



Project Identification Form (PIF) entry – Full Sized Project – GEF - 7

From bait to plate: strengthening sustainable fisheries to safeguard marine biodiversity and food security

Part I: Project Information

GEF ID

10540

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

☐ CBIT

☐ NGI

Project Title

From bait to plate: strengthening sustainable fisheries to safeguard marine biodiversity and food security

Countries

Mexico

Agency(ies)

FAO

Other Executing Partner(s)

National Commission of Natural Protected Areas (CONANP), National Commission of Fishing and Aquaculture (CONAPESCA)

Executing Partner Type

Government

GEF Focal Area

Biodiversity

Taxonomy

Focal Areas, Protected Areas and Landscapes, Biodiversity, Mainstreaming, Civil Society, Stakeholders, Type of Engagement, Communications, Gender results areas, Gender Equality, Gender Mainstreaming, Capacity, Knowledge and Research, Fisheries, Coastal and Marine Protected Areas, Community Based Natural Resource Mngt, Community Based Organization, Non-Governmental Organization, Information Dissemination, Participation, Local Communities, Awareness Raising, Beneficiaries, Sex-disaggregated indicators, Capacity Development, Participation and leadership, Innovation

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

855,533

Submission Date

3/23/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	GET	6,000,000	27,135,742
BD-2-7	GET	3,005,609	13,184,825
Total Project Cost (\$)		9,005,609	40,320,567

B. Indicative Project description summary

Project Objective

To ensure the conservation of marine ecosystems and biodiversity and secure the sustainable livelihoods of fishing communities through innovative fisheries co-management approaches in three priority seascapes

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Enabling institutional and regulatory conditions to strengthen sustainable fisheries in Natural Protected Areas (NPAs) and Other Area-based Effective Conservation Measures (OECMs)	Technical Assistance	<p>1.1 Institutional capacities and processes have been strengthened for effective fisheries co-management in three seascapes encompassing Natural Protected Areas and Other Effective area-based Conservation Measures (OECMs)</p> <p><u>Indicators:</u></p> <ul style="list-style-type: none"> · 694,325 hectares of NPAs and OECMs with improved management, as measured by the GEF METT: o Sian Ka'an: Base 81; Trgt 88 o Banco Chin.: Base 73; Trgt 85 o Caribe Mex.: Base 41; Trgt 63 o Islas Marietas: Base 65; Trgt 74 	<p>1.1.1 Planning and management tools for marine conservation and fisheries co-management have been developed and are guiding decision-making in three target seascapes</p> <p>1.1.2 Effective ecosystem-based fisheries management capacities and processes have been generated in key government institutions and among other stakeholders</p> <p>1.1.3 Government institutions with strengthened institutional arrangements and capacities to facilitate effective fisheries co-management approaches</p>	GET	1,781,110	9,000,000

- o Islas Mariás Base: 30; Trgt 44
 - o Isla Isabel Base: 68; Trgt: 87
 - o Espíritu Santo Base: 72; Trgt: 81
 - o Islas del Golfo de California Base: 69; Trgt: 87
 - 3 fisheries are being managed with strengthened and biodiversity-friendly management indicators (at least objective and limit reference points for catch levels):
 - o Finfish (NTZs in Baja California Sur)
 - o Lobster and Queen Conch (Banco Chinchorro & Sian Ka'an Biosphere Reserves and adjacent NTZs)
 - o Finfish (Islas Marieta National Park)
- Management plans for three NPAs and two NTZ complexes have been simplified, harmonized and designed to improve socio-ecological conditions in the target areas

1.1.4 Comprehensive, transparent, and open fisheries information system in place to support participatory decision-making and learning at project target sites

1.1.5 Inspection and surveillance activities are reinforced to ensure compliance with fisheries management policies and regulations

participation in
fisheries management

Assistance

2.1 Local fishing communities play an active role in collectively managing and monitoring their fisheries through an ecosystem-based approach and participatory, collective decision-making.

Indicators:

- Fisheries at 3 project sites adopt fisheries co-management governance mechanisms to improve marine ecosystem services
- At least 60% of fishing community members and fisher organizations trained in fisheries co-management practices
- 394 indigenous persons (to be confirmed during PPG) participating in fisheries co-management schemes

At least one national incentives program with assigned budget has been developed or adjusted

2.1.1 Mechanisms are in place for collective community decision-making, co-regulation, monitoring, compliance, and conflict resolution related to fisheries

2.1.2 Local communities strengthen their capacities to participate in fisheries co-management and to adopt new technologies and practices

2.1.3 Local communities benefitting from improved access to fisheries information

2.1.4 Incentives are in place to promote the participation of coastal communities in implementing sustainable fisheries co-management and adopting practices and technologies that promote and preserve marine ecosystem services:

2.1.5 Inspection and surveillance systems in place to enhance fisheries

governance schemes

3. Supporting sustainable fisheries-based alternative livelihoods	Technical Assistance	<p>3.1 Fishing communities and fisher folk are benefitting from increased incomes deriving from value added activities, sustainable local post-capture practices, and access to differentiated market prices for sustainable products</p> <p><u>Indicators:</u></p> <ul style="list-style-type: none"> · At least 20% increase in the annual income of participating fishermen and fisherwomen by the end of the project · At least 500 fishers and 18 fishing organizations implementing value-addition practices · At least 6 fisheries within the 3 target seascapes have accessed preferential markets at a local, regional or national scale · At least 24 new market linkages established · A traceability system from bait to plate is established 	<p>3.1.1 Community driven productive alternatives, including those that benefit women, have been identified, planned, and implemented</p> <p>3.1.2 Infrastructure established to enable local fishing communities to add value to fisheries products</p> <p>3.1.3 Technical, organizational, and entrepreneurial capacities of fishing organizations related to community-driven productive alternatives and strategies to add value have been strengthened</p> <p>3.1.4 Financing opportunities for sustainable fisheries enhanced</p> <p>3.1.5 Programs for participatory certification, differentiated markets, and information campaigns to support</p>	GET	2,629,694	12,984,053
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At least 80% of sustainably caught seafood in the project intervention areas sold at a premium price in more selective markets

sustainable fisheries products are under implementation

4. Project Coordination, Collaboration, and Monitoring and Evaluation	Technical Assistance	4.1 Project implementation is supported by an M&E strategy based on measurable and verifiable outcomes and adaptive management principles.	4.1.1. M & E strategy developed with relevant stakeholders, clearly defining the expected outcomes, expected implementation timeframe, and confirmation through objectively verifiable indicators and means of verification.	GET	730,316	3,587,791
			4.1.2. Mid Term Review and Final Evaluation carried out			
			4.1.3. Best practices and lessons learned systematized and disseminated to a variety of audiences and stakeholders.			
Sub Total (\$)					8,576,771	38,453,677
Project Management Cost (PMC)						
GET					428,838	1,866,890
Sub Total(\$)					428,838	1,866,890

Total Project Cost(\$)	9,005,609	40,320,567
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C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	National Commission of Natural Protected Areas (CONANP)	In-kind	Recurrent expenditures	7,052,571
Government	National Commission of Aquaculture and Fisheries (CONAPESCA)	In-kind	Recurrent expenditures	5,730,051
Government	National Institute of Fisheries and Aquaculture (INAPESCA)	In-kind	Recurrent expenditures	4,690,966
Others	Fishermen and fishing communities	In-kind	Recurrent expenditures	2,000,000
CSO	WWF Mexico	In-kind	Recurrent expenditures	2,000,000
Private Sector	Smartfish	In-kind	Recurrent expenditures	1,000,000
Donor Agency	GIZ	Grant	Investment mobilized	5,014,575
Donor Agency	KfW	Grant	Investment mobilized	7,573,200
Private Sector	Other Private Actors	In-kind	Recurrent expenditures	3,100,000
CSO	TBD	In-kind	Recurrent expenditures	2,059,204
GEF Agency	FAO	In-kind	Recurrent expenditures	100,000
Total Project Cost(\$)				40,320,567

Describe how any "Investment Mobilized" was identified

Both GIZ and KfW are very interested in working in some of the same areas where the GEF projects will be executed, thereby contributing to the strengthening of different actions that will benefit all projects simultaneously.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Mexico	Biodiversity	BD STAR Allocation	9,005,609	855,533	9,861,142
Total GEF Resources(\$)					9,005,609	855,533	9,861,142

E. Project Preparation Grant (PPG)

PPG Required



PPG Amount (\$)

200,000

PPG Agency Fee (\$)

19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Mexico	Biodiversity	BD STAR Allocation	200,000	19,000	219,000
Total Project Costs(\$)					200,000	19,000	219,000

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
399,114.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created


Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
399,114.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Isla Isabel National Park	2583	National Park	194.00						
Islas del Golfo de California Flora and Fauna Protection Area	306810	Protected area with sustainable use of natural resources	374,554.00						
Islas Maria Biosphere Reserve	306809	Strict Nature Reserve	24,295.00						

National Park Islas Marietas	902296	National Park	71.00	
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Indicator 2 Marine protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,597,751.00	0.00	0.00	0.00

Indicator 2.1 Marine Protected Areas Newly created





Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 2.2 Marine Protected Areas Under improved management effectiveness

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
1,597,751.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Biosphere Reserve Banco Chinchorro	103171	Protected area with sustainable use of natural resources	144,360.00						
Biosphere Reserve Sian Ka'an	1850	Protected area with sustainable use of natural resources	153,192.00						

Caribe Mexicano Biosphere Reserve	555624306	Protected area with sustainable use of natural resources	633,243.00	
Espíritu Santo Archipelago National Park (marine area)	108125	Habitat/Species Management Area	48,655.00	
Islas Maria Biosphere Reserve	306809	Strict Nature Reserve	616,989.00	
National Park Islas Marietas	902296	National Park	1,312.00	

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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925,031.00

Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
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Type/name of the third-party certification

Third party certification(s): Overall marine productive area in 3 project sites: 925,031 hectares; including: No-take zones - Quintana Roo = 13,469 hectares
No-take zones - Baja California Sur = 6,966 hectares

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
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0

0

0

0

LME at PIF

LME at CEO Endorsement

LME at MTR

LME at TE

Indicator 5.3 Amount of Marine Litter Avoided

Metric Tons (expected at
PIF)

Metric Tons (expected at CEO Endorsement)

Metric Tons (Achieved at MTR)

Metric Tons (Achieved at TE)

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Indicator 8 Globally over-exploited fisheries moved to more sustainable levels

Metric Tons (Expected at PIF)

Metric Tons (Expected at CEO Endorsement)

Metric Tons (Achieved at MTR)

Metric Tons (Achieved at TE)

21,717.00			
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Fishery Details

The target figure is based on the following data from the Statistical Annual Book of Conapesca (2014) State / fishery Finfish Lobster Total Baja California Sur 13,861 0 13,861 Nayarit 4,592 23 4,615 Jalisco 2,763 124 2,887 Quintana Roo 0 354 354 TOTAL 21,216 501 21,717

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

Number (Expected at
PIF)Number (Expected at CEO
Endorsement)

Number (Achieved at MTR)

Number (Achieved at TE)

Female	1,200			
Male	3,800			
Total	5000	0	0	0

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

• Core Indicators 1 and 2: The target figures are based on the total area of the formal protected areas within the project target sites (see Table 2 below). • Core Indicator 5: The target figure is based on the overall area of “productive seascapes” surrounding the marine protected areas (most of the marine species targeted by the project move freely between the protected and productive seascapes) in the three project sites (see Table 2 below). • Core Indicator 8: The target figure is based on the following data from the Statistical Annual Book of Conapesca (2014) : State / fishery
 Finfish Lobster Total Baja California Sur 13,861 0 13,861 Nayarit 4,592 23 4,615 Jalisco 2,763 124 2,887 Quintana Roo 0 354 354 TOTAL 21,216 501 21,717 • Core Indicator 11: The target figures are based on data from the Statistical Annual Book of Conapesca, which shows that there are 37,821 fishers in the states where the project will be operating (9,046 in BCS, 10,856 in NAY, 15,574 in JAL and 2345 in QROO); and that approximately 7% of the fishers in these states are involved in the target fisheries of this project (finfish, lobster). The ratio of women to men is based on FAO global statistics for women’s participation in the fisheries sector (0.17 women to every 1 man). Note: In addition to fishers themselves, others who work in / depend on these fisheries, such as persons involved in post harvest processing/marketing, may also be project direct beneficiaries . An estimate of the number of these persons will be made during the PPG phase.

Part II. Project Justification

1a. Project Description

1) Global environmental problems, root causes and barriers that need to be addressed

Environmental Context: Mexico's coastline extends for 11,122 km along the Northeastern Pacific, Gulf of California, Tropical Pacific, Gulf of Mexico, and Caribbean Sea. With over 1.5 million ha of estuaries, and over 3,000 geomorphologic structures including islands, reefs, islets, shoals and banks, Mexican coastal and marine ecosystems harbour an enormous biological diversity of global importance. Marine and coastal ecosystems in Mexico are classified into 6 types of marine ecosystems and 7 types of coastal ecosystems, which together harbour 3,099 different species, of which 369 are endemic.[1] The country's coastal and marine ecosystems also provide other important ecological services, such as mitigating coastal erosion, reducing flooding and saltwater intrusion coming from tropical storms and hurricanes, and absorbing significant emissions of greenhouse gases[2]. Globally, Mexico ranks 17th in capture fish production with an average annual catch of 1.5 million tons. Small-scale fisheries (SSF) are particularly important to vulnerable coastal communities[3], and Mexico has over 271,000 small-scale fishers who rely heavily on fishing for food and income, as well as nearly 2 million households that depend on fisheries for a living, directly or indirectly.[4] The livelihoods of these people depend on healthy fish stocks, which in turn depend on healthy and resilient coastal habitats such as coral reefs, mangroves, lagoons, salt marshes, wetlands, and seagrass beds. However, in the face of greatly increasing demand for seafood, 89% of Mexican fisheries are at their maximum sustainable yield, and 8% are overexploited.[5]

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Threats / Root Causes: A number of key threats, including increasing fishing pressure, climate-related changes, and ecosystem degradation, are causing the decline of Mexican fisheries and the ecosystems on which they depend in many areas of the country:

- Increasing fishing effort and unsustainable fishing practices: The causes of the increasing pressure on Mexican fisheries are multiple. In many places inappropriate fishing practices continue to be employed, including for example the use of long lines and floating gills and anchors that damage both fish habitat (e.g. coral reefs) and fish populations themselves.[6] In some places, illegal fishing continues to be an important problem; for example, illegal fishing of high value species such as lobster and Queen conch, fishing within restricted areas and/or with prohibited gear, harvesting fish below minimum catch sizes, etc. The impacts of illegal fishing have been so severe in some areas (on both fish stocks and the incomes of fishermen obeying the law) that they have helped to galvanize fisher associations to support fishing restrictions / bans. In addition, unsustainable levels of fishing effort (as well as unsustainable practices) are impacting many fisheries, including all of the fisheries targeted by this project. Unfortunately, even when faced with declining fish stocks, fishing communities find it difficult to agree on harvest reductions, for a number of reasons: weak governance due to lack of community coordination and capacity for co-management; the lack of productive economic alternatives for many fishing communities; the fact that fishing is a vitally important part of the identity and cultural background of most people in coastal communities and they cannot envision moving to other activities (or finding other work that not only provides income but also a reliable and nutrient rich diet); and the low level of understanding even among fishermen of the importance of biodiversity and the negative impacts of ecosystem degradation from fishing practices.

