



PROJECT INCEPTION REPORT

Ecosystems based Adaptation in the Central Forest Corridor of Tegucigalpa

FA-PNUD-MiAmbiente+ / Secretaría de Recursos Naturales y Ambiente

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1. Project Background

Honduras is a country of medium human development, occupying position 131 with a human development index of 0.606 (gender inequality index of 0.480), which is the second to last in the list for Latin America. The country faces the highest levels of poverty and economic and social inequality in Latin America. The Gini coefficient is 0.52, and only 3.2% of the income corresponds to the poorest quintile. It is estimated that 64.5% of all Honduran households are in conditions of poverty, and of these, 42.6% are in conditions of extreme poverty. The most affected areas are rural areas with 68.5% of the population living in poverty and 55.6% in extreme poverty. That is, in rural areas almost 7 out of 10 households are in extreme poverty. Honduras shows an unequal fulfillment of the goals of the Millennium Development Goals (MDGs), of the 82 indicators assumed by the country, only eight were reported by the Government as met.

Of the total Economically Active Population (EAP), 51.4% is a rural population, and of this active rural EAP only 28.2% are women. Of this total of EAP, 35% is dedicated to agriculture, forestry, hunting and fishing mainly in rural areas and most of them are seriously affected by climate change, due to extreme events related to tropical cyclones or the phenomenon of "El Niño".

Honduras has an area of 5.4 million hectares of natural forests. The coverage of pine and mixed pine forest is approximately 2.2 million hectares, which represents 41% of forests, nationwide. Pine forests are ecosystems of great environmental, economic and social importance; which can be managed as productive forests and for water supply and biodiversity protection. The general situation of the country in terms of satisfying the basic needs for the drinking water and sanitation sector in its coverage between urban and rural areas, although it has increased, remains proportionally unequal, with more than one million people who in 2010 lacked access to improved drinking water services and around 2.2 million that lacked improved sanitation services, of which 80% and 66% respectively live in rural areas.

Historically, Honduras has been experiencing the effects of El Niño / La Niña phenomenon, which have a significant impact on both rainfall distribution and the national economy. The negative effects of extreme El Niño events 1982-1983, 1997-1998 and 2015-2016 are identified as episodes with a strong impact on crops, forest fires, famines and outbreaks of vector-propagated diseases, putting food security and quality of life of the population at risk, especially in the southern part of the country. Hurricane Mitch, which occurred in 1998 after one strong El Niño event, caused the greatest losses, about 8,000 million dollars representing for Honduras more than 20 years of social and economic delay, which further increased the levels of poverty and social exclusion. In 2015, Honduras faced another El Niño event that caused severe droughts (especially in the dry corridor area of the country), with an estimate of the affected population of 161,403 families, 817,015 people. Due to the severity of the drought, the government declared an Emergency Situation on June 27, 2015, through decree PCM-036-2015. In addition to this, Honduras also faced one of the biggest episodes of an outbreak of the bark beetle plague of the last fifty years that affected more than 600,000 ha of pine forest, alarmingly impacting the goods and services that these ecosystems provide and putting the country through two national emergencies, during 2015 and 2016.



According to information from the National Aeronautics and Space Administration (NASA), El Niño 2015-2016 peaked in January 2016 and was of greater duration and impact than the 1997-1998 episode. According to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), there is a high level of confidence that El Niño-Southern Oscillation (ENSO) will continue to be the dominant mode of natural climate variability in the 21st century, with global influences, and that the variability of the regional rainfall it induces is likely to intensify. Therefore, the impacts of this climatic variability in Honduras will continue to be seen, making it increasingly imperative to take the necessary adaptation measures.

CENTRAL FOREST CORRIDOR – Intervention Area

Surrounded by mountains with large areas of forest, the Central Forest Corridor (CBC, in Spanish) wraps the capital of Honduras - Tegucigalpa, located in the department of Francisco Morazán, providing different ecosystem services and livelihoods to the population, with emphasis on providing water for communities within the corridor. The approximate population in the 14 municipalities of the CBC is estimated at 1,427,699 inhabitants (more than 16% of the total population of the country). In three municipalities of the CBC (Ojojona, Santa Ana and Lepaterique) there are settlers who belong to the Lenca indigenous people¹.

The CBC platform was created in 2014, promoted as a climate change adaptation measure for the protection of water producing areas and the restoration of degraded areas under rational management of natural resources, in order to increase the quantity and quality of water for different users, particularly in the Honduran capital. This platform is currently recognized at the level of municipalities and institutions of the environmental sector, but it requires regulation through a legal instrument, which recognizes its sustainability, as well as an action plan for its effective operation. According to the limits already established, the CBC is comprised of:

- ✓ **14 municipalities**
- ✓ **5 protected areas²** which represent 21.78% of the CBC. All these areas have a management plan, except the Multiple Uses Area Carías-Bermúdez.
- ✓ **5 sub watersheds** which represent 41.99% of the CBC. Three subwatersheds have a management plan (Guacerique, Río del Hombre y Concepción o Río Grande). Río del Hombre and Guacerique are the biggest and with greatest hydric capacity, accounting for 77% of the water offer for Tegucigalpa³.
- ✓ **50 micro watersheds** for water supply. 25 of these have an action plan.
- ✓ **66 areas for forest use** which have their management plan approved by the national authority (ICF, National Institute for Forest Conservation).

¹ PDR-OT 12, 2013

² Yerba Buena, Cerro de Uyuca, Corralitos, La Tigra, Carías-Bermúdez.

³ Hydro-geo-chemistry study of the high lands of the Rio Choluteca Watershed - Instituto Hondureño de Ciencias de la Tierra-UNAH-Proyecto Fondo de Adaptación.



- ✓ Agricultural crops areas
- ✓ Urbanized and industrialized areas

According to the forest map (2014) of the Forest Conservation Institute (ICF), the CBC has an extension of approximately 186,525 hectares, of which 102,786 have forest cover accounting for the 55% of the CBC area. Approximately 56% (57,547 ha) of the forest cover is pine forest, the rest are mixed forest, dry forest and broadleaved forest. This forest area is constantly under natural and anthropogenic pressures that inhibit its natural development and put at risk the forest' capacity to provide ecosystem benefits for the population inhabiting the CBC. Climate change impacts aggravate this situation.

Considering that almost half of the CBC territory belongs to sub-watersheds that provide more than two thirds of the capital city water, it is necessary to promote ecosystems-based adaptation through integrated water resources management, recognizing the role of watersheds, forest and vegetation in water flow regulation and provision for the construction of climate change resilience. Therefore, it is important to work on schemes of water compensation mechanisms (i.e. payments for environmental goods and services, etc.) to help land users and farmers to conserve the forests in the watersheds that provide water for Tegucigalpa, to protect the biodiversity and to provide livelihoods for the population.

In this sense, the project's main objective is to increase climate resilience of the most vulnerable communities in the CBC, as well as the adaptative capacity of its municipalities, with an emphasis in securing livelihoods and the continuity of the ecosystems goods and services provided to Tegucigalpa and surroundings.

To accomplish this objective the project will work on three components: (1) Strengthening local and community governance under climate change and climate variability scenarios; (2) Ecosystems-based adaptation measures and technologies for the construction of resilience in the CBC; and (3) Strengthening knowledge management, information and monitoring systems for climate change adaptation capacities.

2. Expected Results and Baseline

AdaptarC+ proposes three results to increase climate resilience of the most vulnerable communities in the CBC, as well as the adaptative capacity of its municipalities, with an emphasis in securing livelihoods and the continuity of the ecosystems goods and services provided to Tegucigalpa and surroundings.

Result 1 "Strengthened the CBC platform to implement ecosystem-based adaptation processes through land planning"

This result seeks the consolidation of a management platform for the Central Forest Corridor, which allows the management of the territory in a coordinated manner (despite the municipal limits and differences) to achieve common objectives that ensure livelihoods and continuity of the provision of ecosystem goods and services. For this, four outputs have been defined:



Al servicio
de las personas
y las naciones



- **Output 1.1.** *“Coordination and decision-making spaces strengthened for the sustainable management of the natural resources of the CBC, including measures for the effective participation of women and indigenous peoples”*

This output seeks to facilitate the success and continuity of the CBC Platform as a territorial management model with a climate change adaptation approach that guarantees the provision of ecosystem goods and services, operating as a coordination mechanism between municipalities and municipalities with Central government institutions.

During the first project of the Adaptation Fund “Facing climate risks in water resources in Honduras”, the CBC Platform operated through ad hoc meetings and for its formalization but support from laws and regulations is required. During the first project a proposal for an Executive Decree was drawn up. Prior to the start of this project, the meetings of the Platform were held in standby and with few spaces for consultation among its members. With the efforts of the project, the background information has been compiled to continue with the formalization of the platform.

- **Output 1.2.** *“Regulations related to the management of natural resources applying to the CBC”*

This output seeks to strengthen the existing mechanisms that allow the application of the regulations related to the management of natural resources in the CBC. The idea is to provide a mechanism where communities can warn about bad practices, including illegal logging, forest fires, land use change, etc., and municipal governments are strengthened so that they have the capacity to give an effective response and solution to these problems, that is, to promote the decentralization of some forest services and processes.

Prior to the start of the project, no mechanisms are registered at the municipal level to report on identified bad practices on forest use, land use change, etc. The processes for requesting permission to use wood and small-scale forestry are bureaucratic and their management is centralized.

