Concept Note

Project/Programme Title:	*Strengthening the resilience of fisheries and aquaculture-dependent communities of coastal and insular zones of Honduras (FISHERIES RESILIENCE – COASTAL MARINE ZONES)*
Country(ies):	*Republic of Honduras*
National Designated Authority(ies) (NDA):	Secretary of Natural Resources and Environment
Accredited Entity(ies) (AE):	*The Food and Agriculture Organization of the United Nations*
Date of first submission/ version number:	*[YYYY-MM-DD] [V.0]*
Date of current submission/ version number	*This is the first submission*

Please submit the completed form to **fundingproposal@gcfund.org**, using the following name convention in the subject line and file name:
"CN-[Accredited Entity or Country]-YYYYMMDD"

Notes

- The maximum number of pages should **not exceed 12 pages**, excluding annexes. Proposals exceeding the prescribed length will not be assessed within the indicative service standard time of 30 days.
- As per the Information Disclosure Policy, the concept note, and additional documents provided to the Secretariat can be disclosed unless marked by the Accredited Entity(ies) (or NDAs) as confidential.
- The relevant National Designated Authority(ies) will be informed by the Secretariat of the concept note upon receipt.
- NDA can also submit the concept note directly with or without an identified accredited entity at this stage. In this case, they can leave blank the section related to the accredited entity. The Secretariat will inform the accredited entity(ies) nominated by the NDA, if any.
- Accredited Entities and/or NDAs are encouraged to submit a Concept Note before making a request for project preparation support from the Project Preparation Facility (PPF).
- Further information on GCF concept note preparation can be found on GCF website Funding Projects Fine Print.

A. Project/Programme Summary (max. 1 page)			
A.1. Project or programme	☒ Project ☐ Programme	**A.2. Public or private sector**	☒ Public sector ☐ Private sector
A.3. Is the CN submitted in response to an RFP?	Yes ☐ No ☒ If yes, specify the RFP: _____	**A.4. Confidentiality[1]**	☐ Confidential ☒ Not confidential
A.5. Indicate the result areas for the project/programme	Mitigation: Reduced emissions from: ☐ Energy access and power generation ☐ Low emission transport ☐ Buildings, cities and industries and appliances ☐ Forestry and land use Adaptation: Increased resilience of: ☒ Most vulnerable people and communities ☐ Health and well-being, and food and water security ☐ Infrastructure and built environment ☒ Ecosystem and ecosystem services		
A.6. Estimated mitigation impact (tCO2eq over lifespan)		**A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)**	102,000 direct beneficiaries people (10% of the total coastal population)
A.8. Indicative total project cost (GCF + co-finance)	Amount: USD 17,000,000	**A.9. Indicative GCF funding requested**	Amount: USD 12M
A.10. Mark the type of financial instrument requested for the GCF funding	☒ Grant ☐ Reimbursable grant ☐ Guarantees ☐ Equity ☐ Subordinated loan ☐ Senior Loan ☐ Other: specify_____		
A.11. Estimated duration of project/ programme:	a) disbursement period: 5 years b) repayment period, if applicable:	**A.12. Estimated project/ Programme lifespan**	5 years
A.13. Is funding from the Project Preparation Facility requested?[2]	Yes ☒ No ☐ Other support received ☐ If so, by who:	**A.14. ESS category[3]**	☐ A or I-1 ☒ B or I-2 ☐ C or I-3
A.15. Is the CN aligned with your accreditation standard?	Yes ☒ No ☐	**A.16. Has the CN been shared with the NDA?**	Yes ☒ No ☐
A.17. AMA signed (if submitted by AE)	Yes ☒ No ☐ If no, specify the status of AMA negotiations and expected date of signing:	**A.18. Is the CN included in the Entity Work Programme?**	Yes ☒ No ☐
A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)	Climate change impacts in coastal and insular communities of Honduras include sea level rise, lowland flooding, coastal erosion, rising sea surface temperature and recurrent tropical storms, posing significant threats to ecosystems and households. The project will implement a strategy to strengthen resilience in these communities, fisheries and aquaculture-dependent communities with three components: 1) Improved livelihood resilience to CC; 2) Creation of a multi-level CC adaptation and disaster risk management, and 3) Strengthening natural barriers and adapting new housing infrastructure. The project will cover 39,609 km^2 marine and 8,307 km^2 land area. It will benefit 102,000 people directly and 1,000,000 indirectly.		

[1] Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy (Decision B.12/35) and the Review of the Initial Proposal Approval Process (Decision B.17/18).

[2] See here for access to project preparation support request template and guidelines

[3] Refer to the Fund's environmental and social safeguards (Decision B.07/02)

B. Project/Programme Information (max. 8 pages)

B.1. Context and baseline (max. 2 pages)

According to the ND-GAIN Country Index[4] all countries, to different extents, are facing the challenges of adaptation. Due to geographical location or socio-economic condition, some countries are more vulnerable to the impacts of climate change than others. Some countries are more ready to take on adaptation through government action, by leveraging public and private sector investments and through community awareness. ND-GAIN measures both these dimensions: vulnerability and readiness. The index summarizes a country's vulnerability to climate change and other global challenges, in combination with its readiness to improve resilience. It aims to help governments, businesses and communities better prioritize investments for a more efficient response to the immediate global challenges ahead, Honduras has a high vulnerability score and a low readiness score, which is why it is considered to be a country with a great need for investment and innovations to improve preparedness and a great urgency to act. Honduras is the 67th most vulnerable country (0.469 lower middle) and the 28th least prepared country – economic, governance and social readiness (0.278 lower middle) according to ND-GAIN, 2018[5].

Another global climate risk indicator, German Watch (2018) placed Honduras as the country with the highest global climate vulnerability ranking between 1997 and 2016, having experienced 69 extreme weather events in this period, causing losses in purchasing power parity (PPP) of more than 561 US billion[6]. Communities in coastal areas are extremely vulnerable to climate change and subject to high rates of poverty and financial instability. Such is the case of the last record of disasters such as the fishing shipwreck near Moskitia in 2019, floods caused by hurricanes Eta and Iota and tropical storm Amanda in 2020.[7]

The Honduran Caribbean coastline is 650 km long and includes low-lying coastal plains with widths ranging from 5 to 25 km and height of -1.0 and 20 m above sea level, which account for 16.4% of the total national territory[8] it translates into a high risk of flooding (exposure) during the Hurricane season and sea-level rise from storm surges.

Approximately 1.0 million people or 11% of the total national population live in coastal and insular zones[9] . In 2018, more than 61 percent of the national population was living in poverty and approximately one in five Hondurans were living in extreme poverty or on less than US$1.00 per day[10] . Poverty and exposure of coastal communities to extreme events (hurricanes, sea level rise, erosion) make them some of the most vulnerable in the country[11] .

The project area corresponds to territories prioritized by the Government of Honduras due to its ecological importance, being part of the Mesoamerican Reef System, and for the country because it is an area with great biological, ecological, and cultural value, as well as high economic importance. A large portion of the population lives along the coast and islands that are affected, along with the ecosystems they depend on, by the high exposure to climate change phenomena. The Healthy Reefs for Healthy People Initiative (HRI) in his 2020 Mesoamerican Reef Health Report Card, indicated that for the first time in 12 years of tracking the health of the largest barrier reef in the Western Hemisphere, the overall condition of this vital ecosystem has deteriorated. The Reef Health Index (RHI), which synthesizes ecological data into a "Dow Jones" style index, decreased from 2.8 in 2016 to 2.5 in 2018. According to scientists this recent decline highlights the need to step up local actions to improve water quality and increase fish populations. Also, they urge to accelerate international commitments to reduce carbon emissions in order to halt climate change impacts on reefs. The report is based on a new study of 286 coral reef sites along 1000 km of the Caribbean coasts of Mexico, Belize, Guatemala, and Honduras. [12]

Scientific rationale for climate impacts

Coastal systems face significant impacts from climate change. The Fifth Assessment Report (AR5) of the International Panel on Climate Change (IPCC) identifies coastal systems as particularly sensitive to three key drivers related to climate change: sea level, ocean temperature, and ocean acidity[13].

Climate change is already impacting and is expected to have increasingly significant impacts on the fisheries and aquaculture sectors in Honduras: flooding, saline intrusion and changes in reef health and fish populations are already

[4] https://gain.nd.edu/assets/254377/nd_gain_technical_document_2015.pdf ND GAIN index

[5] https://gain.nd.edu/our-work/country-index/rankings/

[66] Germanwatch, 2018 https://germanwatch.org/en/cri

[7] EM-DAT The International Disaster Database https://www.emdat.be/search/node/honduras
[8] Proyecto Manglares – Honduras, 2012.
[9] INE, 2019 (www.ine.gob.hn)
[10] INE, 2018 (https://www.ine.gob.hn/V3/imag-doc/2019/09/cifras-de-pais-2018.pdf)

[11] SERNA, 2010
[12] Mesoamerican Reef Report Card (https://www.healthyreefs.org/cms/wp-content/uploads/2020/02/2020_Report_Card_MAR.pdf)

[13] IPCC, 2014.

reported [14].Reduced rainfall and water availability, increased sea surface temperatures, sea level rise and ocean acidification are threatening inland aquaculture and marine fisheries in Honduras, thus causing a decrease in fish yields/productivity and loss of reef and mangrove habitats.[15] In Honduras, high temperatures and decreased rainfall are expected to decrease corn (12%) and bean (32%) production by 2050 compared to 2000. Higher temperatures will reduce the area suitable for coffee cultivation (the main source of foreign exchange), which will require producers to move their crops to higher areas (~ 600 to 1,000 m) which will increase degradation and deforestation in previously uncultivated areas[16].