- Climate Change: In Mexico, climate change is believed to be responsible for various impacts on marine and coastal ecosystems, including changes in weather patterns, changes in water temperatures and sea level, stratification due to changes in water density, increased acidification, decreased oxygen, primary productivity, etc. which are directly impacting the structure and function of these ecosystems, including in the proposed project sites that harbour significant biodiversity that is highly vulnerable to changes in ecosystem functioning. These same impacts are also driving shifts in the availability and distribution of marine species, for examples by causing invertebrate deaths and hypoxia events, and are having both direct and indirect impacts on seafood catches and fishing communities and their incomes. This problem is particularly acute because these climate change impacts are aggravating the negative consequences of unsustainable fishing practices that exist for some of the most important fish stocks.[7] In addition, it is projected that some fish stocks will not only decline in productivity but also will spatially shift poleward in response to climate change, in which case they will become unattainable to the communities that have fished them historically.[8]

Barrier Analysis: The main barriers to the sustainable co-management of fisheries in Mexico are:

- Poor implementation of existing fisheries policies and regulations, insufficient institutional capacities to implement ecosystem-based fisheries management approaches, and the need for more reliable and easily available information / data: One of the key barriers to effective fisheries and marine ecosystem management is the lack of institutional alignment and coordination between key agencies. Most notably, CONANP is focused on marine conservation while CONAPESCA is focused on fisheries production, and the lack of an ecosystem-based approach that incorporates both priorities results in poor coordination and even conflicting actions in some cases. Although both agencies have well-defined roles (see Table 1 below), the lack of coordination between the two agencies in designing public policy and regulations and implementing management on the ground has constrained both fisheries management and marine conservation objectives. Since many fish stocks move between areas managed by CONANP (e.g. NPAs) and areas managed by CONAPESCA (e.g. NTZs), this lack of coordination and alignment prevents effective management of many fish stocks. Furthermore, the existing regulatory framework for fisheries and marine ecosystems is highly complex and often subject to discretionary interpretation due to a lack of information. Fisheries Ordenamientos[9] and Management Programs, which are intended to regulate and manage fisheries and promote the sustainable exploitation of fishing resources, are frequently incomplete as they do not have sufficient data on fisheries participants, the fish stocks that are being targeted, or the fishing technologies that are being applied. Fisheries management in Mexico is also constrained by insufficient and out-dated data in terms of fishery catch reference points, stock assessments, and the number of fishers, licenses, vessels, gear and targeted species in a fishery. Most of the current approaches to estimate climate impacts on fisheries are developed at a global scale, even when the majority of fisheries worldwide are managed at a national or local scale, which leads to inadequate measures that could be inefficient given the fact that the conditions for each region, ecosystem and local population are very specific.[10] Effective management of Mexican fisheries is also constrained by low capacities for monitoring and surveillance, making it difficult to measure and control the number of licensed fishers, the practices they employ, and the detection of undocumented fishing vessels, as well as the accurate monitoring of fish stocks and regeneration rates that should guide management decisions on closures. Furthermore, poor environmental knowledge among all stakeholders, including lack of awareness regarding the dependence of fish stocks on well-functioning marine and coastal ecosystems, as well as their importance in terms of food security and economic stability, inhibits effective management and reduces local support for sustainable long-term approaches to maintaining healthy fish stocks. Although marine and coastal ecosystems in Mexico provide numerous ecosystem services and are important elements of coastal economies, many of these ecosystem services are not adequately recognized and prioritized, as they are considered infinite or lack an easily quantifiable monetary value.[11] As a result, many existing fisheries management plans do not take sufficient account of managing the ecosystems that support fish populations, nor are they adapted to the specific ecological and social conditions of specific sites and communities. This is another reason why it is a high priority to move towards an ecosystem-based approach to fisheries management, which will enable the integration of socio-economic and environmental priorities. Poor institutional capacities also create barriers to effective management; for example, government agencies are often unable to effectively implement Marine

Protected Areas management programs or regulations for no-take zones due to limited capacities for inspection, surveillance and sanctioning of non-compliant activities. At most of the sites in which the project will work, existing infrastructure and staff are unable to fully meet the needs of conservation, monitoring, dissemination, signalling, environmental education, and community and sustainable development of the system.

- Weak community involvement in fisheries governance and management: In Mexico, both NPAs and no-take zones have experimented with the use of co-management schemes. However, for the most part, these attempts have not succeeded, often due to power asymmetries between management authorities and local communities that have resulted in frustration and lack of participation by community members who feel that their voices are not heard or their interests are not adequately taken into account. Furthermore, there are very few examples of participatory diagnoses of fisheries issues or participatory processes and dialogues; as a result, fishers often feel disenfranchised from and then resistant to management decisions and local regulations. In addition, power within fishing cooperatives and federations is often concentrated in a few people. There is a lack of mechanisms to bring together government agencies and fishermen to share and explain scientific findings and data and agree on fishing limits. Uncertainty about fishing rights and limits, insufficient data on fish stocks and movements, weak law enforcement and surveillance in the areas, and a lack of conflict resolution mechanisms, have also constrained the ability of communities and managers to collaborate effectively. Furthermore, many management agencies do not have offices / staff located in local communities, and thus in the absence of other local partners, there is limited trust from fishers. Finally, existing community monitoring / vigilance schemes have mostly been inadequate and insufficient, due in large part to poor training and the lack of effective technologies.

- Insufficient capacities to add value to and commercialize fish catches, resulting in low incomes among small-scale fisherwomen and fishermen and increased pressure on fish stocks and ecosystem functions: At a global level, every dollar extracted from the sea is estimated to produce an average of three additional dollars in value through post capture fishing practices; however, the average added value in Mexico is only 60 cents per dollar.^[12] The reasons for the inability of Mexican fisheries to capture more added value are varied. One cause is a lack of infrastructure and transport facilities that results in many fisheries products being sold at the beach, thereby losing the opportunity to add value during the post capture process and sell the fish at a higher price to more diverse markets. Another reason is that while fishermen in Mexico have a relatively strong capacity to negotiate subsidies and governmental benefits, a lack of negotiating, administrative and financial skills and experience as well as the inability of fishery cooperatives to effectively coordinate and communicate with each other means that fishers typically have low negotiating power to sell catches at favourable and fixed prices for all (to not create unfair competition.) In addition, fishers that apply sustainable management practices face difficulties in accessing certification schemes and in commercializing their products in differentiated markets; these problems are exacerbated by a lack of consensus in Mexico regarding the definition of sustainable fisheries. Furthermore, because most consumers have incomplete information about the seafood they consume, demand for certified or specialized fish products is limited and not prioritized, and even those consumers interested in purchasing sustainable seafood frequently have difficulty in sourcing such products. Finally, fishing communities in the project target areas all suffer from a lack of additional economic opportunities, both related to sustainable fishing and local needs. In this situation, even the best co-management and co-governance schemes will fail, as human population growth will result in continuously increasing fishing effort unless the local population can find other ways of adding more value to their products by switching to sustainable fishing practices that also respond to market demand, as well as finding innovative ways to generate income from sources in addition to fishing.

Mexico's System of Protected Areas and Fisheries Management

Mexico's nationwide system of Natural Protected Areas (NPA) is designed to conserve biodiversity, ecosystems and environmental services; to encourage the development of sustainable practices; and to encourage the active participation of communities living within or adjacent to NPAs in the management of these sites.^[13] NPAs are considered to be the most powerful instrument in Mexico for the conservation of marine biodiversity and ecosystem services. At present, the National Commission of Natural Protected Areas (CONANP) manages 182 federal NPAs (including 67 National Parks, 44 Biosphere Reserves, 40 Protected Flora & Fauna Areas, 18 Nature Sanctuaries, 8 Protected Natural Resource Areas, and 5 Natural Monuments), which together represent 10.77% of the country's land area and 22.64% of its marine area. 37 of the country's NPAs include marine and coastal ecosystems totalling 649,587 km².

Fisheries No-take zones (NTZs; or Zonas de Refugio Pesquero in Spanish) are defined in Mexico's General Law for Sustainable Fisheries and Aquaculture (LGPAS), as "delimited areas, with the purpose of conserving and contributing, naturally or artificially, to the development of fishery resources for their reproduction, growth or recruitment, as well as preserving and protecting the surrounding environment". NTZs are only established at the request of fishers, who also participate in the definition of NTZ boundaries and restrictions. While NTZs have had success in restoring fish stocks, the capacity of CONAPESCA and INAPESCA to monitor most NTZs is very limited, and community co-management is important both because it involves fishermen in monitoring and also increases social pressure within the fishing community to abide by NTZ regulations. NTZs are designed to enable the replenishment of commercial fishing species by reducing fish mortality, protecting fish reproduction, repopulation, larval dispersion, etc., and supporting the recovery of trophic chains and habitats; in economic and social terms, they are meant to support increased volumes and values of fish catches, certification of sustainable fisheries, development of alternative activities (e.g. ecotourism), and more active community participation (co-responsibility and governance). Mexico's No-take zones can be considered as Other Effective area-based Conservation Measures (OECMs), which are defined as a "geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values".^[14] The Official Mexican Standard (NOM-049-SAG / PESC-2014) authorizing the establishment of NTZs entered into force on in 2014; as of November 2019, there are regulatory agreements in force for four NTZs in Baja California Sur and Quintana Roo, which together include 22 polygons and have a total area of 20,435 hectares. These NTZs have a mix of four different types of restrictions: Temporary and Partial, Temporary and Total, Permanent and Partial, and Permanent and Total. In the Temporary Total NTZs of San Cosme - Punta Coyote in Baja California Sur, and Espíritu Santo, Punta Herrero and Banco Chinchorro in Quintana Roo, no commercial or domestic consumption fishing may be carried out at all during a defined period, and recreational-sport fishing will be limited to "capture and release". In the Temporary Partial NTZs of San Cosme - Punta Coyote in B.C.S., commercial, sport-recreational or domestic consumption fishing activities may be carried out on various species of flora and fauna during a defined period of time and only through the use of specific gear or fishing method. For example, fishing throughout the year within the "La Brecha" NTZ is limited to the fishing of sardine with casting nets; fishing of mackerel with hand lines with #9 hooks; and fishing squid with specific types of lures.

Table 1: Comparison of No-Take Zones and Protected Natural Areas in Mexico:

Natural Protected Areas	No-take zones
Primary orientation for environmental conservation	Primary orientation for fisheries production
Managed by CONANP	Managed by CONAPESCA
Very large polygons	Small polygons
Permanent status	Temporary status (can be extended)
Greater limitations on fishing activity (Zoning)	Fewer limitations on fishing activity (Modalities)
Higher implementation costs and operation	Lower implementation costs and operation
Proposed by authorities (consultation and imposition)	Proposed by the productive sector (consensus and joint responsibility)
Less adaptable to the needs of the fishing sector	More adaptable to the needs of the fishing sector

Project Intervention Sites & Species

The proposed project will work in three marine seascapes in different parts of Mexico. The proposed project sites include eight Natural Protected Areas (NPAs) and two complexes of fisheries No-take zones, which together represent different models and opportunities for conserving the marine environment and preserving sustainable fisheries.

Table 2: Project Sites

Seascape s	Location	Target Specie s	Sites	Protected Areas		Productive Marine Are as (ha)
				Terrestrial Area* (ha)	Marine Ar ea (ha)	
1. Central Pacific Isl ands	Pacific C oast (Na yarit Stat e)	Finfish	Islas Marietas National Park	71	1,312	0
			Islas Mariás Biosphere Reserve	24,295	616,989	0
			Isla Isabel National Park	194	0	0
			Other waters surrounding protected areas			793,830
			Subtotal	24,560	618,301	793,830
2. Quintan a Roo Cari bbean	Caribbea n Sea (Q uintana Roo Stat e)	Lobste r, Quee n Conc h, poss ibly Fin fish	Banco Chinchorro Biosphere Reserve	0	144,360	0
			Sian Ka'an Biosphere Reserve	0	153,192	0
			Caribe Mexicano Biosphere Reserve**	0	633,243	0
			No-Take Zones (10)	0	0	13,469
			Other waters surrounding protected areas	0	0	0
			Subtotal	0	930,795	13,469
3. Baja Ca lifornia Su r	Gulf of C alifornia (Baja Cal ifornia S ur State)	Finfish	Espíritu Santo Archipelago National Park (ma rine area)	0	48,655	0
			Islas del Golfo de California Flora and Fauna Pr otection Area	374,544	0	0
			No-Take Zones (12) in the San Cosme-Punta Coyote marine corridor	0	0	6,966
			Other waters surrounding protected areas	0	0	110,766
			Subtotal	374,544	48,655	117,732
			Final Total	399,114	1,597,751	925,031

* The Central Pacific Islands Seascape considers terrestrial areas because effective management of the islands within this area will reduce anthropogenic pressures that impact the surrounding marine environment.

** This refers specifically to the coral reefs of Xcalak and Sian Ka'an and their area of influence

use co-management schemes may employ a wide variety of collaborative arrangements depending on the specific conditions of a given area, and support for these co-management approaches is critical for developing models that together could eventually be scaled up into a nationwide strategy, the project intervention areas have been selected (with the participation of all project partners) with a diverse array of institutional and management arrangements and different social, economic and environmental conditions (the project site selection will be validated during the PPG phase). Among the criteria used in selecting the sites and target species are the following:

Global biodiversity significance: According to the International Union for Conservation of Nature (IUCN), the selected target areas are within and/or adjacent to Key Biodiversity Areas – the San Jose Archipelago and Bahía de Loreto National Park are close to the NTZs in the San Cosme – Punta Coyote marine corridor, and the Islas Marietas National Park and Sian Ka'an Biosphere Reserve overlap with KBAs of the same name. In many cases, important species within the selected areas interact with the project's target species and/or share important habitat and ecosystem services.

Presence of locally important fisheries: The targeted fisheries are critically important for the local communities and fishing cooperatives in the project sites; they are also protected target species due to on-going population declines^[15], and are believed to be vulnerable to future climate change impacts, in particular potential habitat alterations that could affect their productivity, development, reproduction and distribution.

- Type of fishing community: The project will work with fishing communities with lower than average incomes and where fishing practices are less sustainable (these two factors are inter-related), and specifically in communities with smaller fleets and simpler fishing gear. In addition, because the project is seeking to strengthen community co-management of fisheries, it will work in communities where there is a high level of local organization and institutional / organizational partners, as well as interest in co-management approaches.
- Value chains: The project will work in areas and fisheries that have a good potential for improved fisheries value chains that can benefit local communities and incentivize fishers to adopt sustainable practices and actively participate in co-management, and that could produce valuable learned lessons to replicate in other areas with similar needs.

