fixed for each component of the NCCR needed to update and monitor the implementation of the NDC and the LTS (GHG inventory, projections, and scenarios/Mitigation/Adaptation/Climate finance). These activities will be undertaken by MRV consultants with the support of the national capacity building institution, the chief technical advisor and both a senior and a junior transparency officer, an expert in processes will also assist consultants in deliverable 1.2.2, this expert will ensure the activities are carried out efficiently and in coordination with the Department of Processes of MAATE.

The participants to be invited at the workshops are all stakeholders involved in climate change and development policies.

Deliverables:

1.2.1. Identification and assessment of regional and international best practices for the integration of transparency systems into the national planning processes and long-term planning.
1.2.2. Proposal of institutional arrangements and capacity building needs to align national planning processes with the NPTD and the NDC updating and implementation processes.
1.2.3. Inter-ministerial workshop for the validation of the integration of climate transparency system with existing national planning processes.
1.2.4. Eight (8) capacity building workshops to align national planning processes with the NPTD and the NDC updating and implementation processes.

Component 2: Enhancing the National Climate Change Registry.

Outcome 2: The MAATE produces more accurate climate information and reports in alignment with the requirements of the ETF.

The ETF sets more stringent requirements in terms of the data from 2024 that is currently reported and submitted to UNFCCC for developing countries. The second component in this project verifies, assesses, and consolidates the more technical aspects of the NCCR, providing appropriate tools to enhance the system designed under the GCF readiness proposal and fully operationalized in component 1. It includes more information for the GHG inventories, tools for the collection and QA/QC of data and indicators from tracking NDCs (output 2.1). A set of tools, protocols and guides will be also prepared and/or refined for the Adaptation and the Means of Implementation components (outputs 2.2 and 2.3, respectively). Each of the enhancements are presented below.

Output 2.1. MAATE has access and manages tools for increasing the accuracy and precision of the mitigation module of the NCCR

This output provides improvements and capacity building for Ecuador?s GHG inventory and mitigation MRV. The first set of deliverables focuses on the GHG inventory, which in turn will contribute to compliance with the requirements laid out in chapter II of the Katowice MPGs and the common reporting tables for the electronic reporting of GHG inventories under decision 5/CMA.3 of COP26, which completed the operational guidance on reporting and review under the new ETF.

Table 7 below shows the prioritized improvements that are required in terms of activity data and emission factors according to the latest information in the NC3. This output will update this information, providing national emission factors for the key categories and setting in motion a roadmap for the generation and collection of pending activity data. The roadmap will include both the CBIT part but also any outstanding information that will be gathered beyond CBIT funding ? and how.

Table 8. Information gaps identified for the GHG inventories.

Sector	Emission factors	Activity Data
Energy	Define tier 2 emission factors for each fuel consumed (residential, commercial, rural, industry) based on the characteristics of fuels consumed in Ecuador	- Energy consumption of manufacturing industry (lacking data by industry sub-sector) - Volume of vented gas (currently, flared volumes are available)
Industry	NA	- Agreement for recollection of halocarbon categories and (imported) SF_6 - Identification of all companies producing lime (including for own consumption) - Clinker production data series from cement companies - Refine data from production and usage of asphalt for roofs and roads through surveys to producers and/or the Ministry of Transport - Establish agreement with NISC for the provision of information in the Manufacturing, Mining, Commerce and Services Survey.
Agriculture	Development of tier 2 emission factors for key categories, e.g., enteric fermentation	- Improvements in coordination with government agencies that generate statistics and activity data - Yearly data on camelid and buffalo population in Ecuador - Improvements in national information associated to synthetic nitrogenous fertilizers - Disaggregation of data into cattle, buffalo, and sheep for the purpose of enteric fermentation estimates - Improvements in rice farming data
LULUCF	Monitoring forests through permanent plots: this will allow to know the emission factors on increases in biomass in the forest, natural regeneration, growth dynamics in biomass, detritus, soils, and dead wood.	- Generation of country-specific data on carbon reserves of grasslands, agricultural land, and forest plantations. - Generation of forest harvesting data, differentiating by type of forest and/or region of origin. - Generating fire occurrence statistics that include information on surface, coordinates, plant cover affected and origin.
Waste	- B_0 (max. CH_4 generation capacity) of sludge derived from municipal and industrial wastewater - Degradable organic carbon in waste (fraction)	- Improved coordination with AEM and NISC for the collection of solid and liquid waste data - Records for CH_4 recovered and flared in controlled dumps and landfills. - Detailed information on treatment systems for municipal and industrial wastewater (flow, type of treatment, population served (in the case of municipal wastewater), quality analyses results for influent and effluents. - Quantity of sludge derived from municipal and industrial wastewater - Ratio of residential to other wastewater influents in treatment systems - Information on yearly protein intake (per capita) - Information on incinerated waste

Source: Adapted from NC3 (2017)

Deliverables for improving GHG inventories:

2.1.1. Report: Baseline and current status of the emission factors and activity data of the prioritized subsectors and in-depth gaps assessment of current reporting according with the MPGs of the ETF of the Paris Agreement
2.1.2. Proposals for improvement of GHG inventory compilation, considering the needs of NGHGIS
2.1.3. Mechanisms and a roadmap to enhance Activity Data availability and Emission Factors for key categories[32][32]
2.1.4. Detailed roadmap and strategy for the generation and collection of pending activity data for all categories and the implementation of the improvement plan.

As expressed on the baseline section, energy, transport, and REDD+ sectors have advanced on the conceptualization of their individual MRV systems. Nevertheless, there is still work needed for the integration of these advances and the implementation of the systems in an articulated way that allows the NCCR to report consolidated, consistent reports that are aligned with the MPGs of the ETF, identifies leakage effects and avoids double counting.

As a start, the following individual systems will be assessed on how they could be integrated and included in mitigation activities subcomponent of the mitigation module of the National Climate Change Registry[33][33]:

? MRV System for the Energy Sector ? Electrical Subsector. This includes MRV systems for the NAMAs ?Development of Power Plants?, ?Programme of Energy Efficiency in Cooking?, and ?Energy Efficiency-Optimization of Electricity Generation (OGE&EE)?.

? MRV System for the Transport Sector[34][34]. Conceptualization process of how the MRV System for the NAMAs of the Transport Subsector shall work, including both NAMAs for the Freight and Passengers Transport (in design phase).

? MRV for REDD+ Initiatives. This includes MRV systems for the following initiatives: REDD+ Management of Actions and Measures System (SGMyA), Safeguards Information Systems, National Forest Monitoring System, and National GHG Inventory System.

Given its most recent experience in preparing the Second BUR and Fourth National Communication (both of which were under way at the time of preparing this document), the country has encountered a lack of standardization of processes and format for the collection of information in some key areas of the documents in most of these MRV Systems. The activity will focus on the standardization of processes and formats for prioritized MRV System within this component of the National Climate Change Registry. Therefore, it is expected for the country to count with standardized procedures and formats for key sections of BURs and National Communications that will enable them to streamline these processes for future reports. Special emphasis will be placed in identifying the interactions between individual projects within the same sector, but also between sectors and between regions. This

module will also benefit from the georeferencing platform that will be built as part of the adaptation module (output 2.2 below).

Under this output, after the development of mitigation potential assessment methodologies and sectoral guidelines, six (6) capacity building workshops will be delivered for the use of the guidelines for projections and mitigation potential estimation as well as the collection, compilation, processing and reporting of mitigation actions and test of the relevant templates (monitoring methodologies for energy, industry and product use, agriculture, LULUCF and waste). The participants to be invited at the workshops are GHG inventory compilers, potentials providers of information on mitigation actions and the institutions involved in the implementation of the NDC.

Additional deliverables for this output :

2.1.5. Sectoral guidelines for the estimation of baseline emissions, project emissions, leakage emissions and net emission reductions (volume comprised of five sets of guidelines, i.e., one for each sector - energy, industry, agriculture, LULUCF and waste with a common chapter on methodologies to monitor mitigation actions).[35][35]

2.1.6. Guidelines for the collection, compilation, processing and reporting of mitigation actions (mitigation potential assessment methodologies and templates for energy, industry, agriculture, LULUCF and waste).

2.1.7. Six (6) capacity building workshops (2-3 days duration each) for the use of the guidelines for projections and mitigation potential estimation and the collection, compilation, processing and reporting of mitigation actions and test of the relevant templates (energy, industry and product use, agriculture, LULUCF and waste).

The country submitted its first NDC in 2019 with a focus on mitigation (five sectors) and adaptation (six sectors and two cross-cutting sectors), and with 2020-2025 as its implementation timeframe. The NDC tracking sub-module will compile, process, and produce all the information required to track progress made in implementing and achieving nationally determined contributions for all timeframes under Article 4 of the Paris Agreement, in line with the requirements set out in chapter III of the Katowice MPGs. The NDC tracking sub-module brings together elements from the GHG inventories and the mitigation actions sub-module, ensuring that they are both keeping a consistent account of Ecuador?s contribution to its mitigation targets, as reflected in both the NDC and the National Climate Change Strategy (NCCS).

As part of the Implementation Plan of the NDC of Ecuador, the country has developed a set of indicators to track its NDC. This CBIT project will develop guidelines and protocols for the monitoring / tracking processes of prioritized indicators, as well as for the consistency and interaction between individual / sectoral mitigation actions and the national GHG inventories.

After the development of tools, protocols, and guidelines for monitoring and tracking the mitigation component of the NDC including the target, four (4) capacity building workshops will be organised for its use. These activities will be undertaken by MRV consultants with the support of the national capacity building institution, the chief technical advisor and both a senior and a junior transparency officer.

The participants to be invited at the workshops are GHG inventory compilers, potentials providers of information on mitigation actions, the institutions involved in the implementation of the NDC and policy and decision makers.

Additional deliverables required for NDC tracking:

2.1.8. Document with respective methodological descriptions for each progress indicator for the tracking of the NDC.
2.1.9. Methodology to ensure consistency between mitigation actions and GHG inventories,
2.1.10. Templates and guidelines for the monitoring and tracking of the NDC and the National Climate Change Strategy.
2.1.11. Roadmap prioritizing processes, tools, protocols, and guides to be adjusted/improved/updated to comply with the ETF requirements for tracking NDC and support received, both during the CBIT project and after its finalization.
2.1.12. Four (4) capacity building workshops of 2-3 days duration each for the use of tools, protocols, and guidelines for monitoring and tracking the mitigation component of the NDC.

Output 2.2. MAATE uses and manages processes, information flows, indicators and methodologies for operationalizing the adaptation module of the NCCR

The adaptation module of the National Climate Change Registry was conceptualized around the concept of reducing *climate risks* through adaptation action. In the context of the assessment of climate impacts, *risk* result from the interaction of *vulnerability* (of the affected system), the likelihood of the occurrence of a climate related *hazard*, and *exposure* to the latter. These are all key elements in the Adaptation module of the NCCR.

As mentioned in the baseline section, a set of adaptation actions will be developed as part of the NAP project and domestic planification. The NC3 presents a series of guidelines for their design, so that they ensure capability to capture changes in vulnerability (including those coming from adaptation capacity), as well as the impacts resulting from variations in exposure. The CBIT project will develop and test concrete indicators to be integrated into the larger MRV system, including detailed information flows and a methodology for the collection and processing of relevant information; this will be the first part of this output. Arrangements for the collection of this information will include a ministerial resolution that sets the required mandates and establishes the sectoral groups, as needed, for the implementation of an MRV subcomponent on adaptation.

Ecuador has recently developed and implemented an open sourced geovisor based on a geographic information system (GIS) from which information generated by MAATE on i) climate projections, ii) climate risks, iii) adaptation measures, and iv) climate change vulnerability indicators can be viewed and downloaded. This platform is another main element of this output for the visualization of georeferenced information, which will be needed for the preparation of maps at all levels (national, provincial, municipal, etc.) to represent adaptation actions as well as risks and all of its components. This output will therefore assess possibilities to link the platform to the NCCR. This platform will ultimately serve to feed the designed NCCR as well as display and inform the upcoming BTRs in the

adaptation section, which include reporting on the progress of the NAP and/or the adaptation component of the NDC among other information suggested by the modalities, procedures, and guidelines of the BTR and the CMA Decision on the Adaptation Communication.

After the development of tools, protocols, and guidelines for monitoring and tracking the adaptation component of the NDC, four (4) capacity building workshops will be delivered for its use. The participants to be invited at the workshops are potentials providers of information on risks, vulnerability, exposure, hazards and adaptation and the institutions involved in the implementation of adaptation measures.

Deliverables:

2.2.1. Proposal for the integration of indicators in the National Adaptation Plan and domestic processes into the NCCR, including information flows and a methodology for the collection, processing and presenting of each indicator.
2.2.2. Draft Ministerial Resolution setting sectoral roundtables, including representatives from the DAGs, for exchanging periodically up to date information on adaptation and vulnerability.
2.2.3. Manual including existing, revised, and new tools, protocols and guides for the compilation of required indicators in the adaptation module, including a roadmap with required refinements.
2.2.4. Linkage between the existing S-PRACC platform on adaptation information and the NCCR for the tracking of adaptation measures and visualization of georeferenced up to date information on risk, vulnerability, exposure, and hazard.
2.2.5. Four (4) capacity building workshops for the use of tools, protocols, and guidelines for monitoring and tracking the adaptation component of the NDC.

Output 2.3. MAATE has access to a roadmap and guidelines for the operationalization of the means of implementation module in the NCCR

As expressed on Figure 3, the MRV for Means of Implementation counts with systems on climate finance, technology transfer, and capacity building as well as tracking domestic expenditure in climate change. This module will remain connected and in sync with the mitigation and the adaptation components of the NCCR.

As discussed in the baseline section, the climate finance sub-component will build on existing information and methodologies, as the MAATE already has experience with UNDP?s CPEIR methodology, used to quantify the expenditure in the national budget that is directed to climate-related actions. While this component will provide the information required to report on support needed and received (as required in BTRs and NCs), the aim of this module is more ambitious, as it intends to become the country?s main registry for national, international, and public financial flows that have an impact on climate[36][36], contributing to the compliance with the MPGs and common reporting tables of Decision 18/CMA of COP26 for reporting information on support needed and received.

Despite progress made, reports prepared in the past have been the result of ad-hoc consultancies with the support of international cooperation, focusing only on the funds that entered the country?s treasury[37][37]. A system to periodically collect and update the information is not yet available. This output would therefore systematize the periodic compilation of the information required to update public expenditure reports and implement a methodology for tracking climate expenditure, including the formats and procedures to collect, process, account, and report on climate finance[38][38].

Capacity assessment and technology needs will mostly result from the operation of the mitigation and adaptation components. As the central hub for these requirements, the means of implementation module will also be responsible for the organization and coordination of capacity building activities once the NCCR is operational.

Lastly, another element in this module would be the tracking of finance *available*, searching for private and public sources and assisting government and private actors in accessing them.

Under this output, three (3) capacity building workshops on tracking and reporting on climate finance flows will be delivered.

The participants to be invited at the workshops are the working group on climate finance.

Deliverables:

2.3.1. Roadmap prioritizing processes, tools, protocols and guides to be adjusted/improved/updated for the completion of the Means of Implementation Module. The roadmap should cover both the CBIT project timespan as well as a suggestion for the NCCR as a standalone system.
2.3.2. Proposal on climate finance tracking. This proposal should include a methodology for the tracking of public, private, national and international flows, as well as procedures for the collection of information and indicators that allow tracking support received and needed.
2.3.3. Methodology for the tracking of capacity building and technology transfer needed and received, including the linkage with the mitigation and adaptation components.
2.3.4. Three (3) capacity building workshops on tracking and reporting on climate finance flows.

Component 3: Capacity building and public engagement.

Outcome 3: Stakeholders demonstrate capacity to provide inputs to and draw information from the NCCR for their decision-making processes

Component 1 focused on designing and connecting the system with both the sources of data and the planning instances where this data is most likely to have a valuable impact providing the most appropriate institutional arrangements and guidelines for the correct use of the NCCR, and component

2 provides enhancements that improve the quality of the information in line with the requirements of the ETF. International and national consultants will work to build both institutional and technical capacity under these two components.

Component 3 closes the circle by focusing on the stakeholders that will interact with the NCCR, both as data providers and as users of the processed information and reports and the implementation of the capacity building programme on transparency. It provides the communication campaign (3.1) and creates the capacity building programme (3.2) required to ensure a timely adoption and interaction with the system from relevant (current and future) stakeholders.

The communication campaign creates public awareness and establishes a channel for continuous stakeholder consultation, interaction, and engagement. In turn, the capacity building mechanism in this component aims at the long-term creation of capacities by mainstreaming climate change through existing local academic institutions, which will both receive training under components 1 and 2 and be in charge of designing and implementing courses and training modules as well as providing specialized learning material under component 3. A repository of climate change information is also foreseen to enhance and support the creation of capacities as well as the sharing of lessons learned in international fora such as the CBIT Global Coordination platform.

The specific outputs in this component are discussed in greater length below.

Output 3.1. Stakeholders demonstrate increased awareness of the work, benefits and impact of the NCCR as a result of gender-sensitive public engagement.

Strong stakeholder engagement is fundamental for the adoption of a transparency system. A successful communication campaign will enhance the likelihood that data is gathered from the most reliable and relevant sources, and that the transparency system?s outputs can inform decision-making processes across many different sectors. Thus, engagement and communication from the point of view of a transparency system must facilitate i) the collection of data; and ii) the adoption of the MRV?s outputs by stakeholders. The greater the engagement, the better (and more useful) the transparency system will be for evidence-based decision-making and the production of reports.

This output will take an explicit gender approach by stressing the communication of gender aspects from:

? the input data (e.g., energy access, access to natural resources)

? the outputs coming from each module of the NCCR, including ETF reports (e.g., gender elements in the NDCs, NAMAs, Adaptation Plans, support needed and received)

? the governance structures of the CBIT project and the NCCR themselves.

These activities will be coordinated by a national communication expert and a national gender expert with the support of the chief technical advisor and both a senior and a junior transparency officers.

Deliverables :

3.1.1.	Updated mapping of stakeholders by sector and role (data providers, data verifiers, governmental entities, accreditation bodies, technical experts, NGOs, trade associations, consumer associations, academia and research institutions)
3.1.2	Communications and Engagement Plan per type of stakeholder, including editable pieces of communication and materials of the plan. This should include a working plan during the CBIT project and a suggested plan for the NCCR after the end of the project.
3.1.3	Annual report on communication and engagement activities (as per workplan in 3.1.2)
3.1.4.	Four (4) capacity building workshop for data providers and data verifiers
3.1.5	Gender communication and engagement strategy
3.1.6	Gender action plan: workplan of activities & deliverables
3.1.7	Report: implementation of gender action plan and gender communication and engagement strategy

Output 3.2. Stakeholders demonstrate strengthened understanding of the NCCR following a long-term capacity building programme and a repository of climate change information

Technical limitations and lack of trained human resources are described as a key barrier for Ecuador to meet its transparency commitments.[39][39] This output will establish a National Capacity Building Programme that will ensure that the NCCR is properly fed and adopted by all relevant stakeholders, i.e., both as data providers but also as beneficiaries and users of the information produced by the transparency system. The Capacity Building Programme (to be developed with a local academic institution) will be supported by a climate change information repository. These two elements will be provided by this output.

The long-term capacity building programme will be established at a local higher education institution (HEI) with the support of the CBIT project. The process will start with a call for proposals from HEIs interested in i) mainstreaming climate change throughout their curricula, ii) developing specialized climate change modules of relevance to the mitigation, adaptation, and means of implementation modules of the NCCR, or iii) a combination of the previous two. The main goal is to support the development of the selected HEI in becoming a substantial pool of skilled resources that are capable of ?operating? the modules in the NCCR, but also of professionals that can interact and benefit from its processed information, applying it for decision making throughout a variety of sectors. As mentioned, proposals from interested HEIs can include mainstreaming of climate change education into existing structures (e.g. for careers such as engineering, data and computer science, economy, accounting, law, business administration, etc.) as well as the development of new structures or modules that are specialized in climate change and climate transparency. Selection criteria will consider relevance to the NCCR, institutional alignment to Ecuador?s National Plan for the Transition towards Decarbonization (NPTD, Ecuador?s Long-Term Strategy), partnerships with industry, central and local government and third sector organizations, as well as innovativeness of the proposal, expertise, available infrastructure, pedagogical approach, and sustainability. The selected HEI will receive support on the materialization of their proposal, as well as training from the project team and the supporting consultants (following a

?train-the-trainer? approach). These efforts will result in a long-term institutional strategy for the incorporation of climate change education provisions at the selected HEI.

During the PPG phase a mapping of HEIs was undertaken to assess their interest and availability for the development of this long-term capacity building system for the NCCR. The contacted institutions presented great interest and considered that their participation would serve to ensure the sustainability of the system and the capacity created during this CBIT project. Some of the institutions had already worked with local governments and national planning strategies such as the NDP, and had experience in the monitoring of climate indicators, collecting information and making it available for the public, in addition to having climate change related courses in their curricula such as a BSc in Environmental Engineering and MSc in Climate Change, Agriculture, and Sustainable Rural Development. Identified institutions with an interest in participating in this initiative include Universidad del Azuay, Universidad San Francisco de Quito, and Escuela Superior Polit?cnica del Litoral. Other HEIs will be invited to participate as well.

Deliverables:

3.2.1. Terms of reference and other tender documents required to start the call for proposals to select the HEI
3.2.2. Proposals received for the tender process, including report justifying selection of the chosen proposal for continuous capacity building actions for the National Climate Change Registry and its components
3.2.3. MoU signed with selected HEI, including workplan for CBIT projects? support for the preparation of the HEI?s Institutional Strategy for the incorporation of climate change and climate transparency education
3.2.4. Training module and learning materials for the local HEI: GHG inventories and NDC tracking
3.2.5. Training module and learning materials for the local HEI: adaptation
3.2.6. Training module and learning materials for the local HEI: means of implementation
3.2.7. Progress reports (3) from the HEI to the project team
3.2.8 HEI?s Institutional Strategy for the incorporation of continuous climate change and climate transparency education, including a 5-year workplan for its materialization, and identification of required resources

As mentioned in the baseline (see Figure 2), the NCCR consists of two elements, i.e. the MRV systems and a climate change information repository. This output will also address the creation of said repository, building a dedicated system for knowledge management in the NCCR that will support the continuous creation of capacities. Proper knowledge management allows to understand what information is been generated, where the knowledge is (in which specific academic institution, organization, publication, journal, etc.) and what is the best way to transfer it to relevant people, so that the information is useful, productive and generates benefits.