- **Output 1.3.** *“Municipal Plans for Climate Change Adaptation prepared and validated”*

This output seeks to promote planning instruments that help municipalities to: 1) increase their resilience and support compliance with the law on climate change, through Municipal Plans for Climate Change Adaptation, 2) prioritize restoration actions in Municipal Forest Protection Plans, 3) prioritize measures and technologies designed for the optimal use of the water resource in the Plans of the water supply micro watersheds in the implementation area. However, given the lessons learned with municipal planning processes and in order to promote the sustainability of the inclusion of the topic of climate change, it has been decided to review the Municipal Development Plans (PDM, in Spanish) for the mainstreaming of the topic, both for adaptation and mitigation. Initially it was contemplated to elaborate municipal adaptation plans; However, this change was adopted by consensus with the municipal governments, as the PDM are the instruments established by law, for the operation and finance of the municipal governments.

The following planning achievements were developed during the first Adaptation Fund’s Project:

- 5 Climate Change Adaptation Municipal Plans.



- 13 Municipal Forest Protection Plans (PPFM, in Spanish), which require an update to respond to the effects of the bark beetle pest in pine forests and to be prepared to future climate risks.
- 25 micro watershed plans.

- **Output 1.4.** *“Operational proposal for a financing scheme for adaptation measures to Climate Change in the CBC prepared and validated”*

This output proposes the creation of a compensation mechanism for water resources at the CBC level. The design of a mechanism at the intermunicipal level will be assessed based on planning areas of sub-basin collection for water supply in the urban part and maintenance of water recharge areas in that sub-basin of the CBC. The design of mechanisms at the local and community level in the municipalities of the CBC is also contemplated considering that these financing models are designed, managed and implemented by the communities and their productive bases, from the perspective of resilience construction (e.g. tariffs of water for protection rounds in micro basins, etc.). However, given that the country is entering a process of water municipalization, it is possible that this product should be approached from the perspective of green commodities with productive groups in the areas of influence of the project.

With the first project of the Adaptation Fund, a scheme focused on the rate of water in the municipality of Tumbula was developed, with these results an attempt was made to establish inter-municipal schemes for the provision of water in Tegucigalpa, but coordination and political will were lacking.

Result 2 *“Designed and implemented measures and technologies of climate change adaptation based on ecosystems and that increase the resilience of the community and their livelihoods in the CBC, promoting gender equity and the active participation of young people”*

This result seeks the implementation of the measures defined in the municipal planning processes developed within the framework of the result 1. The implementation of these measures involves the participation of responsible parties (the Forest Conservation Institute -ICF- and the National Autonomous University of Honduras -UNAH-) and the municipalities through letters of agreement and donation.

- **Output 2.1.** *“Areas of pine forest affected by pests and fires in the CBC restored to safeguard ecosystem goods and services and livelihoods of communities”*

The project will promote the restoration of 1,000 ha of pine forest in the CBC, in line with the components found in the National Restoration Plan in areas affected by the pine bark beetle 2016-2026. The two main actions will be plantations and completion. The areas to be restored will be defined with the municipalities within the CBC Platform. The project will promote a restoration protocol for CBC municipalities considering climate change and climate variability.

The National Restoration Plan was approved in May 2016 and to date continues in preparations to start its implementation so there are 0 hectares restored in a planned manner. Although reforestation efforts have been made through the activities of the National Plantation Campaign



in which local governments, schools, colleges, universities, NGOs and private companies participate, they have not been reported or monitored in detail. Roughly, in the web platform of the Forest Management and Monitoring System (SIGMOF, in Spanish) of the ICF in the territory of the CBC to date, reforestation of around 6,400 ha is reported, which are mostly found on national land⁴.

- **Output 2.2.** *“Strategic areas of forest restored by natural regeneration through effective mechanisms for protection against fires, pests and land use change”*

The project will promote the implementation of the actions of the Municipal Forest Protection Plans (PPFM) in order to reduce the incidence of fires, pests, diseases and illegal logging, thus avoiding land use change. The project will facilitate that actions for forest protection are aimed at favoring natural regeneration as a restoration mechanism, as it is susceptible to forest fires.

At this moment, the execution of the measures established in the PPFM is null or low, varying from municipality to municipality. The current PPFM do not consider specific actions for the management of the bark beetle pest nor the repercussions of prolonged periods of drought due to climate change and climate variability.

- **Output 2.3.** *“Climate change adaptation measures and technologies implemented to optimize the use of water and forest resources”*

The project will promote the design and implementation of measures and technologies that will reduce the pressure on water consumption and the forests, considering the climatic risks associated to future scenarios of precipitation and temperature change. To this end, the project will promote the implementation of the existing Micro Watershed Action Plans and will develop these plans where one is not available. For the implementation of adaptive measures and techniques, training and experience sharing measures will be prioritized.

8,000 families in the CBC obtained improved access to water through pilot measures developed by the first Adaptation Fund project.

Result 3 *“Generation, systematization and use of climate change knowledge and information that contributes to research, capacity building, monitoring, and informed decision making”*

This result seeks knowledge management to make decisions about the management of natural resources. To this end, it promotes: 1) the strengthening of research spaces on forest issues and their link with climate change, 2) the strengthening of national platforms, and 3) the establishment of community monitoring systems.

With the first Adaptation Fund project, 2,000 technicians were trained, of which 20% were women.

- **Output 3.1.** *“Applied research carried out on the links between climate change, pests, fires and adaptation measures in the CBC”*

The project will seek to forge new alliances with institutions such as the Forest Research System (SINFOR, in Spanish) of the National University of Forest Sciences (UNACIFOR, in Spanish). The

⁴ http://sigmof.icf.gob.hn/?page_id=3813



results of the research will be mainly aimed at government institutions to use the findings in the definition of intervention protocols for prevention and control of the pine bark beetle pest and forest restoration protocols, etc. But also, to establish the basis for local and community work when designing and implementing measures and technologies for adaptation and resilience building.

To date there are no published studies on bark beetle pest management and its link to the effects of climate change. In some universities of the country such as the National Autonomous University of Honduras (UNAH), the Pan American Agricultural School "El Zamorano" (EAP Zamorano, in Spanish), and UNACIFOR some studies are carried out at the undergraduate thesis level on forest management of areas affected by the bark beetle and the etiology of the insect.

- **Output 3.2.** *"ONCCDS strengthened for information and knowledge management on climate change adaptation"*

The project will carry out several actions aimed at strengthening the ONCCDS so that it is consolidated as the main national platform to manage knowledge about climate change. This will include the strengthening of the institutional link that ONCCDS has with the National Environmental Information System (SINIA) and other institutions that generate hydrological and climatic data. The project will promote that the ONCCDS has a specific line of work for the management of micro data at the community level of the intervention area, managing and transforming this data into publications and informative materials for community use.

To date, the ONCCDS already has its legal status and executes information management actions through the development of national congresses on climate change and biodiversity, as well as courses and publications on the state of the environment, the effects of climate change and compliance of international commitments to the United Nations Framework Convention on Climate Change (UNFCCC).

- **Output 3.3.** *"Pest and forest fire monitoring system working with community participation schemes and articulated to an early warning system in the CBC"*

On the issue of pests, effective monitoring is based on the rapid identification of an attack outbreak. If the people of the communities know how to identify and make an early detection of the pest behavior in its first phase, it can allow us an effective control of the pest, if there is also close coordination and action of the central government instances.

In the CBC, the Regional Office of the ICF in Francisco Morazán emits reports with georeferencing of the points where fires and outbreaks of the weevil pest have been reported. The control of fires and pests is executed in the first instance by the Regional Office, if the control cannot be managed by the Regional Office, at the central level the ICF determines actions.

- **Output 3.4.** *"Knowledge and experiences of the project systematized and communicated"*

The project will develop a Communication and Knowledge Management Strategy of its own that will frame and plan all those activities aimed at promoting the communication of the actions it will carry out. This product will also include those actions related to the preparation of technical reports, guides and manuals. In the specific case of monitoring project actions, it will ensure that disaggregated and measurable data related to gender equity and women's empowerment are



incorporated. Finally, the project will promote the exchange of experiences as a capacity building tool.

3. Inception Activities

This section details the activities carried out from the signature of the Project document between Mi Ambiente+ and UNDP (November 8, 2018) to the extraordinary Project Board Meeting on August 06, 2019.

3.1. High-Level Launching event

On November 8, 2018, the high-level official launching the AdaptarC+ Project was held, led by the Minister of Environment, Mr. José Antonio Galdamés and the UNDP Resident Representative, Ms. Alissar Chaker. As part of the agenda, a video summary of expected activities of the project was presented. Both Mi Ambiente+ and UNDP emphasized the relevance of the actions to be carried out within the scope of the Sustainable Development Goals (SDG), particularly of SDG 06 "Clean Water and Sanitation", SDG 13 "Climate Action" and SDG 15 "Life of Earth Ecosystems". The event was attended by CBC municipal authorities, entities of organized civil society, the academy, partners responsible for the project, UNDP and related central government institutions.

MiAmbiente+, PNUD y Fondo de Adaptación lanzan Proyecto AdaptarC

ayudar usuarios de tierra, productores o ganaderos a conservar los bosques en cuencas que abastecen agua a la capital, proteger la biodiversidad y proporcionar medios de vida a la población, por medio del fortalecimiento de la gobernanza local y comunitaria bajo escenarios de cambio climático, sistemas de gestión del conocimiento, información y monitoreo de la capacidad de adaptación además de medidas y tecnologías de adaptación basada en ecosistemas para construcción de resiliencia en el CBC.

Además de contribuir al cumplimiento de la Agenda 2030 y al Plan de Gobierno de la República que impulsa el Presidente Juan Orlando Hernández Alvarado con acciones de mitigación y adaptación frente al cambio climático.