As far as coastal areas are concerned, the information regarding past observations and future projections is as follows:

Sea level rise - The information from the satellite missions during the period 1992-2020 shows that the rate of sea level rise on the Caribbean Coast of Honduras is above the world average with values close to 4-6 mm / year. Sea level rise projections show similar patterns with higher increases on the eastern coast than on the western coast, regardless of the scenario and time horizon considered. Thus, for RCP8.5 and horizon 2081-2100, increases in the sea level rise of 0.8 m are reached between the eastern most littoral of the country, to Puerto Castilla, and then decrease to 0.7 m from that point to the western limit of the country. For RCP4.5 the situation is similar but with maximum levels close to 0.5 m on the eastern coast at 0.4 m from Puerto Cortés to the border with Belize. For the closest period (2026-2045) the projections show a similar pattern but with maximum values of increase in the environment of 0.25 m in RCP8.5 and 0.15 m for RCP4.5. All these increases are with respect to the reference period 1986-2005. However, it is important to consider that in the latest IPCC report (2019), the global average projections have been adjusted for the end of the century, considering the uncertainty associated with the losses of the ice masses in Greenland, The Arctic and Antarctica, with values up to 20 cm higher than the AR5 estimates. Furthermore, in terms of risk assessment, it would be desirable to analyze the part of the upper range of the distribution of sea level rise that could yield projections in the area with increases greater than 1.5 m. In this regard, some impact studies predict possible floods of up to 5,000 km^2 of lowlands adjacent to the coast (Annex 1. Map 2).

Regarding the extremes of sea level that are the main causes of flooding and damage to communities and assets, the combined effect of the projections of sea level rise and the meteorological tides associated with tropical storms, as described later, will have as a consequence a notable increase in the frequency of those extreme levels that can cause severe damage. With the scarce existing data, the SROCC (IPCC, 2019) shows that, based on historical data, the Honduran coast is one of the places in the world with recurrence of extreme events with a return period of 100 years, that have already markedly increased their recurrence.

Sea surface temperatures (SST) - In Honduras, increases in SST are expected to decrease the productivity of mangroves and pastures and increase the level of seawater acidity causing coral bleaching[17].

The analysis of SST trends in the Caribbean shows that during the last 5 decades there has been an increase in SST throughout the Caribbean that also affects the coasts of Honduras. The patterns show rates of increase on the eastern coast around 0.3-0.4 ^oC per decade, which on the western coast decreases to about 0.2 ^oC/decade. All projections seem to indicate that the increase in temperature will continue to occur in the future for any RCP and that the frequency, duration and spatial extent and intensity of marine heat waves will increase even for low RCPs. The most recent projections (IPCC, SROCC, 2019) show that, by the end of the century, the probability of increasing the number of days with marine heat waves off the Honduran coast will increase notably.

Tropical storms – Honduras is severely impacted by tropical cyclones. In 1998, Hurricane Mitch resulted in a death toll of 5,657 people and some 8,000 people missing, with over half a million people affected throughout the country. The increase in severe meteorological events can cause a loss of forest cover, mangroves, coral reefs and fisheries, as well as ecosystem services and associated livelihoods, with a greater risk of pests and diseases in addition to causing a reduction in fisheries productivity. The infrastructure of 216 cities was severely affected by Hurricane Mitch and the overall economic losses amounted to more than USD 5 Billion[18] . During 1994-2013, at least 69 extreme weather events were recorded, causing losses of 3.3% of the country's GDP and resulting in significant loss and destruction of homes, crops, and human lives.

Last year's record-breaking hurricane season and the "unprecedented" double blow (Hurricanes Beta and Iota) for Central America, is a reflection of the effect's climate change is posing on extreme hydrometeorological events in the Central American Region. In a 36-hour period, Beta went from a depression to a destructive hurricane category 4. Then two weeks after, Honduras was severely hit by category 5 Hurricane Iota. Unprecedently, 30 tropical storms in the Atlantic littoral of Honduras caused flooding, loss of livelihoods and infrastructure.

Regarding future projections, from the information available in the SROCC report (IPCC, 2019), it can be deduced that the Honduran Caribbean coast will continue to be susceptible to being affected by tropical cyclones and that for high

[14] HRI, 2018
[15] USAID, 2017. (https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID%20ATLAS_Climate%20Change%20Risk%20Profile_Honduras.pdf)
[16] USAID. 2017. Perfil de riesgo climático Honduras. Hoja informativa. ATLAS No. AID-OAA-I-14-00013. 6 pp.
[17] SERNA, 2010
[18] MiAmbiente, 2018

emission scenarios (higher than RCP4. 5) There is consensus regarding an increase in the number and frequency of hurricanes with categories 4-5 with respect to the past. In addition, it is expected that the average intensity of hurricanes will increase as sea temperature increases. This will result in meteorological tides associated with the hurricanes having a greater impact on the coastal infrastructure and human settlements since, due to the increase in the sea level rise, the total extreme flood levels will be higher than those observed so far. The expected physical damages will most likely be aggravated by the effect of stronger winds and increased precipitation.

Project Intervention Area:
The proposed area of project intervention is chiefly occupied by Miskitos indigenous populations, as well as small communities of African-Honduran people, such as Garifunas and afro-descendants, which amount to approximately 102,000 people[19], whose main livelihoods are fisheries (98%), the rest being dependent partially or totally on small-scale aquaculture and subsistence agriculture.
As far as aquaculture is concerned, there are 1,580 small-scale registered farms in the country, of which 260 are located along coastal plains and lowlands close to the Caribbean. These have experienced increasing water shortages and temperature-associated diseases, with deleterious effects on their crops and livelihoods[20] . Whilst traditional fishing is still practiced for food purposes, highly valued species such as lobster, queen conch and sea cucumber, have become commercially important fisheries and are the most important local source of hired employment.
The total area covered by the project will be 47,916 km^2 (8,306.96 km^2 terrestrial and 39,608.68 km^2 marine area), extending from Gulf of Honduras in the Caribbean Sea at the mouth of the Motagua river that marks the border between Guatemala and Honduras on the Northeast, through to Cabo Falso, on the North-western Caribbean coastline of Honduras, including the Bay islands, the Moskitia Keys and Archipleago Cochinos Keys (Annex. Map 1). The geographical basis for setting the boundaries of the project were sea level rise model-derived cartographic material, together with the geographic distribution of fishing communities along the Caribbean Coast and insular zone. Landward, the boundaries were set so as to include the limits of the widest coastal plain (40 km inland), including coastal lagoons which are important fishing grounds. Seawards the limits were set so that the Bay Islands and Cochinos Keys, were included. This setting allows for a source-to-sea inclusive multi-actor adaptation and resilience plan.
The project area includes a number of important ecosystems affected by, and vulnerable to climate change impacts such as mangrove forests, beaches, reefs and coastal lagoons. It includes 24 municipalities with more than 30 fishing communities scattered on the area. Some 258 registered, small-scale aquaculture units are located within the area covered by the project, which produce freshwater species.

While the project area includes some large coastal cities, namely Tela (98,000 inhabitants) and La Ceiba (200,000 inhabitants), most of the territory is isolated, with fishing communities disperse and with no access by land. In the northeastern coastal region (Department of Gracias a Dios; 103,769 inhabitants) basic services are precarious and many small fishing communities lack electricity, drinking water and sanitation.
The Bay Islands Department (74,484 inhabitants) is comprised of small islands and a series of keys to the north (Cochinos Keys). Together, the archipelago comprises 260 km^2. This Department hosts part of the Mesoamerican Barrier Reef which, besides increased anthropogenic pressure, is being affected by Climate Change. According to the NGO Healthy Reef Initiative (HRI, 2018), the Honduran reef showed the largest area of coral bleaching of the whole Mesoamerican Reef in the 2015-2016 period. This event was associated with abnormally high sea water temperature. Such events are expected to gradually increase their frequency of occurrence[21].

Alignment with national priorities: Honduras has expressed its commitment to contribute to climate change actions under the principle of common but differentiated responsibilities. The marine-coastal sector is a priority within the Honduras Nationally Determined Contribution and hence this project has been prioritized by the Government. Honduras' Climate Change Act and the National Climate Change Strategy (MiAmbiente, 2018) include a number of public policies aimed at implementing low-carbon development that is resilient to the effects of climate change; they also promote community resilience building. Adaptation is essential to reduce the country's vulnerability to climate change, and there are opportunities such as economic/market incentive mechanisms, forest restoration and diversified fishing practices. Honduras prioritizes adaptation over mitigation and has developed its National Adaptation Plan[22]. The present project aligns well with the measures being developed in the NAP, by aiming at reducing the vulnerability of the fisheries and aquaculture sector.
Coastal protection to conserve ecosystem services is one of the strategic adaptation objectives identified in the National Climate Change Strategy of Honduras[23].
Four strategies were identified for coastal and marine areas:

[19] INE, 2013
[20] DIGEPESCA, 2016
[21] Mesoamerican Reef Report Card (https://www.healthyreefs.org/cms/wp-content/uploads/2020/02/2020_Report_Card_MAR.pdf)

[22] MiAmbiente, 2018
[23] SERNA, 2010

- To establish mechanisms to prevent and control the loss of beaches, thus maintaining the services they provide.
- To support the national initiatives of mangrove restoration and conservation in bays, estuaries and islands.
- To establish action frameworks to prevent and reduce degradation of reef ecosystems, promoting their restoration and conservation in response to the impacts of climate change.
- To strengthen the socioeconomic sustainability of human populations that inhabit and depend on coastal and marine ecosystems for their livelihoods.

Various elements of the project are also aligned with other key government plans and strategies, such as the National Development Plan (2010-2022), the Food and Nutrition Security Strategy (2010-2022); as well as the Moskitia Fisheries Development Plan, Guidelines for the National Fisheries Management Plan and REDD+ strategies. Honduras' legal and political framework promotes actions to protect, conserve and restore marine, coastal and terrestrial ecosystems; their biodiversity and the integrated management of risk and vulnerability by sector. There are other current projects which can complement the proposed actions of this project. The NGO GOAL has been implementing, since 2018, the Project "Resilience of the Blue Economy of the Coastal Ecosystem of Northern Honduras". It focuses on improving the competitiveness of artisanal fisheries, as a means to improve their economic sustainability while preserving the mangrove ecosystem on which their economy depends; as well as increasing their resilience to climate change. This is co-financed by The Nordic Development Fund (NFD) and The Inter-American Development Bank (IDB Lab)[24].