Central Pacific Islands Seascape

Located on the central Pacific coast of Mexico in the state of Nayarit, this seascape encompasses three Natural Protected Areas situated within the Bahía de Banderas; all three areas are Key Biodiversity Areas. The Islas Marietas National Park is designated as a RAMSAR site and as part of UNESCO's Man and the Biosphere Program. The NPA consists of two small islands and two islets of volcanic origin that together have 71 ha of land, and a marine buffer zone of 1,312 ha. Sustainable tourism activities (diving, bird watching from boats, etc.) are allowed throughout the buffer zone, while commercial and recreational sport fishing activities are limited to designated "sustainable use zones" within the buffer zone. The Isla Isabel National Park, situated 28 km. off the coast of Nayarit, consists of 194 hectares of terrestrial area. A temporary fishing camp is located on the island and used by approximately 150 fishers at different times throughout the year; these fishers come mainly from the communities of San Blas and Boca de Camichín in Nayarit. Consultations with these fishers have resulted in agreements for the protection of the marine area around the island through the establishment of no-take zones, actions to protect and recover adjacent coral reefs, and collaboration in working towards a declaration of protection for the marine zone. This work has been supported by researchers working on the island who have provided technical inputs for management decisions. The Islas Mariás Biosphere Reserve encompasses 24,295 ha of land

and 616,990 ha of marine area, and is part of UNESCO's Man and the Biosphere Program. Until recently, several prisons were located on islands within the reserve, but in March 8 2019, these sites were closed in order "to contribute to the preservation and conservation of the biosphere reserve of the Marias Islands".

The Bahia de Banderas is an area where the California Current, the Costa Rican Coastal Current, and the mass of water from the Gulf of California converge, producing biophysical conditions that have created habitat for an enormous level of biodiversity. This seascape provides habitat for a large variety of resident and migratory seabirds, including brown booby (*Sula leucogaster*), motmots, seagulls and pelicans; is of high importance as a breeding area for marine species including Humpback whales (*Megaptera novaengliae*) and the Olive Ridley Sea Turtle (*Lepidochelys olivacea*); and contains a great diversity of coral species, reef fish, sponges, annelids, molluscs, crustaceans and echinoderms. However, this area is vulnerable to a variety of threats, including the construction of marinas and associated infrastructure, and increasing levels of fishing, recreational diving, and boat traffic.[16] As a result of these trends, marine water quality has deteriorated in recent years, resulting in the reduced levels of invertebrates and fish stocks as well as habitat degradation and reduced resilience to climate change impacts.[17] Within NPA buffer zones, some restrictions on fishing exist, but despite this the harvesting of natural resources is negatively impacting a variety of fish, corals, invertebrates and sea mammals with important ecological and economic values.[18] In addition, the NPA buffer zones are not large enough to protect most marine species and as of now there are no NTZs in the area; as a result, key species such as snapper are overfished, and the widespread use of bottom gill nets is causing extensive damage to marine ecosystems. Increased seawater temperatures (reaching up to 32° C) have resulted in areas of coral bleaching.

The most important fisheries in this area are for red snapper, snapper, tuna, mojarra, and octopus, all of which are artisanal fisheries whose products are almost entirely for local markets. Tuna and tuna-like species are high-value and support fisheries of a global, multi-gear and multi-species nature. In addition, fisheries are internationally regulated by instruments such as the UNCLOS, the UNFSA and the voluntary FAO Code of Conduct for Responsible Fisheries. The main species of tuna in this area are the yellowfin tuna (*Thunnus albacares*), albacore (*Thunnus alalunga*), bigeye tuna (*Thunnus obesus*) and skipjack tuna (*Katsuwonus pelamis*), together accounting for about 80% of the regional total tuna and tuna-like catch. These species ranging from moderately to fully exploited status in the Area 77. In Mexico, tuna fisheries are fully exploited (optimal yield level).

Fish products here are generally put on ice, refrigerated or frozen, but no value added activities are undertaken that could help fisheries to reach buyers who demand quality and consistent product, and fishermen only receive the "beach price", which is much lower than market prices. Most of the fishing vessels around the Islas Marietas come from nearby ports within or to the north of Banderas Bay, and most of the fishing takes place near the Marias Islands and around the "La Corbeteña" islet, which are located 7 km. southwest of the Marietas Islands. Many fishers are now also providing fishing tours and transportation services for tourists who visit the Marietas Islands for recreational water activities.

Several recent and ongoing GEF-funded projects implemented in Mexico provide important opportunities for collaboration and other synergies. The projects "Strengthening Management Effectiveness and Resilience of Protected Areas to Safeguard Biodiversity Threatened by Climate Change" and "Conservation of Coastal Basins in the Context of Climate Change" have developed tools, knowledge and lessons on NPA management that could guide project design and implementation, including work done by both projects in several NPAs (terrestrial and marine) in the Central Pacific Island Seascape on Vulnerability

Diagnoses for Marine Areas, Action Plans for Integrated Watershed Management (PAMIC), protocols for restoration of coral reefs and coastal dunes, etc. In addition, this proposed project will coordinate and share information with the pending project “Towards Joint Integrated, Ecosystem-based Management of the Pacific Central American Coastal Large Marine Ecosystem (PACA)” on issues related to fisheries management and marine ecosystem management.

Quintana Roo Caribbean Seascape

Located in the Caribbean Sea off the coast of the state of Quintana Roo, this seascape encompasses three Natural Protected Areas and 10 No-Take Zones. The entire area is within the CEPF MesoAmerica Biodiversity Hotspot^[19]. Several KBAs also are located within or adjacent to the project sites, including: Sian Ka'an, Isla Cozumel, Corredor Central Vallarta Punta Laguna, and Northeastern Belize. The Banco Chinchorro Biosphere Reserve has a total area of 144,360 ha, including reef formations, reef lagoons, three keys (Lobos, Center and North), and adjacent ocean waters. Banco Chinchorro, which is part of the Mesoamerican Reef System and constitutes the largest reef structures of its kind in Mexico, harbours some 778 species, of which 58% are marine fauna, 14% are terrestrial fauna, 18% are marine flora and 10% are terrestrial flora. The Sian Ka'an Biosphere Reserve is located along the central coast of Quintana Roo and has a total area of 528,147 ha, including 374,955 ha of terrestrial habitats including tropical forests and wetlands, and 153,192 ha of marine habitat including coral reefs and shallow ocean areas. The reserve is a designated World Heritage Site, a Ramsar site, and part of the UNESCO Man and the Biosphere Program. Within the reserve, Punta Allen, Mahahual and Xcalak are very important fishing areas. The reserve includes diverse marine environments such as sandy beaches, mangroves, shallow bays, rocky beaches, marshes and reefs with high species diversity.^[20] The 110 km-long Sian Ka'an barrier reef, located along the eastern edge of the reserve, is part of the second longest reef in the world and harbours numerous marine species. There are three human settlements within the reserve (Punta Allen, Punta Herrero and Javier Rojo Gómez). The Caribe Mexicano Biosphere Reserve was decreed on 2016 and it includes an important diversity of aquatic and terrestrial ecosystems, such as coral reefs (the reefs in the Xcalak and Sian Ka'an sites are the focus of this project), marine grasslands, jungles, mangroves, and lagoon systems. The reserve has a total area of 5,754,055 ha., (of which 626,740 are considered part of the project site), including several Ramsar wetland sites and fisheries No-Take Zones. The reserve also includes several important fishing areas, such as Xcalak and Mahahual. Finally, there are a total of ten fisheries No-Take Zones in this seascape, including Espiritu Santo (8 zones; 1,049 ha); Punta Herrero (1 zone; 163 ha) and Banco Chinchorro (1 zone; 12,257 ha).

The ecosystems within this seascape are essential for the reproduction, breeding and development of numerous species of ecological and economic importance. These ecosystems encompass significant commercial fish stocks such as the Queen Conch (*Lobatus gigas*), Caribbean spiny lobster (*Panulirus argus*), and a number of finfish species.^[21] All of the protected and productive coastal and marine areas within this seascape are culturally and ecologically inter-connected. For example, the community of X'calak is considered the heart of fishing in the area; the Quintana Roo Cooperative located in X'calak is the oldest fishing cooperative in the region and was the first to take advantage of the resources of the Banco Chinchorro Biosphere Reserve. The entire seascape, including the Biosphere Reserves and NTZs, is subject to a number of important threats. For example, the use of destructive fishing gear, as well as high levels of illegal fishing (by both local and foreign boats), is impacting the populations of lobster and Queen Conch and other reef species. The rapid growth in tourism in the area has increased demand for marine products and also contributed to the degradation of marine habitats, for example increased boat traffic resulting in anchor damage, pollution, boat strikes, etc. Another problem is the construction of cabins and palapas (e.g. on Center Key) without any cohesive plan, controls, or mechanisms to deal with sewage and grey water; and general impacts in terms of household waste, fishing waste and daily human activities

carried out in the area.[22] Climate change is exacerbating these on-going problems; the increased frequency and severity of hurricanes and other storms is degrading marine and coastal ecosystems function, which is impacting fish stocks and globally significant biodiversity, while also negatively affecting the connectivity between ecosystems in this corridor of protected areas and no-take zones.

Fishing is the most important economic activity in the area. The most important species for commercial fishing are the Queen Conch (*Lobatus gigas*) and lobster (*Panulirus argus* and *P. guttatus*), but there are also numerous commercially important fish species. The Caribbean spiny lobster (*P. argus*) is listed in Annex III of the Protocol Concerning Specially Protected Areas and Wildlife (the SPAW protocol) of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (the Cartagena Convention). Available data indicated that Caribbean lobster is ranging from fully exploited to overexploited throughout much of its geographical range. Stromboid conchs fish stocks in Area 31 have been identified as FAO as falling into its worst category, depleted.

Fish catches and quotas in the area have been declining for a number of years; for example the quota for Queen Conch decreased from 45 tons in 1995 to 9 tons in 2018. Despite the establishment of the Banco Chinchorro reserve, the rate of illegal fishing (particularly for Queen Conch) has not declined, and as a result the three fishing cooperatives with the legal right to harvest this species requested and were granted a 5-year ban on all fishing for the species. The project will focus on the management of the Caribbean spiny lobster and Queen Conch fisheries, which are two of the most important fisheries in the Mexican Caribbean. The Queen Conch is a mollusc found in both Biosphere Reserves and is in high demand in the Caribbean due to its commercial and tourist value; it is also an endangered species that is under significant pressure, primarily due to extensive poaching in areas such as Xkalak and Banco Chinchorro. By the value of its exports, lobster is the third most important fishery in the country, and it is the main source of income for some of the coastal communities within this project site, but the lobster fishery also faces threats from unsustainable practices and over-fishing (because of the species' fragility, lobster fishing requires very careful handling both pre and post capture). Because of the high demand for lobster and the price it can earn in the market, there is a strong opportunity to promote sustainable practices and develop new market opportunities, building on experiences and good practice that have worked in other fishing communities in the region with similar conditions and problems. The project also intends to increase the understanding among fishing communities in the area of the consequences of overexploiting these species, and to promote sustainable practices that could conserve these species and increase fishers' incomes.

The GEF-funded project "Strengthening Management Effectiveness and Resilience of Protected Areas to Safeguard Biodiversity Threatened by Climate Change", which worked in several NPAs in the Mexican Caribbean (Nichupté Mangrove Flora and Fauna Protection Area, Puerto Morelos Reef National Park, and Punta Nizuc National Park) adjacent to the target seascape, has developed important baseline information and platforms for biodiversity monitoring, namely the Climate Change and Biodiversity Explorer (ECCBio) and the Biodiversity and Degradation Monitoring System (SMBD), which will be highly useful in designing and implementing activities under this proposed project.

Baja California Sur Seascape

Located in the Gulf of California off the coast of the state of Baja California Sur, this seascape encompasses two Natural Protected Areas and 12 No-Take Zones. The islands of the Gulf of California are recognized by the international scientific community as one of the most ecologically intact island ecosystems in the world and among the few natural laboratories still in existence. More than 875 species of fish, representing 145 families and 446 genera, inhabit the waters of the Gulf of California, of which 77 species are considered endemic. The Espíritu Santo Archipelago National Park, located off the coast of the municipality of La Paz, encompasses 48,655 ha. of marine area that harbour a wide variety of fish, mammals, seabirds and invertebrates; as well as a heterogeneity of habitats such as mangroves, sandy bottoms, rocky reefs, estuaries, beaches, bays and mantles of rhodolites of high ecological integrity. The

park is also an important feeding and sheltering site for numerous species that are representative of the marine biodiversity of the Gulf of California. The Islas del Golfo de California Wildlife Protection Area encompasses 898 islands located off the shores of the states of Baja California, Baja California Sur, Sonora and Sinaloa. Of these, the islands most relevant to the proposed project are San José, Santa Cruz and Santa Catalina. Finally, there is a complex of 12 No-Take Zones with a total area of 6,966 ha. located in the San Cosme - Punta Coyote Marine Corridor, which is a designated priority ecoregion for conservation according to the WWF Global 200 list, and is located adjacent to the Key Biodiversity Areas of Archipelago San José and Bahía de Loreto National Park[23].

Along with tourism, fishing is one of the most important economic activities within the Gulf of California and critical to the economies of even large cities in the region such as La Paz. Small-scale or artisanal fisheries have played a central role in the establishment, consolidation and growth of many coastal communities along the Gulf, and fishing remains the primary activity today in these communities. The Baja California Sur seascape is part of the Eastern Central Pacific fishing statistical area monitored by FAO (FAO area 77). This Statistical area covers a total surface of 48.90 million km². It extends from 40°00'N and 40°30'N off northern California, USA, to 05°00'N off southern Panama and 25°00'S off South America farther offshore in the mid Pacific. The differences in climate, water circulation patterns and enrichment processes influence the distribution and abundance of fishery species. Historical capture fish production reveals that small and large pelagics sustain major local fisheries. The status of the main fish stocks in the area varies widely. In general terms, bluefin tuna (*Thunnus thynnus*) is overexploited; miscellaneous coastal finfish such as snappers and groupers, ranging from moderately exploited to overexploited. Scientific-based information and fisheries management regulations are also variable through the area and the species.

In order to curb the decline of fish stocks resulting from increased fishing from non-resident fishermen, the use of new fishing gear that has been highly destructive of marine habitats, and the impacts of climate change, a network of twelve No-Take Zones in the area was established in 2012. The NTZs in this corridor have helped to improve the health of the multi-species finfish fishery in the area by preserving habitat and enabling the restoration of the population levels of some species, including commercially fished finfish (although data is lacking on the relative impacts of NTZs and changes in environmental conditions on fish stocks). However, the existing complex of NTZs has not been sufficiently large to ensure the sustainability of fish stocks, and a number of key habitat areas remain unprotected. The NTZs were initially valid for 5 years; they have since received a second period of validation that extends from 2017 – 2022 (with the possibility of revalidating it again for another 5 year period). Realizing the economic and social benefits of the establishment of no-take zones, ten fishing communities in the municipalities of La Paz, Comondú, and Loreto have requested that the existing network of no-take zones is extended and made permanent.