The knowledge repository will also include meteorologic, hydrological and climate information, as well as projections under different, relevant scenarios that can be used to foster further research. In particular, article 719 establishes the minimum contents for the repository:

a. Plans, programs, projects, and strategies of different levels of government and sectors of the State that include and/or evaluate climate change mitigation and adaptation criteria;

b. Assessment of financial needs prepared by private, public and academic sectors;

c. Nationally and internationally existing climate finance sources, including details on the institutional requirements to access them;

d. International technical and financial cooperation received;

e. Potential measures and actions to adapt and mitigate climate change;

f. Published GHG inventories;

g. Compensation schemes approved and recognized by the National Environmental Authority;

h. Future climate projections;

i. Information on climate variability;

j. Information on incentives for institutions engaged in activities or actions that contribute to climate change mitigation and adaptation;

k. Baseline scenarios;

l. Private sector climate change mitigation and adaptation strategies; communes, communities, peoples and nationalities; academy and civil society;

m. National Communications on Climate Change and other international reports; and

n. Others determined by the National Environmental Authority.

On top of this minimum content, the execution phase of this CBIT project will negotiate cooperation modalities with the National Institute of Meteorology and Hydrology (NIMH), as well as research institutions and the academia. Furthermore, it is expected to subscribe agreements with international organizations such as the Global Observing System (GOS), the Global Climate Observing System (GCOS) and the Global Atmosphere Watch (GAW)) of the of the World Meteorological Organization.

Deliverables:

3.2.9. Conceptual design for the observatory of adaptation and climate information.
3.2.10. MoU signed with NIMH and at least one university and one international meteorological institution.
3.2.11. Platform for the Repository of Climate Information (in coordination with NIMH and/or the selected HEI).

Intended project impact

Addressing existing gaps

The following table revisits the gaps identified in the baseline section, stating how they are to be addressed by the proposed CBIT project.

Table 9. Addressing identified gaps.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases (Chapter II of the MPGs)	Lack of sufficiently implemented national inventory arrangements.	Although Ecuador developed the National System for GHG Inventories (NGHGIS) which facilitates the collection, compilation, systematization, and processing of data for GHG inventories, it still lacks interconnectivity with the majority of the MRV systems of the National Climate Change Registry (NCCR). This has resulted in data flows not being fully identified, insufficient mandates for the collection of data at national sectoral levels, and insufficient organizational mandates for the collection of data at the sub-national level. The MPGs suggest that each Party should implement and maintain national inventory arrangements, including institutional, legal, and procedural arrangements for the continued estimation, compilation, and timely reporting of national inventory reports in accordance with these MPGs (Chapter 2, section B, paragraph 18 of the MPGs).	Under Outputs 1.1. and 2.1. the CBIT project will provide a refined roadmap for the operationalization and improvement of the National Climate Change Registry taking into account the requirements of the MPGs and the final formats, tables and outlines approved at COP26. Final adjustments will be made to the conceptualization and design of all the components and its interconnectivity to other existing isolated MRV and information systems will be insured which will ease the sharing of climate change data. The design will include the refinement of interoperability formats and procedures between all the current information systems.	National inventory arrangements will be fully developed and recommended using best international practices and adapted to the national circumstances in Ecuador.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
	Continuing applying the most recent international guidelines available for the national GHG inventory preparation.	Ecuador used the 1996 revised Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories for its national inventories of greenhouse gases in NCs 1, 2 and 3 and in the first BUR. 2006 IPCC Guidelines were used for the first time for the Fourth NC and the second BUR to be submitted in 2022. The MPGs state that each Party shall use the 2006 IPCC Guidelines and shall use any subsequent version or refinement of the IPCC guidelines agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). Furthermore, the MPGs state that each Party shall use methods from the 2006 IPCC Guidelines and that each Party should make every effort to use a recommended method (tier level) for key categories in accordance with those IPCC guidelines (Chapter 2, section C, paragraphs 20 and 21 of the MPGs). At COP26 it was	The CBIT project will provide capacity building activities to government officials to acquire the necessary knowledge to apply the most recent international guidelines for the preparation of the national GHG inventory for effectively producing, collecting, and managing data related to GHG emissions. The trainings will provide the stakeholders with the necessary templates to facilitate the sharing of information.	National government officials and other stakeholders active in the national GHG inventory preparation are trained to use the 2006 IPCC Guidelines and the 2019 Refinement to elaborate the national GHG inventory.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
	Not applying the most recent international metrics available for the national GHG inventory preparation.	Ecuador used the global warming potential (GWP) values for 100-year time horizon from the Second Assessment Report (SAR) for NCs 1, 2 and 3 and in the first BUR. AR4 is being used for the fourth NC and the second BUR to be submitted in 2022. The MPGs state that each Party shall use the 100-year time-horizon global warming potential (GWP) values from the IPCC Fifth Assessment Report, or 100-year time-horizon GWP values from a subsequent IPCC assessment report as agreed upon by the CMA, to report aggregate emissions and removals of GHGs, expressed in CO2 eq (Chapter 2, section D, paragraph 37 of the MPGs).	The CBIT project will provide capacity building activities to government officials and other stakeholders active in the preparation of the national GHG inventory to provide them with the necessary knowledge to apply the most recent international metrics available. These trainings will provide the stakeholders with the necessary templates to facilitate the sharing of information.	National government officials and other stakeholders active in the national GHG inventory preparation are trained to use the most recent international metrics available for the elaboration of the national GHG inventory.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement (Chapter III of the MPGs)	Lack of implemented institutional arrangements to track its NDC.	Ecuador submitted its first Nationally Determined Contribution (NDC) in March 2019. Subsequently, a presidential decree was passed in August 2020 to give mandatory status to the NDC, and which established the requirement for ?a mechanism to measure, report and verify the progress made in terms of its implementation?. However, as of yet, no specific institutional arrangements are in place to track the progress of the NDC although the recent GCF proposal on the conceptual NCCR will develop documentation on procedures and processes to track NDC. The MPGs state that each Party shall provide information on the institutional arrangements in place to track progress made in implementing and achieving its NDC under Article 4, including those used for tracking internationally transferred mitigation outcomes, if applicable, along with any changes in institutional	The CBIT project will develop a refined roadmap prioritizing processes, tools, protocols, and guides to be adjusted/improved/updated for successful tracking of its NDC. This will result in the development of guidelines and protocols for the monitoring/tracking processes of prioritized indicators, as well as for the consistency and interaction between individual/sectoral mitigation actions and the national GHG inventories. CBIT project will develop arrangements between the MAATE and the line ministries that are responsible for supplying the necessary data and will also support sectoral line ministries in their Data Sharing Agreements and Memorandum of Understanding with their own data suppliers. These institutional arrangements will include minimum commitments by each party as well as channels of communications to enable the resolution of technical elements. Therefore, the main focus of the institutional arrangements will be organizational mandates, data flows, and stakeholder engagement. In addition, CBIT project will provide integration of the information generated in the NDCs progress monitoring system to be integrated in Ecuador?s developing planning process and propose measures to ensure its inclusion.	National institutional arrangements are established for NDC tracking according to international best practices on climate MRV and adapted to the national circumstances of Ecuador.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
	Lack of procedural arrangements related to the implementation and achievement of its NDC.	Ecuador has elaborated an implementation plan for its first NDC and is in the process of designing and establishing the required procedural arrangements necessary for the successful implementation and achievement of the goals in its NDC. The MPGs state that each Party shall provide information on legal, institutional, administrative, and procedural arrangements for domestic implementation, monitoring, reporting, archiving of information and stakeholder engagement related to the implementation and achievement of its NDC under Article 4 (Chapter 3, section A, paragraph 62 of the MPGs). COP26 has also approved the common tabular formats (CTF) to report information in the BTRs.	The CBIT project will provide capacity building to refine the roadmap prioritizing processes, tools, protocols, and guides to be adjusted/improved/updated for the successful implementation and achievement of its NDC. This will result in the development of guidelines and protocols for the monitoring/tracking processes of prioritized indicators, as well as for the consistency and interaction between individual/sectoral mitigation actions and the national GHG inventories. In addition, under the CBIT project, will provide integration of the information generated in the NDCs progress monitoring system to be integrated in Ecuador?s developing planning process and propose measures to ensure its inclusion.	National procedural arrangements are established for NDC tracking according to international best practices on climate MRV and adapted to the national circumstances of Ecuador.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
	No set of indicators for the operationalization of the tracking of its NDC were available at the time of the first NDC submission.	Ecuador has set targets for mitigation and adaptation in its first NDC and has developed indicators for tracking of these commitments in its implementation plan. The MPGs state that each Party shall identify the indicator(s) that it has selected to track progress towards the implementation and achievement of its NDC under Article 4. Indicators shall be relevant to a Party?s NDC under Article 4, and may be either qualitative or quantitative (Chapter 3, section C, paragraph 65 of the MPGs). Furthermore, Parties shall: (i) provide the information for each selected indicator for the reference point(s), level(s), baseline(s), base year(s) or starting point(s); (ii) provide the most recent information for each selected indicator for each reporting year during the implementation period of the NDC under Article 4; (iii) compare the most recent information for each selected	The CBIT project will support the understanding and use of indicators for tracking its commitments in the NDC, which will include capacity building and refinement of the respective methodological descriptions for each progress indicator for the tracking of the NDC. In addition, a platform will be created where the NDC can be monitored and tracked according to the developed indicators. This will allow the NDC tracking sub-module of the National Climate Change Registry to track the progress made in implementing and achieving the first NDC of Ecuador. Under CBIT project, national stakeholders will be trained in the tracking of mitigation and adaptation actions for NDC implementation in the right formats and in a timely manner.	The set of indicators for the operationalization of the NDC tracking sub-module are established and available on an online platform including their corresponding methodological descriptions. Key stakeholders related to the implementation of the NDC are trained in tracking of mitigation and adaptation actions.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement (Chapter IV of the MPGs)	Lack of sufficiently implemented national arrangements for assessing and addressing climate change adaptation.	Although Ecuador established the adaptation module of the National Climate Change Registry to reduce climate risks through adaptation action, the institutional arrangements are insufficient to allow for the collection of the required data at both the national and sub-national levels. For instance, this hinders the continued update of the developed indicators in the National Adaptation Plan to measure climate risk reduction through adaptation action. The MPGs suggest that each Party should implement institutional arrangements and governance, including for assessing impacts, addressing climate change at the sectoral level, decision-making, planning, coordination, addressing cross-cutting issues, adjusting priorities and activities, consultation, participation, implementation, data governance, monitoring and evaluation, and reporting. However,	CBIT project will develop arrangements between the MAATE and the line ministries that are responsible for supplying the necessary data and will also support sectoral line ministries in their Data Sharing Agreements and Memorandum of Understanding with their own data suppliers. These institutional arrangements will include minimum commitments by each party as well as channels of communications to enable the resolution of technical elements. Therefore, the main focus of the institutional arrangements will be organizational mandates, data flows, and stakeholder engagement.	National arrangements for assessing and addressing climate change adaptation are fully developed and formalized which will complete the operationalization of the adaptation module of the National Climate Change Registry.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
	Lack of a monitoring and evaluation system of adaptation	The adaptation module of the National Climate Change Registry of Ecuador has developed a vulnerability indicator to measure enabling conditions for adaptation such as vulnerability and risk assessments, designing of adaptation measures, and integration of adaptation in policies and institutions. However, other indicators are still in the process of being proposed and require to be further developed. Therefore, the completeness of the monitoring and evaluation of adaptation actions in Ecuador is not sufficient. The MPGs suggest that each Party should report on the establishment or use of domestic systems to monitor and evaluate the implementation of adaptation actions. Parties should report on approaches and systems for monitoring and evaluation, including those in place or under development (Chapter 4, section F, paragraphs 112 of the MPGs). It is important to	The CBIT project will support the completion and incorporation of the indicators for the tracking of adaptation actions. The project will develop a proposal for the integration of the indicators which will include information flows and a methodology for the collection, processing and presenting of each indicator. Furthermore, a manual will be developed with existing, revised and new tools, protocols, and guides for the compilation of the required adaptation indicators, including a roadmap. Finally, a platform for the tracking of adaptation measures and information on risk, vulnerability, exposure, and hazard will be developed and launched. Under the CBIT project, key stakeholders will be trained for the tracking of adaptation actions according to the developed indicators.	The full set of indicators for tracking of adaptation actions are developed and integrated in the National Adaptation Plan of Ecuador. National stakeholders dealing with adaptation are trained to develop, implement, track, and evaluate adaptation measures.

Information to be provided	Main current gaps and constraints	Implications for meeting the requirements of the ETF and the MPGs	How is the gap addressed in the CBIT project	End of the project situation
Information on financial, technology development and transfer and capacity-building support received under Articles 9-11 of the Partis Agreement (Chapter VI of the MPGs)	Lack of a climate finance strategy, architecture and methodology to track and report on international and domestic climate finance flows and the support needed is not quantified.	According to the MPGs, developing country Parties should provide information on financial, technology development and transfer, and capacity-building support needed and received under Articles 9?11 of the Paris Agreement (Chapter 6, paragraph 118 of the MPGs). Although Ecuador reports this information in Chapter 6 of the Third National Communication, due to data gaps and insufficient institutional arrangements for systematic periodic data gathering, not all the information provisions of the MPGs are met. Ecuador is therefore partially prepared to meet the ETF reporting requirements described in the MPGs concerning the Articles 9?11 of the Paris Agreement although it is not mandatory.	The CBIT project will assist in providing capacity building to refine a proposal on climate finance tracking which will include a methodology for the tracking of public, national, and international flows, as well as procedures for the collection of information and indicators that allow tracking support received and needed including support received and needed on technologies and capacity building. The project will also allow to implement the formats and methodologies adapted to the common tabular formats (CTF) to report information in the BTRs approved at COP26.	System is in place to periodically collect and update information on public, private, national, and international support received and needed.

Desired transformation after project completion

The following table summarizes the current context and the transformation that the project aims to achieve, to support Ecuador to implement an ambitious transparency framework that meets the requirements of the Paris Agreement. The table also links the desired transformation to the corresponding outputs that are expected to contribute towards this change; the outputs are presented in detail in the coming sub-sections.

Table 10. Desired transformation as a result of the CBIT project.

The current context	Desired transformation of behaviour to be achieved through the project
Lack of integrated MRV system and insufficient institutional arrangements, procedures and protocols to allow for collection of required data (barrier 1)	A clear information inventory exists, and Data Sharing Agreements (DSA) are signed with at least the providers that represent 95% of Ecuador?s GHG emissions. The DSAs assure confidential treatment to the information provided. Information flows and QA/QC procedures are clearly established for each of the three components (mitigation, adaptation and means of implementation). Both these elements will be introduced by output 1.1. The NCCR?s public engagement mechanism (output 3.1) transparently shows Ecuador?s GHG inventory, climate actions in mitigation and adaptation, including any gender specific impacts, NDC progress and climate finance.
Limited technical capacities to design, implement and manage a complex, country wide climate transparency system (barrier 2)	Through the outputs in component 2: ? As a result of capacity building activities, government officials will have the necessary pieces of knowledge to manage new tools, to apply methods and guidelines for effectively producing, collecting, and managing data related to the GHG emissions, NDC tracking and other systems of the MRV for both Mitigation and Adaptation components of the National Climate Change Registry including climate finance tracking. The compilation of information is done through a transparent process and the actors receive training and adequate templates to facilitate sharing of information, and the MAATE counts with standardized procedures and formats for key sections of NDC, Adaptation Communication, BTRs and National Communications that will enable them to streamline these processes for future reports. ? Data for Tier 1 methods and Tier 2 information are available, increasing completeness and transparency and reducing uncertainty levels in the GHG inventories. The mitigation actions and the GHG inventories sub-components within the mitigation component tell a consistent story, as captured by the NDC tracking sub-module. ? Indicators for the adaptation module are established and the information flows are well documented. ? The means of implementation module allows transparently tracking climate actions from public, private, and international cooperation funds. ? Capacity building on the use of NCCR will be also delivered including the needs of information for and operationalisation of the repository.

The current context	Desired transformation of behaviour to be achieved through the project
Limited integration of climate change considerations into political decision making (barrier 3)	MAATE is able to provide climate data for national planning processes and instruments in articulation with the national planning entities (output 1.2). Capacity building activities are designed and implemented by a strategic partner institution (academy / research) to ensure continuity of activities and sustainability in the medium and the long-term, and a strategic partnership with a local academic / research institution allows a better tracking of research published and underway (output 3.2). A pool of skilled workers is available to fulfil the different tasks related to each of the modules in the NCCR; information providers are aware of the importance of climate transparency, supply information in a timely manner, and make use of reports coming from the system to enhance decision making processes in their respective sectors (outputs 3.1 and 3.2).

Theory of change

Through its 7 outputs, the project is expected to develop and operationalize a full-fledged transparency system - building on the conceptual NCCR and the results from the pilot test - that will contribute towards a reduction of GHG emissions and increased climate resilience for Ecuador.

Component 1 focuses on the full implementation and formalisation of the institutional arrangements behind the NCCR and its integration with policy making process; component 2 is expected to refine the components (mitigation, adaptation, means of implementation) in the system, ensuring that it can produce timely and precise information and that all stakeholders acquire the necessary knowledge and training for the use of procedures, templates, tools and processes of the NCCR. Component 3 ensures that stakeholders have the required awareness and capacities to serve as data providers but also as beneficiaries of the processed information produced by the NCCR and produce the necessary outcomes to track the NDC as well as all climate change related information and take well informed decisions.

By strengthening and bringing light into the linkage between country needs, support received and mitigation and adaptation actions, Ecuador will be in a better position to manage its NDC targets. This improved understanding will allow Ecuador -the government but also other key stakeholders including its private actors- to detect sectors and potentials where adaptation actions are most urgently needed, as well as those where emission reductions and resilience targets can be achieved at the lowest cost. Such cycle will ultimately allow Ecuador to reduce GHG emissions and increase its resilience to climate risks.

The theory of change depicted below is dependent on a series of assumptions and drivers. As UNEP?s Glossary of Results Definitions, **assumptions** refer to external conditions necessary for project results to lead to next-level results, over which the project has no control. These include elements such as political stability in the country, continuing political will to fulfil the country?s climate commitments and continued international funding for climate action. Similarly, **drivers** are defined as external conditions over which the project does have a certain level of control. In this project, this will include

the willingness of the key stakeholders including private sector to share data, as this is expected to be facilitated by the project?s establishment of confidential data sharing agreements (component 1); as well as the retention of technical capacities (e.g. by setting adequate incentives in the design of the system) and the conviction of line ministries and other key stakeholders including the private sector of the importance of transparency (e.g. through the full operationalisation of the NCCR in component 2 and the communication campaign and capacity building in component 3).

Figure 8. Project theory of change

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:

(i) Strengthening national institutions for transparency-related activities in line with national priorities

Ecuador currently lacks coordination skills and tools required for the smooth functioning of national institutions for transparency related activities. Furthermore, climate transparency is still not mainstreamed in the country and many national institutions see it as a burden or risk, with reports generated from existing transparency mechanisms generally not informing policy decisions. The CBIT project therefore will strengthen the national institutions in Ecuador and ensure that the transparency system is aligned with national planning priorities. This will be achieved by integrating the transparency system into national coordination entities in charge of development planning activities in Ecuador, and by integrating reports from the climate transparency system into the evaluation mechanisms of the leading coordinating entities. Improved institutional arrangements will be established with integrated transparency systems for long-term planning and aligned with the regional and international reporting obligations of Ecuador.

In addition, the CBIT project will include capacity building activities adapted to the needs of the national institutions in Ecuador to ensure stakeholder engagement in the adoption of the transparency system and guarantee that the system can properly inform decision-making processes across all sectors and at all territorial levels of the country. The national institutions and key relevant stakeholders will obtain strengthened technical knowledge and resources through the national capacity building program, which will be conducted

(ii) Providing relevant tools, training, and assistance for meeting the provisions stipulated in Article 13 of the Agreement

Technical tools and knowledge are required to periodically manage large amounts of data that needs to be classified, analysed, summarised, checked, and archived. The CBIT project will therefore establish and refine procedures, tools, protocols, and guides to enhance the national transparency system in Ecuador to meet the requirements of the enhanced transparency framework under the Paris Agreement. This will include tools related to the national GHG inventory process, for the collection of data from national MRV systems and NAMA?s. for tracking the country?s NDC, and for the adaptation and the means of implementation components. These will be aligned with the modalities, procedures, and guidelines (MPGs) adopted in Conference of Parties (COP) 24 in 2018 and the formats and outlines

approved at COP 26. CBIT project will aim to fully operationalise the NCCR for climate data and as a knowledge platform where data providers, decision makers and the public can access the climate data and the reports produced.

The implementation of the procedures, tools, protocols, and guides under the CBIT project will be supported through several capacity building activities. These activities will allow government officials and other key stakeholders in Ecuador obtain the knowledge required to manage the developed tools and apply them to the related aspects of the national transparency system.

Activities in the CBIT project will also support the design and full establishment of a functional transparency system to monitor and evaluate (M&E) adaptation measures, monitor, report and verify (MRV) mitigation actions, and monitor support needed and received. The establishment of these systems to track the NDC implementation will additionally lead to the elaboration of both tools and templates for data collection, but also protocols and guidelines for how the data collection and sharing will occur. This development of protocols will take place with the participation of relevant organizations, thus helping to establish formal partnerships which should increase the sustainability of the system.

(iii) Assisting in the improvement of transparency over time.

The CBIT project will ensure that the national transparency system in Ecuador can measure, monitor, report, and verify information related to climate finance flows, GHG inventory, mitigation and adaptation measures, and evaluate the contribution to national and international climate change targets. This will allow the country to meet the requirements outlined in the MPGs regarding several transparency reports which will need to be submitted to the UNFCCC in the coming years such as the biennial transparency report (BTR) and national communication (NCs). The CBIT project will increase the sustainability of the transparency system and improve the tracking of Ecuador?s Nationally Determined Contributions (NDC). The CBIT project will ensure that Ecuador uses the available information for its use into public and private decision-making processes. It will provide a holistic and integral approach towards data collection and management, ensuring the long-term dissemination of information, while considering other global initiatives such as the Sustainable Development Goals (SGDs). Incorporating this sustainable capacity building mechanism will ensure institutional memory, more technical specialized staff, and continuity of the knowledge transfer after the completion of the CBIT project.