The present proposal is also aligned with the Country Programatic Framework (MPP 2019-2022) for FAO´s work in the country, particularly with priorities 1: "Food and Nutrition Security" and 3 "Sustainable Use of Natural Resources, Adaptation and Mitigation to Climate Change and Risk Management". The project is also aligned with the National Development Plan (2010-2022), the National Climate Change Strategy (2010); the Food and Nutrition Security Strategy (2010-2022) and the REDD+ Strategy. The project will implement a comprehensive strategy to halt deterioration of marine, coastal and insular ecosystems, thus protecting their ecological functionality. It will also strengthen adaptation mechanisms to climate change, specifically within the communities that depend on coastal, marine and insular ecosystems, particularly but not exclusively, those dependent on aquaculture and fisheries.

FAO is well placed to work with the Designated National Authority (DNA) to implement the project. FAO is the agency of the United Nations with a mandate focused on the eradication of hunger; the strengthening of agri-food systems; the improvement of nutrition and food production through the sustainable management of natural resources. FAO's strategic framework for action includes strengthening the resilience of communities to climate change and managing agroclimatic risks. The Organization has global and local experience in mechanisms for the sustainable management of natural resources, including marine and coastal ecosystems, as well as hydrological watersheds with productive use. FAO generates and shares important information on food, agriculture, fisheries, aquaculture and natural resources in the form of global public goods. It develops a liaison role, identifying and working with various partners with proven experience and facilitating dialogue between those who have the knowledge and those who need it. By transforming knowledge into concrete actions, FAO links the field with national, regional and global initiatives in a mutually reinforcing circle. By joining forces, it facilitates partnerships for food and nutrition security, agriculture, fisheries and aquaculture and rural development among governments, development partners, civil society and the private sector.

The barriers that prevent adaptation measures to CC in coastal and insular communities of Honduras are:

1. *Coastal Marine and Insular communities whose livelihoods depend on fisheries and aquaculture are absent in institutional adaptation and Disaster Risk Management mechanisms.* Institutional structures/arrangements do not address current and expected climate change impacts, hence there is not an integrated management, multi-level and multi-actor adaptation plan to address key risks attributed to climate change on coastal and insular communities. Both local institutions and communities lack capacities to respond to climate change impacts in coastal and insular areas. There is no national-territorial CC policy articulation in practice related with these mechanisms.

2a. *Housing spaces and fisheries and aquaculture – related infrastructure in coastal communities are increasingly vulnerable to flooding and severe storms.* Inadequate housing/infrastructure regulations and construction practices do not consider current and expected impacts of climate change. Most fishing communities are indigenous populations that live along the coastline or in highly exposed islands, hence increasingly occurring storms and flooding events are already impacting housing and production spaces of hundreds of communities.

2b. Limited access to fishing and aquaculture technologies adapted to CC. Local communities are coping with changes in fish species and need to adapt their fishing techniques to newly occurring species. Also, aquaculture farmers need to adopt climate resilient species and culture systems.

3. *Lack of alternative livelihoods for vulnerable fishing and aquaculture-dependent communities faced with current and expected climate change impacts.* The vulnerability of coastal and insular communities is exacerbated by the lack of alternative economic activities, as they are highly dependent on fishing for their livelihood.
4. *Lack of an integrated coastal marine protection strategy to strengthen natural barriers to protect coastal communities from increasingly frequent storms linked to climate change along the coastline* Community-based

[24] GOAL, 2020.

implementation of natural barriers protection, such as mangrove and beach vegetation reforestation need to be put in place through participatory formulation of policies and sustainable programs.

B.2. Project/Programme description (max. 3 pages)

Geographic coverage of the project: The geographic limits of the project were defined by an *ad-hoc* inter-institutional technical working comitte (ITWC) integrated by CC-related government entities and FAO. The ITWC compiled and analysed biophysical and climatic information, as well as identified the major threats posed by CC phenomena on the most vulnerable population of the coastal and insular territories of the country. The Caribbean littoral and the insular territories were prioritized by the Government of Honduras, because: a) scientific information derived from local models on sea level rise predicts an above-average increment of sea level, particularly in low lying zones, and b) vulnerability of fishing-dependent communities along the Caribbean coast is higher than that of other regions due to the combination of high exposure, high sensitivity and absence of preparedness.

The project aims at strengthening the resilience of fisheries and aquaculture dependent communities of coastal and insular zones of Honduras. Three components address the significant current and future climate change impacts.
The project specifically aims at strengthening adaptation mechanisms.
Activities will be addressed in a two-pronged strategy:

a) *Socio-economic strategy*: Aimed at improving livelihood diversification and the endurance of housing and productive areas, according to the expected climate scenario.
b) *Ecological strategy*: Harmonious use and, where feasible, environmental restoration of natural barriers, such as mangroves and beaches, for the sustainability of resources and related ecosystem services. Preserving long term exosystemic function, structure and composition to improve climate change adapting ability.

In order to achieve the above mentioned goals, community and local government capacities should be built and strengthened to improve coastal area integrated management and planning, and promote a balance between marine fisheries, coral reefs and mangroves conservation and use.
The project has three components, whose innovative approaches contribute to change the baseline paradigm through national CC policies, to cope with climate change in coastal and insular territories of the Honduran Caribbean.

Component I -. Improved livelihood resilience to climate change of coastal and insular fishing and aquaculture-dependent communities.
First component will focus on five activities:

1.1. *Introduction and adoption of new fishing technologies by fisher folk, according to newly abundant, non-traditional species for fishing*. This involves selecting and adopting through demonstration and capacity building, adequate fishing gear, capture methods and fishing boats to the new species and new fishing grounds on the territory. It also includes strengthening the capacities of the national fisheries authority and territorial governments, to disseminate the new technologies not only within the project area, but throughout the country, where applicable.
1.2. *Improving fisheries management through adaptive fisheries co-management, particularly of the traditional fisheries resources* (including lobster, queen conch and some species of fish) which have decreased their catches by 40% over the last two decades, due to multiple factors including climate change. The inclusion of this component focuses on improving fisheries management through adaptive fisheries co-management, linked to ecosystem restoration and resilience. This is particularly important for reef-fish fisheries.
1.3. *Identification of and capacity building for alternative livelihoods to either replace fishing activities or complement them.* This involves building and/or strengthening capacities of fishing and aquaculture communities, to diversify or widen their livelihoods. In some cases, the reduction of fish stocks due to CC will demand the substantial reduction or elimination of the fishing effort, which in turn calls for building economic resilience through livelihood diversification.
1.4. *Adoption of climate-resilient aquaculture species and systems by farmers. All of the aquaculture farmers of the targeted project area cultivate freshwater species*. Increased temperatures and extended droughts are expected to impact small-scale aquaculture farmers through water shortages, poor water quality and associated pathogens[25] . This activity includes the adoption of resilient strains of cultured species and/or replacement with more resilient species. Also, the incorporation of low or zero water exchange aquaculture systems to improve water use efficiency.
1.5. *Train women in processing and value-adding of fish and aquaculture products*. This involves post-harvest handling and processing; as well as the use of simple fish conservation techniques that allows them to store and also to increase value of their produce to generate higher cash income without increasing the volume of fish captured. These infrastructures need to be planned according to existing regulatory frameworks and taking the CC threats discussed below into account (i.e., location and design to decrease vulnerability).

Component II.- Creation of a multi-level and multi-actor CC adaptation and disaster risk management mechanism
Three activities are envisaged:

[25] FAO, 2018

2.1 *Create a participatory multi-actor, multi-sector and multi-level (national-territorial-local) CC adaptation plan for coastal and insular communities*. This implies improving the existing policies and strategies to incorporate a multi-actor and multi-level CC adaptation planning and implementing mechanism, based on inclusive governance, highlighting the role of social protection mechanisms and pro-poor strategies in the adaptation and disaster risk management mechanisms. Small-scale fishing face many challenges, since this sector is the most precarius and widely present in the territory. Introduction of social protection schemes are hence intended to reduce their vulnerability.

2.2 *Strengthen national and territorial governments, local community and stakeholder groups' capacity* to participate, support and monitor an integrated CC adaptation plan for coastal and insular communities, based on the principles of the National Adaptation Plan for Honduras[26], with emphasis in the recognition of the value of ecosystems and biodiversity in reducing the adverse effects of climate change on human communities and on infrastructure.

2.3 *Improve the natural disaster risk management (DRM) systems at territorial and local levels*. This involves improving the preparedness of governmental DRM systems; as well as the incorporation of fisheries and aquaculture sector stakeholders in DRM plans of action. Focus on climate services or agrometeorological services targeted toward farmers/fisher folk and also increase the capacity of national authorities to collect data on climate, extreme events and forecasts and disseminate that information to fisher folk. Early warning systems informed by the best available climate data and forecasts. Marine fishing is one of the riskiest occupations in the world and the fishing sector is characterized by the absence of a safety culture, which is why it is intended to improve disaster risk systems.

Component III.- Strengthening natural barriers and adapting housing spaces to the new natural hazards posed by CC along the Honduran Caribbean coastal and insular zones.

This component includes three activities:

3.1 Implement local-level mangrove and beach vegetation restoration and social awareness programs to reduce deforestation impacts and promote the propagation of beach stabilization species, such as *Atriplex canescens, Sesuvium portulacastrum* and *Ipomoea pescaprae,* as a tool to stop coastal erosion. This would be done through the multi-actor adaptation mechanism (see 2.1).