In this seascape, the project will focus on the management of the finfish fishery, which spreads across the complex of NTZs as well as neighbouring NPAs and unprotected waters. In the Gulf of California, finfish species such as groupers, snappers, mullets and mackerels are included in a fishery group called “escama” with more than 200 species. Based on catch statistics from 2011-2016, within the marine corridor 85% of the catch consists of the following species: red snapper (*Lutjanus peru*); ocean whitefish (*Caulolatilus princeps*); Pacific creolefish (*Paranthias colonus*); horse mackerel (*Seriola lalandi*); finescale triggerfish (*Balistes polylepis*); mulatto snapper (*Hoplopagrus guentherii*); Yellow snapper (*Lutjanus argentiventris*) and Leopard Grouper (*Mycteroperca rosacea*). Fishers can receive a license for the overall fishery; typically this license is used by Small-Scale Fishers (SSFs) as a supplement to income from other fisheries like lobster or shrimp, but in some cases this is the main source of income for fishing households. Close to 700 people in the area make their primary income from fishing; these fishers live in 13 remote and hard-to-reach communities, and in many communities women play an important role in post-harvest activities. Most of the fish products extracted from this area go to local markets in La Paz, Loreto and Comondú, or to cities such as Guadalajara and Tijuana.

The GEF-funded project “Strengthening Management Effectiveness and Resilience of Protected Areas to Safeguard Biodiversity Threatened by Climate Change” carried out activities within the Gulf of California that will help to guide this proposed project, including NPA Climate Change Adaptation Programs (PACCs) that are supported by local working groups. Similarly, the GEF-funded project “Conservation of Coastal Basins in the Context of Climate Change”

developed important lessons on efficient strategies for capacity building that incorporates gender and indigenous peoples priorities and knowledge.

2) Baseline scenario and any associated baseline projects

Baseline Scenario

al laws and policies constitute the primary instruments governing environmental management and fisheries managed in Mexico and form an important baseline for ct activities. The legal framework for the management of fisheries in Mexico includes the General Law for Ecological Equilibrium and Environmental Protection (LGEPA), the General Law for Sustainable Fisheries and Aquaculture (LGPAS), and the Mexican Official Standards for environmental and fisheries issues. The LGPAS establishes and defines the principles to ordain, promote, and regulate the management and sustainable use of fisheries and aquaculture, considering social, biological, productive, biological, and environmental aspects; establishes a regime for permits and authorizations for fisheries and aquaculture activities; and states the designation of no-take zones or fishery reserves. The National Environmental Policy for the Sustainable Development of the Oceans and Coasts (PANDSOC) is a key policy guideline for the integrated management of the coastal and marine areas of the country. The PANDSOC authorizes the subsidies that are given by CONANP to fishers and adjacent communities to promote the conservation of ecosystems and their biodiversity in Priority Regions, and from CONAPESCA as part of its program for the Promotion of Fisheries and Aquaculture Productivity. Mexico's National Policy on Sustainable Fisheries and Aquaculture directs that these sectors must strengthen food sovereignty; that the uses of fisheries and aquaculture resources must be compatible with their natural recovery and sustainability; that fishing gear, equipment and methods should be selected to minimize environmental impacts in order to maintain the structure of fish populations; and that fisheries authorities should apply the precautionary principle in defining fishing quotas and effort. Mexico's National Development Plan directs that public programs must prioritize the country's most vulnerable communities; fishing communities are often among the most vulnerable in the country. The National Fisheries Chart is a technical publication for the fishing sector and a binding mechanism for the decision-making processes of fisheries authorities; the chart includes technical information for the adoption and implementation of measures for the control of fishing effort, and the resolution of authorization requests and permits for fisheries and aquaculture activities.

At the site level, the project will build on a number of baseline activities. Fishing Ordenamientos exist for two of the three regions targeted by this project: the *Marine and Coastal Ecological Management Program of the Gulf of Mexico and the Caribbean Sea* was created in 2012 and jointly agreed to by the Federal Government and the governments of the relevant coastal states, while the *Marine Ecological Management of the Gulf of California* was agreed to in 2004 by the Federal Government and the governments of all states along the Gulf of California (both of these Ordenamientos need to be updated). These programs are designed to govern land and resource use in order to achieve environmental protection and preservation and sustainable use of natural resources, and is intended to i) distribute the activities of different sectors in the most suitable sites; ii) maximize consensus between sectors and minimize conflict for development activities; and iii) conserve, protect and restore the natural resources and biodiversity of the region.

In the Islas Marietas, CONANP has done extensive outreach with fishing communities, and also implemented some reef restoration work in areas that constitute important habitat for fish. CONAPESCA will continue to be a key player in fisheries management, including the on-going activities and programs of its offices and personnel in Baja California Sur and Quintana Roo. In the case of INAPESCA, its technical and scientific research programs on the status of fisheries is crucial to the project, including in assessing and updating information on fisheries practices, efforts levels, and trends. Fishermen who are authorized to fish in the Banco Chinchorro Marine Reserve recognized that illegal fishing of Queen Conch within the reserve was a significant threat to the species' population levels and worked with the reserve's staff to establish a fishing ban for this species[24]; this provides a good opportunity to replicate such activities in adjacent areas. CONANP staff responsible for managing the Banco Chinchorro reserve have also had success in working with fishers in management of the Caribbean lobster, and various fish species, as well as

ng with local communities on conservation activities in wetlands and for the control of exotic fauna. In addition, both the Banco Chinchorro and Sian Ka'an reserves implemented Climate Change Adaptation Programs in which local stakeholders who benefit from the natural resources of the area, such as tourism providers, men and other local inhabitants, have participated in activities such as wetland restoration, the development of contingency plans and risk atlases, the diagnosis of degradation of coastal ecosystems and the quantification of carbon stored in the restored surfaces, and raising community awareness of the risks of climate change. These activities have increased local awareness of environmental issues and willingness to participate in resource management decisions and activities.

Associated Baseline Projects

- WWF Mexico has a number of programs related to sustainable fisheries and marine conservation, including: the Seascope program that supports sustainable fisheries programs at two of the project sites (Bahia de Banderas and Baja California Sur), through Fisheries Improvement Projects (FIPs), MPA strengthening, and retrieval of ghost nets; a Corporate Engagement program that finds markets for sustainable fisheries products in partnership with corporations (e.g. Hyatt, Hilton, Marriot, Iberostar), in partnership with the NGO Smartfish A.C., which promotes fishing improvement projects and environmental certifications. Among the local NGOs with active programs on fisheries / marine conservation, NIPARAJÁ works to get fishers in the Gulf of California to commit to more sustainable practices, and also supports fishers' participation in the monitoring and management of the No-take Zones in the San Cosme - Punta Coyote Marine Corridor; while COBI (Comunidad y Biodiversidad) works in both the Gulf of California and the Mexican Caribbean regions, primarily in activities to reduce the degradation of marine ecosystems and the unsustainable use of marine resources. In the Central Pacific, Pronatura Noroeste is working on FIPs in Nayarit State, while in the Caribbean, Amigos de Sian Ka'an has various programs that contribute to fisheries, such as reef conservation and various mitigation measures for climate change.

GIZ's Biodiversity and Coastal Cities project (2020-2023; budget of 4.5 million Euros) is focused on biodiversity protection, strengthening governance mechanisms, and urban and territorial planning with emphasis on the protection and use of ecosystem services that can support local economic activities. The concept behind this project is to create a union of urban and coastal landscapes by working hand in hand on common problems that affect both areas. This project includes at least one site (Chetumal) within the Caribe Mexicano Seascope. The KfW Financing and Strengthening of Protected Areas project (2020-2025; budget of 22 million Euros) is designed to ensure the financial sustainability of newly decreed NPAs, strengthen management standards in NPAs, integrate biodiversity into subsidy programs in other sectors, and increase the visibility of biological and ecosystem services. This project is working in six different NPAs, two of which are also included in this project, e.g. the Caribe Mexicano and Islas Marias Biosphere Reserves.

3) Proposed alternative scenario with a brief description of expected outcomes and components of the project

Following FAO's Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication, as well as FAO's recommendations for developing co-management schemes[26], this project will address existing barriers to the sustainable co-management of fisheries in three targeted seascapes in Mexico. The project approach is based on the understanding that co-management schemes propose that resources are jointly managed between the government and beneficiaries. However, in order to be successful, co-management schemes must respond to the diverse needs of fishing communities at specific sites, they must rely on effective institutional arrangements, sufficient information for decision-making, and mechanisms for social participation, and they must be coupled with sustainable livelihoods alternatives in order to keep future fishing effort within sustainable levels. In addition, the project approach is to focus on the co-management of fisheries in seascapes that include various forms of protected status (NPAs and OECMs) and to use ecosystem based management strategies in order to generate benefits for both biodiversity conservation and local livelihoods and economies. By

working in NPAs and OECMs, the project will support better management of fisheries while also conserving the biodiversity and ecosystem functioning in important ecological areas; for this reason, the project will promote fisheries management approaches that address the health of fish stocks and ecosystem / habitat degradation, and that also are aligned with the management priorities and allowed activities within different types of NPAs and OECMs. By managing fisheries in an integrated manner across different protected sites, the project will provide an opportunity to align and integrate the conservation approaches of CONANP and the fisheries production orientation of CONAPESCA, while also piloting ecosystem-based fisheries management at a larger scale than previous programs in Mexico, which will create valuable models and lessons learned and also provide new incentives and justification to make changes in the country's existing fisheries policy and regulatory framework.

In order to support the development of fisheries co-management and the conservation of fish stocks and important marine ecosystems, the project will adopt an integrated approach through four components. Under Component 1 (Enabling institutional and regulatory conditions for sustainable fisheries in Natural Protected Areas (NPAs) and Other Area-based Effective Conservation Measures (OECMs)), the project will strengthen the capacities of government institutions and processes. Under Component 2 (Community participation in fisheries management), the project will strengthen the capacities of fishers / fishing communities to enable them to play an active role in co-managing fisheries. Under Component 3 (Supporting sustainable fisheries-based alternative livelihoods), the project will develop market opportunities and economic opportunities to provide fishing communities with more secure incomes that will reduce their incentive to engage in illegal fishing or unsustainable fishing practices. Finally, under Component 4 (Project Coordination, Collaboration, and Monitoring and Evaluation), the project will monitor, document and share lessons and models developed through the other components to support adaptive management and the upscaling of project results at the national level.

Project Objective: To ensure the conservation of marine ecosystems and biodiversity and secure the sustainable livelihoods of fishing communities through innovative fisheries co-management approaches in three priority seascapes

Component 1 - Enabling institutional and regulatory conditions to strengthen sustainable fisheries in Natural Protected Areas (NPAs) and Other Area-based Effective Conservation Measures (OECMs): Under Component 1, the project will support the development of ecosystem-based management plans and regulations that respond to changing ecological conditions (including climate change impacts), socio-economic contexts, and the needs of local communities. The primary outputs under this component will be the development of adequate participatory planning mechanisms and ecosystem-based fisheries co-management tools; effective formal and informal institutional arrangements and capacities to secure proper implementation and compliance of co-managed fisheries; and a comprehensive, transparent, and open fishery information system to support participatory decision-making and learning. The approach under component 1 is aligned with Mexican law, which states that fisheries policy should focus on three primary mechanisms: up to date fisheries information (e.g. on fishers, licences, vessels, gear, target species, etc.), fisheries management plans, and corresponding allocation of permits and concessions. In addition, the management plans and regulations developed through this project will be aligned with the road map of the 13th meeting of the CBD Conference of the Parties in 2016 and the Cancun Declaration on the Integration of the Conservation and Sustainable Use of Biodiversity for Well-being, as well as FAO's program for the integration of biodiversity in different agricultural sectors.^[27]

Outcome 1.1: Institutional capacities and processes have been strengthened for effective fisheries co-management in three seascapes encompassing Natural Protected Areas and Other Effective area-based Conservation Measures (OECMs)

Output 1.1.1: Planning and management tools for marine conservation and fisheries co-management have been developed and are guiding decision-making in three target seascapes

Carry out a marine spatial planning analysis, based on the national process of Ordenamiento Ecológico Marino, to support fisheries / ecosystem management in each of the three target seascapes (at the two seascapes in the Pacific, the project will collaborate with the TDA/SAP process under the on-going UNDP-GEF project "Towards Joint Integrated, Ecosystem-based Management of the Pacific Central American Coastal Large Marine Ecosystem"). The marine spatial plans will identify critical habitats, fish aggregation sites, patterns of fishing pressure, etc. to support improved understanding and management of fisheries and the marine environment, and to increase awareness among fishers of the benefits of establishing NTZs.

Develop participatory ecosystem-based fisheries co-management plans in the three target seascape that align and integrate the conservation based approaches of CONANP and the fisheries production based approaches of CONAPESCA.

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Output 1.1.2 Effective ecosystem-based fisheries management capacities and processes have been generated in key government institutions and among other stakeholders

Review, simplify and harmonize existing fisheries regulations to respond to local conditions and community needs; also, generate a shared definition of sustainable seafood, based on Marine Stewardship Council standards, and advocate for its use in fisheries regulations.

Implement capacity building programs for staff of CONANP, CONAPESCA, INAPESCA and other agencies on ecosystem-based fisheries management approaches (including integration of climate change trends and impacts) and on ensuring that management and conservation efforts do not generate additional problems for the poorest and most vulnerable fishing communities.

Develop institutional capacities to employ innovative technologies that strengthen monitoring and enforcement of fishing regulations (e.g. cellular and satellite systems, drones, electronic fishing monitoring systems, etc.) and help to conserve marine ecosystems and fauna (such as "casitas cubanas" or artificial shelters for lobsters).

Strengthen management of NTZs by delimiting boundaries with buoys and improving surveillance through increased inspection trips, and the training of inspectors in monitoring of NTZ and permitted uses.

Develop capacities among technical personnel and decision makers to strengthen the participation of men and women fisheries co-management and value chain development.

Develop systematic plans and capacities among all actors involved in NPA management / usage so that they are able to sustain actions even when the project ends, based on lessons learned from the GEF-funded projects "Strengthening Management Effectiveness and Resilience of Protected Areas to Safeguard Biodiversity Threatened by Climate Change" and "Conservation of Coastal Basins in the Context of Climate Change".

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Output 1.1.3 Government institutions with strengthened institutional arrangements and capacities to facilitate effective fisheries co-management approaches

Strengthen interaction and coordination between government agencies responsible for fisheries and marine conservation, so that fisheries management incorporates both productive and ecosystem conservation priorities and approaches.

Develop formal and informal institutional arrangements to support inter-institutional coordination for fisheries co-management, while also clarifying the mandates and powers of different federal, state, local agencies with regard to fisheries management.