Furthermore, the CBIT project will enable Ecuador to be an active partner of the CBIT Global Coordination Platform and other cooperation networks by sharing lessons learned and best practices, and actively participating in CBIT workshops on a continuous basis. This will include sharing the captured and documented variety of data, information, and knowledge generated by the CBIT project activities. Sharing lessons learned and experiences through the global platform will ensure that Ecuador?s CBIT project is aligned with other national, regional, and global transparency initiatives and assist 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 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.[40][40]

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. Co-financing is not a necessary requirement for this project. However, there is a foundation of activities that are considered co-financing and have been considered when estimating in-kind co-finance of USD 123,605.28 as indicated in table C.

Ecuador'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 the Paris Agreement Work Programme, increases the necessary effort and demands more resources. The CBIT project serves well to close that increased gap through its additional financing.

The country has developed a set of institutional arrangements at the national level to ease the process of information management of the National Climate Change Registry, especially those on the National GHG Inventory, as part of its MRV for the Mitigation module. Nevertheless, there is a lack of funding to make several institutional arrangements needed both at the national and the local level to provide climate information, among various other resources and arrangements required for the establishment of the National Climate Change Registry, as stated in Component 1.

As far as the GHG Inventory System of the country is concerned, the country has made significant progress in the process of enhancing the activity data collection. Nevertheless, there is a lack of funding and capacity to further ameliorate the processes of collection of activity data and the tiers of emission factors of other key categories within the GHG Inventory.

The remaining components are mostly at a conceptual level of development. This conceptualization identifies a vision for the desired features of the NCCR, without determining the necessary steps to operationalize the system. The conceptualization lacks the necessary funding to be implemented and the proposal identifies priority areas defined by the country to make progress towards the full implementation of the Registry.

Through Ecuador's current climate transparency system analysis, lacking capacity is identified as an issue. The CBIT project establishes a national capacity building programme which will train the necessary stakeholders in the various systems which are to be established. This capacity building

system, through a strategic partnership with a local academic institution, thus addresses an underlying need and in a sustainable manner, as it is expected to persist beyond the CBIT project itself.

Therefore, the CBIT project has been designed to address these technical and financial resource gaps, and Ecuador will have a complete conceptualization and design of the integrated MRV System of the country (National Climate Change Registry) to serve in a timely manner the reporting requirements of the ETF under the Paris Agreement as well as for tracking the implementation of the National Climate Change Strategy. Additionally, the CBIT project will support the country in the development and operationalization of the Registry, building upon the existing advances in institutional arrangements and conceptualization of some components. The registry will promote a holistic and cross-cutting vision that facilitates the interaction with other frameworks, such as the Sustainable Development Goals, and serves planning processes at national and subnational levels.

Thus, the CBIT project will address these identified needs and plans, advancing Ecuador's development of a functional transparency system.

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

This project will indirectly lead to increased mitigation, adaptation, and means of implementation efforts through improved tracking of Ecuador?s climate efforts. This project will increase the quality and availability of climate data for Ecuador through the transparency system that is to be improved. Moreover, given the linkage between the NDC and the SDGs, and the integration of this linkage into the progress tracking systems, Ecuador 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.

Socioeconomic benefits

The regular collection, analysis, and use of reliable information on climate action and support to reduce GHG emissions and increase resilience, and data on GHG emission trends, both historical and projected, is essential for evidence-based decision-making and information-sharing, which in turn build trust and understanding and promote stakeholder engagement. This project will increase the quality and availability of climate data for Ecuador through the systems which are to be established[41][41].

This is expected to result in the following socioeconomic benefits:

? Improvements in the mitigation module of the transparency system are expected to lead to increased mitigation efforts that will ultimately lead to reduced GHG emissions, whereas the improvements to the

adaptation module are expected to improve vulnerability and risk assessments in the country, leading to a safer livelihood for vulnerable communities.

? The operationalization of the means of implementation module of the NCCR will increase financial accountability, contributing to an enhanced flow of climate finance into the country?s priority areas in mitigation and adaptation. This element will reinforce the socioeconomic benefits discussed in the previous bullet point.

g. Innovativeness, sustainability, and potential for scaling up

Innovativeness:

The transition from the existing MRV arrangements to the ETF will introduce enhanced scope and depth of reporting for developing countries, which underscores the importance of having strong sustainable institutional arrangements in place. This project builds on the innovative approaches and lessons learned during the early developments in transparency, such as the GHG inventories, in order to create a full-fledged, country-wide transparency system that encompasses mitigation, adaptation and means of implementation.

Among the most innovative aspect of the CBIT project, the following can be highlighted:

? As a result of this project, tier 2 (i.e. country-specific) emission factors or higher will be introduced for each of the IPCC sectors (i.e. energy, industry, agriculture, LULUCF and waste) of the National GHG Inventory. Currently, the vast majority of methods for estimating emissions currently follow a Tier 1 approach.

? The climate change information repository and knowledge management system (output 3.2), that is also expected to include cooperation with the National Institute of Meteorology and Hydrology (NIMH), as well as research institutions and the academia. Furthermore, it is expected to subscribe agreements with international organizations such as the Global Observing System (GOS), the Global Climate Observing System (GCOS), the Global Atmosphere Watch (GAW)) of the of the World Meteorological Organization, and the International Energy Agency (IEA). To date, ambitious cooperation efforts of this nature have not yet taken place in Ecuador.

? The gender-responsive approach towards the system design (output 1.1) will endow the NCCR with enough resolution to capture gender biases in fundamental elements such as the NDCs, Adaptation Plans and the NAMAs.

? Another innovative aspect is related to capacity-building activities, where innovative educational method will be applied, as opposed to the provision of standard workshops. The capacity building mechanism for the project (output 3.2) will be designed and implemented in partnership with a local academic institution, which will receive training during the CBIT project and expand their curricula to include key climate transparency topics.

The project will also incorporate relevant, innovative solutions appearing from other CBIT projects through the CBIT Global Coordination Platform.

Sustainability after the project:

As described above, the current approach for preparing reports to comply with the UNFCCC requirements is highly dependent on international capacity and ad-hoc financial support. This project will address this by building the capacity in Ecuador to create the necessary MRV systems, including a capacity building programme that will ensure that the capacity is retained into the institutions beyond the CBIT project. The developed capacity building material will also be available. Through the link to the CBIT global project, the project team will be kept up to date with development and requirements of the transparency systems.

Therefore, the CBIT project has been designed to ensure its sustainability and will play a crucial role to address the recurring and imposed requirements under the Paris Agreement and related MPGs, such as the preparation of BTRs, NCs, and tracking and updating of Ecuador?s NDC. Furthermore, the project will play a fundamental role in shaping the country?s planning and decision-making processes, ensuring that its benefits are sustained into the future, facilitate ongoing cooperation efforts, and allow the incorporation of climate change related aspects into the national planning processes and instruments. It will also ensure the involvement of stakeholders, both related to communication and technical aspects, to guarantee the sustainability of the national system.

More specifically, output 1.1 will provide a detailed analysis of system costs and potential funding alternatives to support the transparency system in the long run. Output 1.2 establishes the linkage with long-term planning processes in Ecuador, including through the relevant budgetary processes that may be able to fund the operation of the NCCR. Output 2 will provide all technical capacity, templates and guidelines on GHG inventory, projections, mitigation, adaptation and means of implementation. Capacity awareness campaigns (Output 3.1) are also expected to contribute towards the long-term buy-in of all involved stakeholders. This will further serve to convince government of the value of these systems, thus securing their long-term financing. Output 3.2 will establish a partnership with a local university and/or academic research consortium for the establishment of two elements that are designed to go beyond the duration of this CBIT project, i.e., the capacity building programme (to be included in the curricula of the university and to deliver certificates for future experts working in academia or public sector on transparency) and the contribution to the quality assurance of the repository of climate change information.

As mentioned before, the contacted institutions presented great interest in being part of the CBIT project. They considered that their participation would be a great asset to ensure the sustainability of the NCCR. Their experience in environmental and climate related research, their IT skills as well as experience collaborating with local governments, will allow the partner institution/s to participate in an efficient and productive manner and ultimately ensure the capacity created in the project will continue after its duration.

Furthermore, throughout the CBIT project, focus will be given on ensuring that the experts engaged in the project, such as in the MRV of mitigation, adaptation, and climate finance, will be nationals of Ecuador (the call for consultancies will include national partnership as a mandatory requirement). This strategic approach will ensure that local capacity is built and that the obtained knowledge is kept locally in the country to further enhance the sustainability of the project outcomes.

Potential for scaling-up:

There is considerable potential to scale up the activities of this project. Firstly, the CBIT project will work towards incorporating tier 2 methodologies in the national GHG inventory for each of the IPCC sectors, improving it from the currently followed tier 1 approach and therefore improving the quality of the national GHG inventory. However, for categories for which it is currently not possible to apply a tier 2 methodology, the CBIT project will establish a way to improve the estimations for these emission sources in the longer-term. The project additionally identifies areas for improvement of the components of the NCCR, including but not limited to the timeframe of the CBIT project. The modular structure of the NCCR also allows new components to be added as needed in the years to come.

This potential for scaling up also relates to the ambition mechanism of the Paris Agreement which requires countries to raise the ambition of their NDCs in future updates. Improved assessments of national GHG emissions will therefore support the scaling up of future NDCs based on improved informed decisions.

Furthermore, the CBIT project establishes a capacity building system for continuous stakeholder consultation, interaction, and engagement. This system for the different sectors can be built upon to add other components as well. For example, a knowledge management system for climate change information is foreseen to support the creation of capacities and highlights the potential for scaling up.

In addition, the project will try to learn from and share its experiences at the international level at knowledge exchange networks such as the CBIT Global Coordination Platform. Furthermore, the project will promote that Ecuador actively exchanges lessons learned with peers especially from Latin America. Countries whose CBIT projects include similar activities are, for example, Peru when it comes to adaptation metrics and indicators, and Honduras in setting up a capacity building scenario, or Uruguay and its experience in adaptation. As a member of the NGHGI, Ecuador has demonstrated that it has the capacities to both transmit and absorb the lessons learned from peer exchange.

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[1] The Conference of the Parties (COP), the supreme body of the Convention, shall serve as the meeting of the Parties to the Paris Agreement. All States that are Parties to the Paris Agreement are represented at the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), while States that are not Parties participate as observers. The CMA oversees the implementation of the Paris Agreement and takes decisions to promote its effective implementation. The CMA meets annually during the same period as the COP. Parties to the Convention that are not Parties to the Paris Agreement are able to participate in the CMA as observers, but without the right to take decisions. The functions of the CMA relating to the Paris Agreement are similar to those carried out by the COP for the Convention.

[2] In 2018, at COP.24 in Katowice, countries adopted Decision 4/CMA.1 on NDC ICTU.

[3] In 2018, at COP.24 in Katowice, countries adopted Decision 9/CMA.1 on adaptation communication

[4] In 2018, at COP.24 in Katowice, countries adopted Decision 18/CMA.1 on modalities procedures and guidance (MPGs) for reporting the BTRs).

[5] In 2021, at COP26 in Glasgow, the common reporting tables of the GHG inventory, the outline of the national inventory document, the common tabular formats of the BTR and the outline of the BTR were adopted (Decision 5/CMA.3).

[6] See e.g. Table **9** below, which includes a list of specific information gaps.

[7] Ibidem, p. 552.

[8] Additional/residual competencies were progressively allocated by the Council of National Competencies to the DAGs between 2007 ? 2017.

[9] The Ministry of Environment was merged with the Secretary of Water in March 2020.

[10] Mitigation: energy, industry, agriculture, LULUCF and waste. For adaptation: food sovereignty, productive and strategic sectors, health, water patrimony, natural patrimony, human settlements, priority attention groups and risk groups. The later two are considered cross-cutting focus areas.

[11] The full list of contents is provided in the context of output 3.2.

[12] Regulatory Decree of the OEC, article 251. Likewise, article 720 sets a similar mandate in terms of information sharing: ?*Decentralized Autonomous Governments, sectoral entities, national monitoring and research institutes, civil society, academia and private sector entities shall forward the information associated with climate change required by the National Environmental Authority in accordance with the institutional arrangements established for the purpose, which will determine the periodicity and format of delivery of the information*?. To date, most of these institutional arrangements have not yet been materialized.

[13] This is the case of the ProAmazon?a project (to be further discussed later in this document in the context of the REDD+ sub-system).

[14] NC3 (2017), p. 27

[15] Ibid., p. 26

[16] Ibid., p. 101

[17] Adapted from NC3 (2017).

[18] As of January 2021, integrated with the Ministry of Environment (currently, Ministry of Environment and Water, MAATE)

[19] ICAT support focuses on the development of procedures and methodologies for data collection, management and its integration into the national system. The sectors and categories covered by ICAT include: agriculture (categories to be defined), industrial processes (for the category of 'mineral products'), waste management (categories to be defined), and energy (for the subcategory of fuel combustion within 'manufacturing industries and construction).

[20] In terms of REDD+, the country, with the support of PROAmazon?a and other projects has developed four information systems: System for the Management of REDD+ Measures and Actions, Safeguards Information System, National System for the Monitoring of Forests, and the connection with the National GHG Inventory System.

[21] Decree N? 840, article 3 and article 4.

[22] Priority care groups are defined in the Constitution of Ecuador (art. 35), and include seniors, children, pregnant women, people with disabilities, people with severe or complex diseases, population at risk, victims of domestic or sexual violence and of natural or anthropogenic disasters, as well as people with low levels of income and limited coverage of basic services.

[23] 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.

[24] See e.g. section 4.4 of chapter 4 of the NC3. This proposal was prepared by JICA in coordination with the MAATE.

[25] NC3 (2017), p. 327.

[26] Ministry of Environment and Water, Ministry of Economy and Finance, *National Strategy for Climate Finance* (2021). Available here.

[27] See e.g. chapter 6, ?Barriers, needs, opportunities and support received for climate change management?.

[28] This is regulated by art. 272 of the Constitution and art. 192 of the OCTOAD. Criteria for the distribution of national funds include population, density, unmet basic needs (and its variation), fiscal effort, administrative effort, and achievement of goals in the NDP and the DAG?s development plan.

[29] OEC, art. 254.

[30] Regulatory Decree to the OEC, art. 717

[31] Secretar?a Nacional de Planificaci?n, *Plan de Creaci?n de Oportunidades 2021-2025* (2021). Available here.

[32] Key categories are presented in Table **5** in the baseline section.

[33] A similar approach will be followed for actions in the rest of the sectors prioritized by the country for mitigation actions (i.e. industry, agriculture, LULUCF and waste).

[34] UNEP is currently working on an e-mobility project (GEF ID 10630) that will include a MRV system for the transport sector (and some elements of the energy sector of relevance for e-mobility). This system will allow to systematically measure and compile attributes of a transportation system that can help to indicate: (1) the best way to improve general transportation efficiency and quality for a given region, (2) the achieved and potential benefits of a transition to electric mobility for various types of vehicles/applications, and (3) the most effective instruments and approaches for transitioning to electric mobility. Moreover, the knowledge management system (KMS) will serve as a repository for information that is relevant for research & development, as well as to inform political and business decision-making.

[35] This deliverable will build on and complement the remaining work of the ICAT project, the current developed guidelines can be accessed here: https://we.tl/t-uMAHy6Ccc7

[36] A summary of the various methodological challenges faced in tracking climate finance can be found in ?The state of tracking financial flows under the Paris Agreement?, *Center for International Climate Research* (2019).

[37] NC3 (2017), p. 571.

[38] Specific details on the coordination with the second period of the NDC Support Programme (2020 ? 2021) will be provided at the design stage of this project, when the results of said project are expected to be available.

[39] See e.g. chapter 6 of the NC3 (2017).

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

[41] UNFCCC (2020), ?*Handbook on institutional arrangements to support MRV/transparency of climate action and support*?, p.6.

1b. Project Map and Coordinates

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

Coordinates (Quito, Ecuador?s capital):

Latitude: -0.225219, Longitude: -78.5248 0? 13? 31? South, 78? 31? 29? West

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 document has been prepared through extensive consultation with representatives of the Ministry of Environment, Water, and Ecological Transition of Ecuador. In the beginning of the process, a mission was realised to Ecuador to determine the scope of the project. The elaboration of the document has been extensively discussed over periodic virtual meetings (as the pandemic did not allow for face to face interaction), and the document has been revised by the representatives of the Ministry as well. This approach ensured that the views of the Ministries, Departments, Agencies, and other entities were considered during the project preparation phase.

Key documents have been reviewed to develop this package proposal. These documents, such as the National Communications, Biennial Update Reports, and other key documents, have been developed through a participatory stakeholder approach. Thus, while the preparation itself has not held consultations with the groups mentioned above, their perceptions are considered by basing the project on documents developed with their inputs.

During the project preparation phase, a stakeholder consultation and validation workshop was held on 3rd March 2022 which included the participation of over 50 representatives from Ecuador's civil society and indigenous groups and women. The workshop presented the project and requested inputs especially on the general direction of the project, and the planned activities. It also served to deeply understand the current baseline and challenges of Ecuador?s climate transparency and identify synergies with current initiatives. These inputs were integrated into the project design as a whole, and in the activities in particular. Briefly summarised, stakeholders indicated the barriers with the root causes and difficulties they have to report to MAATE climate change information they are responsible for and proposed possible solutions. Most of the institutions have difficulties in reporting this information because there is no manual, processes or protocols in place to report to MAATE. The information they have is stored on a local server, but most institutions do not have a storage system or procedures. It is unknown if there are institutional arrangements for the monitoring and achievement of the NDC goals, so participants proposed that it is necessary to inform the authorities first to obtain their commitment. The greatest challenges and limitations to reporting to MAATE are the lack of established processes, the lack of expertise to monitor the indicators, the lack of information, the turnover of personnel, the lack of continuation of the processes and that the formats in which information is requested are not

adapted to the information available. There is a lack of financial resources and institutional initiative in many institutions. In most institutions there are no computer systems, some institutions have a web portal with indicators or information is included in a registry that does not allow interoperation with other systems. In the existing systems, the information is entered manually in Excel files, and they are reporting systems (not information gathering). All the institutions confirmed the need to implement ministerial agreements and establish an executive decree to be able to integrate the information from the existing systems in the NCCR and have clear responsibilities and roles to monitor the NDC and participate in the enhanced transparency framework. In the second part of the workshop, the key stakeholders validated the CBIT project and expressed their commitment and high interest to be involved in all CBIT project activities since the beginning.

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

Engagement foreseen during project execution

A description of the relevant key stakeholders and their role in the CBIT project are provided in the table below. This list as well as the corresponding means and timing of engagement will be further developed as part of output 3.1.

Table 11. Stakeholder engagement plan.

Stakeholder main group	**Stakeholder name**	**Existing activities with potential to be leveraged**	**Means and timing of engagement; expected contributions to the project (identified by Component)**

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Means and timing of engagement; expected contributions to the project (identified by Component)
Government	Ministry of Environment, Water, and Ecological Transition of Ecuador (MAATE) & the Under-Secretariat of Climate Change (USCC)	To exercise environmental management effectively and efficiently, guaranteeing a harmonious relationship between the economic, social, and environmental axes that ensures the sustainable management of strategic natural resources. The MAATE exercises the administration on climate change through the Under-Secretariat for Climate Change (USCC), created on December 4, 2009. The USCC is the entity in charge of coordinating the country's mitigation and adaptation actions to face climate change. For this, it is made up of two units: The National Directorate for Adaptation to Climate Change (NDACC) and the National Directorate for Climate Change Mitigation (NDCCM).	MAATE will be directly involved in the execution of this project, in its role as Executing Agency and by nominating a National Project Director for the Project Steering Committee. In addition, the MAATE is also the focal point for the reporting to UNFCCC and currently hosts several of the aforementioned information climate platforms of the proposed National Climate Change Registry. In this sense, it will serve as the ultimate repository of information and coordinate all relevant internal and external stakeholders on their provision of information to the Registry. The MAATE has the mandate to manage the National Climate Change Registry.

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Means and timing of engagement; expected contributions to the project (identified by Component)
Government	Interinstitutional Climate Change Committee (CCIC)	The CCIC was institutionalized by Executive Decree N? 495/2010 and then restructured by Executive Decree No. 752/2019. The Interinstitutional Climate Change Committee (CCIC) is composed of the Ministry of Environment, Water, and Ecological Transition (acting as the Chair of the Committee), the Ministry of Production, Foreign Trade, Investment and Fisheries, the Ministry of Transportation and Public Works, the Ministry of Economy and Finance, the Ministry of Agriculture and Livestock, the Ministry of International Affairs and Human Capital Mobility, Energy and Non-Renewable Natural Resources, the Secretariat of Higher Education, Science and Technology, the Technical Secretariat of Planning, the Secretariat of Water, The National Risk and Emergency Management Service, the Association of Ecuadorian Municipalities (AEM), the Consortium of Autonomous Provincial Governments of Ecuador (CAPGE), and the National Council of Rural Parish Governments of Ecuador. Among its functions that are relevant for the CBIT project, the CCIC requests the participation, advice, and creation of working groups with institutions and organizations that it requires for the fulfilment of its functions.	Feedback on the different steps in the process as it brings together a wide range of stakeholders to the project. The MAATE will work in coordination with the stakeholders of the CCIC for the implementation of the several activities of this CBIT project, identifying a focal point that coordinates actions and provides updates for each of the CCIC meetings.