Socios

El Gobierno de la República a través de La Secretaría de Recursos Naturales y Ambiente (MiAmbiente+), en conjunto con el Programa de las Naciones Unidas para el Desarrollo PNUD y con financiamiento del Fondo de Adaptación lanzaron el Proyecto AdaptarC.

El proyecto tendrá duración de cinco años y una inversión superior a los 4 millones de dólares. Entre los resultados esperados sobresalen la creación de mecanismos de compensación en el recurso hídrico, para

5 áreas protegidas
5 sub cuencas
1,427,699 Habitantes
Área de influencia 14 Municipios

Photograph 1. Press release of the launching event



3.2. Recruitment of the Project Management Unit

The project management unit or PMU is composed of the Coordinator and the Administrative Assistant, in contract as of January 2019. In January and February, the PMU, together with UNDP, the administration of the Project Coordination Office (OCP-MiAmbiente+), the National Directorate of Climate Change (DNCC-MiAmbiente+), and the General Directorate of Water Resources (DGRH-MiAmbiente+) developed the annual operational plan for 2019. Likewise, a multiannual plan was developed. Both documents were presented at the First Project Board Meeting on March 04, 2019.

For the completion of the annual and multiannual plans, the Coordinator held different coordination meetings with the co-executing partners as responsible parties (AMDC, UNAH and ICF), the Ministry of Governance, Decentralization and Justice, the DGRH, the DNCC and the National Observatory of Climate Change for Sustainable Development (ONCCDS, in Spanish).

3.3. First Project Board Meeting

The first Project Board meeting was held on March 04, 2019. The meeting was attended by Mi Ambiente+, UNDP, the Ministry of Governance, Decentralization and Justice (SGDJ, in Spanish), Fundación Vida, the Ministry of Foreign Affairs and International Cooperation (SRECI, in Spanish), and the Association of Municipalities from Honduras (AMHON, in Spanish). This meeting presented the summary of the AdaptarC + Project and the annual planning proposal for 2019 and multiannual 2019-2022, worked by the project team and UNDP during the months of January and February.

The Project Board was structured as follows:

- Mi Ambiente+(Chair).
- UNDP (Executive Secretary).
- SRECI (Member).
- AMHON (Member).
- SGDJ (Member).

Observers:

- Fundación Vida..... (Civil Society).

This project board meeting accounts also for the project start date. The following items were presented and approved (Annex 1):

1. The annual work plan for 2019
2. Multiannual budget revision (5 years).
3. Letter of Agreement process with the responsible parties of the project (UNAH, ONCCDS and ICF)
4. Project risk matrix and Procurement Plan 2019

3.4. Dissemination of the project with the partners, responsible parties, and the municipalities

During April and May 2019, the project team engaged with each of the CBC municipalities, except for the Central District. During the visits, the mayors were informed of the objectives, results and expected goals of the project.



Photograph 2. Visits to the municipalities of Villa de San Antonio y San Buenaventura

During the municipal visits it was defined with some municipalities that the technical support in regards the project's activities will be provided via the Municipal Environmental Units (UMAs, in Spanish). It should be noted that the mayors highlighted the need to focus actions outside the Central District since most of the ecosystem goods and services consumed in the capital are produced in the surrounding municipalities.

3.5. Presentation of the landscape connectivity and ecosystem-based adaptation approach at the National Forum on Blue Economy towards the SDGs

In the context of the National Forum on Blue Economy towards the Sustainable Development Goals, held during the Convention of the Parties to the Cartagena Agreement and the Blue Economy Summit, in Roatán, Honduras, the AdaptarC+ project participated in a panel landscape connectivity and ecosystem-based adaptation approaches (4th and 5th June, 2019).

In recognition of the ecological importance of the Mesoamerican Reef as the second largest reef system on the planet, its impact on the Caribbean economy through tourism and the lobster, snail and sea cucumber fishing industry, cultural identity and livelihoods for various indigenous and Afro-descendant peoples, the Conecta+ and AdaptarC+ projects led the panel session: "Connectivity between continental and island basins: protecting and securing ecosystems goods and services for marine-coastal livelihoods". The Panel focused on the importance of ecosystem connectivity in the scope of the 4 priority areas of the Cartagena Convention identified for work in Roatán, particularly

in relation to the Mesoamerican Reef and increasing its resilience to the effects of climate change. The project’s contribution to this event serves towards raising awareness on ecosystem-based adaptation planning.



Photograph 3. National Forum on Blue Economy

3.6. Ecosystem-based Adaptation Workshop (in the margins of 2nd National Congress on Biodiversity)

The AdaptarC+ project team conducted a workshop on Ecosystem-based Adaptation (EbA), contributing to output 3.4, during the 2nd National Congress on Biodiversity held on June 12th, 2019. The workshop was conducted in collaboration with the Inter-American Development Bank and the National Directorate for Climate Change, with the objective of demonstrating the importance of EbA in the framework of the Convention for Biological Diversity, as a measure to maintain and increase resilience and reduce the vulnerability of ecosystems and people to climate change problems.

One of the highlights was the presentation of Honduras’s National Adaptation Plan (NAP) and its approach to EbA, by the National Directorate for Climate Change. The NAP is a strategic planning instrument for adaptation actions focused on the integration of sustainable development strategies, in order to reduce the adverse impacts of climate change and variability in the country. The NAP places people at the center of the development process. Among the principles of the NAP, the “recognition of the value of ecosystems and biodiversity in reducing the adverse effects of climate change on human communities and on infrastructure”, is highlighted. The EbA measures proposed in the NAP focus on agriculture and food Sovereignty, and biodiversity and ecosystem services, seeking the diversity of productive landscapes and increasing the resilience of protected areas, marine ecosystems/coastal and river basins.



Photograph 4. AdaptarC+ presentation at the EbA workshop

3.7. Mission of the UNDP Regional Technical Advisor (RTA) and awareness workshop with project’s beneficiaries and partners

An inception workshop dedicated to partners, beneficiaries and co-executors was planned for June 19th to 21st, 2019, with the visit of the UNDP RTA. However, due to political unrest, transportation blockage, and rioting in Tegucigalpa and surrounding areas, it was only possible to conduct the internal planning sessions with the PMU, extended expert team, responsible parties, and UNDP Honduras Country Office, on June 19 and 20. The broader stakeholder sessions with the municipalities, executing entities and other partners, scheduled for June 21, was canceled.

On June 21st, UNDP and the project team met with responsible parties of the project, namely, the National Institute of Forest Conservation (ICF) and the National Autonomous University of Honduras (UNAH) to discuss the following: 1) status of LoAs between UNDP CO and RPs, regarding the grants to be disbursed for project’s activities; 2) monitoring and evaluation requirements of the Adaptation Fund and UNDP; 3) risk management, adaptive management, and 3) compliance of the social and environmental safeguards identified in the project document.

3.8. Revision of the Annual Work Plan

During July 2019, per the agreements made during the RTA mission, a budget revision and adjustment was carried out to take into account environmental and social framework inputs and other recommendations.



Extraordinary Project Board Meeting - August 6th, 2019

The revised annual and multiannual budget work plans were presented and approved in an extraordinary session of the Project Board, held on August 6th, 2019. The following was agreed/ approved (see Annex 2):

1. Annual work plan (2019-2020) with the required adjustments based on the first disbursement received by Adaptation Fund, for an amount of US \$ 764,869.00
2. Multi-annual planning with the adjustments at 5 years, according to the disbursement schedule approved by the donor, and inputs needed to cover the Environmental and Social Management Framework in the signed project document. It should be noted that considering the sequencing of the activities and time lag incurred to complete the letters of agreement (with responsible parties) for the grant components of the project, adjustments were made to the timeline of the project’s activities too.
3. Approve the disbursement plan and execution period of the project considering the start date on March 04, 2019, taking into account project cycles according to the Adaptation Fund guidelines
4. Support the capacity assessment process addressed to municipalities for the prompt preparation of donation agreement letters.

4. Update on the Project Management structure

4.1. UNDP and MiAmbiente+ implementation arrangements

The implementation of the Project “Ecosystems-based Adaptation in the Central Forested Corridor” “AdaptarC+” is carried out under an implementation arrangement between the Secretariat of Natural Resources and Environment (Mi Ambiente+) and the United Nations Development Program (UNDP). Table 1 summarizes the generalities of the project.

Table 1. AdaptarC+ summary

Project’s name	Ecosystems-based Adaptation in the Central Forested Corridor
Short name	AdaptarC+
Implementation associate	Secretariat of Natural Resources and Environment (Mi Ambiente+)
Agency responsible for the project	United Nations Development Program (UNDP)



Responsible parties	Instituto de Conservación Forestal (ICF), Universidad Nacional Autónoma de Honduras (UNAH), 14 Municipalities (San Antonio de Oriente, Talanga, Cedros, Distrito Central, Cantarranas, Villa de San Antonio, Villa de San Francisco, Santa Lucia, Valle de Ángeles, Tatumbla, Santa Ana, Ojojona y San Buenaventura).
Beneficiaries	Observatorio Nacional de Cambio Climático (ONCCDS), Cooperativas Agroforestales, Juntas de Agua, Sistema Nacional de Información Forestal (SINFOR)
Intervention area	Corredor Boscoso Central (14 Municipalities: Depto. Francisco Morazán (13 Municipalities); Depto. Comayagua (1 Municipality))
Donor	Adaptation Fund
Thematic area	Climate Change Adaptation
Start date	March 2019
Finish date	March 2024

The project is implemented under the national implementation modality (NIM) of UNDP, according to the standard basic assistance agreement between UNDP and the Government of Honduras and the Country Program.