Implement capacity building programs for governmental officers to facilitate the development of co-management plans.

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Output 1.1.4 Comprehensive, transparent, and open fisheries information system in place to support participatory decision-making and learning at project target sites

Ensure that ordenamientos (data on fishers, licences, vessels, gear, target species, etc.) are up to date and accurate, and that public programs to support fishers are aligned with the data in the ordenamientos.

Develop and monitor biophysical indicators (species occurrence, water quality, temperature, sea currents, etc.), potential impacts of climate change on fish stocks, and catch limit reference points to support adaptive fisheries co-management.

Carry out systematic data collection on the economic, social and physical conditions and vulnerabilities to environmental change and ecosystem degradation among the communities in the project sites.

Carry out photo-credentialing, registration, and chipping of all fishermen and minor vessels and support community surveillance volunteers in order to protect legal fishermen from the activities of illegal fishermen.

Consolidate / link existing information systems for ecosystem-based management and decision-making (including databases of existing permits, vessels and concessions managed by CONAPESCA, as well as information held by other agencies and fishing cooperatives) relevant to the three target seascapes. This improved information management approach will facilitate joint management decisions by government and beneficiaries, and thereby increase acceptance and support among fishing communities for regulatory mechanisms such as size, site and effort restrictions and even fishing bans.

Obtain at least one draft Management Program for NPAs that addresses fisheries within a context of Climate Change.

1.1.5 Inspection and surveillance activities are reinforced to ensure compliance with fisheries management policies and regulations

Strengthen the capacities of public prosecutors with pilot training programs on illegal fishing issues and their consequences.

Assist authorities in enhancing and updating platforms that allow for comprehensive fishing information for better inspection and surveillance.

Component 2 - Community participation in fisheries management: Under Component 2, the project will ensure the extensive participation of local fishing communities in the development and implementation of fisheries co-management systems. Given the significant threats facing fisheries in Mexico, there is a clear need to implement effective management tools such as permit limits and fishing quotas. However, acceptance of and compliance with fisheries regulations is always challenging^[28], and in Mexico such administrative decisions are often followed by complaints and poor compliance from the fishing sector. In fact, some researchers have argued that the effective engagement of actors in collaborative governance arrangements is the only viable option to address environmental problems at a large scale^[29], and thus the involvement of fishing and other coastal communities in fisheries co-management is an urgent priority in Mexico. The project design takes the view of fisheries as socioecological systems, composed of subsystems that include the targeted fish species, the marine ecosystem, fisher persons, and an integrated control and execution system that fosters and protects the resilience of the system as a whole, an approach that allows fishermen to be considered as active partners in fisheries governance.^[30] Since effective co-management requires that communities have governance mechanisms that allow them to play an active role in collectively managing and monitoring their fisheries, outputs under Component 2 include: mechanisms for collective community design, decision-making, co-regulation, monitoring, compliance, and conflict resolution; strengthened capacities to effectively access and apply public fishery information to improve co-management, and incentives to promote the participation of coastal communities. In piloting such approaches, the project also will seek to develop co-management mechanisms that involve and empower groups that are usually excluded from decision-making processes. Activities under this component will seek to build on prior experiences in Mexico, including in particular co-management activities between CONANP, CONAPESCA and fishing cooperatives in the Banco Chinchorro and Sian Ka'an reserves on lobster and Queen Conch, including the establishment of NTZs and coordination in governance matters, as well as experiences developed in other co-management fisheries. Such models will be useful at other project sites where co-management approaches have not yet been tested, such as the Caribe Mexicano Biosphere Reserve (specifically in the Xcalak region), Islas Marías, Isla Isabel, and the Islas Marietas National Park, as well as sites where existing co-management schemes need to be strengthened, such as the Espíritu Santo Archipelago, and the islands of San José, Santa Cruz, and Santa Catalina in the Gulf of California.

Outcome 2.1: Local fishing communities play an active role in collectively managing and monitoring their fisheries through an ecosystem-based approach and participatory, collective decision-making.

Output 2.1.1 Mechanisms are in place for collective community decision-making, co-regulation, monitoring, compliance, and conflict resolution related to fisheries

Facilitate the participation of fishermen at the project sites in local multi-sectorial territorial development dialogues (assemblies and meetings) that will provide common space to generate social capital, learn from activities in other areas, and resolve conflicts.

Facilitate the participation of fishers in creating / revising fisheries regulations.

Establish or strengthen the NPA Councils at Islas Marietas National Park and the Banco Chinchorro, Sian Ka'an and Caribe Mexicano Biosphere Reserves as mechanisms to promote co-management and governance (building on lessons learned from previous efforts at community co-management mechanisms); also reactivate the committee on environmental crimes for co-management and governance issues.

Establish democratic mechanisms to ensure that power within fishing cooperatives and federations is not concentrated in a few people, for example by promoting an increased role for women, youth and indigenous persons.

Ensure that women and men have equitable access to capacity development in matters of sustainability, associativity and financial education so that decision-making takes place in consensus.

Develop mechanisms to clarify access rights to fisheries.

Support fishing communities / cooperatives in the three target seascapes who wish to designate new NTZs, possibly including additional Total and Partial Temporary NTZs in the Baja California Sur seascape, as well as a new NTZ in an area adjacent to the Banco Chinchorro Biosphere Reserve.

Promote research, education and monitoring of biological and climate variables.

Output 2.1.2 Local communities strengthen their capacities to participate in fisheries co-management and to adopt new technologies and practices

At least 50 community facilitators, including local women, youth and indigenous persons, trained each year to work with government to implement fisheries co-management tools, including training in designing and proposing NTZs, and in monitoring fishing activities and permitted uses within NTZs.

Develop and implement a training program to strengthen the organizational and cooperative capacities of local communities to collectively implement fishing management plans and to monitor compliance.

Diagnose the specific needs and priorities of women and men to implement fisheries management plans and to access benefits in an equitable manner, and provide capacity development in these areas as needed.

Output 2.1.3 Local communities benefitting from improved access to fisheries information

Provide training and develop protocols to ensure that coastal communities have access to environmental information stored in the linked information systems developed under Output 1.1.4.

Facilitate meetings that bring together government agencies and fishermen to share and explain scientific findings and data, and to agree on fishing limits and other regulations.

Disseminate information to all relevant fishing communities, including women, minorities, and vulnerable groups, on the current state of fisheries and the importance of transitioning to sustainable practices.

Output 2.1.4 Incentives are in place to promote the participation of coastal communities in implementing sustainable fisheries co-management and adopting practices and technologies that promote and preserve marine ecosystem services

Support the transformation of existing fisheries subsidy programs, most notably the Program for the Promotion of Fisheries and Aquaculture Productivity (PROPECA), in order to eliminate any perverse incentives and promote criteria that will direct subsidies towards fishers who support biodiversity conservation and sustainable fisheries management. Secure other financial resources to support fishers in adopting sustainable practices, possibly including funds from existing social programs (e.g. welfare programs), as well as the Conservation Program for Sustainable Development (PROCOCODES).

Strengthen the technical capacity of organizations to promote equal opportunities and the rights of women and youth to achieve economic autonomy.

Output 2.1.5 Inspection and surveillance systems in place to enhance fisheries governance schemes

Support fishing communities and fishermen in getting access to data and information that is updated by relevant authorities within their platforms.

Upgrade contact between fishing communities and authorities in order to have better and more efficient results in terms of carrying out procedures or following up on complaints.

Establish / strengthen Community Surveillance Committees to support inspection activities within the three seascapes.

Component 3 – Supporting sustainable fisheries-based additional livelihoods:

The adoption of improved fisheries management processes and new fishing restrictions (e.g. catch limits; effort/gear/size restrictions; time/area closures; etc.) under Components 1 and 2 has the potential to impact the income of fishers in the project target areas, particularly during the short term while fish stocks are recovering from previous unsustainable practices. For this reason, Component 3 of the project is designed to identify and provide fisher folk with sustainable economic opportunities to reduce the impact of the new measures on their incomes, while also minimizing their incentive to participate in illegal fishing, and reducing the risks of social conflict. Under this component, the project will produce the following outputs: community-driven productive alternatives; improved capacities of fishing organizations to manage community driven productive alternatives; infrastructure to enable local fishing communities to add value to fisheries products; programs to enhance participatory certification, market linkages, and differentiated markets for sustainable fisheries; and social campaigns to promote the production and consumption of sustainable fisheries.

Outcome 3.1: Fishing communities and fisher folk are benefitting from increased incomes deriving from value added activities, sustainable local post-capture practices, and access to differentiated market prices for sustainable products.

Output 3.1.1 Community driven productive alternatives, including those that benefit women, have been identified, planned, and implemented

Develop opportunities for fishers to be paid for activities that support fisheries co-management (e.g. species monitoring, retrieving ghost nets, recycling used nets, etc.), particularly during periods of fishery closure. Several existing government subsidy programs might apply, including i) the Conservation Program for Sustainable Development of CONANP; ii) the program for the economic strengthening of indigenous peoples and communities of the National Institute of Indigenous Peoples; iii) the Social Economy Promotion Program of the Ministry of Welfare; and iv) the Fisheries and Aquaculture Development Program of CONAPESCA. Opportunities for using these mechanisms will be explored during the PPG phase.

Design and implement a program to support the creation of new fisheries-related enterprises (which will also reduce vulnerability to climate change impacts), such as sport fishing and marine tourism opportunities in areas around highly visited NPAs such as Islas Marietas, as well as implementing better pre and post capture processes for fisheries products.

Strengthen the participation of women and men in the value chain of fishery products, based on a mapping and analysis of nodes in the chain where emphasis is required to promote gender equality, including i) levelling measures to remove physical, regulatory or other obstacles to the effective exercise of the rights of vulnerable people and groups; such as the paid work of women and youth; ii) inclusion measures, which are preventive or corrective policies and actions to eliminate disadvantageous distinctions or exclusionary mechanisms that reproduce discrimination, including recognition of the rights of indigenous peoples to speak and conserve their language, as well as the Free Prior and Informed Consent (FPIC); and iii) affirmative actions, e.g. measures to promote access to resources to improve the fishery, including budgets designated for women, youth, indigenous people. The GEF-funded project "Conservation of Coastal Basins in the Context of Climate Change" developed strong programs and lessons on strengthening the capacities and inclusion of women and indigenous peoples.

Foster community-driven productive alternatives, including those that benefit women. Alternatives will be based on an assessment of data on fisheries capture and post capture activities that is disaggregated by sex, age and ethnicity, so as to clarify the participation (paid and unpaid) of women and men in fisheries, which will guide the adoption of alternatives that ensure equal participation in access to productive resources, to services such as training, technology and input, and to financial services.

3.1.2 Infrastructure established to enable local fishing communities to add value to fisheries products

Establishment of community-based fish processing facilities to add value to fisheries products.

Provide infrastructure to collective enterprises to locally add value, including for example large freezer systems to manage post-harvest catch and appropriate gear to allow for safe handling of lobsters post-harvest.

Output 3.1.3 Technical, organizational, and entrepreneurial capacities of fishing organizations related to community-driven productive alternatives and strategies to add value have been strengthened

Implement technical assistance programs to enable local fishing communities to adopt / manage value added activities, including training to encourage more women to work in product processing and marketing.

At least 500 fishers and 18 fishing organizations trained in the development of sustainable fisheries-based businesses, including training on financial and administrative management, commercialization and marketing, certification processes, leadership, etc.

Identify areas of opportunity to promote livelihood alternatives to support economic autonomy for men and women

Strengthen capacities for collaborative work among different fishing cooperatives in order to consolidate their fishing production.

Output 3.1.4 – Financing opportunities for sustainable fisheries enhanced

Using Rural Invest, a toolkit developed by FAO with user manuals and software as well as online and in-country training, that is designed to help small producers develop business plans for small- and medium-size rural resource use projects, the project will assist fishers / fisher cooperatives in developing and submitting business plans to Social Banks in Mexico to seek funding for sustainable and value added fisheries products and for market development and outreach. There are about 3,000 Social Banks (micro-financing cooperatives) in Mexico that provide small low interest loans to farmers and fishers.

Output 3.1.5 Programs for participatory certification, differentiated markets, and information campaigns to support sustainable fisheries products are under implementation

Raise awareness among value chain participants and consumers on illegal harvesting and closed seasons so as to reduce consumption of illegal fish products (for example with Queen Conch, for which few people are even aware of existing fishing restrictions).

Establish / strengthen fisheries product traceability systems (from bait to plate) that will: help to combat IUU fishing; allow consumers to know whether they are purchasing sustainably harvested products; and increase product values (for example, systems to ensure that lobsters have been properly handled throughout the production chain).

Support fishing cooperatives in developing new fisheries products, developing new markets (e.g. chain hotels), interacting with other important actors in the product chain (e.g. marketers, logistics and distribution companies, brokers, etc.), negotiating favourable prices based on product quality and sustainability, and raising awareness among buyers of the problems associated with IUU fishing, including the following:

- o Finfish (Gulf of California and Central Pacific Islands): The finfish fishery produces high levels of bycatch of species for which there is currently no market demand, even though some of these bycatch species have high nutrient levels and could be a good product for lower income populations that cannot afford to buy tuna or other popular finfish species.
- o Lobster (Quintana Roo): Most of the lobsters purchased by big chain hotels in this region come from Maine or other distant locations. At present, lobster fishers in this seascape cannot successfully sell their catches to large hotels because they do not know how to carry out sufficiently precise pre and post capture processes to ensure a consistent high quality product.
- o Queen Conch (Quintana Roo): At present, the market for Queen Conch in this region is almost entirely supplied by IUU fishing, due to poor enforcement, lack of livelihoods alternatives, and low consumer awareness about IUU fishing and its impacts. Thus, strengthening fisheries management and reducing demand for IUU products would greatly benefit those fishermen who abide by the regulations for fishing of Queen Conch.

Implement participatory fisheries certification programs in the three seascapes that certify the quality and sustainability of fisheries products for hotels and other commercial buyers, for example a program that will assess fisheries against MSC standards for stock management and product quality, with any fishery that demonstrates improvement through a “Fisheries Improvement Project (FIP)” eligible to participate in WWF’s corporate engagement program. Also support fishermen in carrying out the certification processes required by systems such as Fair Trade and COFEPRIS.

Design and implement social marketing / awareness campaigns to promote the production and consumption of sustainable fisheries, focused on local / national markets.

Component 4: Project Coordination, Collaboration, and Monitoring and Evaluation

Outcome 4.1: Project implementation is supported by an M&E strategy based on measurable and verifiable outcomes and adaptive management principles.

Output 4.1.1. M & E strategy developed with relevant stakeholders, clearly defining the expected outcomes, expected implementation timeframe, and confirmation through objectively verifiable indicators and means of verification: A project M&E strategy will be developed in partnership with relevant stakeholders that clearly defines the expected results, the expected time frames for their achievement, and their confirmation through objective indicators and means of verification. Annual work plans and corresponding budgets will be developed based on expected results and their respective progress, including the progressive steps and milestones required for measurable achievements.