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Means and timing of engagement; expected contributions to the project (identified by Component)
Government	Regional Local Government Organizations, such as: -Decentralized Autonomous Governments (DAG) - The Association of Ecuadorian Municipalities (AEM) - The Council of Autonomous Provincial Governments of Ecuador (CAPGE) - The National Counsel of Rural Parishes of Ecuador (NCRPE)	**DAGs**: Local government management is carried out through the DAGs. The processes of the MAATE that guide the generation of information, the formulation of policies, and the articulation in the territory, are all coordinated through the DAGs. **AEM**: This entity has been a key actor within the country?s climate change policies, such as waste management. Its approach, accompaniment, and interaction with the municipalities has meant the implementation of measures. It has also supported the generation of information and indicators on the subject. In fact, the information generated by AEM has served as a basis to feed national statistics through NISC **CAPGE**: It is an institution that specializes in building capacities for public management of the Provincial Intermediate Governments of Ecuador. **NCRPE:** It is integrated by all the existing Decentralized Autonomous Rural Parochial Governments, for the fulfilment of the objectives and responsibilities determined in the Constitution of the Republic and the Organic Code of Territorial Organization, Autonomy and Decentralization, OCTOAD	The MAATE through this CBIT Project will have to be in close coordination and consultation with prioritized municipalities (DAGs) through organizations such as AEMs, CAPGE and NCRPE The CBIT will have to consolidate the necessary institutional agreements to ensure the supply in time of the information required for the preparation of the National GHG Inventories and other climate information related to the three components of the proposed National Climate Change Registry. This must be done in coordination with the development of those activities under outputs 1, 2, and 3 as subnational involvement is prioritized by the country to develop its National Climate Change Registry. The regional local government organizations will also be part of the responsible institutions for tracking the NDC, monitoring mitigation actions and adaptation measures. Timing for the engagement will be defined as part of the stakeholder engagement plan (output 3.1); during the operation of the RNCC itself, means and timing for the engagement will be documented in the relevant Process Manuals.

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Means and timing of engagement; expected contributions to the project (identified by Component)
Government	Geological and Energy Research Institute (GERI) National Institute for Farming Research (NIFR) Petroamazonas EP Ministry of Public Health (MPH) Metropolitan Public Company for Integral Solid Waste Management (EMGIRS-EP) ETAPA-EP EMAPAG-EP EMAC-EP EP-CONST National Biodiversity Institute (NBI) National Institute of Statistics and Census (NISC) National Institute of Meteorology and Hydrology (NIMH) National Institution for Public Health Research (NIPHR) Metro de Quito-EP Undersecretariat for Land Use, Land Management and Cadasters (ULULMC) National Risk and Emergency	**GERI:** Is a governmental research institution that focuses on generating and promoting knowledge in the field of geology and energy. **NIFR**: Is the official entity in Ecuador that carries out agricultural research activities. **Petroamazonas EP:** is an Ecuadorian state-owned company, created in 2007, to manage all state-owned oil production and is focused on hydrocarbon exploration and exploitation. **MPH:** Is in charge of steering, regulating, planning, coordinating, controlling, and managing Ecuadorian public health. **EMGIRS-EP:** is responsible for the operation of the South and North Transfer Stations; the El Troje, Oyacoto, El Semillero and Luis Tamayo landfills; the Metropolitan District of Quito (DMQ) Landfill; and the Environmental Education and Management Centers (CEGAM) **ETAPA-EP:** Telecommunications, potable water, sewage, and environmental management services in the city of Cuenca. **EMAPAG-EP:** is the municipal drinking water and sewerage company of the city of Guaranda in the province of Bolivar. **EMAC-EP:** Municipal Public Sewage Company of Cuenca **EP-CONST:** Public Construction, Housing and Sanitation Company of Santo Domingo **NBI:** Is the national research institution of Ecuador in terms of biodiversity.	GERI and Petroamazonas EP will be data providers and QA of the GHG emissions of the energy sector NIFR will be a data provider and QA of the GHG emissions of the agriculture sector. MPH, EMGIRS-EP, ETAPA-EP, EMAPAG-EP, NISC will be data providers and QA of the GHG emissions of the waste sector. EMAC-EP, EP-CONST, NBI, NIHM, Metro de Quito-EP, ULULMC, NREMS, NIPHR Tranv?a de Cuenca will be part of the responsible institutions for tracking the NDC, monitoring mitigation actions and adaptation measures. NISC will be a data provider and QA of GHG emissions of the key sectors. Bi-lateral and/or multilateral meetings will be held during project execution to define the most efficient processes and timing for data compilation.

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Means and timing of engagement; expected contributions to the project (identified by Component)
Private sector	Uni?n Andina de Cementos (UNACEM) Holcim Uni?n Cementera Nacional (UCEM-CEM) Hormicreto Instituto Ecuatoriano del Cemento y Hormig?n (INECYC) INCOREG CALMSOACORP INDAMI Calizas Huayco Productos Calc?reos Santos PROCALSACOM C L (PROCALSA) Asociaci?n de Productores Qu?micos del Ecuador (APROQUE) Federaci?n Ecuatoriana de Industrias del Metal (FEDIMETAL) ADELCA NOVACERO Bater?as Ecuador Fundametz S.A. Asociaci?n Nacional de Fabricantes de Alimentos y Bebidas (ANFAB)	From micro to large enterprises, the private sector plays a determining role in the creation of decent jobs, the contribution in productive chains, and the capacity for innovation and coordination. **UNACEM:** Is a Peruvian company, in the cement industry in several countries in the Americas, which has significant presence in Ecuador **Holcim:** is a Swiss company, a leading supplier of cement and aggregates (limestone, sand, and gravel) as well as other materials such as ready-mix concrete and alternative fuels. Holcim Ecuador is part of the Holcim Group since 2004 **UCEM-CEM:** Is a national cement company created in 2013 **Hormicreto:** National company that Manufactures ready-mixed and dry mixes for concrete and mortar **INECYC:** Is a private, non-profit organization whose main objective is to promote the proper use of cement and concrete and which brings together companies engaged in the production of cement and concrete. **INCOREG:** Wholesale Traders of Other Building Materials **CALMOSACORP:** Ecuadorian company processing calcium carbonate, calcium hydroxide, calcium sulphate, zeolite, calcium oxide, barium sulphate. **INDAMI:** Dedicated to the agricultural production and industrialization of natural minerals such as calcium carbonate, calcium sulphate and zeolites. **Calizas Huayco:** The main	The private sector will play a role in the identification of the prioritized sectors and stakeholders involved with which the government shall establish arrangements and confidentiality agreements in order to enhance the level of accuracy of the GHG inventories as well as other components of the proposed National Climate Change Registry in addition to mitigation. UNACEM, Holcim UCEM-CEM, Hormicreto, INECYC, INCOREG, CALMOSACORP, INDAMI, Calizas Huayco, PROCALSA, APROQUE, FEDIMETAL, NOVACERO, Baterias Ecuador, ADELCA, Fundametz, and ANFAB will be data providers and QA of the GHG emissions of the IPPU sector. PROFAROR will be a data provider and QA of the GHG emissions of the LULUCF sector Consorcio Puerto Limpio, INTERAGUA, HAZWAT-CRA, GADERE S.A., INCINEROX will be data providers and QA of the GHG emissions of the waste sector. Bi-lateral and/or multilateral meetings will be held during project execution to define the most efficient processes and timing for data compilation, as well as to address other relevant concerns (e.g. confidentiality of data)

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Means and timing of engagement; expected contributions to the project (identified by Component)
CSO	NGHGI network and other relevant CSOs	The South-South peer exchange network, NGHGI network, which has been active since 2016, has been a success in its ability to foster peer exchange between the countries, and Ecuador has significantly benefited from it as mentioned in the baseline. This underscores the importance of peer-to-peer exchange, and how such interactions are beneficial for the technical development within a specific area. Several activities will collaborate with other transparency projects to establish peer-exchange networks for the wider MRV systems which this CBIT project will consolidate.	Development of institutional arrangements with NGHGI network and other local partners as capacity building providers to key stakeholders in line institutions on GHG Inventories and other prioritized aspects of the National Climate Change Registry to overcome issues related to staff turnover in these public institutions. Civil society institutions play a key role as they group various stakeholders into one single entity, which is particularly important to ensure the level of participation pursued by this project. Many civil society institutions have already been identified (see e.g., the entities participating in the sectoral roundtables for the preparation of the GHG inventories, in Figure **6**), and other institutions are expected to be identified and approached during project implementation in particular for getting feedback on the repository of the NCCR and the adaptation platform. CSO are expected to participate in the multiple workshops to be held during the execution of the project.

Stakeholder main group	Stakeholder name	Existing activities with potential to be leveraged	Means and timing of engagement; expected contributions to the project (identified by Component)
Academia	Academia and research institutions	Academic and research institutions in Ecuador play a significant role in the production of climate information that is crucial for the NCCR, particularly in terms of adaptation and vulnerability. Moreover, universities have the infrastructure required for training and building capacity that is much required to operate the NCCR	This project has been conceived to include a strong partnership with academic and research institutions. In particular, output 3.2 of this project will support a national higher education institution in the development a long-term capacity building programme and establish MoUs with research institutions for the repository of climate change information, for instance for the provision of meteorology and hydrology data that can foster further research from other institutions in the academic but also in the private sector. Thus, academia is expected to play a key role in this CBIT project.

To ensure proper and meaningful stakeholder engagement, the relevant key stakeholders depicted in the table will actively participate in the activities of the CBIT project in which they have a responsibility. In addition, consultation and validation meetings will be held with all stakeholders at the end of each activity and for each deliverable of the project when relevant.

Finally, lessons learnt, and best practices will be exchanged and shared. CBIT Global Coordination Platform collects information from CBIT projects globally. The information on what the CBIT projects entail, and what can be learnt from them, is readily available. Ecuador will both benefit and contribute to the CBIT Global Coordination Platform through this project by providing information on its activities, challenges, and methods to overcome these obstacles.

Select what role civil society will play in the project:

Consulted only; Yes

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.

This gender analysis presents an overview of the gender inequalities in Ecuador and the different ways how women, girls, boys, and men are affected by the current circumstances in the country. It identifies issues that are relevant to the CBIT) project and examines gender-mainstreaming opportunities in order for the project to be designed, while conforming to the 2018 Guidance to Advance Gender Equality in the Global Environmental Facility (GEF) projects and programs.[1] The Policy marks GEF?s increased ambition to ensure gender equality and promote women?s empowerment across its activities and outlines the following guiding principles:

•*Efforts to mainstream gender and promote gender equality and the empowerment of women are pursued in accordance with the decisions on gender under the Multilateral Environmental Agreements that the GEF serves, and in recognition of related international and national commitments to gender equality and human rights.*
•*GEF-financed activities address and do not exacerbate existing gender-based inequalities.*
•*Stakeholder engagement and analyses are conducted in an inclusive and gender-responsive manner, so that rights of women and men and the different knowledge, needs, roles and interests of women and men are recognized and addressed.*
•*GEF-financed activities are conducted, designed and implemented in an inclusive manner so that women?s participation and voice are, regardless of background, age, race, ethnicity or religion, reflected in decision-making, and that consultations with women?s organizations, including indigenous women and local women?s groups, are supported at all scales.*
•*A gender-responsive approach is applied throughout the identification, design, implementation, monitoring, and evaluation of GEF.*
•*Opportunities to address gender gaps and support the empowerment of women are seized in order to help achieve global environmental benefits.*

Gender analysis

-

Ecuador is making significant progress in the mainstreaming of a gender approach in its public policies, a requirement that is set out in the Constitution[2]. Executive Decree No. 1733 (2009) established the National Council for Women and Gender Equality with the mission of designing a public institutional structure to ensure equality between women and men. Along this line, its objectives include gender mainstreaming at the public policy level, including planning instruments at the macro level, making binding and mandatory recommendations and proposals that seek to transform cultural patterns embedded in the public sector and in society at large regarding gender roles and stereotypes. Other

institutions of relevance are the Council for Citizen Participation and Social Control (CPCCS), the National Council for Equality (CNI) and, at the DAG level, the Cantonal Councils for the Protection of Rights. In parallel to this, a number of national agendas, plans and legal instruments anchored in the constitutional principle of equality and equity have been set in place[3].

While these efforts have shown very encouraging results, gender inequalities remain one of the structural challenges in Ecuador?s socioeconomic system. According to UNDP?s Gender Inequality Index (GII)[4], Ecuador ranks 86th out of 189 countries (2019). As can be seen in Table 3 below: despite working more, women are also relatively more affected by underemployment and poverty.

Table 12. Gender indicators.[5]

Indicator	Women	Men
Income poverty (2015)	19.35%	18.72%
Underemployment over employed population	60.40%	49.10%
Total number of hours worked in a week	77:39	59:57

Another index which measures gender inequalities worldwide is the World Economic Forum?s Global Gender Gap Index (GGGI), which examines the gap between men and women in four categories, namely, economic participation and opportunity, educational attainment, health and survival, and political empowerment. In the GGGI of 2020, Ecuador ranked 48th out of 153 countries assessed, with a score of 0.729.[6] Ecuador has seen a decline in its GGGI ranking in recent years, as can be seen in the following table. This has resulted in Ecuador being ranked 13th out of the 25 countries in the Latin America and the Caribbean region in the GGGI of 2020.[7]

Table 13. Global Gender Gap Index of Ecuador.

	2020		2018		2017		2016		2015	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Economic participation and opportunity	0.680	74	0.657	82	0.642	93	0.631	93	0.677	66
Educational attainment	0.997	56	0.996	59	0.996	54	0.996	48	0.996	53
Health and survival	0.978	54	0.978	58	0.977	57	0.980	1	0.980	1
Political empowerment	0.260	48	0.283	35	0.283	32	0.297	32	0.297	31
Overall Gender Gap Index	0.729	48	0.729	41	0.724	42	0.726	40	0.738	33

The following paragraphs will firstly provide an overview of Ecuador?s Government action towards gender equality, followed by a more in-depth assessment of the gender disparities in different spheres of Ecuador?s society. The Gender Action Plan will subsequently introduce recommendations for gender consideration within the outcomes of this CBIT project and provide key performance indicators to monitor and track the gender considerations during the project implementation.

Government actions towards gender equality

According to article 70 of the Constitution, Ecuador is focused on promoting sustainable development and guarantees gender equality[8]. This can be observed in the implementation of the human rights commitments derived from the CEDAW ratification (Convention on the Elimination of All Forms of Discrimination Against Women) in its legal system and public policies.

Ecuador has made important efforts during the last decade towards this goal:

? In 2009, the Ecuadorian government approved the "Organic Electoral Law and Political Organizations" that demands gender parity and alternative inclusion in electoral lists of women and men as candidates.

? In 2010, the "Organic Law of Public Service" was approved, which guarantees gender parity in public appointments.

? In 2011, the "Organic Law of the Popular and Solidarity Economy" was approved, establishing measures to reduce gender inequality in the economic sphere

? In 2014, the country approved the ?Comprehensive Organic Criminal Code? that criminalizes femicide, as well as discrimination and crimes motivated by the victim's gender. In the same year, the "Law on the Organization of National Councils for Equality" that empowers the creation of the National Council for Gender Equality was launched.

? In 2018, the National Assembly approved, the ?Comprehensive Organic Law to Prevent and Eradicate Violence against Women? aimed to prevent and eradicate gender violence against women in the public and private spheres [9] [10].

The government of Ecuador has continuously emphasized the importance and connection between gender and climate change, mainly by including gender considerations in their NDC. Documents available have extensively analysed and evaluated previous efforts and possible future pathways for Ecuador in the topic of Gender and Climate Change (see e.g., the Third National Communication, the Concept Note on the Gender Action Plan and Climate Change for Nationally Determined Contributions (NDC), or the ?Design, Validation and Systematization of the Methodology for the Construction and Implementation of the NDCs of Ecuador Including the Gender Approach?).

As of 2018, the Undersecretariat of Climate Change of the Ministry of the Environment, Water and Ecological Transition formed the Commission on Gender and Climate Change (CGCC). This technical instance aims to promote the inclusion of the gender perspective in policies, measures and initiatives related to climate and to monitor actions that mainstream the gender approach in its programs, plans and projects, including the Nationally Determined Contribution (NDC), the National Plan for Adaptation to Climate Change (NAP), the National Climate Change Mitigation Plan, among others. The Commission on Gender and Climate Change also seeks to promote inter-institutional work with external actors such as the National Council for Gender Equality (NCGE) and civil society organizations; articulate the work with the gender specialists of the projects under the Undersecretariat

of Climate Change; and review and validate products generated within the framework of gender and climate change projects by the Undersecretariat of Climate Change.

Along these lines, the activities of the CGCC focus on the following actions: leveraging financing that allows the inclusion of a gender approach; contribute to the formulation of the Gender and Climate Change Action Plan; improve the systematic integration of gender considerations into climate policies and actions, with an incremental incorporation of other gender identities; promote the generation of tools to identify the differentiated impacts of climate change and gender-related gaps; and, promote gender and climate change analysis in accordance with the guidelines issued by the specialized bodies in the field.

In addition, the Third National Communication of Ecuador has deeply explored the gender situation of the country. It has disaggregated their findings per area such as ?socio-cultural,? ?economic productivity,? and ?Climate Change,? among others. The country has also created Priority Care Groups, which emphasize vulnerable communities, in their climate actions to adapt and mitigate to the effects of climate change. It has also created agendas, like the Amazonian Productive Transformation Agenda (APTA), in which gender equality is at the forefront of climate action.

In particular, the FORECCSA project (Project for Strengthening the Resilience of Communities in the Face of Adverse Effects of Climate Change with an emphasis on Food Security and Gender Considerations) will serve as an excellent guideline to lead the way for this CBIT project in terms of its gender approach. Within the framework of the FORECCSA Project, technical documentation on gender has been collected. These documents have diagnosed the situation of women and men, the impacts of climate security on each of these social groups, among other aspects.

Thus, the project will have solid ground on which to orient its gender efforts.

Furthermore, there are several national development programs that focus on diminishing gender inequalities, such as:

- ?Rights for All, Lifelong? (2017-2021), which contains three main pillars: 1) to guarantee rights and environmental sustainability, 2) promote economic and productive growth, and 3) strengthen relations between society and State to improve service provision under criteria of quality, transparency, efficiency, and participation [11]. Pillar one of the National Plan, aims to eradicate poverty, protect vulnerable people?s rights, eliminate all forms of discrimination, and promote the rights of nature. It includes interventions favouring children, combatting gender-based violence and protecting people with disabilities [12].

- "National Agenda for the Equality of Women and LGBTI People? (2018-2021), that works on the following axes: i) Autonomy and culture of peace, focusing on gender violence; and sexual and reproductive health, ii) Life sustainability, focusing on production, care, employment and environment, and iii) Leadership and transformation of socio-cultural patterns, focusing on political participation, culture, communication, and art.

- ?Human Development Bonus? allows the allocation of USD $50, preferably to mothers who are heads of household in the poorest families.

The "Woman?s Mission" programme prioritizes state intervention in three areas: gender-based violence, pregnancy in children and adolescents, and access to resources47.

Ecuador?s work on gender equality in the NDC with regard to policy, planning and governance

The high-level Inter-Institutional Climate Change Committee has been in place since 2010 with 11 public institutions. A gender methodology and guidelines for decision making are being developed for this important committee. A coordination space was created between the Climate Change unit at the Ministry of the Environment and the National Council for Gender Equality (CNIG). Gender considerations have been included in the design process of the 4th National Communication to the UNFCCC and the National Adaptation Plan for Ecuador. The process for a Gender Action Plan has been initiated. Gender guidelines, documents on concepts and basic tools on gender are available for the NDC formulation process. A gender analysis in prioritized sectors is underway.[13]The synergy created with different key actors, resources, technical capacities, and the creation of a network to jointly work with public and private institutions, organizations of women, academia and others are key milestones in Ecuador. The National Council for Gender Equality (CNIG) with assistance from UN Women was important in this regard. Gender considerations were incorporated into the design thinking methodology in participatory workshops in the energy, industrial processes, waste, and agriculture mitigation sectors and the 6 prioritized adaptation sectors of the NDC. Gender methodologies are being developed, for the Inter-Institutional Committee of Climate Change, to support the NDC Implementation Plan and MRV System as well as to focus on climate finance with a gender lens. A range of activities are taking place including participatory workshops; national meetings of women and climate change; training for public sector personnel; and the setting up of a technical panel on gender and climate change, which provides a space to debate such issues.

Women in Environmental Decision Making

A case study developed by the Global Gender Office of IUCN, in collaboration with Conservation International in 2014 assessed the state of women?s participation, representation, and leadership in the environmental sector in different countries. The study shows that only a quarter (25%) of Ecuador?s environmental ministers are women. There is a slightly higher percentage, 29%, of female Vice Ministers of Environment (2 out of 7 vice ministers). Within civil society, of the eight major NGOs considered for Ecuador, only a quarter (25%) of NGO presidents/executive directors are women and about 32% of NGO board members are women.

On a national level, it appears that higher levels of environmental decision making appear to be somewhat restricted for women in government and in civil society. While women are participating in government and civil society organizations, men continue to hold most executive positions.

On the other hand, at the international level, specifically the Rio Conventions on climate change, Ecuadorian women have greater representation, possibly a result of the level of technical expertise among women in these sectors or specific initiatives of these processes to encourage gender balance.

For international environmental decision making, the highest representation of women serving as government delegates was at the UNFCCC COP19, where 41% of delegates were women[14]. The study concludes that Ecuador?s most pressing problems are the lack of fund allocation for developing/supporting gender expertise in the environmental sector and strong cultural ideologies that prevent women in community structures from participating in management and decision making.

Table 14. Women?s representation in key environmental positions across government, civil society, and international environmental delegations

Sector	Variable	% Women
Government	Ministers of Environment-related Sectors	25
	Vice-Ministers of Environment-related Sectors	29
Civil Society	Environmental NGO Presidents/ Executive Directors	25
	Environmental NGO Board Membership	32
International	UNFCCC COP19 Government Delegates	41
	UNCCD COP11 Government Delegates	33
	CBD COP11 Government Delegates	39
	Average Participation in Rio Conventions (UNFCCC, UNCCD, CBD)	38
	Rio Convention Focal Points	50
	GEF Focal Points	50

Source: IUCN & CI, 2014[15]

Women?s Economic Participation and Employment

Even though the government has implemented strategies for gender equality, the disparity between women and men in the labour market is still significant. In 2018 the urban economically active population rate by sex was 78.7% for men and 52.9% for women[16]. The type of activities men and women participate in demonstrate the structure of gender relations in Ecuador; where men work mainly outside the private sphere, in activities such as: construction, transport, communications, public administration and defence, agriculture, livestock, commerce, manufacturing and financial industry, among others; while women on the other hand, work in highly feminized activities such as cleaning or caretaking47.

Regarding unemployment by gender, in Ecuador, it is observed that the unemployment rate for women was higher than that of men[17]. In fact, in 2020, 6.7% of the economically active women were

unemployed nationwide, while among men unemployment reached only 3.7%. In the same manner, a wage gap can be observed between genders, with women earning 30% less than men in 2019[18].