3.2 Identify and set economic / market incentive mechanisms applicable to the local context, thus building on other successful regional experiences, such as mangrove and beach restoration funds, access of exemplary fishing communities that adopt sustainable fishing practices, such as strict compliance with fisheries management measures, including avoiding no-take zones, respecting no-take seasons and minimum legal fish sizes, to productive and/or development projects funds and others. This as a basis for national level replication of such incentive mechanisms. This will be further detailed at the full proposal stage.

3.3 Improve the design and materials of coastal-marine families houses (direct impact on 102,000 people around 15-20,000 families houses) particularly those living in highly exposed zones, to increase their resilience. This includes a technically sound but participatory design process, considering the local culture and locally available, renewable materials. It also involves outlining a national plan for improving housing and public infrastructure in CC-vulnerable coastal and insular communities, supported by robust spatial planning, to be adopted both by the Territorial and National Governments.

In Honduras, FAO has promoted policies and institutional frameworks that promote sustainable development and the strengthening of the resilience of rural communities. Likewise, it has collaborated in the strengthening of institutional capacities for the management of public policies and systems for the protection, promotion of food and nutrition security. Through its field program, it is promoting the construction of knowledge and the transfer and exchange of learning and lessons learned.

With respect to Implementation Arrangements, FAO is the Accredited Entity (AE) to the GCF while MiAmbiente+ (Ministry of the Environment and Natural Resources) is the Executing Entity (EE). The implementation arrangements will be further detailed during the development of the funding proposal.

There will be a Project Monitoring Unit (PMU) based at MiAmbiente to ensure a fluid articulation at national/political level. It will also have an *in situ* facility in a strategic location within the project area, to ensure local-national coordination and close follow up of activities on the field.

An *ad-hoc* Inter-Institutional Working Comittee (ITWC) was created to provide and analyse technical information, establish vulnerability criteria and select the area to be covered by the project. The ITWC includes the Climate Change Unit of MiAmbiente (Ministry of the Natural Resources and Environment), the Ministry of Agriculture and Livestock (Secretaria de Agricultura y Ganaderia-SAG), the Instituto de Conservacion Forestal (ICF – Forest Institute), and the Directorate of Fisheries and Aquaculture (SAG - DIGEPESCA). It is expected that these same key stakeholders will participate in the development of the funding proposal and implementation of the project in all phases of the process, from design and execution to evaluation.

Furthermore, the full effects and severity of the COVID-19 crisis on Honduras has been affected such as the global reports fishing activities have decreased in both artisanal and industrial sectors during the pandemic. According to Global Fishing Watch, global industrial fishing activity had fallen globally by about 6.5 percent as at the end of April 2020, compared with

[26] MiAmbiente, 2018

previous years, as a result of restrictions and closures related to COVID-19 (FAO,2020).[27] The main adverse effects are for producers supplying the food services sector, local markets for small scale fisheries. Processing has been affected by worker health issues and labour shortages due to COVID-19 illness and quarantining of staff. Changes in demand are also affecting storage, resulting in increased food loss and waste. Many wholesale and retail fish markets are often congested and crowded, presenting risks to traders, most of whom are women, as well as to consumers, who take significant risks to maintain their livelihoods and to buy fresh fish to eat.
It is important to highlight the fact that informal supply chains are facing greater impacts due to the lack of formal contractual relationships (no established cold chain or insurance, among others). Another consequence of the virus outbreak, linked to global trade, is the cancellation of key seafood trade events across the world.

Acording to the DALA draft Report conducted by ECLAC on December 2020, for Honduras with the impact of COVID-19 and the 2020 hurricane season was the most active in the history of the region, with a total of 30 storms, of which 13 were hurricanes and 6 were major hurricanes, which is more than double the annual average. Hurricane ETA had its formation on october 31. On November 2, a State of Emergency was declared in the departments of the north coast of Honduras. On November 6, this decree was modified and a State of Emergency was declared throughout the national territory, due to the effects of the rains caused by the “Tropical Storm ETA”. The State of Emergency would be in force until December 31, 2020, and may be extended if the effects that gave rise to the emergency persist. Hurricane ETA dissipated on November 13, characterized by erratic behavior, presenting numerous variations in intensity, it was estimated that it left a total of 380 to 635 mm in almost all of the Honduran territory. For its part, Hurricane IOTA was formed on Friday, November 13. On November 18, Executive Decree Number PCM-109-202 and some articles of Decree PCM-113-2020 were modified to extend the actions described there to "other climatic phenomena [IOTA] that could cause damage to the country's productive infrastructure. Nacional level". This hurricane dissipated on November 18 over El Salvador. This event, during its formation, was cataloged under categories 4 and 5 of hurricanes, but it weakened quickly when it touched land. Even so, it was estimated that it would leave a total rainfall of 500 to 750 mm in the northern part of the country. The departments most affected by both hurricanes were Atlántida, Cortés, Santa Bárbara and Yoro. In 2020, the total effects caused by hurricanes ETA and IOTA are estimated to be approximately Lps. 45 676 million ($ 1,864 millions). Damages represented 50% of the damage, losses 45% and additional costs 5% percent. Note that the private sector suffered 69% of the asset allocation and 97% of the lost production flows. Additional costs is the only dimension of the effects in which the public sector outperformed the private sector. The total effects of the disaster on the public sector were approximately Lps. 9,458 million ($386M). In general, the effects were concentrated in the productive sector, 65%, followed by the social sector, 20%. The most affected productive subsectors were Commerce and Industry, with 78% of the damages and 64% of the losses, and agriculture with 18% and 26%, respectively.[28]

What is clear is that the crisis has immediate short-term effects on livelihoods and food security and will deeply affect society and the country’s economic systems in the post-pandemic phase of recovery. Since this project will address sustainable fisheries, livelihoods and food security, the realities of the crisis necessitate efforts be undertaken as part of this project to strengthen beneficiaries’ resilience. Recovery efforts must be undertaken in ways that foster climate resilient, low-carbon, and sustainable growth to restart the economy and rebuild livelihoods quickly and smoothly. In light of this, the project will identify specific areas where it can support recovery efforts by increasing overall resilience with social and economic co-benefits and coordinating closely with relevant recovery programs of national institutions, with support from development partners and small and medium enterprises in the sector.

The following preliminary list of financial and operational risks has been identified. A full risk assessment will be conducted as part of the development of the funding proposal as part of the activities set out in the PPF.

Type of Risk	Description	Impact Level	Likelihood	Mitigation Means
Operational	The incidence of disasters, including hurricanes, fires, floods, droughts, frost, landslides, which may delay project activities.	High	Low	The likelihood of a disaster preventing the performance of the planned activities in any and all of the areas covered by the project is **low**. The impact of a natural disaster at a local level may be high, but the overall impact *on the project* is low, because the design contemplates that the project will be executed in various regions and in different areas and ecosystems of the country.

[27] FAO. 2020. Addendum to the State of World Fisheries and Aquaculture 2020. Summary of the impacts of the COVID-19 Pandemic on the fisheries and Aquaculture Sector.
[28] Reporte Evaluación de daños y perdidas huracanes ETA e IOTA. 2020. Comisión Económica para América Latina y el Caribe (CEPAL). (Borrador).

Operational	Limited availability of qualified human resources with the necessary experience to manage issues concerning risk, governance, landscape management approaches and others.	Medium	Low	The project will strive to hire qualified personnel with the required experience to deliver on the needs of the project and uphold FAO standards. The personnel selection process will be rigorous and will account for gender equity and social inclusion. This will ensure that the project has qualified professional teams to make up the Program Management Unit and corps of field staff. Trained technical staff in the PMU will lead the training of project personnel in the project areas (community extension workers) to facilitate the implementation of project activities and ensure the expected outcomes and impacts from the project.
Operational	Inefficient data collection processes limit effective monitoring and reporting	Low	Low	FAO will assist with the development of tools and methodologies for efficient data collection. The PMU will build the capacity of staff and targeted personnel, and the project will invest in technical capacity building for beneficiaries.
Operational	Turnover of key project personnel, implementing agencies and local governments.	Low	Medium	While some turnover is likely to occur, the negative impacts on project implementation will be mitigated through: a) Project reports and institutional reports and processes that allow for knowledge transfer; b) on-going capacity-building processes
Operational	Limited response to the global situation derived from the COVID-19 Pandemic in the fisheries sector.	Medium	Low	Within the framework of FAO's Response and Recovery Program to COVID-19. FAO will support the Government in identifying official programs and innovative mechanisms for economic recovery of fisheries with the implementation of a new model of fisheries management that is more inclusive and participatory.