The Project defined its implementation strategy with the responsible parties identified in the project document through “Letters of Agreement” (LoAs) which will be signed between UNDP and the responsible parties. For each LoA it was agreed to include an annex with the implementation guidelines, whereby the project team will provide technical and administrative follow-up in the framework of compliance with the technical and financial proposals. Figure 1 details the organizational structure of the project according to the project document.

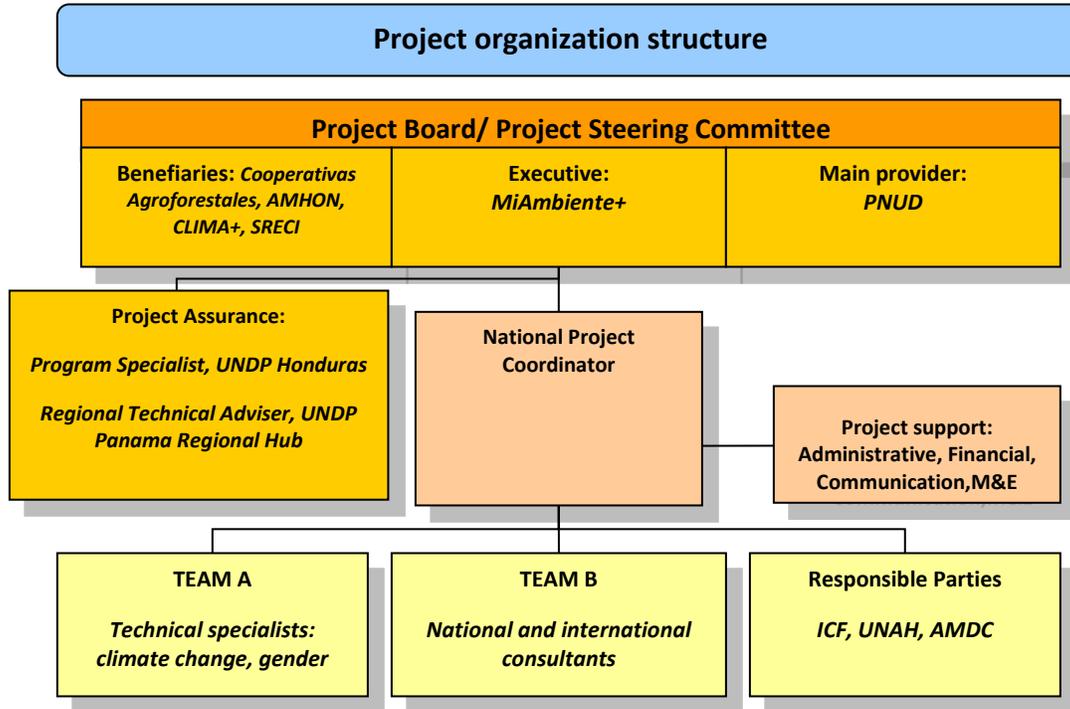


Figure 1. AdaptarC+ structure

However, some changes were made during this start-up phase:

- The Municipality of the Central District (AMDC) will not be the only one responsible party at the municipal level. Rather, 14 municipalities are now included, by means of LoAs.
- Agroforestry cooperatives will be beneficiaries of the project (grants recipients) but will not participate as members of the Project Board.
- Fundación Vida will participate in the Project Board meetings as observer, without voice or vote. This is in recognition of its membership to the Adaptation Fund NGO Network.
- Team A also includes technical specialists in water and forestry resources.

4.2. Project Board

The Project Board or Project Steering Committee is structured as indicated in the project document in order to: 1) comply with decision-making by consensus, 2) make management decisions in which the project manager needs guidance, including the recommendation for UNDP / partner approval in the implementation of plans and project reviews. The decisions of the Project Board must be made in accordance with standards that guarantee the management of results for development, a better price-quality relationship, justice, integrity, transparency and effective international competition.

The Project Board is made up of UNDP, Mi Ambiente+, the Association of Municipalities of Honduras (AMHON), the Ministry of Foreign Affairs and International Cooperation (SRECI), and the Ministry of



Governance, Decentralization and Justice. Observers are: Fundación Vida, the National Directorate for Climate Change (DNCC-MiAmbiente +), the Planning and Management Evaluation Unit (UPEG-MiAmbiente +).

4.3. Project Management Unit and Coordination Office

The project carries out its execution and management process through the Project Coordination Office (OCP) of Mi Ambiente+. This Office is tasked with the management of all projects in the Ministry with the aim to maximize capacities and take advantage of knowledge sharing and learning.

The Project Management Unit consist of a national project coordinator and an administrative assistant. The Project Management Unit is complemented by the staff of the OCP, which provides support to all projects in the activities of communication, monitoring and follow-up, administration, procurement and logistics.

4.4. Monitoring and Evaluation Plan

The execution of the project will be monitored annually and evaluated periodically according to the fulfillment of its results indicated in the logical framework.

Actions to monitor compliance with the monitoring plan will be supported by results 2 and 3. The monitoring plan will facilitate learning and ensure that knowledge is widely shared and disseminated to support the expansion and replication of project results. Monitoring and evaluation of the project will follow UNDP and AF guidelines and requirements. On behalf of Mi Ambiente+ the monitoring and follow-up will be carried out through the OCP's monitoring unit, which will follow up on the fulfillment of the monitoring plan in accordance with the project indicators and the institutional goals of MiAmbiente+. Specific monitoring and evaluation requirements are outlined in Table 2.

Table 2. Mandatory Monitoring and Evaluation Requirements of the Adaptation Fund and Monitoring and Evaluation Budget

Monitoring and evaluation requirements	Main responsibility	Indicative costs charged to the project budget (US\$)		Date and timely framework
		Project	Co-finance	
Inception workshop	UNDP Honduras	500	None	04/March/2019
Inception report	Coordinator	None	None	1 month after Board meeting on 06/August/2019
Normal requirements for monitoring and reporting of UNDP indicated in the UNDP Operations and	UNDP Honduras	None	None	Quarterly and annually

Programs Policies and Procedures				
Monitoring of indicators in the framework of project results	Project Management Unit	None	MiAmbiente+/ OCP	Annually
Report on the implementation of the Adaptation Fund project (PPR)	Project Coordinator UNDP Honduras UNDP RTA	None	None	Annually
National implementation modality audit according to UNDP audit policies	UNDP Honduras	2,500 /year	None	Annually
Lessons learned and knowledge generation	Project Management Unit	None	None	Annually
Monitoring of environmental and social risks and corresponding management plans as appropriate	Project Coordinator UNDP Honduras	None	None	On going
Stakeholder Participation Plan	Project Coordinator UNDP Honduras	None	None	On going
Gender Analysis and Action Plan	Project Coordinator UNDP Honduras	None	Conecta+ Project, REDD+ Project, and Camín Real de la Mesa	On going
Redress mechanism	Project Coordinator UNDP Honduras	None	None	On going
Project Board Meetings	Project Board Project Coordinator UNDP Honduras	None	MiAmbiente+/ OCP	Two meetings annually, one intermediate to know the progress and another one at the end of the year.
Supervision missions	UNDP Honduras	None	None	Annually
Control missions	UNDP RTA	None	None	As needed
Independent midterm review and management response	UNDP Honduras UNDP RTA Project Management Unit	20,000	None	Between 2° and 3° PPR
Final independent evaluation included in the UNDP evaluation	UNDP Honduras UNDP RTA Project Management Unit	22,000	None	3 months before the end of the project



plan and management response				
Quality Assurance	UNDP Honduras	None	None	Annually
Project PMM update (outputs and their indicators, activities, risk and monitoring)	Project Coordinator UNDP Honduras	None	None	Outputs annually, risks and monitoring reports every 6 months, activities quarterly.
TOTAL indicative COST Not including the time of the project team staff, or UNDP staff and travel expenses.		USD 55,000		

3.5. Definition of the relationship with stakeholders

The project has led the process of coordination with responsible parties and beneficiaries, as well as other stakeholders, such as:

- 14 municipalities: Socialized and presented the project, coordination of project activities such as workshops and forums. Technical support during LoA process.
- ICF: Technical support during LoA process.
- UNAH: Technical support during LoA process.
- ONCCDS: Technical support during LoA process.

LoAs for Micro- Capital Grants

Under Component 2, the 14 municipalities and agroforestry cooperatives are to receive micro grants and under component 3, the ONCCDS is identified as grant recipient as well. The following is the breakdown of the grants committed under each LoA:

ONCCDS	US\$ 150,000.00
Municipalities	US\$ 625,000.00
Agroforestry Cooperatives	US\$ 25,000.00
TOTAL	US\$ 800,000.00

LoAs for Responsible Parties

For each of the project's responsible parties, LoAs are being prepared which specify deliverables for each party, as follows:

National University of Honduras (UNAH)

In line with components 2 and 3, the UNAH will prioritize the following activities:

- a) Definition of drought-resistant and infiltration-enhancing plants
- b) Analysis of the behavior of water recharge elevations (CBC isotopy)



- c) Conceptual hydrogeological model for the CBC to understand water flow dynamics
- d) Index of vulnerability to climate change at the municipal level for the base years 2019 and 2022 with scenarios to 2040 and 2050.
- e) Study of water demand in the CBC
- f) Diagnosis of the ecological quality of CBC water and the frequency of biological, microbiological and hydrogeochemical contaminants.
- g) Strengthen technical capacities at the community level in the theme of ecosystem-based adaptation and water resources.