Additionally, according to 2012?s Time Use Survey, women work on a national level around 17:42 more hours than men[19]Women are also participating in unpaid work by taking care of their households. It is estimated that women spend approximately 88 of 100 hours on household chores while men only 12 hours47, and overall contribute to a greater proportion of the household economy than men, with 76% and 24%, respectively[20]. Ultimately, the unequal allocation of domestic work limits the participation of women in the political sphere as well as increasing the lack of economic power of women in the country. Nonetheless, the National Development Plan for the period 2021-2025 stablished a goal to reduce the gap in suitable employment from 33.5% to 28.45%, and the wage gap to 11.27%53.

Political Participation

In terms of decision making, political representation of women has been increasing steadily since the eighties, with a 40.1% share of legislative seats in 2013, as opposed to 6.1% in 1996[21], with percentages decreasing when shifting inwards towards the DAG level. The low participation of women at the regional level was evident in the elections of 2019 in which Ecuadorian citizens elected their representatives for 221 mayors and 23 prefectures. In this electoral process, female candidates won only 17.39% and 8.14% of the total prefecture and mayor positions, respectively[22].The low women?s political participation and representation is mainly caused by the method of seats allocation that allows citizens to choose from open lists limiting the participation of women; the disproportionate burden of unpaid work linked to household and family care; and gender-based violence in the field of politics47. Therefore, and despite the improvements, continuing efforts are still required to materialize equal access to rights and benefits.

Education

While Ecuador has promoted equal access to education and has managed to reduce illiteracy from 10% to 5.8%[23], inequality can still be observed in education levels between men and women. In 2020, the maximum illiteracy rate of men reached 10, 92%, while the maximum for women was 17.81%[24]. At the national level, 5.6% of women do not count with any instructional level, while only 4.4% of men are uneducated. The main reasons for the absence of women from school are the lack of economic resources (36.9%), and household chores (15.8%). In contrast, the main reasons for men are work (40.2%), followed by the lack of economic resources (32.8%)[25]. The difference in reasons for absenteeism between genders is a clear example of the structure of gender relations in the country, where women must prioritize household work over education.

Gender-based Violence

Ecuador still has a major issue with gender violence, surveys of women and adolescents over 15 years of age carried out in the 24 provinces of Ecuador, showed that 1 in 4 women have suffered sexual violence[26]. Psychological violence is the most recurrent form of gender violence in the country reaching 53.9%46. In 2019, the 2nd National survey demonstrates that 7 out of 10 women are victims of

violence. The COVID-19 pandemic also put a strain on women?s safety, it was estimated that the femicide rate increased by 14%. The National Development Plan has stated the goal to reduce the femicide rate from 0.87 to 0.8 for every 100,000[53].

Health

Teenage pregnancy is a public health and developmental issue in Ecuador. There are approximately 3 million mothers between the ages of 15 to 85 years. The country has the second highest rate in teen pregnancy (10-14 years) in Latin America[27]. Life expectancy is 79.5 years for women and 72 for men. The lack health insurance is also a major concern, it has been estimated that 80% of the population has no health insurance. Women are the most unprotected. In the urban area eight out of ten women do not have access to health insurance, while 7 out of ten men do not have access[28].

Gender Action Plan

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. The project will thus follow CBIT Programming Directions, the GEF Policy on Gender Mainstreaming and UNEP?s own Gender Policy. A Gender Action Plan (?GAP?) is the roadmap for gender activities that a project or institution has adopted for itself for the purpose of redressing existing gender inequalities in a systematic way. The gender action plan is a bridge between gender analysis and implementation, and it is a tool to help translate and make visible findings of the gender analysis in program/project implementation and evaluation.[29]

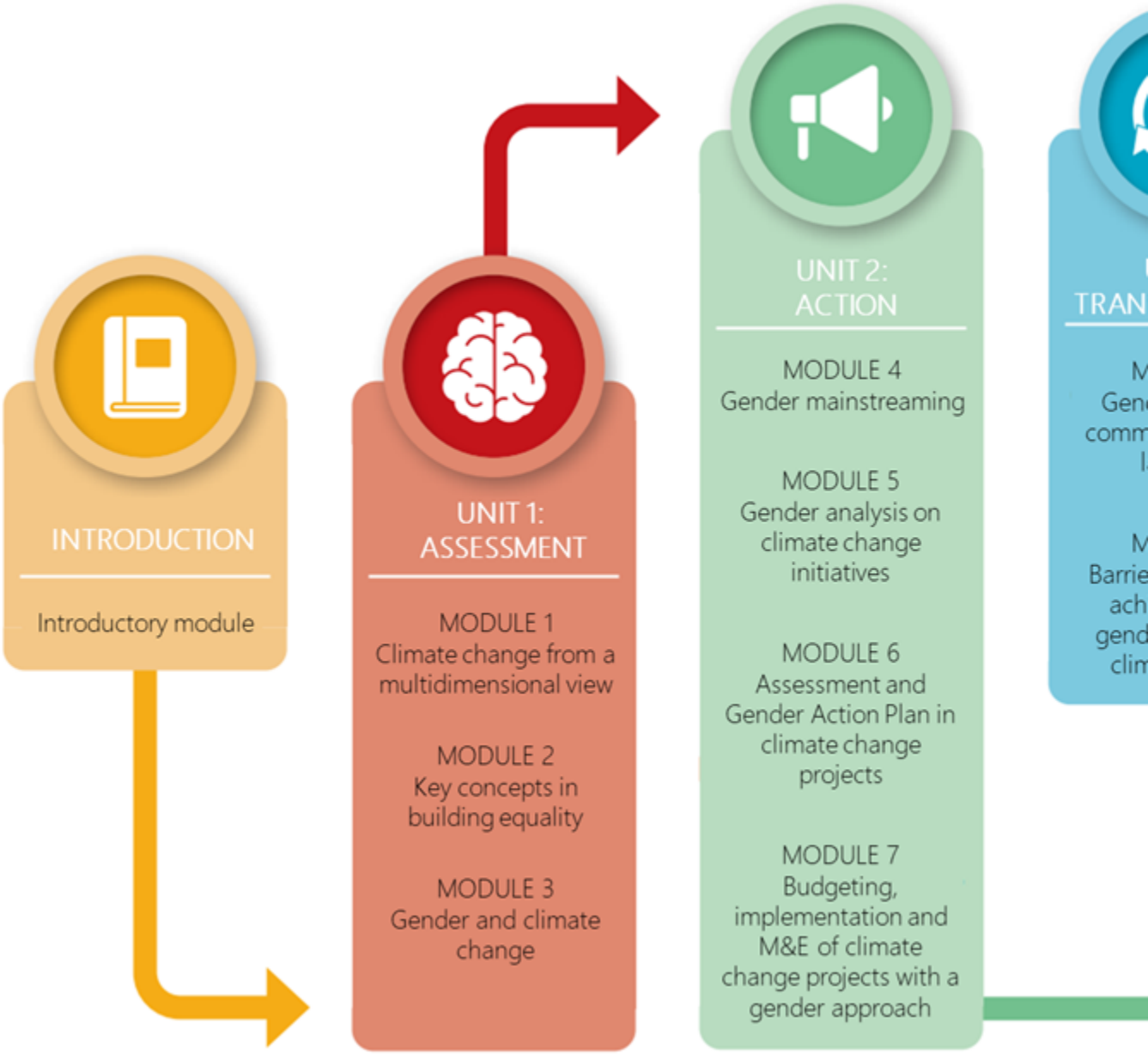
To produce a gender-responsive transparency system, it is important to include gender considerations from the very design. The process will tackle gender in two fronts. On the one side, the system will assess (and include in its cost estimates) which data should be collected to endow its components with the resolution required to capture gender biases. This way, the NCCR will be designed to assess how costs, benefits and risks arising from NDCs, Adaptation Plans, NAMAs and other mitigation actions are allocated, enabling the identification of potential inequalities before they take place. A specific deliverable (1.1.6) has been included in Output 1.1 to ensure that this feature is built into the NCCR. On the other side, the CBIT project -and the transparency system to be created by it- will both reflect upon themselves in terms of the gender balance of its own governance structures.

Moreover, Ecuador will benefit from the Global Coordination Platform activities on gender, mainly under the output ?Assistance provided to countries with integrating the UNFCCC Gender Action Plan into enhanced transparency frameworks? of the 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?.

Approach for the preparation of this Gender Action Plan

The gender analysis and the gender action plan for this project was prepared following the ?*Toolkit on gender and climate change*?, a series of tools developed by the GCCC with support from the United Nations Development Program (UNDP); a summary of its scope is presented in Figure 8 below. In particular, the GAP for this project was prepared following the guidelines in Unit 2 of the toolkit. The project?s GAP assesses and sets actions for each of the project?s output from a gender perspective.

Figure 9. Summary of the content in the gender and climate change toolkit.[30]



Roles & responsibilities during project execution

Through the duration of the GEF project, a gender specialist will be the main responsible for the implementation of the Gender Action Plan. On the implementation of the GAP, the specialist will prepare a detailed workplan of activities and deliverables based on the GAP presented in this section; this workplan is to be presented as one of the project?s deliverables (3.1.6). The gender specialist will be responsible for the activities, indicators, and the GAP?s own deliverables, and report on a half-yearly basis to the CTA. The GAP progress reports will be submitted as an annex to the project?s own half-yearly reporting, including the project implementation reports (PIRs).

The gender specialist will report both to the Chief Technical Advisor, the project?s Steering Committee as well as the Ministry?s Commission on Gender and Climate Change. The CGCC will provide overall supervision and leadership in all matters related to the GAP.

Table 14. Monitoring gender indicators for the CBIT project.

Objective	Action	Indicator & end-of-project goal
Component 1: Strengthening institutional aspects of the National Climate Change Registry (NCCR)		
The need for gender-disaggregated data and indicators to ensure inclusion of gender considerations in Ecuador?s National Climate Change Registry (NCCR).	Develop a gender inclusion strategy at the project inception stage. Ensure that data collection is sex disaggregated. Establish a gender baseline in which to measure improvements and identify areas of focus. Create a ?how-to? checklist on engendering processes. Ensure that data collection is sex disaggregated. Development of gender indicators in climate change actions. Identify and include gender-focused NGOs and institutions in the MRV activities. Establish accountability systems to measure gender equality in the MRV system.	**Indicator G1:** Percentage of women in the operational body within MAATE responsible for managing the NCCR. **Goal:** At least 50% of the employees are women. **Indicator G2:** NCCR is designed to capture gender considerations in Ecuador?s climate actions. **Goal:** Yes/No indicator, the goal is Yes. **Indicator G3:** Percentage of women participating in the engagement activities organised for the operationalization of the NCCR. **Goal:** At least 50% of the participants are women.
Component 2: Enhancing the National Climate Change Registry		
Ensure participation and active involvement of both men and women throughout the strengthening of the NCCR.	Analysis of the gender related constraints at the national Ministries related to climate change action and support measures. Identify and include gender-based capacities on climate change activities.	**Indicator G4:** Percentage of women participating in the capacity building activities organised for the mitigation module, adaptation module, and implementation module. **Goal:** At least 50% of the participants are women. **Indicator G5:** Guidelines, tools, and protocols are designed to capture gender aspects of mitigation actions, adaptation actions, and climate finance flows. **Goal:** Yes/No indicator, the goal is Yes.
Component 3: Capacity building and public engagement		

Objective	Action	Indicator & end-of-project goal
Ensure participation and active involvement of both men and women throughout the capacity building activities.	Design and implement awareness and knowledge management programs for women, men, and youth.	**Indicator G6:** Percentage of women participating in the capacity building activities organised for the data suppliers and users of the NCCR. **Goal:** At least 50% of the participants are women.
Gender mainstreaming in Higher Education Institutions (HEI)	Design gender related disseminated technical reports. Implement gender awareness and knowledge sharing programs for women, men, and youth receiving education in a HEI.	**Indicator G7:** # of syllabus that include gender considerations in the selected Higher Education Institutions (HEI) **Goal:** At least all of the courses / programmes supported by this CBIT project include gender topics

[1] Guidance to Advance Gender Equality in GEF Projects and Programs, 2018, Global Environment Facility (GEF)

[2] Article 70 states that ?The State will dictate and execute policies to reach equality among women and men (?), incorporating a gender approach (?) and providing technical assistance for its mandatory application in the public sector?.

[3] A detailed discussion on the institutional framework for gender can be found in chapter 5 of the NC3.

[4] 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.

[5] Adapted from Ministry of the Environment, *Third National Communication of Ecuador to the United Nations Framework Convention on Climate Change* (2017), chapter 5

[6] https://www3.weforum.org/docs/WEF_GGGR_2020.pdf

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[30] Ministerio de Ambiente, Agua y Transici?n Ecol?gica, *Caja de herramientas sobre g?nero y cambio clim?tico* (2019).

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. Moreover, lack of participation from the private sector has been low and is reported among the key barriers for the establishment of a transparency system. This includes both small private actors, such as farmers, but also large private actors such as companies within industry. These will be engaged in the

project preparation phase, as described above, but are also key actors in several the outputs of the project.

For instance, under component 1, the private sector will be involved for the development of Data Sharing Agreements that include explicit confidentiality clauses in order to enhance the accuracy of data for the preparation of the National Climate Change Registry. Likewise, private sector voices will be key to decide what is feasible in terms of what activity data one can collect in a simple manner.

Furthermore, through the full operationalisation of the NCCR in component 2 and the communication campaign and capacity building in component 3, there will be close engagement with private sector actors as a key audience as they will be data providers of the systems to be established and enhanced, and as potential users of the NCCR?s outputs. Therefore, among all the project components, private sector actors will be consulted and engaged with to ensure the project outputs are inclusive and highlight the importance of transparency activities.

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):

Risk is defined as the effect of uncertainty on project objectives and formulated in terms of ?future events?. Risks have been identified during project design through detailed stakeholder consultations and tools such as the UNEP Safeguard Risk Identification Form (SRIF), the gender analysis and the theory of change. A qualitative 1-5 scale has been used to characterize the risk with regards to likelihood (probability of occurrence: 1 = not likely, 5 = expected) and potential negative impact on achieving project objectives (1 = negligible; 5 = extreme). In accordance with the combination of likelihood and impact, each risk is assessed as low (green), moderate (yellow), substantial (orange) or high (red) as follows.

Table 15. Risk categorization.

		Likelihood				
		1	2	3	4	5
Impact	5					
	4					
	3					
	2					
	1					

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When
1	Climate risk High impact climatic events (mainly storm surges and floods, very low probability of other extreme events) disrupt project activities, damages infrastructure, and effect overall project execution. *For details see the ?climate risk assessment? section following this table.*	Climate	2	2	As most of the project activities will take place within the capital of Quito, 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. Management of data will be cloud-based, minimizing the risk of data loss.	Executing agency (EA)	Throughout the project, and particularly during rainy season (March and April[1])

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When
2	Political prioritization Lack of political buy-in leads to reduced support for the maintenance of the National Climate Change Registry, the Repository of Climate Information or their usage for decision making and planning Note: political prioritization may be affected by local and external events, including civil unrest, aggravation of the COVID pandemic, international crises / war, extreme weather events, etc.) *Also refer to the ?climate risk assessment? and the ?COVID-19 risk assessment? sections following this table.*	Political / Financial	2	4	The likelihood of this risk is low, as Ecuador has developed a robust policy framework on climate change and made several instruments official, including the National Climate Change Strategy (NCCS), the first Nationally Determined Contribution (NDC) and the National Climate Finance Strategy (NCFS). The National Adaptation to Climate Change Plan (NACCP), and the long-term mitigation strategy, the National Transition Plan towards Decarbonization 2050 (NTPD), are currently under development. The project aims to further mitigate this risk through a strong stakeholder communication and engagement campaign (output 3.1) that will include government actors. The long-term capacity building mechanism (output 3.2) is also expected to	EA, MAATE (National Project Director), PSC	Throughout the project

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When
3	Procurement risk Slow or complex processes lead to delays in budget execution. Note: this risk may also result from external factors, such as an aggravation of the COVID pandemic, delays in the supply chain from international conflict, etc. *Also refer to the ?climate risk assessment? and the ?COVID-19 risk assessment? sections following this table.*	Administrative / Financial	2	3	The EA will be required to prepare yearly procurement plans that include contingency analyses and mitigation plans for risks affecting key procurement processes. For example, procurement processes may be affected by the pandemic. At the beginning of project execution, the workplan will be re-evaluated taking into consideration any on-going risks due to COVID-19. Staff will be cross trained so that leave absences do not affect procurement processes.	EA, IA	At the beginning of the project and at the beginning of each fiscal year

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When
4	Stakeholder engagement Lack of civil society interest in transparency leads to project outputs failing to achieve their intended outcomes and impacts.	Social	1	3	The project will mitigate this risk mainly through the development and implementation of a multi-stakeholder consultation, communication, and engagement plan (output 3.1). The establishment of a long-term capacity building programme with a local Higher Education Institution (HEI, see output 3.2) will also contribute to the mainstreaming of climate change and transparency topics.	EA	Throughout the project, with key focus on year 1.

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When
5	Gender risk Gender issues are not effectively incorporated into project processes and products, leading to project outputs and outcomes that are not gender sensitive.	Social	1	3	The project will mitigate this risk by executing a gender action plan (see section 3), which reviews each output in the project through a gender perspective, identifying specific risks and mitigation measures in each case. The project?s Gender Specialist with leading the execution of (and ensuring compliance with) the Gender Action Plan.	EA, Gender Specialist	Throughout the project.

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When
6	Delays in implementation of required activities undertaken by other projects Some CBIT activities and deliverables are dependent on baseline activities. This includes e.g. delays in the NCCR design under the GCF readiness project (required for component 1 of this project)	Organizational	2	4	The project was designed so that key deliverables from other (external) projects / activities (mainly the NCCR design and pilot from the GCF readiness) fall under the same department within the MAATE, namely, the Undersecretariat of Climate Change. Thus, any delays from these key partner projects will be detected as soon as they begin to materialize, allowing for a prompt adjustment in the workplan to advance with other activities that are not dependent on these outputs. Likewise, note that as the main related project was already underway during the preparation of this GEF proposal, the likelihood of this specific issue materializing is deemed low.	National Project Director	Throughout the project, with key focus on year 1

#	Risk description	Risk category	Risk rating: likelihood	Risk rating: impact	Risk mitigation strategy	Whom	When
7	Staff turnover risk During project execution, staff (and consultant) turnover may cause delays from the selection, appointment, and induction of new consultants/staff. On a broader level, staff turnover may result in loss of knowledge on the use of the NCCR, including knowledge on GHG emissions reporting, the use of the platform for the elaboration of international reports, and the loss of improved understanding of climate related activities in the country.	Organizational	3	3	The Knowledge Management (described in part II, section 8 of this document) is the main design element included to mitigate the potential impact of staff and consultant turnover. On one side, the project aims to establish a full-fledged knowledge management for the NCCR, creating standardized processes that are clearly depicted and documented in the relevant Process Manuals. On the other side, the project will have its own (i.e. internal) knowledge management approach to ensure that the project?s actions are documented and based on predefined approaches, ensuring that any potential turnover (both in the PMU and in the supporting staff from MAATE) have minimum negative impact on the project?s execution. From a long run perspective, the capacity building	The CTA is the main responsible for the KM of the project. Capacity building activities are assigned to different consultants as per the project?s workplan.	Throughout the project

[1] World Meteorological Organization, *World weather information service* (2021). Available here.

Due to the continuous evolution of the COVID-19 pandemic and its already observed and potential consequences on project design and implementation, the risks, response measures and opportunities related to the COVID-19 are addressed separately, as described hereby.

Covid-19 risk analysis, response measures and opportunities

As in the rest of the Latin American region, the COVID-19 pandemic has had a dramatic impact in Ecuador. Since the first COVID-19 confirmed case, the country has accumulated 515.859 confirmed cases, and 32.958 deaths.

In April 2021, the number of cases displays an upward trend, adding pressure to the health care system, and registering the new confirmed cases record, 53.107. The new deaths due to COVID-19 record was registered a couple months later, in July 2021, with 196 new deaths.[2] In the last months of 2021, incidence of the pandemic (in terms of active cases and deaths) has dropped.

To March 30 2022, 78,97% of the population is Fully Vaccinated[3].

Figure 10. COVID-19 Impact in Ecuador, as captured by the daily new confirmed COVID-19 cases (7-day rolling average). *Source*: Our World in Data

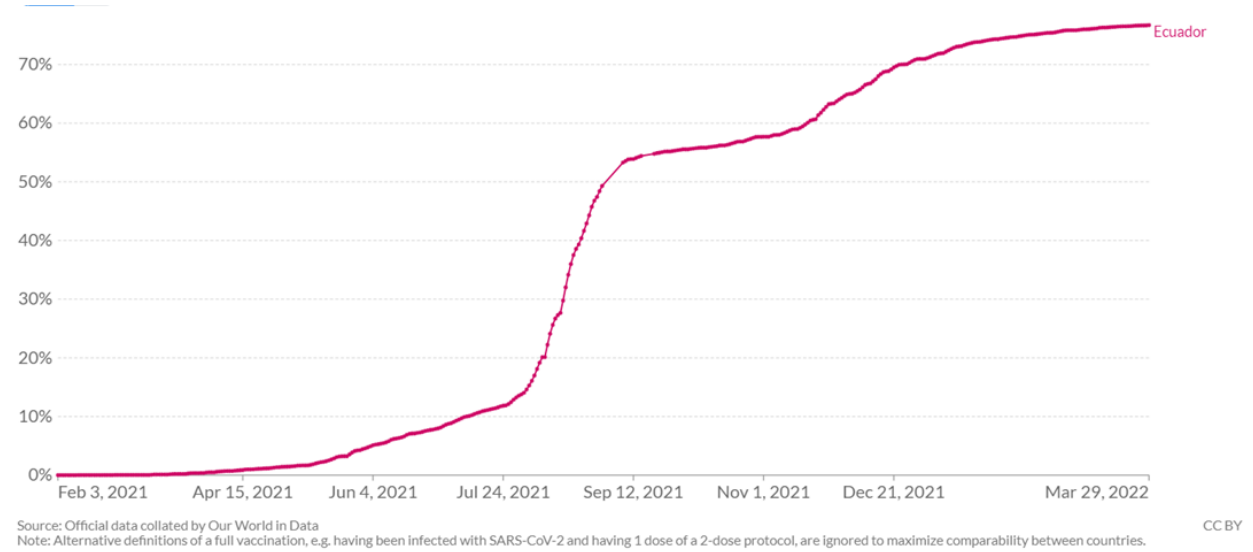

Figure 11. Percentage of the population fully vaccinated. *Source*: Our World in Data

Regarding the conditions to enter the country, it is not mandatory to present a COVID-19 negative test for those passengers who have a vaccination certificate. Individuals without a certificate will have to undergo a

COVID-19 test within 72 hours of entering the country[4]. Additionally, the Andean Community of Nations (CAN, comprised of Colombia, Ecuador, Peru, and Bolivia) restored free entrance, circulation, and exit of private vehicles within the region?s borders. [5]

The pandemic led to the worst economic contraction in the history of Ecuador in 2020, with a decrease of 7.8%, and similar impacts in terms of social and fiscal indicators[6]. Ecuador's economy is highly dependent on agricultural production (with a significant percentage devoted to exports), oil and its refining, manufacturing (essentially of agricultural origin) and trade, which together account for almost 45% of gross domestic product. Thus, the contraction resulted from the direct impact of confinement measures, as well as from external drivers such as the fall of oil prices (with its subsequent impact on Ecuador?s balance of payment), the fall of exports, tourism revenues and foreign remittances and transfers[7].