B.3. Expected project results aligned with the GCF investment criteria (max. 3 pages)

Potential impact - The project is expected to have a direct impact on 102,000 people, 30% of which are indigenous and an indirect impact on a further 1,000,000 people (11% of the national population men and women) according with the National Statistics Institute (INE) are located in the proposed area. The project has the potential to make a significant impact under other key GCF indicators related to climate-resilient development, including:

- Strengthening the institutional systems for climate-responsive planning and development in coastal areas and for the fisheries and aquaculture sector. Component 2 will implement an integrated national plan to increase resilience to climate change of vulnerable coastal, marine and insular areas.
- Reducing vulnerability of communities, strengthening adaptive capacity, and reducing exposure to climate risks through enhancing natural barriers to protect vulnerable communities, coastal ecosystems and infrastructure. Component 3, the project supports the restoration and protection of mangroves and reefs that provide important barriers along the Caribbean and insular coasts of the country (1% of the nation's territory is the potential area of mangrove ecosystems (51,397.48 ha). Component 2 will increase resilience of housing in most vulnerable areas, through the redesign of existing housing stock to endure the new environmental conditions posed by climate change; as well as increasing resilience of infrastructure related to fisheries, such as harbours, landing zones and associated facilities in vulnerable areas. The vulnerability of fishing and aquaculture communities will also be reduced through technological adaptation and livelihood diversification, thus altogether enhancing community resilience.
- Also Component 3, will contribute with blue carbon, the ability of marine-coastal ecosystems such as mangroves, seagrasses and marshes to capture and store carbon dioxide in the form of organic carbon. In addition to other ecosystem services (remineralization, coastal protection, supply of nutrients and breeding areas, etc.). According to the last forest map of Honduras published in 2014, the country has an average 56% forest cover. The land area of the proposal has 830,561 ha. Of which only 223,506 ha are covered with forest (27%) and 607,055 ha are without forest covered with different land uses. In the intervention area there are fragile ecosystems such as: mangroves (13,050 ha), wetlands (19,900 ha), coastal lagoons (124,705 ha) (Annex, Map 3).
- In Honduras, 23,303.5 ha are lost per year according to the reference level presented by the country to the United Nations Framework Convention on Climate Change in 2017. Distributed in 4 types of forest (humid broadleaf, waste, coniferous and mangrove) that emit 6.5 million tons of CO_2 into the atmosphere. In the region proposed for this Project, 2,123.3 ha/year are lost, which means that between 2000 - 2016, 35,588.02 ha of forest were lost, which

results in a greater amount of soil erosion going to the sea and therefore to mangrove ecosystems, grasses and reefs. Otherwise, it affects CO_2 emissions, emitting 752.09 tCO_2 annually into the atmosphere, this being 10% of the country's emissions (Annex, Map 4).

- The importance of the selected area for this Project is that it also has coastal marine protected areas that represents a total of 409,140.88 ha. which means 49% of the proposed Project area. The proposed area includes 20 protected areas that have communities, carbon stocks, productive water areas, livestock production areas, palm, technified agriculture. And also includes a large number of water producing areas (micro-basins) totalling 3,711 ha. and that they contribute to the water supply of the coastal population. 57 micro-basins that are water supply (Annex, Map 5).

Paradigm shift – This project will shift the existing paradigm of vulnerable coastal and insular communities of Honduras, particularly those depending of fishing and aquaculture, have been experiencing the effects of climate change on livelihoods and dwelling spaces with the lack adequate resources to cope and build resilience in local communities through a number of policies, protection actions and the adoption of new approaches and technologies that will enable them to face the new climatic scenario.

The institutional shift from traditional centralized management regimes to a participatory, multi-actor and multi-level, Climate-based integrated management plan, represents an innovative approach, which incorporates local level designed plans for the improvement of community resilience. This approach will allow replication at both national and even regional level. Moreover, the enhanced adaptive capacity of fishing and aquaculture communities will serve as a basis for the adaptation of other sector and population segments.

Also, adaptation strategies that involve not only livelihood diversification, but also better preparedness and improved housing and infrastructure, with a multi-sectoral approach, offer new avenues for multi-dimensional resilience of coastal and insular communities.
Whilst mangrove and reef protection are increasingly common strategies worldwide, the introduction of market and/or economic incentives in return for community-level efforts to ensure mangrove reforestation and better fishing practices, introduce new paradigms that to be further upscaled in other areas of the country .
Having interventions at sea and landscape scale supports a wider overall ecosystem health that contributes to enhancing overall sustainability over time.

Sustainable Development – The project will introduce a series of important co-benefits that include:

Environmental: Preserve the structure and dynamics of the coastal ecosystems, taking into consideration the effects of climate change, particularly the rise in sea level and the changes in air and ocean surface temperature.
Reduce saltwater intrusion in the freshwater table, by helping stabilize the coastline through mangrove restoration, thus also preserving the long-term functions, structure and services of coastal ecosystems, as well as reducing the risks and impacts associated with the occurrence of hydrometeorological events.

Social: Strengthen the local communities' ability to support their socioeconomic sustainability in the new, adverse climatic conditions. This involves educating, shaping, habilitating, sympathising, raising awareness and social participation. Such mechanisms should facilitate the incorporation and active participation of key actors, sectors and population groups, for the inception and treatment of the climate change adaptation process.
Strengthening the resilience of these highly fishing-dependent communities, will help preserve local livelihoods, prevent unwanted migration and open new fisheries through diversification, which will foster food availability and access.

Economic: Through redesigning and eventual reconstruction of housing spaces, increased local employment will be achieved, as it will be through fishing and aquaculture technological reconversion. Organize the human settlement patterns and regulate the model for land usage, to prevent and stop the rise in cases of lost shorelines.
Appropriately and effectively take advantage of the opportunities for mobilization and acquisition of technical and financial resources on an international, national and territorial level, to make viable the processes of adaptation.

Gender: The project will promote gender equality, which will allow women a greater economic independence in the rural areas. Special attention will be paid to the development of ways of communication that are gender sensitive, the connection to the FAO campaigns such as "mujeres rurales, mujeres con derechos" (rural women are women with rights) and "mujeres indígenas, mujeres visibles" (indigenous women are visible women), as well as the propagation of good practices with a focus on gender, will be permanently sought.

Taking into consideration that small-scale aquaculture and fisheries are chiefly carried out by family groups, gender equality is one of the project's central elements. This is how the project, receiving guidance from the FAO's Gender Equality Policy (2013), incorporates the focus of gender into the design, execution and evaluation of its activities, carrying out the training of national specialists on the incorporation of this gender focus into programs and projects, making a gender analysis of their results and compiling information and statistics regarding each sex.

Needs of recipients – Honduras is one of the poorest countries of Latin America. In 2020, the population of the country amounted to 9,276,450 inhabitants, more than 66 percent of which were living under the poverty line, and approximately one in five Hondurans were living in extreme poverty or on less than US$1.90 per day (World Bank, 2016). The level of extreme poverty increases to 38.72% of households, according to the National Institute of Statistics - INE (2020).

Government reports suggest that the policies and measures to cope with climate change must focus on the "human face" of climate change. That is, actions to be taken to build resilience to CC must improve the living conditions of the most vulnerable people. These actions should ensure a cross-cutting perspective of human rights and gender equity, ensuring that women, indigenous peoples and Afro-Hondurans, have full and effective participation in decision-making. These principles are already included in the policies of the Republic of Honduras within the strategic government plan "A Better Life for All" (INDC, 2015).

Country ownership – In April 2018, Honduras became the first NDC Partnership member country to develop and finalize a Partnership Plan for its NDC implementation. As part of its prioritization goal, the Plan foresees the development of an NDC Investment Plan that will identify and develop key opportunities for low-carbon and resilient infrastructure and technology. In August 2018, a Honduran delegation met with counterparts from finance, planning, and other sectoral agencies of the Dominican Republic to learn from their relevant experiences.
One of the focus areas within the adaptation commitments of the government were to maintain the integrity and functionality of coastal and marine ecosystems. This why MiAmbiente has requested FAO to assist them in formulating and implementing the present project.

Honduras' legal and political framework promotes actions to protect, conserve and restore marine, coastal and terrestrial ecosystems; their biodiversity and to the integral management of risk and vulnerability by sector. The government has worked on a Climate Change Law to support the National Climate Change Strategy and related Government Policies, as part of the regulatory framework (SERNA, 2010). Also the Water, Forest and Soil Plan (Gobierno de Honduras, 2017) aims at the sustainable use of such resources. The National Climate Change Adaptation Plan (MiAmbiente, 2018), has also been enacted. Its guiding principle is inter-institutional and inter-sectoral coordination to foster synergies between adaptation and mitigation mechanisms for the generation of co-benefits through education, research and technology transfer, based on the management of scientific, technical, cultural and traditional knowledge. The project contributes toward Honduras' climate change priorities as expressed in its Nationally Determined Contributions and the priorities for funding under the Green Climate Fund. Importantly, the fisheries and aquaculture sector is also prioritised in Honduras' National Climate Change Strategy and the project components align with the specific priorities set out for the sector in the strategy.

Specifically, the four strategies identified for coastal and marine areas are:
• To establish mechanisms to prevent and control the loss of beaches to maintain the services they provide.
• To help implement the national initiative of mangrove restoration and conservation in bays, estuaries and islands.
• To establish action frameworks to prevent and reduce deterioration of reef ecosystems, promote their restoration and conservation, in response to the impacts of climate change.
• To strengthen the socioeconomic sustainability of human populations that inhabit and depend on coastal and marine ecosystems for their livelihoods

The project aligns with the measures adopted by the Honduras' National Adaptation Plan (NAP). Various elements of the project are also reflected in other key government plans and strategies, such as the National Development Plan (2010-2022), the Food and Nutrition Security Strategy (2010-2022) and REDD+ strategies.

Ownership of the project will be further ensured through an inter-institutional coordination framework called the "Inter-Institutional Committee on Climate Change (CICC)", created as an advisory body and political platform comprised of the heads of Honduras' Central Government institutions involved in CC mitigation and adaptation. Such a Committee was also part of the *ad-hoc* Inter-institutional working group formed in order to assist the formulation of the present project. The active participation of representatives from the private sector, civil society organizations, academia, indigenous communities, professional associations and other local and national key actors, is expected. The technical branch of the CICC will be an active part of the project, thus proposing, reviewing and making technical recommendations regarding plans, strategies, programs and projects aimed at CC adaptation. All the national and international institutions that work on water resources, forests, biodiversity, marine and coastal risk management, environmental education, territorial planning, agriculture, food security, energy and human health, are part of the CTICC, that is, the technical branch of the CICC.

The project will endeavor to ensure the participation of all key stakeholders (fishermen, fish farmers, NGOs, academia, national and local government, etc.) in all phases of the process, from its design through its execution and evaluation. Preliminary consultations have already taken place, involving key actors, chiefly territorial and indigenous governments, fisher folk and fish farmers, regarding the project. Such actors have expressed their acceptance and commitment to the project and to the fulfilment of the International Agreements on Climate Change that Honduras has ratified. There are

national strategies involving all sectors to reach the proposed goals, and the project can facilitate the processes and contribute with technical assistance to accompany the country in compliance with its International Agreements.