Output 4.1.2. Mid Term Review and Final Evaluation carried out: A mid-term review and terminal evaluation will be carried out with the purpose of informing and advising on the implementation of the project in a constructive manner, paying attention to sustainability considerations, articulating a coherent “exit strategy”, and applying adaptive measures as necessary.

Output 4.1.3. Best practices and lessons learned systematized and disseminated to a variety of audiences and stakeholders: The project will support results-based implementation, lessons learned and dissemination of good practices, designed to ensure that project implementation is supported by an M&E strategy based on measurable and verifiable results and principles of adaptive management and knowledge management. A mechanism for dissemination and exchange of best practices and lessons for the replication and scaling up of results to the National System of Protected Areas (SINAP) will be developed, which will include: a) a communication and information strategy based on the preparation of information materials, socialization of activities and results, systematization of lessons learned and best practices, and dissemination through various communication media; b) visits and field trips to the selected sites for technical personnel of the National Commission of Natural Protected Areas (CONANP), PA managers and park rangers, and fishermen and other local community members; and c) a project website to share experiences, disseminate information, highlight project outcomes and progress, and facilitate the replication of processes throughout the duration of the project. The project also will support information sharing and best practices between the three target seascapes, recognizing for example the Gulf of California seascape is far ahead of the Central Pacific Islands seascape in establishing NTZs and in collaboration between Government and fishers, or similarly that the Banco Chinchorro and Sian Ka'an Biosphere Reserves are well ahead of the Caribe Mexicano Biosphere Reserve and the many other NPAs in this area in terms of effective fisheries co-management. As the project will rely on the participation of multiple territorial and institutional stakeholders, communication tools will be developed to facilitate the process of integration between the different stakeholders and to foster better communication between the participants.

4) Alignment with GEF focal area and/or Impact Program strategies

The proposed project is aligned with the GEF Biodiversity Focal Area, and specifically with focal area programs BD 1-1 Biodiversity mainstreaming in priority sectors and BD 2-7 Improving financial sustainability, effective management, and ecosystems coverage of the global protected area estate. The project includes spatial planning in three targeted seascapes to ensure that NPAs and OECMs preserve marine ecosystem services and biodiversity while also supporting sustainable fishing; through this approach, the project will provide a first step for further comprehensive mainstreaming investments in seascapes. The project will improve existing fisheries production practices through value added approaches to fish catches, which together with a participatory and accessible certification scheme, will increase incomes for fishing communities while also incentivizing fishermen to carry out more sustainable practices. The project will support the sustained strengthening of the capacities of individual fishers, fishing organizations and governmental agencies to co-manage fisheries such that production practices do not harm biodiversity or important marine habitats. In working with local individuals and communities, the project will pay particular attention to women, the youth and indigenous persons.

The selected intervention sites are coastal and marine ecosystems of great global importance; all of the sites are either classified as or adjacent to Key Biodiversity Areas, RAMSAR Sites, or Biosphere Reserves under UNESCO's Man and the Biosphere Program. By improving conservation area and fish stock management practices, the project will help to reduce anthropogenic pressures on globally important ecosystems and species, which in turn will increase their resilience to potential climate change impacts. The proposed project will contribute to addressing the marine ecosystem coverage gap within Mexico's national system of protected areas through the effective management of coastal and near shore protected area sites, including no-take zones to conserve and sustainably use marine ecosystems and biodiversity. The project also considers the adoption and alignment with the Global Framework for Biodiversity after 2020 as a strategy to achieve the 2050 Vision of "Living in harmony with nature", which will take place this year in COP-15 as part of the Strategic Plan for Biodiversity. Finally, the project is aligned to Aichi Targets 1, 4, 6, 10, 11 and 14.

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

Demand for fish and shellfish in Mexico is increasing steadily, and as a result more and more people are entering the fisheries sector, both legally and illegally. At the same time, climate change impacts are affecting fish stocks in many parts of the country, which are reflected in the increase in sea temperatures, increases in sea level, stratification due to changes in water density, increase in acidification, decrease in oxygen, changes in primary productivity, etc. As a result of these trends, fish stocks are declining in many parts of Mexico. As a consequence of overfishing, IUU fishing, and unsustainable fishing practices, critical marine habitats (most notably coral reefs and other ocean bottom habitats) are being degraded by destructive fishing practices and changes in species composition and food webs due to overfishing. In the absence of the proposed project, fish stocks in the three target seascapes will continue to decline and marine ecosystems will continue to be degraded. Efforts to address these problems will remain ineffective, as government agencies will continue to have insufficient data and inadequate technical capacities and resources, regulatory frameworks, and coordinating mechanisms among different government entities to sustainably manage fisheries on their own, while the lack of experience and effective models for joint co-management with local fishers / fishing communities will prevent the combined efforts of government and civil society from being applied to this urgent situation. Although fishing communities at the project sites have interest in fisheries co-management, they do not have sufficient technical understanding, planning processes, or access to information and tools to enable their effective participation in co-management.

Under the alternative scenario, the proposed project is designed to develop for the first time in Mexico:

- a collaborative management approach between conservation authorities, fisheries authorities, and fishing communities;
- so that fish stocks are more sustainably managed, important marine habitats are more effectively protected, and fisher livelihoods are improved and sustained;
- based on better understanding (through marine spatial planning and enhanced data management and information sharing) of ecological conditions and fish stocks;
- and made possible by strengthening the regulatory framework and capacities of institutions and fishers to jointly participate in fisheries co-management, as well as by developing new and better market opportunities for products based on sustainable fisheries.

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

The global environmental benefits that will be produced by the proposed project include: (i) 399,114 hectares of terrestrial conservation areas and 1,597,751 hectares of marine conservation areas under improved management, including the conservation of globally relevant biodiversity; (ii) 925,031 hectares of productive seascapes under improved management practices; and (iii) 25,104 metric tonnes reduced catch of globally over-exploited marine fisheries. In the Nayarit Bahia de Banderas seascape, the habitat of numerous resident and migratory seabirds will be better protected, as will an important breeding area for Humpback whales (*Megaptera novaeangliae*) and the Olive Ridley Sea Turtle (*Lepidochelys olivacea*). In the Quintana Roo Caribbean Seascape, significant parts of the Mesoamerican Reef System, which constitutes the largest reef structures of its kind in Mexico, will have enhanced protection that will benefit 778 species identified in the area. Improved management of the Baja California Sur Seascape will help to protect a priority ecoregion for conservation identified in the WWF Global 200 list. Finally, the project's contribution to national and global conservation objectives for specific fishing species is detailed in Annex C.

7) Innovation, sustainability and potential for scaling up

Innovation: The development of a model of ecosystem-based fisheries co-management proposed by the project is innovative for Mexico, in that it will develop active fisheries co-management mechanisms while also aligning and integrating the conservation based approaches of CONANP and the fisheries production based approaches of CONAPESCA. In addition, the coordination among CONAPESCA, INAPESCA, CONANP, WWF, Smart Fish and fishers / fishing

communities to jointly develop fisheries co-management will take place ecosystem across jurisdictions and at a larger scale than any previous efforts in Mexico, which will provide an important model for replication elsewhere in the country. The project also seeks to use positive incentives for fishers to participate in the development of and agree to new regulations to make fisheries more sustainable.

Sustainability:

- Environmental sustainability will be promoted by increasing the resilience of ecosystems / fish stocks to human pressures and/or climate change.
- Financial sustainability will be promoted by implementing revenue mechanisms such as the reorientation of public benefits programs to support fishermen in the shift to sustainable fisheries management.
- Institutional sustainability will be promoted through joint institutional – community monitoring programs, and by creating changes in existing normative documents governing both fisheries regulations and fisheries management programs and policies. By working at a large scale and promoting replication throughout coastal Mexico, the project could stimulate changes in public policies and regulations that would produce significant benefits in the medium and long term.

Scaling Up: This project has a significant potential for scaling up the model of ecosystem-based co-management plans; the pilot projects will be implemented in areas with varied ecological and social conditions and under different management contexts; therefore the models and lessons learned from working in these various situations will allow the project to develop recommendations that can be applied to numerous other NPAs and OECMs throughout Mexico. Specific project outputs, such as the Marine Spatial Plans and related Fisheries Ordenamientos, should also constitute important models with the potential for widespread application in the country (very few areas in Mexico have carried out marine spatial planning to date, and most fisheries ordenamientos are out of date and/or have insufficient data). In addition, the application and field testing of technologies to strengthen monitoring and enforcement of fishing regulations (e.g. cellular and satellite systems, drones, electronic fishing monitoring systems, etc.) will provide lessons for the management of other areas, while also generating data to support changes in fisheries policies and regulations. CONAPESCA has an existing platform for information sharing that will be used to disseminate information on the Fisheries Ordenamientos and new M&E technologies to other regions of the country; while CONANP will ensure that models for MPA management plans that include sustainable fisheries are shared, not only at other federal MPAs in the country, but also with state and municipal authorities (particularly in the three target regions) who manage various forms of marine protected areas. There is also the potential to work with Belize, which shares the same ecosystems, species and threats, to apply the lessons learned in this project to create bilateral cooperation with a much larger scope and effectiveness.

[1] Mexican biodiversity: Mexican seas. National Commission for the Knowledge and Use of Biodiversity (CONABIO). Mexico 1992 – 2018. <https://www.biodiversidad.gob.mx/mares/conocer/index.html>

[2] FAO (2017). The oceans: our allies against climate change. <http://www.fao.org/zhc/detail-events/es/c/1041932/>

[3] Pomeroy, S., and N.L. Andrew (2011). Small-Scale Fisheries Management: Frameworks and Approaches for the Developing World. CABI International, Cambridge, MA, USA

[4] SAGARPA / CONAPESCA (2014). Anuario Estadístico de Acuacultura y Pesca de la Comisión Nacional de Acuacultura y Pesca, México.

- [5] Information provided by INAPESCA
- [6] CONABIO. Technical data sheet for the evaluation of priority sites for the conservation of coastal and ocean environments in Mexico. http://www.conabio.gob.mx/gap/images/3/3f/105_Banco_Chinchorro_Profundo.pdf
- [7] Cisneros-Mata MA, Mangin T, Bone J, Rodriguez L, Smith SL, Gaines SD (2019) Fisheries governance in the face of climate change: Assessment of policy reform implications for Mexican fisheries. PLoS ONE 14(10): e0222317. <https://doi.org/10.1371/journal.pone.0222317>
- [8] Cheung WWL, Lam VWY, Sarmiento JL, Kearney K, Watson R, Pauly D. Projecting global marine biodiversity impacts under climate change scenarios. Fish Fish. 2009;10(3):235–51.
- [9] An “Ordenamiento Pesquero” is a fisheries management tool that includes a census of the fishermen, licenses, vessels and fishing gear, and is used as the basis for redistributing fishing effort within a fishery
- [10] Cheung WWL, Lam VWY, Sarmiento JL, Kearney K, Watson R, Zeller D, et al. Large-scale redistribution of maximum fisheries catch potential in the global ocean under climate change. Glob Change Biol. 2010;16(1):24–35.
- [11] CONANP – GIZ. 2017. Valuation of the ecosystem services of Cabo Pulmo National Park. Mexico City. Valuation of the ecosystem services of Federal Protected Natural Areas of Mexico: an innovative tool for financing biodiversity and climate change. (EcoValor MX)
- [12] Dyck, A. and Sumaila, R. (2010). Economic Impact of Ocean Fish Populations in the Global Fishery. Journal of Bioeconomics. 12: 227-243.
- [13] National Commission of Protected Natural Areas , 2016. Ecological evaluation sheets of Protected Natural Areas of Northwestern Mexico. <https://simec.conanp.gob.mx/evaluacion.php?menu=4>
- [14] SBSTTA22 definition of OECM on ‘Protected Areas and Other Effective Area-Based Conservation Measures’. <https://www.cbd.int/doc/c/9b1f/759a/dfcee171bd46b06cc91f6a0d/sbstta-22-l-02-en.pdf>
- [15] Vulnerability to climate change of marine and coastal fisheries in México. (2011) National Autonomous University of Mexico. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0187-62362011000100008
- [16] RAMSAR Sites Information Service <https://rsis.ramsar.org/es/ris/1345?language=es>
- [17] National Commission of Natural Protected Areas (2016). Ecological evaluation sheets of Protected Natural Areas of Northwestern Mexico. <https://simec.conanp.gob.mx/evaluacion.php?menu=4>
- [18] National Commission of Natural Protected Areas (2008). National Park Islas Marietas Conservation and Management Program.
- [19] <https://www.cepf.net/our-work/biodiversity-hotspots/mesoamerica>
- [20] National Commission of Natural Protected Areas (2015). Sian Ka'an Biosphere Reserve Management Program. http://www.conanp.gob.mx/que_hacemos/pdf/programas_manejo/2015/Complejo_Sian_Ka_an.pdf
- [21] National Commission of Natural Protected Areas (2000). The Banco Chinchorro Biosphere Reserve Management Program. https://simec.conanp.gob.mx/pdf_libro_pm/53_libro_pm.pdf

[22] National Commission of Natural Protected Areas (2000). The Banco Chinchorro Biosphere Reserve Management Program.

https://simec.conanp.gob.mx/pdf_libro_pm/53_libro_pm.pdf

[23] BirdLife International (2019) The World Database of Key Biodiversity Areas. Developed by the Key Biodiversity Areas Partnership: BirdLife International, IUCN, Amphibian Survival Alliance, Conservation International, Critical Ecosystem Partnership Fund, Global Environment Facility, Global Wildlife Conservation, NatureServe, Royal Society for the Protection of Birds, World Wildlife Fund and Wildlife Conservation Society. Downloaded from <http://www.keybiodiversityareas.org> on 13/09/2019.

[24] National Commission of Natural Protected Areas (2000). The Banco Chinchorro Biosphere Reserve Management Program.

https://simec.conanp.gob.mx/pdf_libro_pm/53_libro_pm.pdf

[25] Climate Change Fund finances blue carbon project in Natural Protected Areas. National Commission of Natural Protected Areas.

<https://www.gob.mx/conanp/prensa/fondo-para-el-cambio-climatico-financia-proyecto-de-carbono-azul-en-areas-naturales-protegidas?idiom=es>

[26] FAO, AECID (2013) Regional Fisheries Livelihoods Programme for South and Southeast Asia. Available at: <http://www.fao.org/3/a-ar468e.pdf>

[27] FAO (2019). FAO Biodiversity Mainstreaming Platform. <http://www.fao.org/biodiversity/mainstreaming-platform/es/>

[28] Jenoft, S., B. McCay and D. Wilson (1998). Social theory and fisheries co-management. Marine Policy. Vol. 22: 4-5 pp. 423-436.