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

Risks related to the pandemic

•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.
•A change in stakeholder priorities can also take place as a result of the pandemic, shifting institutional efforts and resources towards the fight against COVID-19.

Mitigation measures

Measures and protocols in relation to the pandemic are regulated by national and local (DAG) entities, with recommendations issued by a National Committee on Emergency Operations and decided upon by DAGs; time-limited presidential decrees enforceable in the entire territory have also been issued during different moments 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). Almost two years of the beginning of the pandemic, such technologies are already commonplace and acceptable for usage by a broad range of stakeholders. Moreover, sometimes virtual meetings are considered as more efficient. This approach is foreseen for the stakeholder consultation rounds that are to take place during the different phases of the project if restrictions are in place and social distancing is required.
•As for the procurement risk, the lack of an on-site visit due to reduced traveling will require the contracting of additional local support for the collection of data. After CEO approval, and before 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.

•MAATE will cross-train staff so that if a staff member contracts COVID-19 and is on leave during their recovery, the project can continue.
•Regarding the shift in public sector priorities during the outbreak, it is expected that any negative impacts attributable to the pandemic in the short-run are reversed by increased interest in climate change risk in the medium to long-term, as it becomes clear that the consequences of climate change can be far worse than those of the pandemic. Communication campaigns (output 3.1) and capacity building (output 3.2) will serve as mitigation measures for this aspect of the climate risk.

Opportunities

As numerous other countries, Ecuador is planning how to launch the economic recovery needed after the adverse effect the pandemic and restrictions have caused. Although the plan does not include environmental and natural resources issues, it is clear the increasingly complex interactions between economic, political, and human systems on one hand and environmental systems on the other contribute to the systemic nature of risk and its cascading effects.

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 Ecuador to further guide activities which will be vital for maintaining momentum for action on climate change. In this context, an improved climate transparency system which can better track the progress of implementation, and thus evaluate the effectiveness of different measures, becomes a potentially powerful tool to "build back better". The CBIT project will provide a knowledge management system and tools and capacity to collect and analyse data for the implementation and tracking of mitigation in among others, the energy sector, and in adaptation sectors such as health and agriculture. The increased transparency and available information will allow national policy planners and decision-makers to formulate climate-informed policies and include better-informed climate considerations in national planning and in post-covid-19 recovery plans and strategies.

Additionally, COVID-19 introduces the opportunity to slowly introduce e-governance (online public service provision and delivery without physical interactions) over time, enabling service provisions in both rural and urban areas. In fact, given the long-term need of practicing social distancing, COVID-19 is likely to introduce policy changes to many global meetings and conferences including those of the UNFCCC, GEF, UNCBD, UNCCD to enable innovative and digital modalities to be fully employed, applied and rolled out to countries. This is likely to change the travel-intensive modalities of conducting Convention businesses, thus contributing to its long-term desired outcome.

Climate risk assessment

At the June 2018 Council, the GEF?s Scientific and Technical Advisory Panel (STAP) issued clarified and codified screening guidelines. With respect to climate risk, the guidelines ask:

(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)[8], **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[9]. **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 its outputs have been designed and shaped precisely from the need to raise awareness on climate risks - and provide tools to mitigate them.

Given its status as a developing country, Ecuador is highly vulnerable to external factors of various kinds, ranging from natural or anthropic events to external market impacts, mainly because of its status as a primary-export economy. Climate change has exacerbated the country's vulnerability, which is critical in a number of areas, for example in the coastal area, where changes in coastal dynamics require adaptation measures in the face of rising sea levels, shoreline retracement, rising water temperature, acidification, check-out at extreme weather events, and human and economic losses. Although there are no contrasting forecasts of sea level rise in Ecuador, globally managed data foresees elevations that allow this phenomenon to be seen as a threat with significant incidence, mainly in the lowest areas, which can lead not only to increased flooding, but to an acceleration of coastal erosion and salinization of aquifers and final stretches of rivers.

In addition, the intensification of phenomena of natural variability, such as El Ni?o South Oscillation (ENSO), which is one of the main phenomena affecting the region and the country, and which has an occurrence cycle of 3, 5 and 7 years, generates alterations mainly due to increases in precipitation (El Ni?o Phase) and by precipitation deficits (La Ni?a Phase). This phenomenon triggers severe droughts and floods that have historically affected the national territory, including the coastal area, causing significant damage resulting in loss of human, socio-economic and environmental life.

Among the main changes observed in precipitation, average temperature and absolute maximum and minimum temperatures in Ecuador in the period 1960-2010 there is an increase in temperature and spatial and seasonal variations of precipitation throughout the national territory. In the Galapagos Islands, recognized as a Natural Heritage of Humanity, there is a positive change in absolute average, maximum and minimum temperatures of 1.4?C, 1?C and 1.1?C, respectively. On average, the country's volcanoes have lost about 50% of their glacial surface area over the past half century.

Future climate projections under Ecuador's Third National Climate Change Communication show that, if the current temperature trend were maintained, the change that could be expected in Ecuador would be

about a 2?C increase until the end of the century; and even the Amazon and the Galapagos would have increases greater than this value.

The proposed project will take place mostly on the capital, Quito, which has the highest adaptive capacity in the country.

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 2.1 (e.g., in terms of activity data), 2.2, and 2.3 (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 1.2.

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 the adaptation efforts of Ecuador.

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

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 Ecuador.

(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, outputs 2.1-2.3.

•**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 1.2 will link the Climate Change Module of the NCCR 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. The stakeholder communication and engagement plan and the long-term capacity building mechanism (outputs 3.1 and 3.2, respectively) will also contribute to the mitigation of this risk.

(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.

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[1] World Meteorological Organization, *World weather information service* (2021). Available here.

[2] Johns Hopkins University. *Coronavirus resource center* (2021) Ecuador figures available here.

[3] Johns Hopkins University. Coronavirus resource center (2021) Ecuador figures available here.

[4] Measures in this section are presented to exemplify the type of actions undertaken as a response to the pandemic. However, it is important to stress that these are evolving quickly as the pandemic develops; hence, these conditions will be monitored throughout the project.

[5] Infobae. *Colombia, Ecuador, Per? y Bolivia aprobaron la libre circulaci?n de veh?culos para volver a fomentar el turismo afectado por la pandemia*. Available here

[6] OECD, *Impacto financiero del COVID-19 en Ecuador: desaf?os y respuestas* (2020)

[7] OECD, *Impacto macroecon?mico del COVID-19 en Ecuador: desaf?os y respuestas* (2020)

[8] 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.

[9] 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 1.2, which will focus on the relationship of the transparency system and planning processes.

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

Implementing agency

UNEP is the Implementing Agency (IA) for this project and will provide overall supervision and guidance in line with GEF and internal requirements. UNEP developed this project proposal considering its experiences, good practices and lessons learned in developing and implementing other CBIT projects. Currently, UNEP is implementing more than 30 CBIT projects, including 12 CBIT projects in Latin America and the Caribbean (LAC), as well as the CBIT Global Coordination Platform. In addition, UNEP has implemented the largest share of CBIT projects in LAC, with 12 CBIT projects. In this context, in acting as the implementing agency for this project it will ensure that the project builds on previous experiences and lessons learned in the implementation of CBIT projects and will ensure coordination with regional activities and with efforts lead through the Global Coordination Platform.

Executing agency

MAATE will act as the Execution Entity for this project. Daily project activities will be undertaken by a Project Management Unit (PMU) consisting of a base team (a chief technical advisor (CTA), a senior transparency expert, an IT expert, a process expert, a gender specialist and a junior administrative and technical officer). PMU staff will work at the MAATE premises, and the executing agency will be in charge of selecting the consultancies, local consultants and the capacity building consortium following competitive processes. A series of consultancies (which can bring in international experts, as needed) have been included for specific assistance and in order to supply the necessary technical inputs for each of the outputs. The project workplan was built in a way that each deliverable from consultancies is supervised by a specific member in the base team, according to their profile. Members of the base team will also be

responsible for the provision of specific deliverables (i.e. without external consultants), as well as for the integration of the deliverables into outputs and for their materialization into outcomes. This way, each action and deliverable in the workplan has a specific responsible and no activities or deliverables are duplicated.

MAATE will ensure coordination with the Climate Change Interinstitutional Committee (CCIC), which is chaired by the same institution and includes representatives from other ministries (transportation, energy, economy, and finance, among others) and municipal, provincial, and rural representatives. At the national, regional and state level, the impetus will be on building institutional capacities so the MAATE can effectively fulfil its role and establish coordination mechanism(s) to engage all relevant stakeholders including national and sub-national government bodies, private sector including financial institutions, civil society, and academia on CBIT related roles. Consultation workshops, training programmes, seminars will be organised at national and sub-national levels to sensitise stakeholders and to seek their input for building effective engagement with the project. MAATE will ensure 1) communication among the most relevant stakeholders, 2) stakeholders play their relevant roles according to the mandates that will be formalised during the project and 3) stakeholders participation in the trainings in the use of the templates and tools for the provision of timely data in the required formats or the correct use of the NCCR.

Project Steering Committee (PSC)

A Project Steering Committee comprised of MAATE and UNEP representatives will be responsible for the strategic leadership of this project, taking corrective action as needed to ensure the project achieves the desired results.

Further details on the project?s governance and the assignment of roles and responsibilities can be found on Annex J - the section ?Institutional arrangements and coordination?, as well as on the project?s workplan (Annex K). Detailed terms of reference for staff and consultancies are available in Annex H.

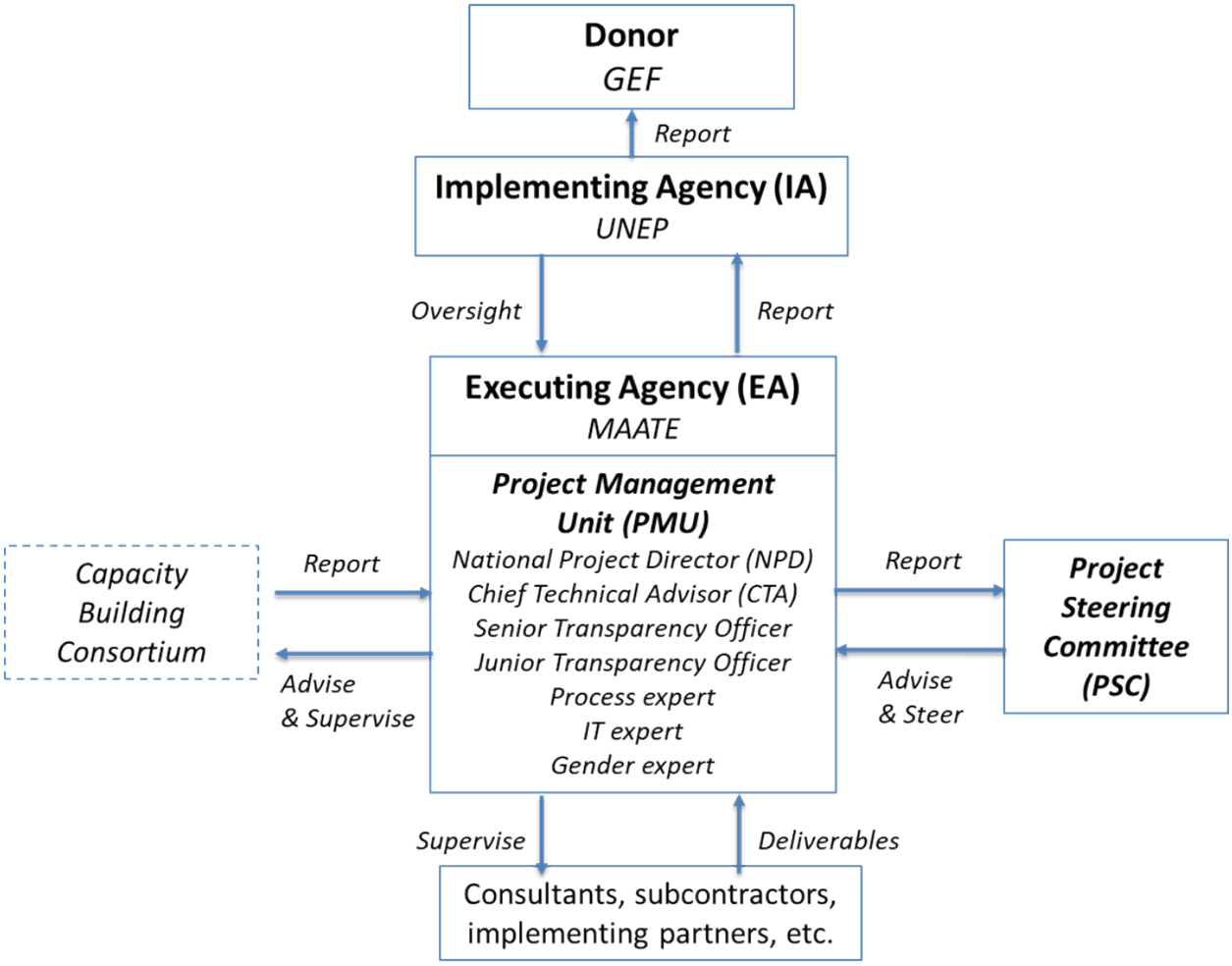

Figure 12. Project implementation arrangements.

Coordination with other initiatives

Two highly relevant GEF funded projects, which are currently under preparation and will be implemented during the first years of this project, are the GEF projects to prepare the Fourth National Communication and the Second BUR. Both count the Ministry of Environment, Water, and Ecological Transition (MAATE) as the Executing Agency, with support provided by UNDP. The presence of MAATE will allow for a high level of coordination between these two projects and this CBIT proposal. The Second BUR of Ecuador will be presented in the first quarter of 2022, while the Fourth National Communication will be presented in the last quarter of 2022. To the extent possible and based on the stages of development in which these two projects and the CBIT proposal will coincide, the CBIT project will aim to inform and suggest technical changes so that the progress made with the CBIT project are reflected on these two reports.

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

Likewise, the CBIT project and the project for the preparation of the NPTD are expected to take place approximately around the same time. However, as both projects will be executed by the MAATE, coordination will be assured. The NPTD will mostly focus on the processes and procedures for the revision of the NDCs, whereas the CBIT project will focus on aligning NDCs with the National Development Plan and the national budget.

CBIT project will be implemented in close coordination with the GCF readiness project to determine the components of the NCCR and develop the tools needed for the operationalization of the MRV system. This GCF readiness project is focused on the NDC, including the modalities, procedures, methodologies, and guidelines and will set up a pilot phase of the NCCR. Through its implementation, this project together with the CBIT project, will set in place a measuring, reporting and verification system and enable the tracking of mitigation and adaptation efforts of the NDC as well as domestic and international climate finance flows and the impacts of funded activities.

Under the GCF project Ecuador is elaborating the conceptual NCCR (scope, components and subcomponents) and identified the relevant actors and their roles in the operationalization of the NCCR.

Together with the CBIT project, this GCF project will develop methodologies, tools and guidelines to monitor and report on the subcomponents of the NCCR and follow up on adaptation, mitigation and means of implementation activities, in line with international requirements.

The CBIT proposal will aim at implementing the necessary activities to revise this preliminary version of the NCCR elaborated under the GCF project on the basis of the experience gained and turn it into the final version that will be put into operation and made available to all the users identified by the Ministry of Environment, Water, and Ecological Transition.

These two projects will enable the NCCR to turn into the main tool that Ecuador will use for the generation of the Biennial Transparency Reports that Ecuador will present to the UNFCCC as of 2024.

The CBIT project will also allow Ecuador to actively participate in the GEF financed CBIT Global Coordination Platform jointly implemented by UNDP and UNEP.

The list below includes projects which have an MRV component which could be relevant for the CBIT project and ways in which the project intends to coordinate.

Table 16. Coordination with relevant on-going projects.

Project	**Description**	**Actors, Timeframe**	**Coordination mechanisms**
?Fourth National Communication 2016-2022 and Second BUR of Ecuador 2016 ? 2022? USD grant amount: 852,000	The objective of this project is to assist Ecuador in preparing and submitting its Fourth National Communication and Second Biennial Update Report to the UNFCCC. To the extent possible and based on the stages of development in which these two projects and the CBIT proposal will coincide, the CBIT project will aim to inform and suggest technical changes so that the progress made with the CBIT project are reflected on these two reports.	Ministry of Environment, Water, and Ecological Transition, UNDP as Implementing Agency, 2018- present The Second BUR of Ecuador will be presented in the first quarter of 2022, while the Fourth National Communication will be presented in the last quarter of 2022.	The CBIT project will update tools to measure and report the GHG inventory and mitigation and adaptation actions. The tools and information from the NCCR will be used in the creation of the 4NC and the second BUR

Project	Description	Actors, Timeframe	Coordination mechanisms
?NDC Support Programme? USD grant amount: 1,650,300	The First Period of the NDC Support Programme undertook the initial conceptualization of the domestic MRV System (National Climate Change Registry). In its second phase, the project focused on the development of an investment plan that will enable the generation of additional mitigation initiatives framed in the conditional component of Ecuador?s NDC and that will help raise the mitigation ambition of the NDC. The progress achieved by this project in each of the three components of the conceptualization the MRV is described below: Proposal of MRV for Mitigation: the project made a conceptual and methodological description of a domestic MRV system, with a focus on the Energy Sector (NAMAs)? Electrical Subsector. From this effort, MAATE worked with ARCENRNR on a pilot web platform that develops and interconnects these systems. Proposal of MRV for adaptation: the project included a conceptualization of the MRV for adaptation, which has been already finalized. Nevertheless, the creation of its methodological framework has not been finalized. Proposal of MRV for Means of Implementation: the project included a conceptualization of the MRV for climate finance (support needed and received), which has been already finalized (concept level). Nevertheless, this conceptualization did not include specific methodologies for its implementation and operation. The Second Period of the NDC Support Programme in the creation of a Sectorial Finance Strategy of the NDC in all the country?s mitigation sectors. In addition, it will develop institutional arrangements and tools for the sharing of information relevant for the management of domestic climate finance, involving public and private sectors stakeholders.	Ministry of Environment, Water, and Ecological Transition, CCIC, Private sector, DAGs, Academia, Civil Society, Power Generation / Electricity Sector, ARCENRNR ? the Electricity Regulation and Control Agency of Ecuador. Multiple donors. UNDP as Implementing Agency, First Period: 2017 ? 2019 Second Period: 2020-2021	This project has generated a strong network of stakeholders in the private sector as well as in the energy, waste management and industrial processes sectors. This network will be valuable for the delivery of outputs 1.1 and 2.1 of the CBIT project The tools that were developed for the MRV for mitigation, adaptation, and means of implementation for the electrical subsector will be used as a base from which outcome 2 of the CBIT project will build for the enhancement of the NCCR

Project	Description	Actors, Timeframe	Coordination mechanisms
?Initiative for Climate Action Transparency (ICAT)?	The Initiative for Climate Action Transparency (ICAT) of Ecuador is expected to strengthen the capacity of the institutions that collect and provide information of activity data to the National GHG Inventory System (NGHGIS). This will lead to having more robust information reported in a more transparent manner. To achieve this, a prioritization of sectors and categories was undertaken, so that the activities focused on developing capacities where they were most needed. ICAT focused on the following sectors: agriculture, industrial processes, waste management and energy.	Ministry of Environment, Water, and Ecological Transition, UNEP-DTU Partnership, Sectorial Stakeholders from the Energy, Industry, Agriculture, LULUCF, and Waste Sectors, ICAT Timeframe: 2019-2021	Improved quality and reliability of the information reported in the national GHG inventory system (NGHGIS). This includes a technical standard for data collection and data management, including appropriate procedures methodologies, and institutional arrangements. Given that ICAT worked partially in the sectors of agriculture, industrial processes, waste management and energy, focusing on the calculation of the mitigation impact of fuel usage in these industries, this CBIT project will use ICAT information for the capacity building actions under output 2.1 of this proposal.
?National Transition Plan towards Decarbonization 2050?	Preparation of Ecuador?s 2050 decarbonization plan (NPTD). This plan will have a long-term vision, with a horizon to 2050 ? the year in which the country aims to reach its decarbonization stage. The plan is being developed through a participatory process, providing guidelines for updating the NDCs, which consider gender and the basis of long-term strategies.	Ministry of Environment, Water, and Ecological Transition, AFD Timeframe: 2022 - 2023	Mitigation activities and guidelines from the plan will be taken into account for the enhancement of the NCCR under outcome 2

Project	Description	Actors, Timeframe	Coordination mechanisms
?Green Climate Fund Readiness and Preparatory Support for National Adaptation Plan in Ecuador? USD grant amount: 3,000,000	Ecuador is currently working on its National Adaptation Plan (NAP) with support of the GCF Readiness Proposal and UNDP. The national plan prioritizes two mainstreamed sectors of Risk and Priority care groups, and six thematic sectors. The experiences of this plan and its results will inform this CBIT project, specifically as it relates to the adaptation component of the proposed National Climate Change Registry. The CBIT project will build on the indicators and numeric objectives set by the National Adaptation Plan with regards to the adaptation components of the NDC so that the measuring and monitoring of these indicators and objectives is reflected in the NCCR and is an input to the development of the NAP.	Ministry of Environment, Water, and Ecological Transition, UNDP, CCIC Timeframe: 2019-2022	Output 2.2 of the CBIT proposal will build up from the indicators and objectives generated in the NAP for the generation of the NCCR?s adaptation component to measure and monitor adaptation initiatives in the NDC
?Green Climate Fund Readiness and Preparatory Support for Ecuador? USD grant amount: 300,000	This proposal was meant at implementing activities that would allow the NDA to build up national capacities and processes, engage different stakeholders in consulting and policy development processes, support access to finance, develop a country work program, and involve the private sector in climate change-related projects and activities.	Ministry of Environment, Water, and Ecological Transition, UNDP, GCF Timeframe: 2016-2017	The capacity built, and the strong network of stakeholders generated during this project will be used by the CBIT project under outputs 1 and 3 to build from for capacity building and efficient stakeholder participation
?Ecuador NDA Institutional Strengthening and Digitalization Process? EUR grant amount: 450,000	This proposal had the objective to support the NDA, as the main beneficiary of the readiness, to have a better organization to improve complementarity and coherence between the activities of the GCF and the activities of other relevant institutions, to better mobilize the full range of financial and technical capacities ? focusing on the optimization of organization and human capacities inside the organization ? and to enhance the efficiency and transparency of the processes of the NDA by implementing digital solutions.	Ministry of Environment, Water, and Ecological Transition, GIZ, GCF Timeframe: 2020-2021	The national climate finance strategy and the tools for the identification and monitoring of international climate finance flows designed during this project will need to be coordinated with the NCCR?s Means of implementation component, under output 2.3, to ensure complementarity of approaches regarding climate finance.