National Institute of Forest Conservation (ICF)

In line with components 1 and 2, the ICF will focus on the following activities:

- a) Review and update of municipal forest protection plans of the 14 municipalities.
- b) Strengthening of the Regional Forest Office of “Francisco Morazán”
- a) Prioritization of 1,000 hectares of forest for restoration.
- b) Restoration of 600 hectares in water supply micro-basins affected by the pine bark beetle.
- c) Promotion of CBC governance as a water producing area and interconnection of species.
- d) Strengthening the Information System for Forest Management and Monitoring (SIGMOF).
- e) Facilitation of an expedited mechanism for the issuance of small-scale timber harvesting permits
- f) Implementation of the measures in the Municipal Forest Protection Plans
- g) Promotion of local mechanisms for coordination and forest governance of the CBC.

The breakdown of the total resources committed to each responsible party is as follows:

UNAH	US\$ 458,820.31
ICF	US\$ 332,105.60
TOTAL	US\$ 790,925.91

Other Stakeholders

- **Association of Municipalities of Honduras (AMHON):** Socialized and presented the project, coordination of project activities in the area of municipal coordination and planning.
- **Ministry of Governance, Decentralization and Justice:** Socialized and presented the project, coordination of project activities in the area of municipal coordination and planning.
- **Plan de Nación:** Socialized and presented the project, coordination of project activities in the area of municipal coordination and planning.



- **Instituto de la Propiedad:** Socialized and presented the project, coordination of project activities in the area of municipal coordination and planning
- **SANAA:** Socialized and presented the project, coordination of project activities in the area of water coordination and planning

The coordination process has been carried out with SINFOR for the necessary strengthening and possible approaches between actors, mainly with the ONCCDS, UNAH, Entomology Institute.

Inter-municipal coordination has been carried out to address reforestation and restoration issues, training in municipal strengthening for the issue of water security and watershed management, in close coordination with ICF.

In general, the project ensures the creation of the appropriate space to develop the institutional framework and governance platform for the CBC in which transparent and inclusive processes are implemented so that there is an effective participation of all its actors and a link between them.

4.5. Central Forest Corridor Platform

The project kicked off the process of updating and reactivating the CBC platform as the inter-institutional coordination body which will ensure the participation of local governance in the CBC. As a first step, documentation was compiled based on efforts supported by the previous Adaptation Fund project, in the 2014-2016. Likewise, a legal process has started to ensure that the CBC platform operates under national Law, as the ecosystem-based adaptation initiative and main development engine for the population of Tegucigalpa and surrounding communities. The process is intended for the CBC Authority figure, initially through the approval of a President in the Council of Ministers, and as a second step, through a Legislative Decree.

4.6. Project Communications

The project plans to develop its Communications and Visibility Strategy with the objective of defining actions for the communication of successful experiences generated through project activities.

Target Audience	Key message	Means of communication
Municipalities	Building resilience and strengthening livelihoods through ecosystem-based adaptation for municipal planning.	Meetings Workshops Forums Exchanges of experiences
Academia	Promotion of applied research on ecosystem goods and services and their link to climate change.	Scientific Publications Popular Publications Guidelines for decision making
Water Boards Agroforestry Cooperatives	Protection of natural resources to guarantee the provision of	Workshops Field days



Women's Networks Community councils	ecosystem goods and services and construction of climate resilience.	Publications in print and audiovisual media
Government institutions	Inter-institutional coordination for the integral management of the territory.	Meetings
Civil society organizations	Strengthening local and national capacities for climate change adaptation.	Workshops Forums Congresses Courses Diplomas
General public	Dissemination of the results achieved and the importance of citizen participation for climate action.	Publications in print and audiovisual media Field days

5. Government Priorities and Programs

5.1. Climate Agenda of Honduras

The Climate Agenda of Honduras is immersed in the Environmental Agenda of Honduras and is the strategic framework of the State of Honduras where the key elements that must exist at the national level are synthesized to grant the Honduran population solutions and opportunities to reduce their vulnerabilities, build adaptive capacities, promote sustainable development and address the causes and consequences of climate change in an inclusive and sustained manner over time. The Climate Agenda is a first step to condense what the country has been building over the years, and which is currently the bridge between preparation and action to programmatically combat the effects of climate change, including climate variability produced by the phenomenon of El Niño.

The institutional framework of the Climate Agenda is made up of the actors of the Interinstitutional Committee on Climate Change (CICC). The starting point is the Ministry of Natural Resources and Environment (MiAmbiente+), as the governing body in the field of natural resources and its dependencies directly related to the subject: the National Directorate of Climate Change (DNCC, focal point of the UNFCCC), the General Directorate of Water Resources (DGRH) and the General Directorate of Biodiversity (DiBiO). Likewise, at the level of the Secretariat of the Presidency, the CLIMA+ instance has been formed, which is constituted as an instance of political support for the harmonization of the Climate Agenda of Honduras.

The objective of the Climate Agenda of Honduras is to reduce poverty, inequality and exclusion, through the creation of capacities and opportunities offered by the joint actions of mitigation and adaptation to climate change. For this, the Climate Agenda of Honduras presents the National Mitigation Plan and the National Adaptation Plan (Figure 2). Each Plan will have a Program with a portfolio of projects by strategic axis with their respective components and goals, and Technology Action Plan. The period of validity of both plans is until 2030.

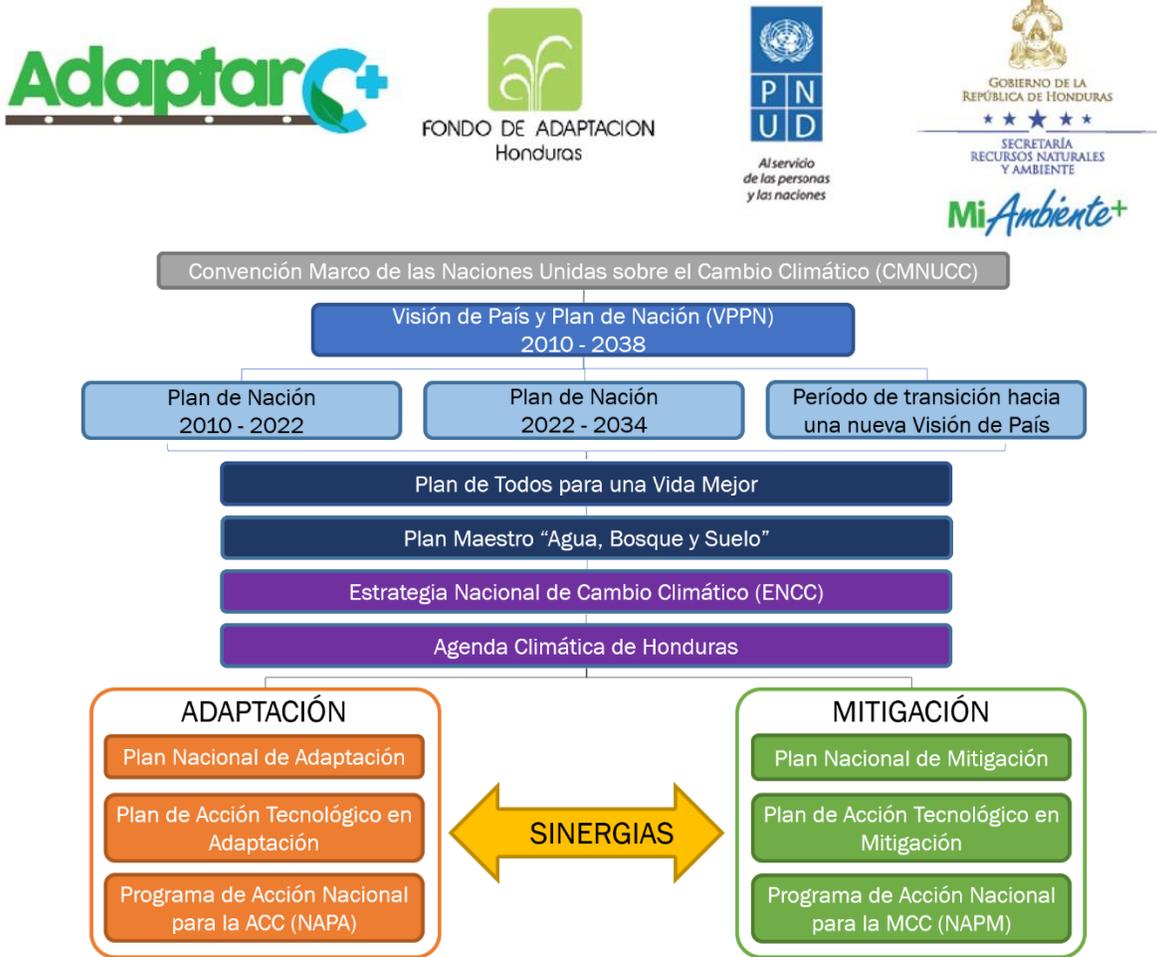


Figure 2. Programmatic structure of the Climate Agenda of Honduras
 Source: adapted from Agenda Climática de Honduras (MiAmbiente+, 2017)

5.2. National Climate Change Adaptation Plan

The National Adaptation Plan (NAP) is a strategic instrument that visualizes adaptation to climate change as a development process that places people at the center of the intervention and is part of the National Planning System. Its implementation is planned until 2030 consolidating a first period of compliance with the National Climate Change Strategy (2010), in accordance with the 2030 Agenda and the Sustainable Development Goals (SDGs), particularly SDG 13 “Climate Action”. The NAP is also linked to other national strategic planning instruments from the Environmental Agenda, the different Sector Strategies for Climate Change Adaptation, the Country Vision and National Plan Law (VPPN, in Spanish), the 20/20 Plan, the Program All for a Better Life “Better Life”, the National Action Plan to Combat Desertification and Drought (PAN-LCD, in Spanish) and the Water, Forest and Soil Master Plan (ABS, in Spanish).