Efficiency and Effectiveness
The project will invest USD 17 million in measures that improve the climate resilience of fisheries and aquaculture – dependent communities of coastal marine and insular zones of Honduras. It is estimated that the project will directly reduce climate vulnerability and increase the resilience for approximately 102,000 people (30% indigenous peoples). The project will provide indirect benefits to over 1,000,000 people in the coastal and insular areas (11% of the population of the country).

GCF funding will be focused on covering the costs of delivering Climate Change resilience to the beneficiaries in the costal intervention area, with this support, a paradigm shift will be made in the current conditions of the island and marine coastal zones and how they will have to evolve and adapt to the new climate impacts, which are pressing with great changes in the coastal zone, erosion, loss of habitat, average sea level rise.
The cost-effectiveness and its corresponding detailed analyses of the project will be included in the final project document and in the feasibility study annex.

B.4. Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)

The Government of Honduras, through the NDA, has officially endorsed FAO's role as the accredited entity for this project. The project concept was developed in close coordination with key actors, including women and indigenous people, fisherfolk, aquaculturists, NGOs, scientists, academia, and local and national governments through regional *in situ* meetings carried out at the conceptual phase of the project. In addition, the Ministry of Agriculture and Livestock and the Ministry of Natural Resources and Environment have committed to provide the necessary support and information for the design of the project and provide technical personnel to work alongside FAO during its development. An *ad-hoc* Inter-Institutional Working Comittee (ITWC) was created to provide and analyse technical information, establish vulnerability criteria and select the area to be covered by the project. The WG includes the Climate Change Unit of MiAmbiente (Ministry of the Natural Resources and Environment), the Ministry of Agriculture and Livestock (Secretaria de Agricultura y Ganaderia-SAG), the Instituto de Conservacion Forestal (ICF – Forest Institute), and the Directorate of Fisheries and Aquaculture, SAG. It is expected that these same key stakeholders will participate in the development of the funding proposal and implementation of the project in all phases of the process, from design and execution to evaluation.

The project has been endorsed by the Institutional Committee on Climate Change (CICC) and the funding proposal will be developed in cooperation with the CICC and its associated technical advisory body (the Inter-Institutional Technical Committee on Climate Change - CTICC). The CICC is the national advisory body and political framework for climate change issues. Representatives from private companies, civil society organizations, academia, indigenous communities, professional associations and collaborators will be invited to participate in both project development and its implementation. To support the CICC, the Inter-Institutional Technical Committee on Climate Change (CTICC) was also created to serve as the technical body for co-executing the guidelines issued by the CICC. The CTICC review and make technical recommendations about plans, strategies, programs and projects and will execute certain actions that fall within its competence. All the national and international institutions that work in the areas of water resources, forests, biodiversity, marine and coastal risk management, environmental education, territorial planning, agriculture, food security, energy and human health, will all be part of the CTICC.

The CTICC will be officially invited to participate in the formulation of the full proposal. Depending on the stage and component, their participation will be delegated to the pertinent entities that forma part of the. By officially incorporating the CTICC to the project formulation process within the inter-institutional working group of the project, inter-institutional coordination will be enhanced and a permanent alignment of the territorial and national CC-related actions and policies, will be ensured within the project framework.

C. Indicative Financing/Cost Information (max. 3 pages)

C.1. Financing by components (max ½ page)

	Indicative cost	GCF financing	Co-financing

Component/Output	(USD)	Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
1. Improved livelihood resilience to climate change of coastal and insular fishing and aquaculture-dependent communities.	$4.9	$2.9	grant	$2.0	In-kind	MiAmbiente SEDIS/DINAFRO SAG Municipalities
2. Creation of a multi-level and multi-actor CC adaptation and disaster risk management mechanism	$6.0	$4.0	grant	$2.0		SEDIS Municipalitie IDECOA – FHIS INSEP COALIANZA – Honduras Invest SAG
3. Strengthening natural barriers and adapting housing spaces to the new natural hazards posed by CC along the Honduran Caribbean coastal and insular zones.	$5.1	$4.1	grant	$1.0	In-kind	Secretaria MiAmbiente ICF
Project Management	$1.0	$1.0				
Indicative total cost (USD)	USD 17.000.000	12,000,000		5,000,000		

C.2. Justification of GCF funding request (max. 1 page)

The project targets adaptation measures for vulnerable people and communities. The Republic of Honduras has very limited financial means especially with the current situation with COVID-19 to implement the types of measures included in this project without outside funding. The activities proposed in this note are not suitable for funding via private sector actions within the country in this stage of the project, but with the implementation of the components will have an opportunity for the investment of the private sector.

Preliminary discussions with the Government have identified possible external funding sources of cofinancing i.e., KfW German Cooperation approximately 13 Million Euros through their regional cooperation MARFUND organization, Switzerland Cooperation approximately USD 7 Million and other projects with the Central America Integration System (acronym in Spanish SICA). In addition, the nature of the activities included in the project precludes private sector funding at this time, but with the implementation of the CC adaptation plan for coastal and insular communities as a part of the component II, there are a big opportunity to the private sector to invest in the coastal marine zone because it needs to incorporate multi-actor and multi-level to adapt the region with the new climate scenarios. Implementing mechanism to the fisheries and aquaculture sector in Honduras is characterized by a very large number of family scale enterprises. In the component II and III of the project may in the future create opportunities for private sector investment through the development of pilot projects and tools to assess the potential for carbon sequestration in mangrove areas.

The activities to be supported with GCF funds will entail no revenue generation or cost recovery for the Government of Honduras. The communities that will be supported by the project are extremely vulnerable to climate change and subject to high rates of poverty and financial instability; the accessibility to finance is limited. for this project, a grant of USD12 million, with a co-financing of USD5 million, which totals USD 17 million for the proposed project. For the implementation of this project support of the GCF grant funding is needed because it is a priority for the country to develop adaptation mechanisms focusing on the fisheries sector to the new climate scenarios, especially in Honduras, which is a country highly vulnerable to CC, and with the financial current situation of the country a loan is not an option.

C.3. Sustainability and replicability of the project (exit strategy) (max. 1 page)

The project is designed as a comprehensive effort to strengthen resilience of coastal and insular communities through adaptation. The project FP will be developed in a participatory manner in coordination with all institutions, organizations, associations and municipalities that have programs or mandates on issues of relevance for the sustainable use of fisheries and aquaculture resources and climate change adaptation. Some of the elements of the Strategy will be linked to the construction of capacities, both institutional- and community-wide, to increase resilience of the population that depends directly and indirectly on fishing and aquaculture; their needs of technological reconversion to cope with changes in the structure of populations and the environmental characteristics of aquatic ecosystems (alternative target species in both fisheries and aquaculture) and the need for investment in economic-productive diversification, among other adaptive aspects that will be sustainable in the long term.

The sustainability of the project will be based on the direct involvement of key institutions and targeted communities in all steps of the process. This will ensure appropriation of the project´s objectives and activities. It is also based on community empowerment through strengthening their resilience to the effects of climate change. Diversified livelihoods and improved housing will better equip community members, particularly the most vulnerable ones, to cope with a new, adverse climatic scenario and hence guarantee the sustainability of the project´s achieved foundations. The governance of local projects in the communities will include simplified *in situ* participatory monitoring arrangements. Also, arrangements will be made so that the NDA and MiAmbiente take over the tasks of the Project Monitoring Unit once the project finalizes, to continue to follow-up and foster sustainability.

It is envisaged that the identification of alternative livelihood opportunities, the consequent capacity development actions, as well as the fishing technological reorientation and the introduction of climate-smart aquaculture, will not only solve the immediate climate change effects on livelihoods of the targeted population, but will also lead to the creation of a national fishing and aquaculture CC adaptation policy, which widens its benefits to the rest of the country. This will contribute to long term sustainability of the benefits of the project.

Project implementation in the prioritized areas will produce lessons learned and will serve as the basis for many other communities that, through the national programs, will be able to adopt and replicate the strategies of protection/restoration of ecosystems and adaptation to CC in accordance with the local environmental conditions. The benefits of adaptation will permeate other economic sectors in the target territories, at no additional cost.

The project is based on awareness-raising actions, creation and consolidation of governance and strengthening of adaptive capacities, including economic-productive reconversion, when appropriate. The above is assumed by individuals and communities, who participate in the design and execution of the strategy, all carried out in close coordination with the governmental entities, which will lay the foundations of sustainability. Moreover, the project will allow the generation of policies that the State can adopt and foster sustainability over time, with the possibility that the benefits derived from the strengthening of resilience (for example, new economic activities) provide additional resources for eventual extensions of scale, not included in the design stage of the project.

A protocol will be developed to ensure consistent data collection to feed the integrated management plan. Such protocol will be replicated and local human and physical capacities will be set up in other coastal areas in order to have a multiple-point data collection and coordination system.

D. Supporting documents submitted (OPTIONAL)

- ☒ Map indicating the location of the project/programme
- ☒ Diagram of the theory of change
- ☐ Economic and financial model with key assumptions and potential stressed scenarios
- ☐ Pre-feasibility study
- ☐ Evaluation report of previous project

☒ Results of environmental and social risk screening

Self-awareness check boxes
Are you aware that the full Funding Proposal and Annexes will require these documents? Yes ☒ No ☐ • Feasibility Study • Environmental and social impact assessment or environmental and social management framework • Stakeholder consultations at national and project level implementation including with indigenous people if relevant • Gender assessment and action plan • Operations and maintenance plan if relevant • Loan or grant operation manual as appropriate • Co-financing commitment letters
Are you aware that a funding proposal from an accredited entity without a signed AMA will be reviewed but not sent to the Board for consideration? Yes ☒ No ☐

References

Carrasco Navas-Parejo, JC. 2016. Impactos sobre los espacios y recursos marino-costeros de Honduras por efectos del cambio climático, la acuicultura y su exacerbación por acciones antropogénicas. Documento Estado del manejo integrado de los espacios y recursos marinos y costeros de Honduras. UNAH. Dirección de Investigación Científica y Posgrado (DICYP). Tegucigalpa. 146pp.