Project	Description	Actors, Timeframe	Coordination mechanisms
?Enhance the capacity of Decentralized Autonomous Governments to access and manage climate finance in Ecuador and contribute to the implementation of the NDC? USD grant amount: 559,516	The proposal aims to strengthen the capacities of the Decentralized Autonomous Governments (DAGs) at the province level in Ecuador to be able to access climate finance from the Green Climate Fund and other sources of finance for the implementation of strategic and prioritized climate change-related activities.	Ministry of Environment, Water, and Ecological Transition, Fundaci?n Avina, GCF Timeframe: 2019-2021	Since these actors will use the NCCR for climate finance tracking, the inputs from this readiness project provide the most updated and complete assessment of the capacities of subnational governments to do so, and are therefore a valuable input to the structure and functioning of the NCCR, particularly under output 2.3

Project	Description	Actors, Timeframe	Coordination mechanisms
"Generation of a Conceptual Framework for the National Climate Change Registry of Ecuador (NCCR) and Design of a Version V.0 of the Measuring, Reporting and Verification (MRV) system as part of the NCCR? USD grant amount: 379,641	Under this project Ecuador has evaluated the existing MRV practices against each other and against national regulations, as well as international requirements by the UNFCCC and the Transparency Framework of the Paris Agreement, has elaborated the conceptual NCCR (scope, components, and subcomponents) and has identified the relevant actors and their roles in the operationalization of the NCCR. Through this project, Ecuador will design a prototype of the NCCR, developing methodologies, tools, and guidelines to monitor and report on its subcomponents and follow up on adaptation, mitigation and means of implementation activities in line with international requirements. The prototype will include a working pilot for the MRV system including the necessary documentation, procedures and processes to run it and measure the components of Ecuador?s NDC. The pilot will be limited to one sector (to be determined by the same project in its last stretches), establishing an indicator linked to the NDC for the mitigation and adaptation components and involving government institutions in charge of monitoring those actions implemented. After this prototype is tested the NCCR will be designed in a preliminary version. The scope of this Version V.0 of the system will be scalable to cover all the components of Ecuador?s NDC.	Ministry of Environment, Water, and Ecological Transition, GCF Timeframe: 2021-2022	The CBIT proposal will aim at implementing the necessary activities to revise the preliminary version of the NCCR on the basis of the experience gained and turn it into the final version that will be put into operation and made available to all the users identified by the Ministry of Environment and Water. These two projects will enable the NCCR to turn into the main tool that Ecuador will use for tracking the NDC and the generation of the Biennial Transparency Reports that Ecuador will present to the UNFCCC as of 2024.

Project	Description	Actors, Timeframe	Coordination mechanisms
Technical assistance services, to plan, develop and implement a geovisor based on geographical information system (GIS) EUR grant amount: 120.000	Under this project, Ecuador developed and implemented an open sourced geovisor based on a geographic information system (GIS) from which information generated by MAATE on i) climate projections, ii) climate risks, iii) adaptation measures, and iv) climate change vulnerability indicators can be viewed and downloaded.	Ministry of Environment, Water, and Ecological Transition, Euroclima	The CBIT project will link the developed platform with the NCCR module on adaptation to feed the designed NCCR as well as display information for the reports to be elaborated under the UNFCCC.

7. Consistency with National Priorities

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

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

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

- **National Climate Change Strategy (NCCS) 2012-2025**

The National Climate Change Strategy (NCCS) 2012-2025 is the management instrument that guides and dictates the actions and measures that Ecuador needs in order to face the impacts produced by climate change, including gender as a cross-cutting topic. This CBIT project will fall under the many initiatives and standards that are in line with the requirements stipulated by the NCCS. The strategy acts as an integrating element of the different sectors, which guides concerted, orderly, planned and concurrent action. In line with this, the CBIT project also desires the same coordinated activity. The strategy also promotes the internalization of the subject in public and private instances throughout the country, considering the existing political, regulatory and institutional frameworks. The CBIT requires a similar level of integrated actions between the different sectors and regional governments as a means to create a national inventory that is cohesive and meets the requirements of the Enhanced Transparency Framework of the Paris Agreement.

- **National Adaptation Plan**

Ecuador is currently working on its National Adaptation Plan (NAP) with support of the GCF Readiness Proposal and UNDP. The national plan prioritizes two cross-cutting sectors of Risk and Priority care groups, and six thematic areas, which are:

- ? Water heritage
- ? Natural heritage
- ? Health
- ? Human settlements
- ? Productive and strategic sectors

? Food sovereignty, agriculture, livestock, aquaculture, and fisheries

The NAP contemplates the development of climate adaptation data in four components: vulnerability analysis, climate risk analysis, adaptation measures design and mainstreamed climate change at the local and sectorial level.

The experiences of this plan and its results will inform this CBIT project, specifically as it relates to the adaptation component of the proposed National Climate Change Registry.

- **National communications (NCs), Biennial update reports (BURs) and Biennial Transparency Reports (BTRs).**

In 2016, the 2010 Greenhouse Gas Inventory was reported in the Biennial Update Report (First BUR) of Ecuador; while the GHG Inventories of 2012 and the updates of the time series of 1994, 2000, 2006 and 2010 were presented on its Third National Communication (NC3). With the inevitable intersections between the NCs and the BURs, this CBIT will use the gaps identified in relation to climate transparency. Thus, this project aims to address those limitations and shortcomings in the areas of reporting, inventories, and transparency, allowing the country to fulfil its reporting every two years through the BTRs.

- **First NDC of Ecuador**

Ecuador made public its first NDC on 2019 with a focus on mitigation (5 technical sectors) and adaptation (6 technical sector and 2 crosscutting sectors), including the country?s First Communication in Adaptation as the adaptation component of its NDC with vulnerability and risk analyses as well as the barriers found for the implementation of this component.

- **NGHGIS (National GHG Inventory System)**

The main objective of NGHGIS is to be a repository of activity data to prepare the National Greenhouse Gas Inventories (NGHGI) of Ecuador. In this way, the country can generate GHG Reports and systematize the information that allows improving the management of GHG emissions in Ecuador and submit this information to the UNFCCC. It is important to notice that even though Ecuador follows IPCC 2006 for the creation of its GHG Inventories, the calculation process is currently being done manually. Thus, this CBIT project aims to improve the measurement and transparency systems of the country, to better and more accurately reflect the reality of Ecuador.

- **Initiative for Climate Action Transparency (ICAT)**

The ICAT is expected to strengthen the capacity of the institutions that collect and provide information about activity data to the National GHG Inventory System (NGHGIS). This will lead to information reported becoming more transparent and robust. To this end, a prioritization of sectors and categories has been undertaken, so that the activities can better focus on developing capacities where most needed. These sectors include agriculture, industrial processes (for the category of 'mineral products'), waste management, and energy (for the subcategory of fuel combustion within 'manufacturing industries and construction). In line with the ICAT, the CBIT project also seeks to strengthen the capacities in order to improve the intersectoral actions in Climate Change and it will enhance the activity data and emission factors of some prioritized sectors of the National GHG Inventory System currently not covered by the ICAT project. The CBIT project will also provide the guidelines for the QA/QC and uncertainty calculation processes of selected prioritized categories for the enhancement of the GHG Inventory.

- **Latin American Network of GHG Inventories (NGHGI network)**

The Network has carried out several domestic South-South cooperation activities with countries in the region that face common barriers in data collection and the implementation of quality assurance and quality control system, as they migrate in their transition to the 2006 IPCC Guidelines. Moreover, and

given the insightful support received from NGHGI network in terms of the enhancement of the GHG Inventory System of the country.

- **MRV components of the proposed National Climate Change Registry:**(some MRV systems are in different phases: some are conceptualized, others designed, and others in operation):

These systems of MRV information will support this CBIT since they will be the foundations upon which the Registry as a whole will be designed, developed, and / or interconnected. They will also inform on the policies needed to fulfil the NDCs of Ecuador and how those align with the outcomes of this project.

- **United Nations Sustainable Development Framework (UNDAF) 2019 ? 2022**

The 2019-2022 UNDAF with Ecuador establishes four priority areas, namely, people, planet, prosperity, and peace. This project will represent a direct contribution towards indicator 2.8 (?number of public policy instruments designed and/or implemented at national or local level to promote environmental sustainability in topics such as sustainable use of resources and conservation of biodiversity, climate change, chemicals and hazardous waste management, international waters and promotion of renewable energies?) of the planet area.

- **Voluntary National Reviews**

Voluntary National Review (VNR) is a process through which countries assess and present progress made in achieving the global goals and the pledge to leave no one behind. The purpose of VNRs is to present a snapshot of where the country stands in SDG implementation, with a view to help accelerate progress through experience sharing, peer-learning, identifying gaps and good practices, and mobilizing partnerships. Ecuador presented its second VNR in 2020. This CBIT project will support Ecuador in providing key data required for assessing progress towards SDG 13 (climate action) in terms of mitigation and adaptation to climate change.

Consistency of the project with national strategies and plans or reports and assessments under development:

- **The National Plan for the Transition towards Decarbonization (NPTD)**

This plan will have a long-term vision, with a horizon to 2050 ? the year in which the country aims to reach its decarbonization stage. The plan will allow for the transformational change towards sustainable development. The plan considers that technological, socio-economic, and environmental changes will be required. The participatory process will involve the public and private sectors, NGOs, the academia, IGOs, and civil society. Similarly, the plan will also take into account considerations of gender, and it is being implemented with differentiated approaches towards the different key sectors and vulnerable groups. The NPTD will count with elements of institutional and legal frameworks, methodological formulation, communication, dissemination, and knowledge management, as well as its own MRV system to track its implementation.

This plan will have a focus on decarbonization of the economy, fair transition, participation, and gender inclusion. Additionally, it will also include guidelines for updating the NDCs, which consider gender and the basis of long-term strategies. This plan will be a good source of information for the situation of the country. It will serve as an aid to inform the baseline and the alternative scenarios for this CBIT proposal. In the same way, the gender principles of this plan will also serve as lessons learned to be implemented throughout the execution of this CBIT project.

In this way, this CBIT project supports these objectives through the creation of an integral platform dedicated to transparency aspects. The project also supports capacity building in both the public and private sectors.

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 Ecuador will create knowledge through the development of protocols, guidelines, and indicators for NDC monitoring in mitigation, adaptation and means of implementation. The approach developed is based on UNEP?s experience in developing GEF projects (particularly, CBIT projects), considering a two-fold approach. On one side, the project aims to establish a full-fledged knowledge management for the NCCR, as data and knowledge are the fundamental part of the registry. On the other side, the project will have its own (i.e. internal) knowledge management approach to ensure that the project?s actions are informed by previous experiences, and their outputs well documented for both on-going and future efforts.

Knowledge management at the NCCR level

The NCCR (designed in output 1.1) will require technical collaboration and the sharing of information with academia, research institutions, and public and private universities in Ecuador. Part of the design will include the establishment of institutional arrangements with specifically defined roles and responsibilities of knowledge holders under Output 1.1 and Output 1.2, both at the national and at the subnational level. This will ensure high-quality data is timely fed into the NCCR.

Another essential part in managing this knowledge is through output 3.2, which consists of a full knowledge management system for the NCCR that will ensure the institutionalization of the climate knowledge that is relevant to Ecuador and is developed within but also outside of the NCCR. The knowledge management system will also be connected to the national capacity building programme on prioritized aspects related to the National Climate Change Registry, to be implemented as part of the same output. This will ensure that the knowledge flows in both directions, i.e. to/from academic and research institutions. Through the partnering with a local academic institution, using the training-the-trainers approach, and through having both online and onsite training sessions, the project will develop a robust system which can reach many of the necessary stakeholders in Ecuador.

Knowledge management at the project level (i.e. internal knowledge management)

In terms of its own actions, processes, and outputs, the CBIT project will share a common data room with key on-going initiatives, mainly, the GCF readiness on transparency, to which this CBIT project will provide continuity. MAATE?s personnel involved in the latter will ensure that any outstanding gaps are addressed by the CBIT project, which will also benefit from their lessons learned. Due to the readiness? importance for this CBIT project, two specific deliverables have been included in the workplan to ensure that the transition is well documented and articulated: deliverable 1.1.2 ??Detailed assessment report of the design of the NCCR developed under the GCF readiness, including responsible authorities, mission, functions, and its interconnection with other systems? and 1.1.7 ?Report: lessons learned from the GCF

readiness pilot test, difficulties encountered, mitigation actions, proposed instruments for formalisation of collaboration opportunities, technical synergies, and potential partners for the NCCR?.

A cloud-based system will also be used by UNEP to access project documents (including deliverables) on demand. This ensures that knowledge and information generated by the project is always available both to the executing and the implementing agency.

Furthermore, this national project will participate in the CBIT Global Coordination Platform, providing and receiving inputs at the regional and global level. Sharing lessons learned and experiences under the platform will ensure alignment of this CBIT project with other national, regional, and global transparency initiatives. Specific deliverables have been included in the workplan to maintain written records of all lessons learned (see e.g. deliverable 1.1.18).

The main knowledge management elements in the deliverables are summarized in the table below:

Description	Output and deliverable	Budget USD
- Detailed assessment report of the design of the NCCR developed under the GCF readiness, including responsible authorities, mission, functions, and its interconnection with other systems. - Report: lessons learned from the GCF readiness pilot test, difficulties encountered, mitigation actions, proposed instruments for formalisation of collaboration opportunities, technical synergies, and potential partners for the NCCR. - Lessons learned from the participation in the CBIT Global Coordination Platform	Output 1.1 (1.1.2, 1.1.7 and 1.1.18)	Included as part of output 1
Gender-sensitive stakeholder communication and engagement plan	Output 3.1 (entire output except for workshops, counted in a separate row, see below)	293,573
- Long-term capacity building programme - Repository of climate change information	Output 3.2 (entire output)	413,953
Capacity building workshops (30 technical + inception + validation workshops = 32 in total)	Outputs 1.1, 1.2, 2.1, 2.2, 2.3, 3.1	62,130

Description	Output and deliverable	Budget USD
Cloud-based record keeping	All outputs	Included in PMC
Total		**769,656**

9. Monitoring and Evaluation

Describe the budgeted M and E plan

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 the GEF Evaluation requirements and UNEP?s Evaluation Policy, all GEF funded projects are subject to a performance assessment when they reach operational completion. This performance assessment will be either an independent Terminal Evaluation or a management-led Terminal Review.

In case a Review is required, the UNEP Evaluation Office will provide tools, templates, and guidelines to support the Review consultant. For all Terminal Reviews, the UNEP Evaluation Office will perform a quality assessment of the Terminal Review report and validate the Review?s performance ratings. This quality assessment will be attached as an Annex to the Terminal Review report, validated performance ratings will be captured in the main report.

However, if an independent Terminal Evaluation (TE) of the project is required, the Evaluation Office will be responsible for the entire evaluation process and will liaise with the Task Manager and the project implementing partners at key points during the evaluation. 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 staff and implementing partners. The direct costs of the evaluation (or the management-led review) will be charged against the project evaluation budget. The TE will typically be initiated after the project?s operational completion If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office in relation to the submission of the follow-on proposal.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office 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. The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process. The evaluation recommendations will be entered into a Recommendations Implementation Plan template by the Evaluation Office. Formal submission of the completed Recommendations Implementation Plan by the Project Manager is required within one month of its delivery to the project team. The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the finalization of the Recommendations Implementation Plan. The compliance performance against the recommendations is then reported to senior management on a six-monthly basis and to member States in the Biennial Evaluation Synthesis Report

The total GEF contribution for M&E activities (including the Inception Workshop and the Terminal Evaluation) is summarized in the table below.

Type of M&E activity	Responsible Parties	Budget from GEF	Time Frame
Inception Meeting	Chief Technical Advisor (CTA), National Project Director	USD 2,500	Within 4 months of project start-up
Inception Report[1]	CTA	As part of CTA budget	1 month after project inception meeting
Measurement of project progress and performance indicators	CTA	As part of CTA budget	Annually
End-point measurement of project outcome indicators, GEF Core indicators	CTA	As part of CTA budget	End Point
Semi-annual Progress/ Operational Reports to UNEP	CTA	As part of CTA budget	Within 1 month of the end of reporting period i.e. on or before 31 January and 31 July
Project Steering Committee (PSC) meetings and National Steering Committee meetings	Chief Technical Advisor (CTA), National Project Director	Co-financed by Ministry	Once a year minimum

Type of M&E activity	Responsible Parties	Budget from GEF	Time Frame
Reports of PSC meetings	CTA	As part of CTA budget	Annually
Project Implementation Review (PIR) report	CTA	As part of CTA budget	Annually, part of reporting routine
Monitoring visits to field sites	CTA	As part of CTA budget	As appropriate
Terminal Review/Evaluation[2]	UNEP	USD 30,000	Typically initiated after the project?s operational completion
Final Workshop (validation of the NCCR)	CTA	As part of output 1.1	One month before technical completion of the NCCR?s design
Project Operational Completion Report	CTA	As part of CTA budget As part of CTA budget	Within 2 months of the project completion date
Co-financing report (including supporting evidence for in-kind co-finance)	CTA	As part of CTA budget	Within 1 month of the PIR reporting period, i.e. on or before 31 July
Publication of Lessons Learnt and other project documents	Chief Technical Advisor (CTA), National Project Director	As part of CTA budget	Annually, part of half-yearly reports & Project Final Report
Total		**USD 32,500**	

[1] Report prepared following the IW; which includes:

- A detailed workplan and budget for the first year of project implementation,

- An overview of the workplan for subsequent years, divided per component, output and activities.

- A detailed description of the roles and responsibilities of all project partners

- A detailed description of the Project Management Unit and the Project Steering Committee, including an organization chart

- Updated Procurement Plan and a M&E Plan, Gender Action Plan

[2] Whether a project requires a management-led review or an independent evaluation is determined annually by UNEP?s Evaluation Office

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 (LDCF/SCCF)?

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 project will contribute to the improvement of local and global environmental conditions through enhancing the transparency related to GHG emissions, mitigation, adaptation, and means of implementation in Ecuador. It will strengthen the institutional and technical capacities in the country for national reporting requirements under the commitment of the UNFCCC and the Paris Agreement, such as the elaboration of Biennial Update Reports and National Communications, and the tracking and updating of its NDC. More specifically, it will improve the national capacities of Ecuador to fulfil the MPGs of the Enhanced Transparency Framework of the Paris Agreement. Furthermore, the project will improve gender mainstreaming activities in fundamental elements of Ecuador?s climate change related policies and reports, such as the country?s NDC, Adaptation Plan and NAMAs. It will define, design, and propose the necessary institutional arrangements for all the reporting processes to ensure that the capturing and reporting of essential information and data, such as for the NDC, is efficient and science based. The design and establishment of a functional transparency system with tools, guides, and protocols to monitor and evaluate (M&E) adaptation measures and monitor, report, and verify (MRV) mitigation actions, and support needed and received will additionally be supported.

This CBIT project will therefore strengthen Ecuador?s enabling environment and capacity to implement the MPGs of the Enhanced Transparency Framework of the Paris Agreement by establishing the necessary institutional arrangements and by improving the national planning processes and instruments.

The project will additionally ensure active engagement with national academia, research institutions, and public and private universities throughout the country to ensure the sustainability of the entire system and project outputs. Cooperation will be sought with the National Institute of Meteorology and Hydrology (NIMH) and research institutions and academia to create a platform for the repository of climate information to improve the transparency of the national climate data for the public. Throughout the project, active engagement will be ensured through capacity building activities to ensure improved knowledge of relevant stakeholders and the sustainability of the project. The communication campaign will create public

awareness and will establish a channel for continuous stakeholder consultation, interaction and engagement.

The NCCR and the repository platform will provide a better access to climate change information and allow monitoring for decision making. It will also allow to develop well informed viable strategies to increase resilience in marginalized communities of Ecuador, which are particularly prone to climate hazards. Frequently affected by floods and landslides, these events have widespread implications for the economic, social, and psychological welfare of vulnerable communities. Responding effectively and timely to these risks requires the strategic combination of updated information and decision-making, thereby creatively linking the expertise, efforts and actions of diverse stakeholders, including local government, scientists, industry experts, and the communities themselves. To achieve this, the NCCR represents an integrated tool of interconnectivity between the sectors and disciplines to manage climate change commitments and impacts. The NCCR is underpinned on getting the active engagement of communities and empowering them to better design Disaster Management and Risk Reduction (DRR) protocols.

Finally, the CBIT project will assist Ecuador in achieving the Sustainable Development Goals (SDG), and more specifically, SDG 13, by supporting the integration of climate change measures into national policies, strategies and planning; building knowledge and improving education, awareness-raising and human and institutional capacity on climate change issues, and promotion of mechanisms for raising capacity for effective climate change-related planning and management in the country.

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	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.