[29] Bodin, O. (2017). Collaborative environmental governance: Achieving collective action in social-ecological systems. Science 357, 659

[30] Cisneros Montemayor, Andrés M. (2018). Half a Century of Fisheries Management in Northwestern Mexico: The Future of Fisheries as Socio-ecological Systems. El Colegio de Michoacán. Conacyt. <http://dx.doi.org/10.24901/rehs.v39i153.392>

1b. Project Map and Coordinates

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

See Annex A

2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

During the PPG phase, the project will convene participatory workshops for diverse stakeholders, including women and minority groups such as indigenous groups and vulnerable communities, as well as local managers of NPAs and fisheries resources as well as local fishers / fishing cooperatives, to engage in the project design. In the Quintana Roo seascape, some fishermen identify as indigenous Mayans and prior consultations processes will be carried out with those stakeholders according to UN standards. This work will build on consultations carried out in the development of this PIF. One consultation took place in December 2019 in Chetumal (Mexican Caribbean) that included CONANP, SEDARPE (Secretaría de Desarrollo Agropecuario, Rural y Pesca), ECOSUR (El Colegio de la Frontera Sur), Banco Chinchorro Advisory Board, and the Fishing Cooperatives of Cozumel and José Maria Azcorra to review relevant threats, barriers, possible project activities and to discuss the roles of indigenous groups and women. A second consultation took place in February 2020 with stakeholders from the project sites in Baja California Sur and the Bahia de Banderas, which included more than 20 participants from local NGOs, local governments, legislators, fishermen and academia, which identified and discussed important threats and barriers including climate change, pollution, illegal fishing, poor surveillance, enforcement and coordination by government agencies.

Table 3: Stakeholder Participation in Project Preparation

Stakeholders	Interest / Role in Project Preparation
National Commission of Natural Protected Areas (CONANP)	CONANP, as the agency in charge of Natural Protected Areas in Mexico, will take the lead role in designing project activities related to strengthening NPA management of fisheries, developing coordinated activities with CONAPESCA, and establishing fisheries co-management mechanisms together with CONAPESCA that combine conservation and production objectives.
National Commission of Aquaculture and Fisheries (CONAPESCA)	CONAPESCA, as the agency in charge of fisheries No-Take Zones in Mexico, will take the lead role in designing project activities related to strengthening NTZ management (with the participation of CONANP and local fishers)
National Institute of Fisheries and Aquaculture (INAPESCA)	INAPESCA, as the main agency responsible for directing, coordinating and guiding scientific and technological research in fisheries and aquaculture, will provide information, experience, mechanisms and techniques on fisheries management.
Naval Secretariat (SEMAR)	Enforcement of fishing regulations, surveillance and monitoring
Local (coastal) communities and indigenous people	Local communities, through their elected representatives, will be consulted on their priorities and needs with regard to the project, and will help to ensure that the project helps to align the needs and objectives of fishers with the broader community. Indigenous people will be considered and included in project targeted zones. Free, prior and informed consent (FPIC) process will develop during PPG phase.
Fishers / fishermen's associations	As the key beneficiaries of the project and important partners in fisheries co-management, fishers and their associations will be consulted throughout the PPG phase on decision-making in terms of new fishing methods and mechanisms, fishing alternatives, and economic opportunities throughout the project.
WWF Mexico	WWF will act as the official project Executing Agency. In addition, it will take a leading role in providing technical expertise and inputs to project activities under Components 2 and 3.
Smartfish	Support the design of project activities to help fishing communities to develop post-capture value-added fisheries products, including product processing, commercialization, marketing and waste reduction.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Women constitute an important workforce in Mexican fisheries and aquaculture, but existing data rarely differentiates the roles of women and men in these sectors and the numerical and qualitative importance of women is not adequately reflected in the information available. It is very important to make women's work in fisheries visible along the entire extent of fisheries value chains, since women are frequently important participants in areas along the value chain that are not always accounted for, such as the preparation of materials and tools and processing and sales. The project design will include a variety of activities to assess gender aspects and incorporate gender-responsive measures into all aspects of project implementation, including:

- A gender analysis with participating groups and communities, as well as other actors involved in fishing related activities, to assess gender gaps of time use, workload, differentiated needs between men and women, and access and control of resources and benefits;
- Collect and disseminate statistics on participation in capture and post-harvest fishing activities, disaggregated by sex, age and ethnicity and analysed from a gender perspective, and consolidate and disseminate data on the contributions of different groups to the community, regional and national economies, including in particular an assessment of the gender dimensions and contributions of those participating in pre and post harvest activities;
- Assess women's participation in fisheries activities, and linkages with livelihoods, labour and other social conditions. It will be essential that any plan developed under this project takes into account gender differentiated impacts of fisheries management plans, to avoid the development of gender blind plans. Women's use of ecosystem services will specifically be captured during the PPG. The project will ensure the active inclusion and leadership of women, so as to create a planning process that is adhered to and supported by women;
- Strengthen the technical capacity of organizations to promote equal opportunities and women's rights for economic autonomy;
- Ensure that women and men have equal opportunities to participate in project activities, taking into consideration the specific conditions of both men and women (e.g. training workshops, on-the-job training, decision-making forums, etc.) and ensure that organizations representing women (such as cooperatives of fisher women in the Mexican Caribbean) are included in project activities;
- Development of a strategy (that incorporates local knowledge and experience) to ensure that women and men (as well as indigenous groups) have equal access to opportunities and benefits generated by project interventions, including technical knowledge and information about the fisheries sector, and access to productive resources, training and financial services;
- Women will be key players on information dissemination, especially at the community levels. Local level women's groups and informal female networks will be used to share information on biodiversity protection and land restoration.

Gender mainstreaming will be incorporated during PPG phase through the development of a gender action plan.

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

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

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

WWF is working globally with the hospitality sector, including companies such as Hilton, Hyatt, Marriott and Iberostar, to shift their seafood supply chains, assess procurement practices, and develop responsible sourcing strategies that support local fishing communities and move the global seafood supply towards sustainability. Mexico is a priority market for these companies, and WWF Mexico has conducted a series of roundtables to connect sustainable seafood suppliers with key stakeholders of the seafood supply chain in Mexico. Under the proposed project, WWF-Mexico will build upon the success of these prior efforts to strengthen industry engagement and support the transition of Mexican fisheries operations towards more responsible and sustainable practices, including increased engagement with market intermediaries to ensure that fisheries products meet the exacting specifications of corporate buyers, and additional emphasis on developing new international buyers for sustainable fisheries products from Mexico.

In addition, the project will work in partnership with the Smartfish Group, which works with artisanal fishers and cooperatives in Mexico with the goal of increasing the value of their catch so that they can earn more per fish and thereby harvest fewer fish. Smartfish is currently working with four fishing communities (1 in Baja California; 2 in Baja California Sur, and 1 in Sonora), all of which have Fishery Improvement Projects (FIPs) and/or internationally recognized sustainable certification. Working with these communities, Smartfish has helped to establish processing facilities with HACCP certification; improve fishing boats / equipment; develop processing systems (e.g. vacuum packing); expand markets; achieve Fair Trade certification; and establish traceability systems. In addition, the subsidiary Smartfish Inc. has been able to offer fishers prices that are 20% to 40% higher than market rates by ensuring a high quality product for which consumers are willing to pay a premium, and by developing markets among hotels, restaurants and for export to the U.S.. To date, Smartfish has opened one retail store in Mexico City and plans to open 9 more stores in Mexico City as well as distribution facilities in three Mexican coastal states.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Table 3: Project Risks

Risks	Risk classification	Mitigation Measures
Fishermen are unwilling to participate in co-management regimes or unwilling to abide by new fisheries regulations	Low	In the fishery No-Take Zones (Baja California Sur and Quintana Roo), the risk is considered to be quite low, because the NTZs themselves are only established at the request of fishers. For the NPAs, the project will work to raise awareness of the need to take an ecosystem-based approach to fisheries management, and of the benefits this will produce for fishing communities in terms of sustainable healthy fish stocks, as well as the benefits of co-management in terms of reducing the significant negative impacts of illegal fishing activity. In working to raise awareness and support among fishers, the project will draw upon examples of successful community co-management in other parts of Mexico (e.g. Natividad Island, and various fishing communities in the Mexican Caribbean).
Government institutions are unwilling to share data on ecological conditions, fish stocks, fishing effort, etc.	Low	The key government partner institutions (CONANP, CONAPESCA and INAPESCA) have all been extensively involved in the project design to date, and will continue to be key project partners during the PPG phase and during project implementation. For this reason, there is very little risk that data and other information will not be shared among these institutions and other project partners.
Climate change impacts on coastal and marine ecosystems prevent the project from successfully conserving ecosystem functions and/or fish stocks	Medium	The project will help to increase resilience to the potential impacts of climate change on the target fisheries by improving regulations, monitoring and enforcement of fishing effort so that fish stocks are not declining from fishing activities and therefore more vulnerable to changes in availability of food related to climate change impacts, and by reducing habitat degradation from unsustainable practices such as destructive fishing gear, so that these habitats are more likely to sustain healthy ecosystem functioning even in the face of warming waters, increased and more intense storm activity, etc.
The term of validity for fisheries No-take zones included in this project will expire and not be renewed	Low	The NTZs within the project sites have periods of "validity" ending between 2022 and 2024. However, the project partners will work with fishers to ensure that they see the benefits of well-managed NTZs (particularly since extensions are only made at the request of the fishers), and the project will facilitate the production of the technical information that is required for a new period of validity to be granted (primarily this is information demonstrating that the NTZ is fulfilling its objectives in terms of sustaining healthy fish stocks).

Environmental and Social Safeguards – Risk screening at PIF stage:

In line with the FAO Environmental and Social Management Guidelines (ESMG), the implementing agency has conducted an Environmental and Social Safeguards (ESS) screening at PIF stage. A full environmental, social and climate risk analysis will be conducted during PPG.

As per the ESS checklist screening, the project has been classified as *Moderate risk*. The table below summarizes the Environmental and Social risks identified in relation to the proposed project:

Safeguard Triggered	Risk Identified	Answer	Risk Classification	Potential (negative) impacts	Mitigation measures (preliminary)
9 (Indigenous Peoples)	9.2 - Are there indigenous peoples living in the project area where activities will take place?	Yes	Moderate	<p>Not foreseen. The project has a participatory approach and will support livelihoods of coastal communities, including indigenous peoples, generating socio-economic co-benefits.</p> <p>Nevertheless, as per FAO ESS and international agreements, the project preparation team will conduct an FPIC process and elaborate an IPP (see next column).</p>	<p>There are two indigenous communities identified within the project sites, with no more than around 600 indigenous persons. At the PIF stage, a pre-project presentation session was carried out in each site.</p> <p>A Free Prior and Informed Consent process will be conducted during PPG and before any project action takes place in the project area as with indigenous population. In those areas, an Indigenous Peoples Plan is required in addition to the Free Prior and Informed Consent process.</p> <p>In areas where the project is for both, indigenous and non-indigenous peoples, an Indigenous Peoples Plan will be required only if a substantial number of beneficiaries are Indigenous Peoples. Project activities will outline actions to address and mitigate any potential impact.</p>

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

Project Institutional Structure

The project will be implemented by FAO and executed by CONANP and CONAPESCA. CONANP will be the main project partner within the Government of Mexico, with responsibility for ensuring the overall coordination of project execution, as well as coordination and collaboration with the institutions, local community organizations, and other entities participating in the project. World Wildlife Fund (WWF) Mexico will administer the project funds, and will also provide technical expertise and capacity building to national partners, particularly under Components 2 and 3. For work in the three target seascapes, during the PPG phase, CONANP, CONAPESCA, and WWF society partners, likely COBI^[1] (Community and Biodiversity) in Quintana Roo or Niparaja^[2], will carry out specific conservation and/or community outreach activities.

The organizational structure of the project will consist of: 1) a National Project Steering Committee: composed of CONANP, CONAPESCA, WWF Mexico, FAO, and others, with the main function of guiding the implementation of the project, verifying and approving the annual operational plans, approving financial and technical reports, and providing strategic guidance to the overall execution of the project; and 2) a Project Management Unit (PMU) responsible for the day-to-day management of the project and for ensuring the coordination and execution of the project through the effective implementation of the annual work plans; the PMU will be composed of a Project Coordinator, an Administrative Assistant, and other specialists (to be determined) with expertise in project issues, including aspects of participation and gender, and will be located within the offices of CONANP or CONAPESCA.

Coordination with other GEF projects and other initiatives

GEF has financed a number of projects whose experiences and lessons will be integrated into the design of the proposed project. These include the following: The WWF(US)-GEF regional project “Integrated Transboundary Ridges-to-Reef Management of the Mesoamerican Reef” (MAR2R), which is supporting the conservation of this transboundary system that includes the second largest barrier reef in the world. The objective of this project is to support regional collaboration for integrated ridge to reef management of the MAR ecoregion by demonstrating its advantages and improving regional, national, and local capacities for integrated management and governance of its freshwater, coastal, and marine resources. The MAR2R project include components to strengthen the governance of the reef area and the management of coastal and marine resources that could provide valuable opportunities for synergies and cross-learning, particularly as both projects are being managed by the WWF.

The proposed UNDP-GEF regional project “Towards Joint Integrated, Ecosystem-based Management of the Pacific Central American Coastal Large Marine Ecosystem (PACA)”, which focuses on advancing the management of the great marine ecosystem of PACA, which extends from the southern part of the Gulf of California to Guayaquil, Ecuador. The PACA project includes activities on marine spatial planning and fisheries management that will be aligned with this project’s activities in the Gulf of California and Central Pacific Islands seascapes.

The UNDP-GEF project “Strengthening Management Effectiveness and Resilience of Protected Areas to Safeguard Biodiversity Threatened by Climate Change”, which is under implementation until June 2020, has produced important learned lessons that could guide the proposed project, including: the importance of ensuring conservation and sustainability not only in NPA buffer zones but also in the corridors connecting NPA sites; the benefits and effectiveness of managing multiple NPA sites within a landscape/seascape as an NPA “complex”; the need to develop robust scientific data, and to develop mechanisms to share such data, to support effective decision-making; and the importance of considering climate change trends / impacts in biodiversity management.

[1] <https://cobi.org.mx/en/>

[2] <http://www.conservationalliance.com/organizations/niparaja/>

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

The current administration in Mexico has stated its priority to support and ensure better coordination among government bodies. This has been officially put into practice under one of the three cross-cutting axes of the six year National Development Plan (NDP), namely the Territory and Sustainable Development axis, which requires that public policies consider a development approach that ensures economic, financial, social and environmental viability, and that sectorial programs should be aligned even when they have different normative and legal instruments. Thus, although fisheries regulations are based on the General Law of Fisheries and Sustainable Aquaculture (LGPAS), and NPA regulations on the General Law of Ecological Balance and Environmental Protection (LGEEPA), resource managers must nevertheless strive to align their objectives. In the specific case of CONANP, there is a Sectorial Program of Environment and Natural Resources (still in draft form) in the NDP that identifies a priority objective for NPAs to support "Producing conserving, conserving producing"; within this objective, CONANP is committed to promoting local development based on fair and responsible use of natural resources to generate well-being in rural, indigenous and native populations associated with the country's NPAs.