Carrasco-Navas, J.C, J. Benavente, J. Gómez – Enri y V. Caviedes. 2019. Contribución antropogénica a cambios geomorfológicos en una laguna costera tropical. Rev. Cuaternario y Geomorfología. ISSN: 0214-1744.14pp.

DIGEPESCA.2016. Reporte estadísticas pesqueras nacionales FAO. Honduras.

FAO.2017. La estrategia de la FAO sobre el cambio climático. Roma. 52pp.

FAO. 2018. Impacts of climate change on fisheries and aquaculture. Technical Paper 627. ISSN 20707-7010. Rome. 654 pp.

GOAL. 2020. GOAL MiPesca Project is benefitting small-scale fishermen on the north coast of Honduras (http://resiliencenexus.org/2020/01/30/goal-mipesca-project-is-benefitting-small-scale-fishermen-on-the-north-coast-of-honduras/)

Gobierno de Honduras. 2017. Plan Maestro Agua, Bosque, Suelo. Tegucigalpa. 60pp.

Gobierno de Honduras. 2018. Plan Estratégico de Gobierno 2018 – 2022. Tegucigalpa. 186pp.

HRI, 2018. Reporte del Arrecife Mesoamericano. McField, M, P.Kramer, A. Giron, I.Drysdale, N. Craig y M.Rueda. 30 pp. www.healthyreefs.org

HRI. 2020. Reporte del Arrecife Mesoamericano. McField, M, P.Kramer, A. Giron, I.Drysdale, N. Craig y M.Rueda. 36 pp. www.healthyreefs.org

Gobierno de Honduras. 2015. Informe Contribución Prevista y Determinada a Nivel Nacional (INDC – Honduras). Tegucigalpa. 8pp.

INE.2013. Detalle de población indígena en Honduras. Censo de Población y Vivienda. Elaboración propia en base a datos del INE. XVII Censo Nacional de Población y VI de Vivienda 2013, procesado con Redatam+Sp.

INE.2018. Indicadores Cifras de País 2018. (https://www.ine.gob.hn/V3/imag-doc/2019/09/cifras-de-pais-2018.pdf)

INE. 2019. www.ine.gob.hn

INE.2020. Encuesta permanente de hogares de propósitos múltiples - EPHPM. Honduras

IPCC. 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

MiAmbiente.2018. Plan Nacional de Adaptación al Cambio Climático Honduras. Tegucigalpa. 64pp.

Proyecto Honduras – Manglares. 2012. Manejo Integrado de las zonas costeras y gestión sostenible de los manglares de Guatemala, Honduras y Nicaragua. PNUMA, Gobierno de España, Gobierno de Guatemala, SERNA, MARENA.

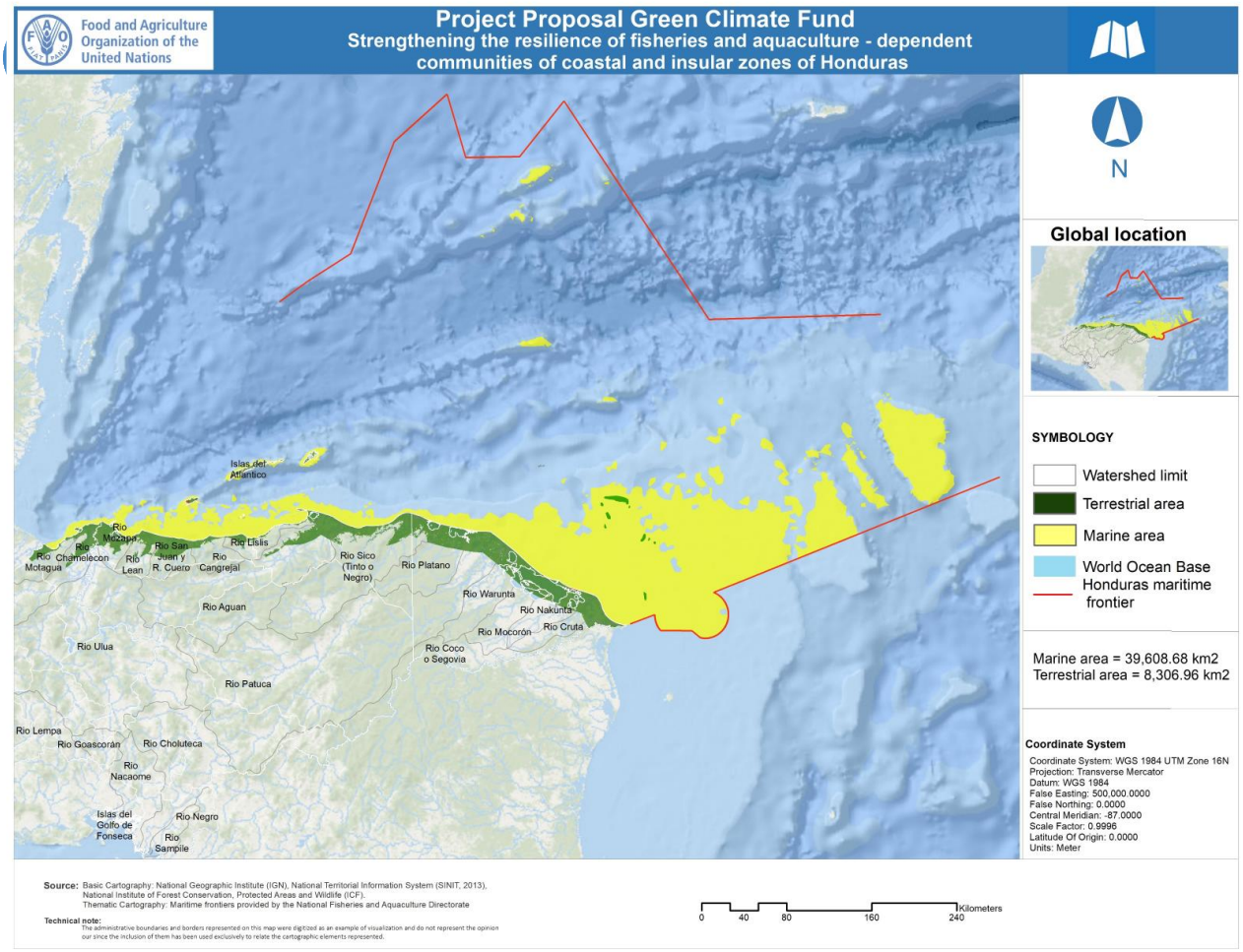
PNA-CC.2018. Plan Nacional de Adaptación al Cambio Climático Honduras. Versión Resumen. Secretaria de Recursos Naturales y Ambiente (MiAmbiente+). Tegucigalpa.64pp.

República de Honduras.2010. Visión de País 2010 – 2038 y Plan de Nación 2010 – 2022. Tegucigalpa. 177pp.

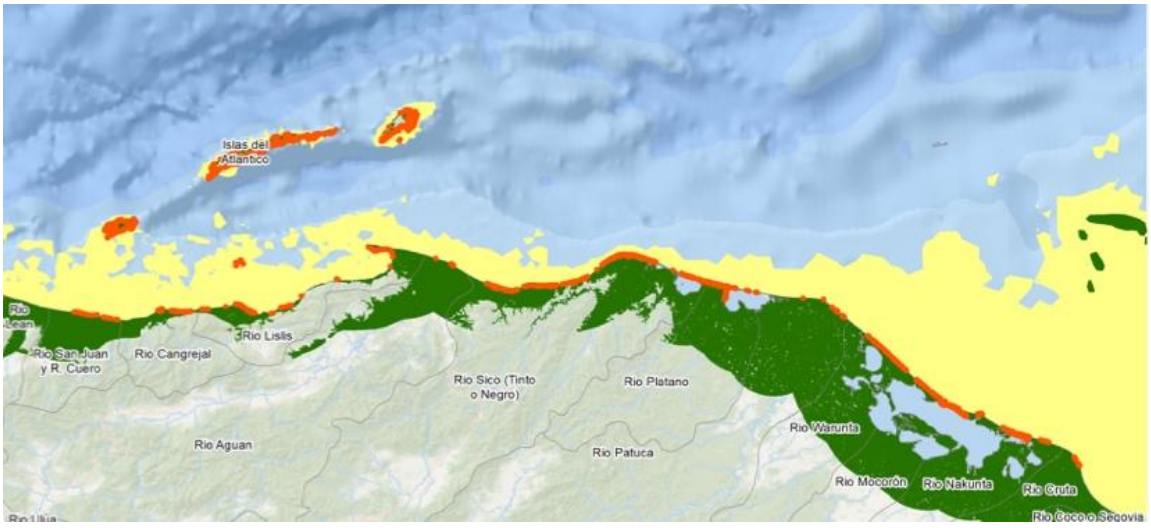
SERNA.2010. Estrategia Nacional de Cambio Climático. Tegucigalpa.40pp.