Section 1: project overview

Identification	*10818*
Project Title	*Implementing Ecuador?s Climate Transparency System*
Managing Division	*Economy division*
Type/Location	*National*
Region	*Latin America and the Caribbean*
List Countries	*Ecuador*
Project Description	*The objective of the project is to strengthen the national transparency system in Ecuador to meet the requirements of the Enhanced Transparency Framework (ETF) under the Paris Agreement on Climate Change.* *The proposed project is structured across three components, which are necessary to address the barriers and facilitate the implementation of an integrated transparency system, the National Climate Change Registry (NCCR):* *Component 1. Strengthening institutional aspects of the National Climate Change Registry (NCCR)* *Component 2. Enhancing the National Climate Change Registry* *Component 3. Capacity building and public engagement*
Relevant Subprogrammes	*Climate Change Mitigation*

Estimated duration of project	*36 months*
Estimated cost of the project	*1,988,000*
Name of the UNEP project manager responsible	*Asher Lessels*
Funding Source(s)	*GEF Trust Fund*
Executing/Implementing partner(s)	*Ministry of Environment, Water and Ecologic Transition (MAATE)*
SRIF submission version	*1*
Safeguard-related reports prepared so far *(Please attach the documents or provide the hyperlinks)*	? *Feasibility report [ ]* ? *Gender Action Plan [X]* ? *Stakeholder Engagement Plan [X]* ? *Safeguard risk assessment or impact assessment [ ]* ? *ES Management Plan or Framework [ ]* ? *Indigenous Peoples Plan [ ]* ? *Cultural Heritage Plan [ ]* ? *Others* _____

Section 2: safeguards risk summary

A. Summary of the Safeguards Risk Triggered

Safeguard Standards Triggered by the Project	Impact of Risk[1] (1-5)	Probability of Risk (1-5)	Significance of Risk (L, M, H) *Please refer to the matrix below*
SS 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management	1	1	L
SS 2: Climate Change and Disaster Risks	3	1	L
SS 3: Pollution Prevention and Resource Efficiency	1	1	L
SS 4: Community Health, Safety and Security	1	1	L
SS 5: Cultural Heritage	1	1	L
SS 6: Displacement and Involuntary Resettlement	1	1	L
SS 7: Indigenous Peoples	1	1	L
SS 8: Labor and working conditions	1	1	L

B. **ESS Risk Level**[2] **-**

5	H	H	H	H	H
4	M	M	H	H	H
3	L	M	M	M	M
2	L	L	M	M	M
1	L	L	L	L	L
#	1	2	3	4	5

Refer to the UNEP ESSF (Chapter IV)

and the UNEP?s ESSF Guidelines.

C. Development of ESS Review Note and Screening Decision

Prepared by

Name: __Mart?n Rodr?guez Marat_____ Date: _11 March 2022_____

Screening review by

Name: Yunae Yi Date: 16 March 2022

Cleared[3]

D. Safeguard Review Summary (by the safeguard team)

It is considered to be a low risk project. Proactive and attentive responses to any potential risks are recommended during the project implementation. Also GP questions in the Section 3 should be complied throughout the project implementation phase.

E. Safeguard Recommendations (by the safeguard team)

- No specific safeguard action required ☐
- Take Good Practice approach[221] ■
- Carry out further assessments (e.g., site visits, experts' inputs, consult affected communities, etc.) ☐
- Carry out impact assessments (by relevant experts) in the risk areas and develop management framework/plan ☐
- Consult Safeguards Advisor early during the full project development phase ☐
- Other _____

Section 3: Safeguard risk checklist

Screening checklist	Y/N/ Maybe	Justification for the response (please provide answers to each question)
Guiding Principles (these questions should be considered during the project development phase)		
GP1 Has the project analyzed and stated those who are interested and may be affected positively or negatively around the project activities, approaches or results?	Y	The project document includes an estimate of project beneficiaries, disaggregated by gender.
GP2 Has the project identified and engaged vulnerable, marginalized people, including disabled people, through the informed, inclusive, transparent and equal manner on potential positive or negative implication of the proposed approach and their roles in the project implementation?	Y	The project considered a stakeholder analysis that includes vulnerable communities. This is a cross-cutting requirement from the country.
GP3 Have local communities or individuals raised human rights or gender equality concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?	*N*	Not anticipated.

GP4 Does the proposed project consider gender-balanced representation in the design and implementation?	*Y*	Yes. The project includes Gender Analysis, which is followed by Gender Action Plan.
GP5 Did the proposed project analyze relevant gender issues and develop a gender responsive project approach?	Y	Yes. Note the comment above.
GP6 Does the project include a project-specific grievance redress mechanism? If yes, state the specific location of such information.	Y	See output 3.1.
GP7 Will or did the project disclose project information, including the safeguard documents? If yes, please list all the webpages where the information is (or will be) disclosed.	Y	Yes. As this is a GEF project, all the project documents will be publicly available on the GEF website (https://www.thegef.org/projects) as the UNEP website (https://open.unep.org/)
GP8 Were the stakeholders (including affected communities) informed of the projects and grievance redress mechanism? If yes, describe how they were informed.	Y	During project meetings (informing of the government officials).
GP9 Does the project consider potential negative impacts from short-term net gain to the local communities or countries at the risk of generating long-term social or economic burden?[5]	Y	This project involves the construction, implementation of a climate change information system. No negative impacts will result as the project involves mostly desk work.
GP10 Does the project consider potential partial economic benefits while excluding marginalized or vulnerable groups, including women in poverty?	Y	Please see previous answer.
Safeguard Standard 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management		
Would the project potentially involve or lead to:		
1.1 conversion or degradation of habitats (including modified habitat, natural habitat and critical natural habitat), or losses and threats to biodiversity and/or ecosystems and ecosystem services?	N	Not anticipated.

1.2 adverse impacts specifically to habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA); etc.)?	N	Not anticipated.
1.3 conversion or degradation of habitats that are identified by authoritative sources for their high conservation and biodiversity value?	N	Not anticipated.
1.4 activities that are not legally permitted or are inconsistent with any officially recognized management plans for the area?	N	Not anticipated.
1.5 risks to endangered species (e.g. reduction, encroachment on habitat)?	N	Not anticipated.
1.6 activities that may result in soil erosion, deterioration and/or land degradation?	N	Not anticipated.
1.7 reduced quality or quantity of ground water or water in rivers, ponds, lakes, other wetlands?	N	Not anticipated.
1.8 reforestation, plantation development and/or forest harvesting?	N	Not anticipated.
1.9 support for agricultural production, animal/fish production and harvesting	N	Not anticipated.
1.10 introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	N	Not anticipated.
1.11 handling or utilization of genetically modified organisms?	N	Not anticipated.
1.12 collection and utilization of genetic resources?	N	Not anticipated.
Safeguard Standard 2: Climate Change and Disaster Risks		
Would the project potentially involve or lead to:		
2.1 improving resilience against potential climate change impact beyond the project intervention period?	Y	As an indirect benefit resulting from the adaptation module of the NCCR, as well as the repository of climate change information in output 3.2.

2.2 areas that are now or are projected to be subject to natural hazards such as extreme temperatures, earthquakes, extreme precipitation and flooding, landslides, droughts, severe winds, sea level rise, storm surges, tsunami or volcanic eruptions in the next 30 years?	N	As most of the project activities will take place within the capital of Quito, 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. Management of data will be cloud-based, minimizing the risk of data loss.
2.3 outputs and outcomes sensitive or vulnerable to potential impacts of climate change (e.g. changes in precipitation, temperature, salinity, extreme events)?	N	This project will create a national climate change information system. This will contribute to reduce Ecuador?s vulnerability to climate events.
2.4 local communities vulnerable to the impacts of climate change and disaster risks (e.g. considering level of exposure and adaptive capacity)?	N	N/A.
2.5 increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	N	This project will create a national climate change information system that (among other features) will serve to track Ecuador?s GHG emissions.
2.6 Carbon sequestration and reduction of greenhouse emissions, resource-efficient and low carbon development, other measures for mitigating climate change	Y	Indirectly, yes. The purpose of the RNCC is to serve as a tool for mitigation and adaptation to climate change.
Safeguard Standard 3: Pollution Prevention and Resource Efficiency		
Would the project potentially involve or lead to:		
3.1 the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	N	Not anticipated.
3.2 the generation of waste (both hazardous and non-hazardous)?	N	Not anticipated.
3.3 the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	N	Not anticipated.

3.4 the use of chemicals or materials subject to international bans or phase-outs? (e.g. DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention)	N	Not anticipated.
3.5 the application of pesticides or fertilizers that may have a negative effect on the environment (including non-target species) or human health?	N	Not anticipated.
3.6 significant consumption of energy, water, or other material inputs?	N	Not anticipated.
Safeguard Standard 4: Community Health, Safety and Security		
Would the project potentially involve or lead to:		
4.1 the design, construction, operation and/or decommissioning of structural elements such as new buildings or structures (including those accessed by the public)?	N	Not anticipated.
4.2 air pollution, noise, vibration, traffic, physical hazards, water runoff?	N	Not anticipated.
4.3 exposure to water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable or noncommunicable diseases?	N	Not anticipated.
4.4 adverse impacts on natural resources and/or ecosystem services relevant to the communities? health and safety (e.g. food, surface water purification, natural buffers from flooding)?	N	Not anticipated.
4.5 transport, storage use and/or disposal of hazardous or dangerous materials (e.g. fuel, explosives, other chemicals that may cause an emergency event)?	N	Not anticipated.
4.6 engagement of security personnel to support project activities (e.g. protection of property or personnel, patrolling of protected areas)?	N	Not anticipated.
4.7 an influx of workers to the project area or security personnel (e.g. police, military, other)?	N	Not anticipated.
Safeguard Standard 5: Cultural Heritage		

Would the project potentially involve or lead to:		
5.1 activities adjacent to or within a Cultural Heritage site?	N	Not anticipated.
5.2 adverse impacts to sites, structures or objects with historical, cultural, artistic, traditional or religious values or to intangible forms of cultural heritage (e.g. knowledge, innovations, practices)?	N	Not anticipated.
5.3 utilization of Cultural Heritage for commercial or other purposes (e.g. use of objects, practices, traditional knowledge, tourism)?	N	Not anticipated.
5.4 alterations to landscapes and natural features with cultural significance?	N	Not anticipated.
5.5 significant land clearing, demolitions, excavations, flooding?	N	Not anticipated.
5.6 identification and protection of cultural heritage sites or intangible forms of cultural heritage		
Safeguard Standard 6: Displacement and Involuntary Resettlement		
Would the project potentially involve or lead to:		
6.1 full or partial physical displacement or relocation of people (whether temporary or permanent)?	N	Not anticipated.
6.2 economic displacement (e.g. loss of assets or access to assets affecting for example crops, businesses, income generation sources)?	N	Not anticipated.
6.2 involuntary restrictions on land/water use that deny a community the use of resources to which they have traditional or recognizable use rights?	N	Not anticipated.
6.3 risk of forced evictions?	N	Not anticipated.
6.4 changes in land tenure arrangements, including communal and/or customary/traditional land tenure patterns (including temporary/permanent loss of land)?	N	Not anticipated.
Safeguard Standard 7: Indigenous Peoples		
Would the project potentially involve or lead to:		
7.1 areas where indigenous peoples are present or uncontacted or isolated indigenous peoples inhabit or where it is believed these peoples may inhabit?	N	Not anticipated.

7.2 activities located on lands and territories claimed by indigenous peoples?	N	Not anticipated.
7.3 impacts to the human rights of indigenous peoples or to the lands, territories and resources claimed by them?	N	Not anticipated.
7.4 the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	N	Not anticipated.
7.5 adverse effects on the development priorities, decision making mechanisms, and forms of self-government of indigenous peoples as defined by them?	N	Not anticipated.
7.6 risks to the traditional livelihoods, physical and cultural survival of indigenous peoples?	N	Not anticipated.
7.7 impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	N	Not anticipated.
Safeguard Standard 8: Labor and working conditions		
8.1 Will the proposed project involve hiring or contracting project staff ?	Y	The project will recruit local experts and international experts.
If the answer to 8.1 is yes, would the project potentially involve or lead to:		
8.2 working conditions that do not meet national labour laws or international commitments (e.g. ILO conventions)?	N	Not anticipated. The executing agency (MAATE) has strict standards in terms of how it recruits its work force, as discussed during capacity assessment meetings.
8.3 the use of forced labor and child labor?	N	Not anticipated.
8.4 occupational health and safety risks (including violence and harassment)?	N	Not anticipated.
8.5 the increase of local or regional unemployment?	N	Not anticipated.
8.6 suppliers of goods and services who may have high risk of significant safety issues related to their own workers?	N	Not anticipated.

8.7 unequal working opportunities and conditions for women and men	N	Not anticipated. The project will have gender quotas in terms of its own staff and governance structures. A gender action plan will ensure that the project does not replicate undesirable patterns, while at the same time seeking ways to improve the share of women participating in the RNCC. This is further discussed in the Gender section of the document.

[1] Refer to UNEP Environmental and Social Sustainability Framework (ESSF): Implementation Guidance Note

to assign values to the Impact of Risk and the Probability of Risk to determine the overall significance of Risk (Low, Moderate or High).

[2] **Low risk**: Negative impacts minimal or negligible: no further study or impact management required.

Moderate risk: Potential negative impacts, but limited in scale, not unprecedented or irreversible and generally limited to programme/project area; impacts amenable to management using standard mitigation measures; limited environmental or social analysis may be required to develop an Environmental and Social Management Plan (ESMP). Straightforward application of good practice may be sufficient without additional study.

High risk: Potential for significant negative impacts (e.g. irreversible, unprecedented, cumulative, significant stakeholder concerns); Environmental and Social Impact Assessment (ESIA) (or Strategic Environmental and Social Assessment (SESA)) including a full impact assessment may be required, followed by an effective comprehensive safeguard management plan.

[3] This is signed only for the full projects latest by the PRC time.

[4] Good practice approach: For most low-moderate risk projects, good practice approach may be sufficient. In that case, no separate management plan is necessary. Instead, the project document

demonstrates safeguard management approach in the project activities, budget, risks management, stakeholder engagement or/and monitoring segments of the project document to avoid or minimize the identified potential risks without preparing a separate safeguard management plan.

[5]For example, a project may consider investing incommercial shrimp farm by clearing the nearby mangrove forest to improve the livelihood of the coastal community. However, long term economic benefit from the shrimp farm may be significantly lower than the mangroves if we consider full costs factoring safety from storms, soil protection, water quality, biodiversity and so on.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Ecuador CBIT SRIF 20220311	**CEO Endorsement ESS**	
Safeguard Risk Identification Form (preliminary)	**Project PIF 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	Risks
To strengthen the national transparency system in Ecuador to meet the requirements of the Enhanced Transparency Framework (ETF) under the Paris Agreement on Climate Change	Indicator A (= core indicator 11): Direct project beneficiaries disaggregated by gender (individual)	0	770 beneficiaries (50% are women)	Project reports and capacity building attendance lists.	4 (lack of stakeholder engagement risk), 5 (gender risk)
	Indicator B: Quality of MRV Systems	Score = 1 (Very little measurement is done, reporting is partial and irregular, and verification is not there)	Score 6 (Measurement systems are strong and cover a greater percentage of activities ? feedback loops exist even if they are not fully functioning; reporting is available through multiple pathways and formats but may not be complete/transparent; verification is done through standard methodologies but only partially (i.e. not all data is verifiable))	Project manager's progress implementation reports.	2 (lack of political prioritization risk), 4 (lack of stakeholder engagement risk)

	Indicator C: Qualitative assessment of institutional capacity for transparency-related activities	Score = 1 (No designated transparency institution to support and coordinate the planning and implementation of transparency activities under Article 13 of the Paris Agreement exists)	Score 3 (Designated transparency institution has an organizational unit with standing staff with some capacity to coordinate and implement transparency activities under Article 13 of the Paris Agreement. Institution has authority or mandate to coordinate transparency activities under Article 13. Activities are not integrated into national planning or budgeting activities)	Project manager's progress implementation reports.	2 (lack of political prioritization risk), 4 (lack of stakeholder engagement risk)

Project Outcomes	**Outcome level Indicators**	**Baseline**	**End of project Target**	**Means of Verification**	**Risks**
Outcome 1: The Government of Ecuador takes steps to develop policies and begins to track climate ambition based on a robust NCCR	Indicator 1: # of sectors covered by the NCCR % of data collection plan covered within existing data sharing agreements	1	At least 4	Project reports and detailed design of the NCCR	2 (lack of political prioritization risk), 3 (procurement risks) 4 (lack of stakeholder engagement risk)
Outcome 2: The MAATE produces more accurate climate information and reports in alignment with the requirements of the ETF	Indicator 2: # of fully functional and operational gender-responsive modules within the National Climate Change Registry	0	3 (mitigation, adaptation, and means of implementation)	Project reports and detailed design of the NCCR	2 (lack of political prioritization risk), 3 (procurement risks) 4 (lack of stakeholder engagement risk)

Outcome 3: Stakeholders demonstrate capacity to provide inputs to and draw information from the NCCR for their decision-making processes	Indicator 3A: # of students enrolled in syllabus enhanced or created to include climate change and transparency topics relevant to the NCCR in the selected Higher Education Institutions (HEI) Indicator 3B: # of academics who successfully passed a technical examination on climate transparency	3A: 0 3B: 0	3A 420 (disaggregated by gender) 3B: 20 (disaggregated by gender)	HEI records.	2 (lack of political prioritization risk), 3 (procurement risks) 4 (lack of stakeholder engagement risk) 5 (gender risk)

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).

Secretariat Comment at PIF/Work Program Inclusion 6/16/2021: Minor comments to be addressed by CEO endorsement or to be sent along with PPO comments:	**How have the comments been addressed?**
Please change the CCM Rio Marker to 2.	The CCM Rio Marker has been changed to 2 (in section F. Project taxonomy)
Add theory of change depiction.	A theory of change depiction has been added to the document in section 1b. Project Description under Theory of Change, pag. 55.
Please review deliverable numbering under Alternative Scenario, output 1.2 and output 2.2.	Deliverables? numbering has been corrected.

Select "yes" under gender-sensitive indicators.	?Yes? was selected under gender-sensitive indicators in section 3. Gender Equality and Women?s Empowerment, pag. 57.
By CEO endorsement:	
Provide additional details on key CSO and private sector stakeholders.	Additional details have been provided for key CSO and private stakeholders in figure 6 and table 11, where their role and relevance to the CBIT project is highlighted.
Provide more detailed information on coordination with other initiatives and support including from ICAT and NDC Support Programme.	In depth description of the coordination of the CBIT project with other initiatives including ICAT and NDC Support Programme is provided in sections 6 and 7, Institutional Arrangements and Coordination and Consistency with National Priorities.

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$ 50,000			
Project Preparation Activities Implemented*	**GETF Amount (US$)**		
	Budgeted Amount	**Amount Spent to date**	**Amount Committed**
PPG expert technical consultant (lead project document development, including the CEO endorsement document, annexes and appendices)	25,520	25,520	0
Regional transparency consultant (summary of regional CBIT best practices for ensuring project draws on experiences, best practices and lessons learned; project document technical review; assistance in organizing stakeholder consultations)	5,000	0	5,000
Total	30,520	25,520	5,000

* (Balance as of 17/05/2022)

Due to the pandemic, less funds than expected were used during the preparation phase. An unspent balance of USD 19,480 will be used during project execution, as per the GEF policy: If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake exclusively preparation activities up to one year of CEO Endorsement/approval date. No later than one year from CEO endorsement/approval date. Agencies should report closing of PPG to Trustee in its Quarterly Report.

The outstanding balance is expected to be used during the project?s first year (counting since CEO Approval) to undertake activities that were not feasible during the design phase due to restrictions related to the pandemic. This will mainly include local in-person consultations and workshops to discuss the project with key relevant actors, with an emphasis on the private sector, which showed less

responsive during the on-line consultations conducted at the design stage. Any remaining funds will be duly returned to the GEF.

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

Coordinates (Quito, Ecuador?s capital):

Latitude: -0.225219, Longitude: -78.5248 0? 13? 31? South, 78? 31? 29? West

ANNEX E: Project Budget Table

Please attach a project budget table.

GEF budget category & detailed description	Outcome 1	Outcome 2	Outcome 3	Subtotal	M&E	PMC	Total
02. Goods				**0**		**20,000**	**20,000**
Staff hardware equipment				0		20,000	20,000
06. Sub-contract to executing partner/entity			**140,091**	**140,091**			**140,091**
Local Higher Education Institution			140,091	140,091			140,091
07. Contractual services (company)	**122,700**	**440,969**	**254,350**	**818,019**	**30,000**	**28,977**	**876,996**
Adaptation consultancy		157,850	67,650	225,500			225,500
Climate Finance Consultancy		112,119	5,901	118,020			118,020
Independent financial audit				0		28,977	28,977
Mitigation consultancy		171,000	9,000	180,000			180,000
MRV Consultancy	122,700		81,800	204,500			204,500
National communication consultancy			89,999	89,999			89,999
Terminal Evaluation				0	30,000		30,000
08. Contractual services (individuals)	**247,500**	**117,435**	**106,750**	**471,685**			**471,685**
National Gender expert	24,750		22,500	47,250			47,250
National IT expert	30,000	86,250	43,750	160,000			160,000
National Legal consultant	66,000		6,000	72,000			72,000
Process Expert	96,000			96,000			96,000
Senior transparency expert	30,750	31,185	34,500	96,435			96,435
11. Salary and benefits/Staff Costs	**70,350**	**72,815**	**69,660**	**212,825**		**39,000**	**251,825**
Chief technical Advisor	55,650	55,940	53,250	164,840		30,000	194,840
Junior tech / admin support	14,700	16,875	16,410	47,985		9,000	56,985
12. Training, Workshops, Meetings	**17,985**	**37,605**	**6,540**	**62,130**	**2,500**		**64,630**
Capacity building workshops	17,985	37,605	6,540	62,130			62,130
Inception workshop				0	2,500		2,500
13. Travel	**16,000**	**22,000**	**16,773**	**54,773**			**54,773**
International and national travel	16,000	22,000	16,773	54,773			54,773
14. Office supplies	**15,250**			**15,250**		**13,000**	**28,250**
Licences and IT maintenance for 3 years	15,250			15,250			15,250
Office supplies				0		13,000	13,000
15. Other operating costs				**0**		**79,750**	**79,750**
Procurement, HR, legal and record keeping costs				0		79,750	79,750
Total general	**489,785**	**690,824**	**594,164**	**1,774,773**	**32,500**	**180,727**	**1,988,000**

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).