The National Climate Change Adaptation Plan of Honduras mission is to achieve a nation with capacities, conditions and technologies to be resilient, productive and inclusive, generating decent jobs, that takes advantage of the benefits and services of its natural resources in a sustainable way and that reduces its vulnerability to climate change with a focus on the well-being of people, communities and ecosystems. For this, the strategic guidelines of the plan point to the implementation of adaptation actions in the sectors: food and food sovereignty, human health, infrastructure and socio-economic development, biodiversity and ecosystem services, and water resources (Figure 3). It should be noted that respect for human rights and gender equity (especially

for the most vulnerable groups), disaster risk management, promotion of land use planning and awareness and training of citizens are cross-cutting themes to respond to climate change.

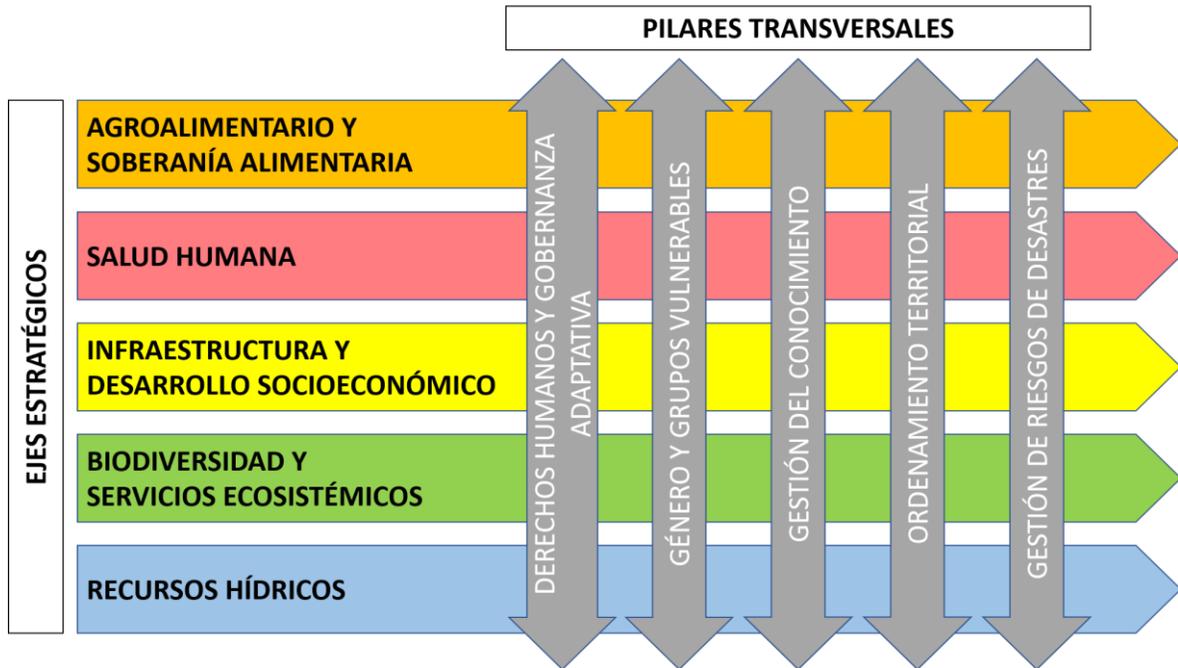


Figure 3. Axis and pillars of the National Adaptation Plan of Honduras

Within the principles of the NAP, the “recognition of the value of ecosystems and biodiversity in reducing the adverse effects of climate change on human communities and on infrastructure”, thus highlighting EbA. EbA measures proposed in the NAP are mainly in the areas of “Agriculture and Food Sovereignty” and “Biodiversity and Ecosystem Services” seeking the diversity of productive landscapes and increasing the resilience of protected areas, coastal-marine ecosystems and river basins.

5.3. National Program for the Recovery of Goods and Services of Degraded Ecosystems

The National Program for the Recovery of Goods and Services of Degraded Ecosystems (2018-2028) (PNRBSSED, in Spanish) is an instrument of inputs for the planning and development of policies and action plans at local or regional level that allow to articulate inter-institutional efforts with the objective of reducing impacts of deforestation in the forests of Honduras, creating an opportunity for communities to generate employment, strengthen capacities, improve environmental conditions, participate women and have access to economic incentives associated with forest protection.

The PNRBSED defines 11 restoration actions according to the different current land uses, this with the objective of improving and recovering the ecosystem goods and services relevant to the country. In total 2,182,152 potential hectares were identified for restoration (Table 3).

Table 3. Restoration actions, the current use where the action would be executed and the potential area

Restoration actions	Current land use	Potential area (ha)
Cocoa agroforestry system	Cocoa <900 masl	6,386
Coffee agricultural forest	Coffee > 900 masl	31,179
Ally crop system	Basic grains	1,146,072
Quesungual agroforestry system	Basic grains	293,390
Dendro-energy plantation	Secondary deciduous vegetation	225,403
Plantation of high value timber	Secondary wet vegetation	169,659
Silvopastoral system	Natural grass	801,682
Ecological Mangrove Restoration	Continental bare soil	4,488
Mangrove Reforestation	Continental bare soil	4,488
Protection against forest fires	Dense conifer forest	210,274
	Thin conifer forest	411,327
Pine reforestation	Thin conifer forest with bark beetle incidence	77,805
TOTAL		2,182,152

Source: MiAmbiente+ (2018, p. 37)

Starting from the fact that the restoration of the landscape is recognized as a key strategy not only to recover ecological integrity, but to generate additional local, national and global benefits, the AdaptarC+ Project will implement restoration actions within the framework of its result 2 and seeking to keep the PNRBSED line. As a result, it seeks to improve livelihoods and strengthen territorial development, food and water security, restore the functions of ecosystems directly related to the hydrological regime to reduce vulnerability and positively impact the provision of water, energy and food in the CBC.

5.4. Nationally Determined Contribution (NDC)

The NDC of Honduras is a conditional contribution based on 2012 emissions in a “Business as usual-BAU” scenario (that is, without climate action) and consequently presents mitigation and adaptation commitments that include the following:

Mitigation

- By 2030, a 15% reduction in emissions from sectors and sources related to Energy, Agriculture, Industrial Processes and Waste with respect to the BAU scenario. This commitment is conditioned on the support being favorable, predictable and the mechanisms of climate financing being made viable by the international community.
- Restoration/reforestation of 1 million hectares of forest before 2030.



- A 39% reduction in the consumption of firewood in families, through the NAMA of Efficient Stoves. This will also contribute to the fight against deforestation and the improvement of the quality of life.

Adaptation

- Prioritization of adaptation to climate change in the Agrifood and Marine-Coastal sectors. This will be achieved through the implementation of the Agroforestry of Sustainable Productive Landscapes, Marine-Coastal and Adaptation programs based on Communities, Cities and Ecosystems.

At the center of the NDC's commitments, both mitigation and adaptation, is the “human face of climate change” to contribute to the improvement of the quality of life of Hondurans who, due to their situation, may be more vulnerable to change climate. These actions must ensure a transversal perspective of human rights and gender equity, ensuring that women, indigenous peoples and Afro-Hondurans have full and effective participation in decision-making, and guaranteeing respect for human rights.

In 2017, the country built a roadmap to reach compliance with Nationally Determined Contributions, thanks to the support of the NDC Partnership and NDC Assist and through a national intersectoral dialogue for the empowerment of institutions for implementation and monitoring of the NDC. In 2020, Honduras will present to the UNFCCC an updated and more detailed NDC on the measures to be implemented to achieve the established mitigation and adaptation objectives.

6. Status of activities and next steps by August 2019

Result 1 “Strengthened the CBC platform to implement ecosystem-based adaptation processes through land planning”

- **Output 1.1.** *“Coordination and decision-making spaces strengthened for the sustainable management of the natural resources of the CBC, including measures for the effective participation of women and indigenous peoples”.*

Project presentation and socialization meetings were held with the 14 municipalities of the Central Forest Corridor and the definition of the contacts required as municipal liaisons for the project coordination work.

- **Output 1.2.** *“Regulations related to the management of natural resources applying to the CBC”.*

No activities started.

- **Output 1.3.** *“Municipal Plans for Climate Change Adaptation prepared and validated”*

On July 16, a meeting was held with the AMHON to revise and update of the Municipal Development Plans (PDMs) with the aim of prioritizing adaptation. In addition, the process of identifying methodologies for the development of the PDM and an analysis of which include the topic of climate change began.



- **Output 1.4.** *“Operational proposal for a financing scheme for adaptation measures to Climate Change in the CBC prepared and validated”*

Meeting with the “Solidaridad Network” team - a global network of experts focused on creating sustainable supply chains, with an adaptation lens - to explore synergies and alliances under a development perspective of green commodity actions that promote sustainability in productive activities that are developed in the CBC. Solidaridad is developing an adaptation initiative in productive landscapes in Honduras that seeks to catalyze impact investment. A field visit was defined in the month of August to explore this issue at the micro watershed level.

Result 2 “Designed and implemented measures and technologies of climate change adaptation based on ecosystems and that increase the resilience of the community and their livelihoods in the CBC, promoting gender equity and the active participation of young people”.