ANNEXS

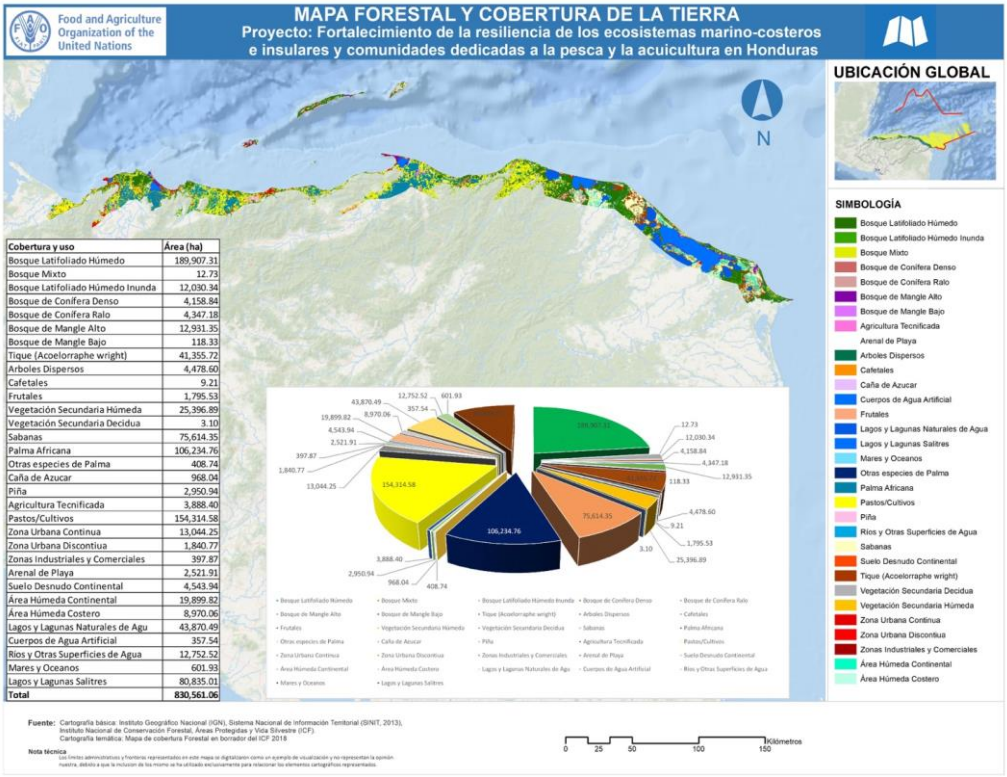
Annex 1. Map 1. Geographic coverage of the project (FAO, 2020).



Map 2. Sea level rise projection (m) to 2040. A mean of 4.5 mm/year for the coastal plains of Northern Honduras is expected (in red) (Carrasco, 2019).

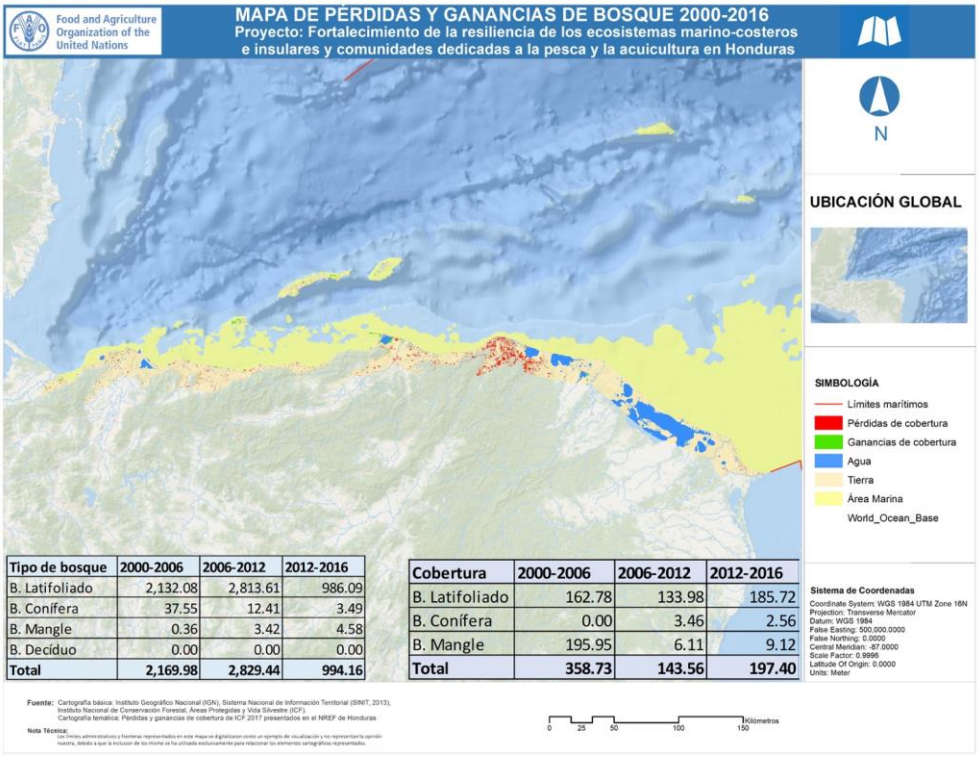


Map 3. Forest and Land Cover Project area (FAO, 2020).



Cobertura y uso	Área (ha)
Bosque Latifoliado Húmedo	189,907.31
Bosque Mixto	12.73
Bosque Latifoliado Húmedo Inunda	12,030.34
Bosque de Conifera Denso	4,158.84
Bosque de Conifera Ralo	4,347.18
Bosque de Mangle Alto	12,931.35
Bosque de Mangle Bajo	118.33
Tique (Acoelorraphe wright)	41,355.72
Arboles Dispersos	4,478.60
Cafetales	9.21
Frutales	1,795.53
Vegetación Secundaria Húmeda	25,396.89
Vegetación Secundaria Decidua	3.10
Sabanas	75,614.35
Palma Africana	106,234.76
Otras especies de Palma	408.74
Caña de Azucar	968.04
Piña	2,950.94
Agricultura Tecnificada	3,888.40
Pastos/Cultivos	154,314.58
Zona Urbana Continua	13,044.25
Zona Urbana Discontiua	1,840.77
Zonas Industriales y Comerciales	397.87
Arenal de Playa	2,521.91
Suelo Desnudo Continental	4,543.94
Área Húmeda Continental	19,899.82
Área Húmeda Costero	8,970.06
Lagos y Lagunas Naturales de Agu	43,870.49
Cuerpos de Agua Artificial	357.54
Rios y Otras Superficies de Agua	12,752.52
Mares y Oceanos	601.93
Lagos y Lagunas Salitres	80,835.01
Total	**830,561.06**

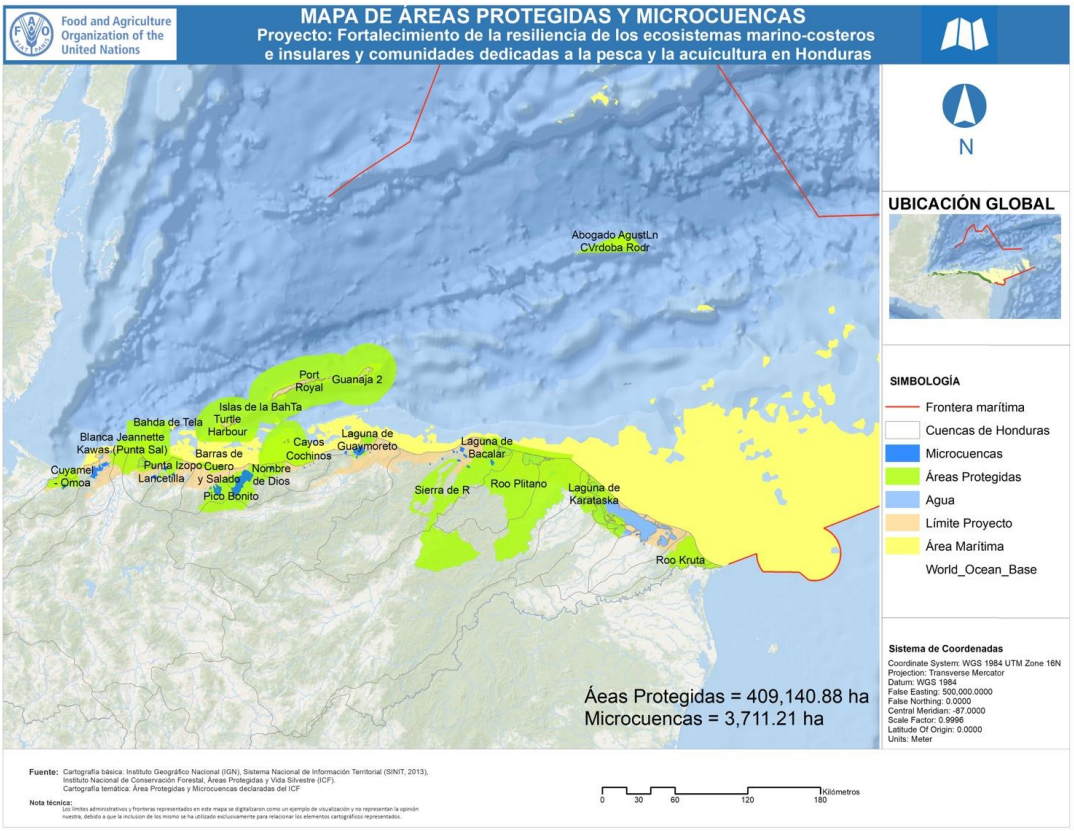
Map 4. Forest Gain and Loss 2000 – 2016 (FAO, 2020).



Tipo de bosque	2000-2006	2006-2012	2012-2016
B. Latifoliado	2,132.08	2,813.61	986.09
B. Conífera	37.55	12.41	3.49
B. Mangle	0.36	3.42	4.58
B. Decíduo	0.00	0.00	0.00
Total	**2,169.98**	**2,829.44**	**994.16**

Cobertura	2000-2006	2006-2012	2012-2016
B. Latifoliado	162.78	133.98	185.72
B. Conífera	0.00	3.46	2.56
B. Mangle	195.95	6.11	9.12
Total	**358.73**	**143.56**	**197.40**

Map 5. Protected areas and micro-basins in the project intervention area (FAO, 2020).



Annex 2. Theory of Change

Project proposal **"Strengthening the resilience of fisheries and aquaculture-dependent communities of coastal marine and insular zones of *Honduras*"**