This project also is aligned with article 7, paragraphs VI) a and VI) b of Mexico's Climate Change Law, as it supports the Federal Government in its efforts to preserve, restore, and sustainably manage marine and coastal ecosystems (MCE). The project also responds to the country's Nationally Determined Contribution (NDC) on adaptation by contributing to food security through the conservation of biodiversity. CONANP's Strategy 2040, the National Biodiversity Strategy of Mexico (ENBioMex), and the Integration Strategy for the Conservation and Sustainable Use of Biodiversity in the Fisheries and Aquaculture Sector (2016-2022), all call for intergovernmental coordination to allow for the conservation and sustainable use of biodiversity across governmental programs, which is one of the goals of this project.

Due to its multidimensional nature, the project contributes to the accomplishment of Sustainable Development Goals (SDGs) 2, 5, 14, and 17. To help Mexico achieve its targets under SDG 14, the National Strategy for the Implementation of the 2030 Agenda aims at increasing the economic benefits from sustainably managing marine and coastal ecosystems by avoiding the loss of marine biological diversity, strengthening and consolidating the networks of marine protected areas (MPA), and developing instruments for the recovery and conservation of priority species of ecological and economic importance.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

The fisheries information system developed under Output 1.1.4 will consolidate and link existing information systems for ecosystem-based management and decision-making in the three target seascapes, including databases of existing permits, vessels and concessions; data on biophysical indicators, climate change impacts, and catch limit reference points; and data on the economic, social and physical conditions and vulnerabilities of the communities; all with the purpose of establishing a comprehensive, transparent, and open fisheries information system that can support participatory decision-making and learning. As described under Output 4.1.3, the project will support the development of a mechanism for dissemination and exchange of best practices and lessons for the replication and scaling up of results to the National System of Protected Areas (SINAP), which will include: a) a communication and information strategy; b) visits and field trips to the selected sites for resource managers, fishermen and other local community members; and c) a project website. In addition, as noted above, CONAPESCA has an existing platform for information sharing that will be used to disseminate information on the Fisheries Ordenamientos and new M&E technologies to other regions of the country. As the project will rely on the participation of multiple territorial and institutional stakeholders, additional communication tools will be developed as needed to facilitate communication among project partners.

The project will share information, data, lessons learned, etc. with two other GEF-funded projects (one in the Caribbean and one in the Pacific; described above); mechanisms for supporting such collaboration will be investigated during the PPG phase. In addition, the project will share information with other international efforts within the three target seascapes, including for example a fishing refuge project in Banco Chinchorro led by the Natural History Society, Niparájá; a fishing refuge project in Quintana Roo led by Conservación y Biodiversidad (COBI); the Pacific red snapper management plan led by The Nature Conservancy – Mexico; and the Costas Listas IKI Project in the Mexican Caribbean. Finally, the project will seek to share examples of best practices and effective coordination among diverse actors that are relevant not only at the national level, but also in other countries that face similar challenges, including most notably countries adjacent to the Mexican Caribbean that share the same ecosystems, species and threats.

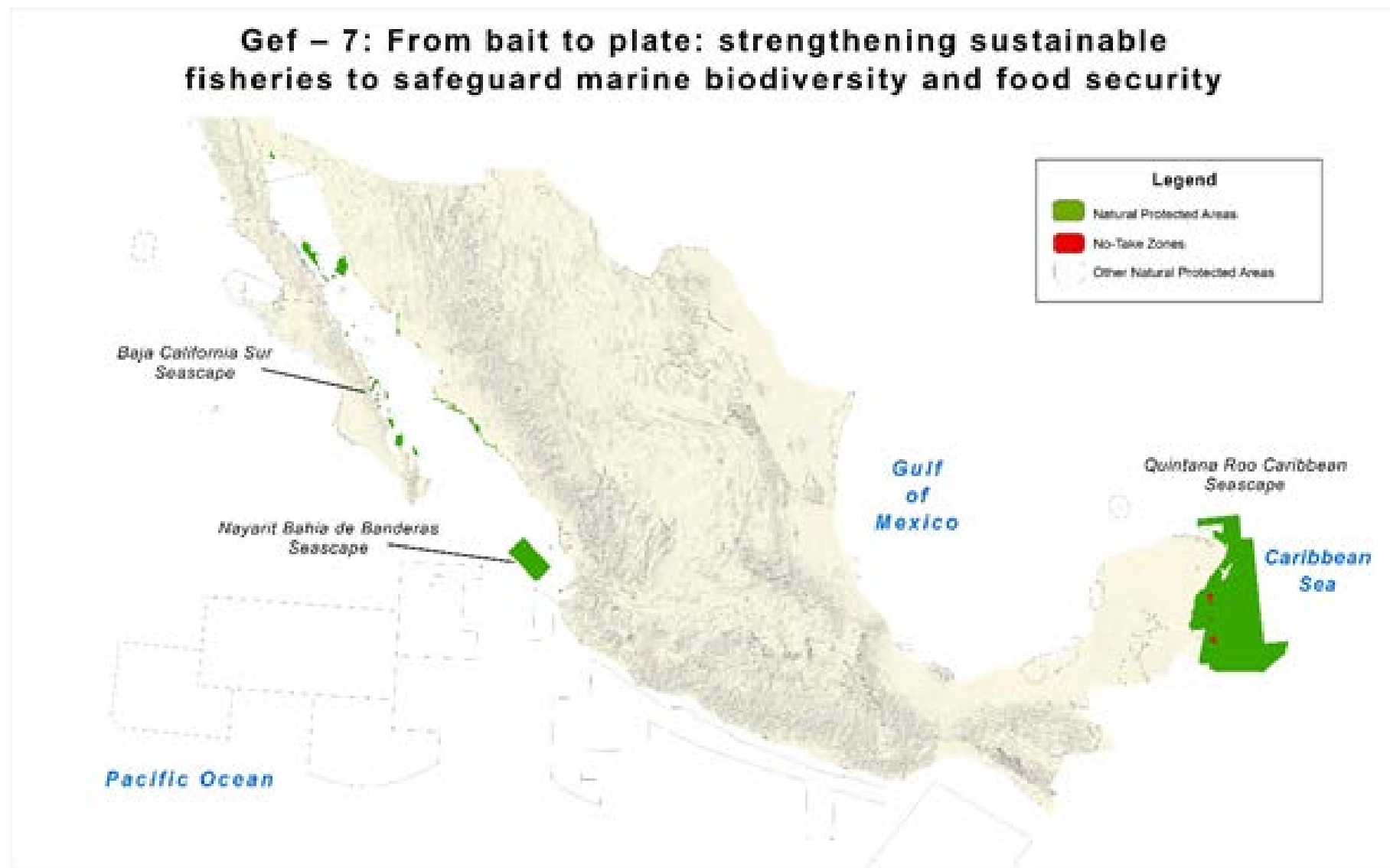
Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

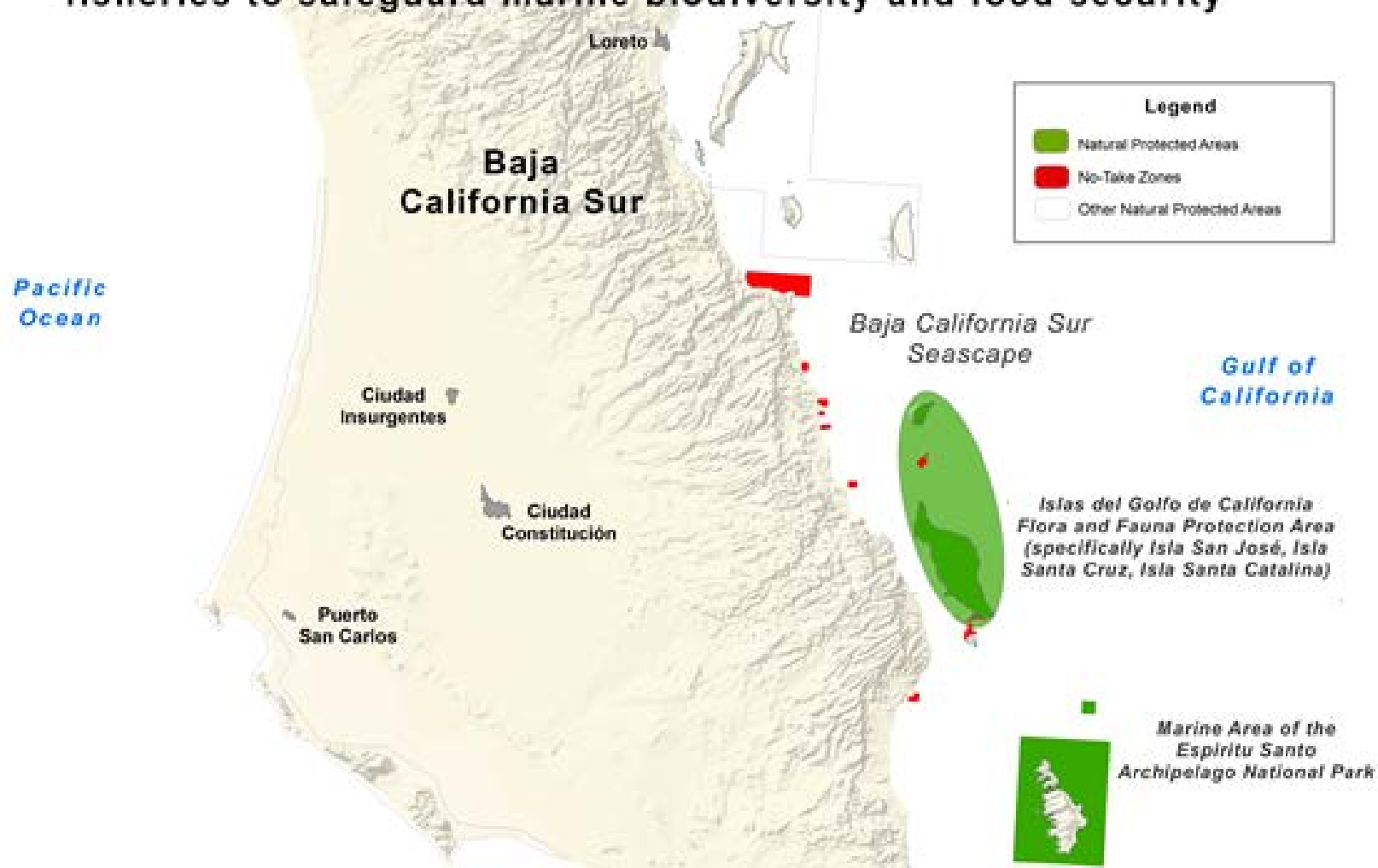
Name	Position	Ministry	Date
Fernanda Montero Lara	Operational Focal Point	Ministry of Finance and Public Credit	9/18/2019

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

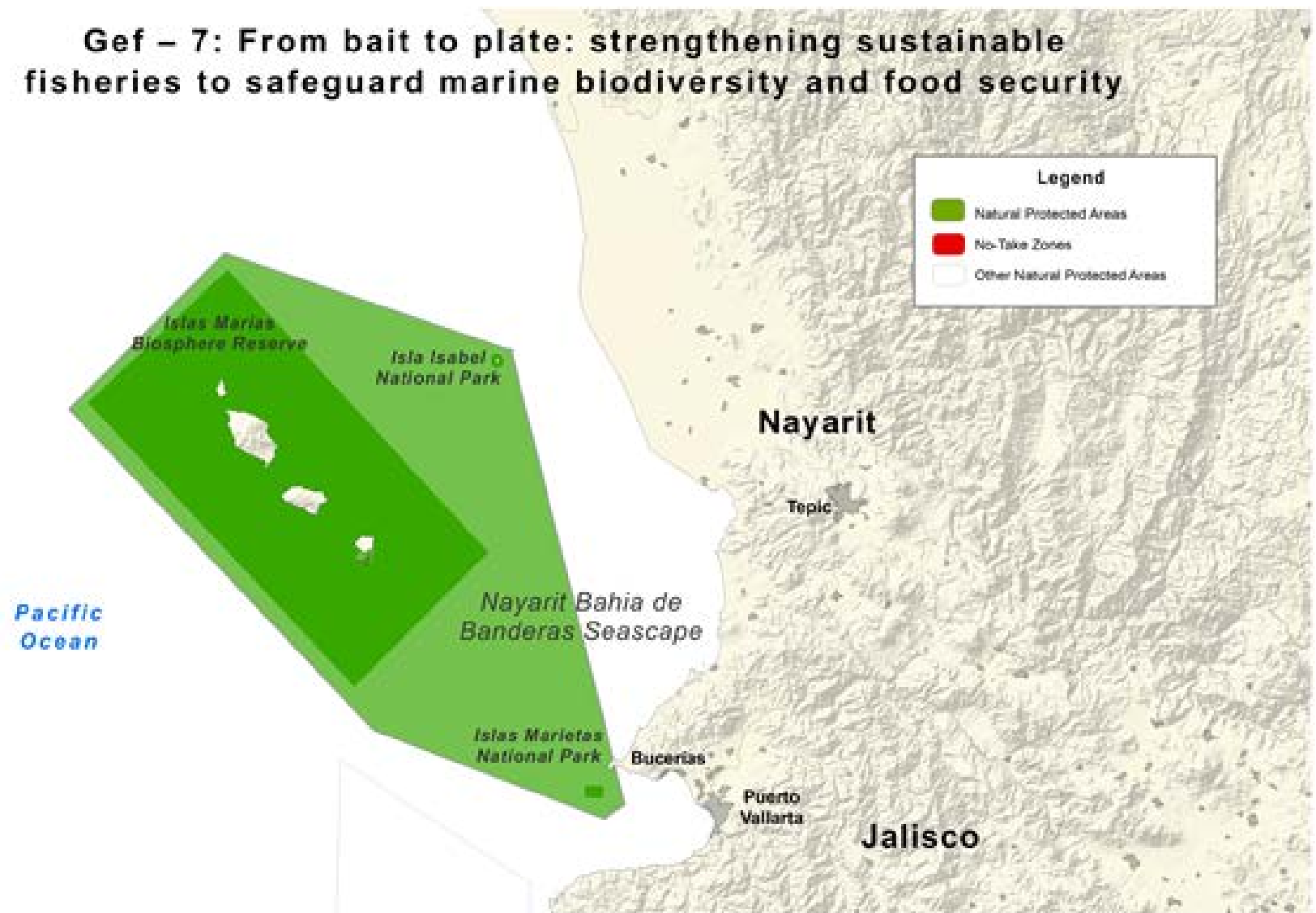
Map 1: All Project Seascapes in Mexico**Map 2: Baja California Seascape**

Gef – 7: From bait to plate: strengthening sustainable fisheries to safeguard marine biodiversity and food security



Map 3: Central Pacific Seascape

Gef – 7: From bait to plate: strengthening sustainable fisheries to safeguard marine biodiversity and food security



Map 4: Quintana Roo Seascape

Gef – 7: From bait to plate: strengthening sustainable fisheries to safeguard marine biodiversity and food security