- **Output 2.1.** *“Areas of pine forest affected by pests and fires in the CBC restored to safeguard ecosystem goods and services and livelihoods of communities”*

Prepared the technical documentation of the co-executing partners for the process of agreement letters with the responsible parties (UNAH, ICF). Process of micro evaluation of capacities of co-executing partners completed.

- **Output 2.2.** *“Strategic areas of forest restored by natural regeneration through effective mechanisms for protection against fires, pests and land use change”*

Consulting for the diagnosis of municipal vegetative production facilities (nurseries) and strengthening needs for permanent structures, initiated.

- **Output 2.3.** *“Climate change adaptation measures and technologies implemented to optimize the use of water and forest resources”*

No activities started.

Result 3 “Generation, systematization and use of climate change knowledge and information that contributes to research, capacity building, monitoring, and informed decision making”

- **Output 3.1.** *“Applied research carried out on the links between climate change, pests, fires and adaptation measures in the CBC”.*

On June 06, a meeting was held with the coordination of SINFOR to define lines of support for an action plan for strengthening and linking with climate change issues. Additionally, a working meeting was held with the director of the research department of the National University of Forest Sciences (UNACIFOR) to jointly define the approach strategy with the research topic on pest management.

- **Output 3.2.** *“ONCCDS strengthened for information and knowledge management on climate change adaptation”.*

Preparation of the technical documentation of the co-executing partners for the letter agreement process (ONCCDS), which develops the methodological actions to carry out this product.



- **Output 3.3.** “Pest and forest fire monitoring system working with community participation schemes and articulated to an early warning system in the CBC”.

No activities started.

- **Output 3.4.** “Knowledge and experiences of the project systematized and communicated”

Participation and facilitation in the 2nd National Congress on Biodiversity with an Ecosystems-based Adaptation Workshop, June 12, where different case studies of national experiences were presented.

7. Risk analysis and mitigation measures

Project activities aim to support practices that incorporate ecosystem-based adaptation measures and techniques and management to increase the climate resilience of most vulnerable communities in the CBC to Tegucigalpa and surroundings. Although the project is rated as a moderate risk project, technical procedures, risk management plan and monitoring activities are needed.

The project identified 11 risks that its activities could cause, which are defined and described below with its mitigation measures.

Risk	Impact and Probability	Level	Mitigation measure
Change in water rates and restricted access to forest resources, which may limit accessibility to some basic services	I: 3 P:2	Moderate	Payment scheme for Tatumbula ecosystem services introduced through the previous AF project. The implementation will involve the revision of the water rate to internalize the protection and maintenance costs of water sources and recharge areas. The project will be involved with communities, local and national actors and CBC municipalities to implement Payment Schemes for Ecosystem Services. These actions are expected to help CBC communities have better access to water resources while applying efficient and adaptive water management practices for human consumption and agricultural use.
Limitations may exist in local capacities, particularly in vulnerable and poor groups, for their effective participation in making decisions that may affect them.	I:3 P:2	Moderate	Marginalized groups in the CBC project area can be considered poor and vulnerable population, faced with food security problems (municipalities with chronic malnutrition), and water security problems (difficult access throughout the year and safe water supply). These groups will be

			prioritized for adaptation interventions. The stakeholder participation process will be carried out in a similarly inclusive manner as it was for the consultations of the proposal preparation phase, ensuring a broad representation of the relevant community based existing organizations / groups.
Limitations may exist in the institutional capacities of the central region and local and community governance by carrying out governance roles in support of sustainable landscape management	I:3 P:4	Moderate	The project will finance specific capacity-building activities at the level of community, local and national government and strengthen the key institutions in relation to critical institutional functions, based on the analysis of institutional frameworks and related capacities carried out during project preparation.
Women may be excluded from decision-making or there may be inequality in participation in project design / implementation. As a result, there may be an inequality in opportunities for access to resources and benefits	I:3 P:3	Moderate	A gender analysis will be carried out in the initial phase of the project to assess women's divisions and the role of women and their access to resources and develop recommendations on how the project will promote women's equality and empowerment. Including participation in project decision making, as described in the ESMF. The measures will ensure that women receive an equitable share of the benefits and that their status and interests are not marginalized. Participatory processes will include methodologies specially designed to improve women's participation and, therefore, improve the inclusion of their views on project activities, using existing mechanisms to represent women's views, such as the office municipal women and women's associations.
Restoration activities will be carried out in degraded forest areas in some protected areas. Targeted productive sectors (e.g. agriculture) will expand in some sensitive	I:1 P:4	Low	The project will support the application and implementation of the Law on Forestry, Protected Areas and Wildlife, through the development of an information mechanism for communities (about bad practices, illegal logging, fires and pest outbreaks, etc.); Municipal level standards and

<p>environmental zones. State institutions have poor capacities and weak law for enforcement. The project will work with these sectors in these areas to reduce their environmental impacts, but not lead to increases in this expansion.</p>			<p>ordinances (especially zoning of land use and forestry use by private owners) with communication, inspection and feedback mechanisms. A restoration protocol will ensure the location and performance of restoration activities without causing adverse impacts on critical habitats, and will be consistent with any area management plan. The development of hydrogeological studies will provide pertinent information for the determination of the areas to be reforested.</p>
<p>Forest restoration will involve planting resilient tree species, using native varieties</p>	<p>I:3 P:2</p>	<p>Moderate</p>	<p>Reforestation activities will be designed to improve biodiversity and ecosystem services in degraded areas. Reforestation activities will be guided by existing forests, management plans and a study of native species and propitiators of infiltration. In addition, the Project will provide training for the sustainable use of forest resources.</p>
<p>The project will promote the restoration of degraded forest. The project targets communities for forest area management where resources such as firewood, coal and resin extraction will be used)</p>	<p>I:1 P:5</p>	<p>Low</p>	<p>Reforestation activities will be designed to improve biodiversity and ecosystem services in degraded areas. Reforestation activities will be guided by existing forests, management plans and a study of native species and propitiators of infiltration. In addition, the Project will provide training for the sustainable use of forest resources. The project also incorporates adaptation measures and technologies based on ecosystems in the forestry sector and in integrated river basin planning and administration.</p>
<p>The project is directly addressing climate change vulnerabilities and adaptive capacities in the CBC and directly promotes adaptation measures to the adverse effects of extreme weather (particularly drought) that can affect</p>	<p>I:3 P:3</p>	<p>Moderate</p>	<p>The project directly supports the implementation of adaptation measures at the level of ecosystems and communities, including the reforestation of areas affected by the pest of the bark weevil, induced by drought, protection of a forest area through the introduction of control mechanisms and pest and fire monitoring, and by introducing on the site adaptation</p>

forests, agriculture and related livelihoods.			measures on water resources management for human consumption and agricultural use, as well as more practices for sustainable use of forest resources in communities. Other risk management measures include extensive research and monitoring of climate impacts, adoption of early warning systems and reinforced regulations and compliance to combat illegal / unsustainable practices.
Water management adaptation activities may include the construction of community water tanks, cisterns, micro reservoirs, dams and drip irrigation systems	I:3 P:1	Low	The Project will ensure compliance with environmental impact assessment procedures of MiAmbiente+, In addition to Honduran building codes and forestry, water, and sanitation regulations (for low-risk projects, MiAmbiente+ requires project description and geo-reference before of carrying out a field evaluation). In addition, the project follows the technical guidance developed by the previous AF project on rainwater collection systems, micro reservoirs and drip irrigation techniques.
The CBC area involves 3 municipalities (Ojojona, Santa Ana and Lepaterique) that have Lencas indigenous communities	I:1 P:5	Low	These communities have been directly involved during the proposal’s preparation consultations. The project does not foresee any change or negative impact on the current livelihoods of these communities or their natural resource base, on the contrary, it will promote the use of ancestral knowledge and support the implementation of adaptive techniques to their current subsistence activities.
Pest control measures and agricultural support may include the potential use of pesticides	I:3 P:1	Low	The Project will help producers to adopt improved agricultural techniques (for example, organic farming, soil and water conservation) that would reduce the use of harmful fertilizers and pesticides, thereby reducing soil and water bodies contamination. These measures will promote agroecological practices, in accordance with the Organic Agriculture Regulations and the Manual of Good Agricultural Practices of the Ministry of



			Agriculture and Livestock (SAG). Although not planned, but if potentially harmful pesticides are needed and / or used, they will be properly managed, stored, used, following national and international standard standards and procedures.
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The risks facing the execution of the project and its mitigation measures are the following:

Risk	Level	Mitigation Measure
Governance tensions or possible conflicts at community level	Medium	The project will use methodologies for conflict resolution, to ensure that there are mechanisms and that the government institutions in charge have the necessary skills and resources. The project will also use and improve regulatory measures at the municipal level (e.g., local ordinances) or at the national level (e.g., water law in case tensions are related to water use and rights).
Reduction of political will for coordination in the different municipalities of the CBC	Medium	The project will work to strengthen ties between the different municipalities of the CBC. The formalization of the CBC platform will be the basis to ensure that the political will that exists today to promote this initiative, and that through training and strengthening of activities, coordination between agencies of different municipalities increases.
Unexpected extreme weather events that affect forest restoration efforts	High	The project has three main measures to mitigate this risk. Research and monitoring will facilitate a better understanding of the causes of the impacts of these threats, facilitating an improvement in the action plans to adapt to them. Additionally, early warning community alert systems will allow a prompt effective and active response. In addition, the project will work to strengthen the application of sanctions and regulations at the community level, which allows people to report illegal activities in the target area (for example, illegal logging, burning, resin extraction techniques, land use change, etc.)
Lack of political will and coordination for the design and implementation of payment for ecosystem services	High	The project will use as a main mechanism for dialogues, coordinating the CBC platform and authorities to achieve PSE schemes, and provide incentives to replicate the existing Tatumbula pilot in a municipal scheme, analyze lessons learned from previous efforts in larger intermunicipal schemes to avoid lack of



		success. The project will also ensure synergies with other financial mechanism processes such as REDD +.
Tenure problems regarding possession of CBC lands	High	The project will support a preliminary diagnosis of each municipality on land tenure. In cases where land tenure conflicts fall beyond the scope and capacity of the project, the necessary synergies will be established with the corresponding government institutions, such as the Property Institute (IP, in Spanish) and the National Agrarian Institute (INA, in Spanish).
Changes or displacements of government personnel	Low	The project, through its Component 3, will work on knowledge management and to ensure the establishment of computer systems as institutional memory of the project in the short and long term, so that new government personnel can continue to build on this information. Although it is true that there are changes in government personnel, these changes are generally rotating and qualified human resources continue to work in related areas, therefore, the global loss of qualified human resources is not expected.
Corruption and lack of transparency by municipalities and communities in the management of donations	Low	The project will be implemented through Mi Ambiente+ / OCP. Municipalities and communities will be given training for the management and transparency of funds regarding donations. The required measures of responsibility will be guaranteed, so there is no place for misuse of resources, through formal donation agreements and their close follow-up process.



8. Budget Revision

Table 4 details the budget review discussed and approved at the extraordinary project meeting on August 6. In summary, the adjustments by result refer to:

- Consideration of the activities detailed in Annex 14 of the PRODOC - Environmental and Social Management Framework of the Project.
- Letters of Agreement: addressed to municipalities, agroforestry cooperatives and ONCCDS will determine specific activities for the scope of the indicators and goals established in the PRODOC. It is recognized that these institutions need close technical support to guarantee compliance. As a result, it has been decided to reduce the original grant amounts for municipalities and increase the budget lines for local consultants, workshops and others linked to the implementation of measures, so that the established goals can be achieved.

Table 4. Budget detail by outputs

Outputs	Total US\$	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024
		Year 1	Year 2	Year 3	Year 4	Year 5
Result 1 “Strengthened the CBC platform to implement ecosystem-based adaptation processes through land planning”	492,397.09	120,040.69	155,221.00	121,375.00	69,175.00	26,585.40
Output 1.1. “Coordination and decision-making spaces strengthened for the sustainable management of the natural resources of the CBC, including measures for the effective participation of women and indigenous peoples”	79,649.00	20,949.00	15,975.00	14,975.00	13,875.00	13,875.00
Output 1.2. “Regulations related to the management of natural resources applying to the CBC”	28,910.40	5,100.00	12,100.00	4,700.00	4,800.00	2,210.40
Output 1.3. “Municipal Plans for Climate Change Adaptation prepared and validated”	279,837.69	89,991.69	82,146.00	46,700.00	50,500.00	10,500.00
Output 1.4. “Operational proposal for a financing scheme for adaptation measures to Climate Change in the CBC prepared and validated”	104,000.00	4,000.00	45,000.00	55,000.00	-	-



Result 2 “Designed and implemented measures and technologies of climate change adaptation based on ecosystems and that increase the resilience of the community and their livelihoods in the CBC, promoting gender equity and the active participation of young people”	2611,600.91	451,498.31	721,942.63	587,707.25	485,933.73	364,519.00
Output 2.1. “Areas of pine forest affected by pests and fires in the CBC restored to safeguard ecosystem goods and services and livelihoods of communities”	931,433.09	200,171.36	350,066.93	188,754.80	137,915.00	54,525.00
Output 2.2. “Strategic areas of forest restored by natural regeneration through effective mechanisms for protection against fires, pests and land use change”	761,806.08	45,940.60	174,240.25	213,612.50	159,518.73	168,494.00
Output 2.3. “Climate change adaptation measures and technologies implemented to optimize the use of water and forest resources”	918,361.75	205,386.35	197,635.45	185,339.95	188,500.00	141,500.00
Result 3 “Generation, systematization and use of climate change knowledge and information that contributes to research, capacity building, monitoring, and informed decision making”	550,790.00	107,790.00	143,975.00	158,475.00	104,675.00	35,875.00
Output 3.1. “Applied research carried out on the links between climate change, pests, fires and adaptation measures in the CBC”	120,975.00	18,375.00	33,175.00	39,175.00	20,875.00	9,375.00
Output 3.2. “ONCCDS strengthened for information and knowledge management on climate change adaptation”	201,500.00	54,000.00	66,000.00	55,000.00	25,500.00	1,000.00



Output 3.3. <i>“Pest and forest fire monitoring system working with community participation schemes and articulated to an early warning system in the CBC”</i>	79,200.00	4,800.00	22,300.00	26,800.00	22,800.00	2,500.00
Output 3.4. <i>“Knowledge and experiences of the project systematized and communicated”</i>	149,115.00	30,615.00	22,500.00	37,500.00	35,500.00	23,000.00
4. Project Management Unit (PMU)	381,802.00	85,540.00	75,594.00	84,924.00	69,810.00	65,934.00
TOTAL	4036,590.00	764,869.00	1096,732.63	952,481.25	729,593.73	492,913.40



9. Review of the Logical Framework of the Project

Outcome	Outcome indicator	Final goal	Needed adjustments	Indicators review
Project Objective The main objective of the Project is to increase the climatic resilience of the most vulnerable communities of the Central Forest Corridor and the adaptive capacity of their municipalities with an emphasis on ensuring livelihoods and the continuity of the provision of ecosystem goods and services for the city of Tegucigalpa and surroundings.	Number of CBC communities that reduce their vulnerability and increase their climate change adaptation training	At the end of the Project, the vulnerability index improves from medium to low for all CBC municipalities	No adjustments	
	Number of municipalities that integrate climate change adaptation measures in their municipal development plans, municipal budget and income from payments for ecosystem services	At the end of the Project, at least 10 municipalities incorporate adaptation plans to climate change in their municipal budgets	No adjustments	
Result 1 “Strengthened the CBC platform to implement ecosystem-based adaptation processes through land planning”	1.1. CBC Authority and Platform formalized, operational and capable of handling climate risks	At the end of the Project, CBC Authority is established through law or equivalent, with institutional coordination mechanisms and defined functions and trained personnel	No adjustments	

	1.2 Number of municipal norms or ordinances of established and operational mechanisms	At the end of the Project, at least 4 regulatory mechanisms are operational in each municipality: 1) Community reporting mechanism, municipal ordinance 2) land planning 3) use of the forest by private forest owners 4) functions delegated to the UMAs	No adjustments	
	1.3 Number of municipal plans reviewed or developed that integrate climate risk considerations	At the end of the Project, 9 municipal adaptation plans and 25 micro basin plans are available for CBC municipalities	At the end of the Project, 14 municipal development plans with a climate change approach, and 25 microbasin plans are available for CBC municipalities	Given the lessons learned with municipal planning processes and in order to promote the sustainability of the inclusion of the topic of climate change, it has been decided to review the Municipal Development Plans (PDM). This change was adopted by consensus with the municipal governments, as the PDMs are the instruments established by Law, for the



				framework of operation and financing of municipal governments.
	1.4 Number of Payment Schemes for Ecosystem Services (PSE)	Municipal PSE schemes (revised water rates) are replicated in at least 5 municipalities at the end of the Project. A proposal designed for an intermunicipal PSE pilot developed.	No adjustments	
Result 2 “Designed and implemented measures and technologies of climate change adaptation based on ecosystems and that increase the resilience of the community and their livelihoods in the CBC, promoting gender equity and the active participation of young people”.	2.1 Numbers of hectares of pine trees and affected forests that were restored	At the end of the Project, 8,000 ha were protected	No adjustments	
	2.2 Level (%) of implementation of the measures proposed in the Municipal Forestry Protection Plans in the 14 CBC municipalities (levels: 0% zero; <20% low; 20 <50% medium; 50 <80% high;> 80 very high)	At the end of the Project, there is a high level of implementation in all municipalities	No adjustments	
	2.3 Number of families (including families that have women as head of	At the end of the Project, 12,000 families improve their access to water (at least 30%	No adjustments	



	household) with better access to water service	of families with women as head of households)		
Result 3 “Generation, systematization and use of climate change knowledge and information that contributes to research, capacity building, monitoring, and informed decision making”	3.1 Number of studies carried out related to adaptation to climate change (bark beetle pest, forest restoration, etc.).	At least 5 relevant studies.	No adjustments	
	3.2 Number of technicians trained in climate change adaptation planning (indicator disaggregated by sex).	At the end of the Project, at least 2,500 trained technicians (at least 35% of women).	No adjustments	
	3.3 Number of institutions that officially share the information with ONCCDS (through MoU or LoA).	At the end of the Project, at least 10 institutions share information based on Agreements.	At the end of the Project, at least 6 institutions share information based on prioritized Agreements.	The number of agreements is reduced as the state of progress of the ONCCDS is in an initial stage of formation and consolidation.
	3.4 Number of SATs focused on the affectation by bark beetle functioning.	At the end of the Project, all CBC municipalities have operational SAT.	No adjustments	
	3.5 Lessons learned and good practices generated	At least 20 (2 of them related to gender) were	No adjustments	



	by the Project are systematized and communicated.	communicated and systematized.		
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