

Mainstreaming Sustainable Marine Fisheries Value Chains into the Blue Economy of the Canary Current and the Pacific Central American Coastal Large Marine Ecosystems

Part I: Project Information

GEF ID

11011

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Mainstreaming Sustainable Marine Fisheries Value Chains into the Blue Economy of the Canary Current and the Pacific Central American Coastal Large Marine Ecosystems

Countries

Global, Ecuador, Mauritania, Morocco, Panama, Senegal, Guatemala

Agency(ies)

UNDP

Other Executing Partner(s)

Sustainable Fisheries Partnership (SFP)

Executing Partner Type

Others

GEF Focal Area

International Waters

Taxonomy

International Waters, Focal Areas, Fisheries, Large Marine Ecosystems, Coastal, Demonstrate innovative approach, Influencing models, Local Communities, Stakeholders, Private Sector, Large corporations, Individuals/Entrepreneurs, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Communications, Awareness Raising, Public Campaigns, Behavior change, Beneficiaries, Type of Engagement, Partnership, Participation, Information Dissemination, Consultation, Gender Mainstreaming, Gender Equality, Women groups, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Access to benefits and services, Access and control over natural resources, Participation and leadership, Innovation, Capacity, Knowledge and Research, Knowledge Generation, Targeted Research, Learning, Theory of change, Indicators to measure change, Adaptive management, Knowledge Exchange

Sector**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

966,055.00

Submission Date

4/13/2022

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
IW-1-2	GET	10,733,945.00	36,255,000.00
	Total Project Cost (\$)	10,733,945.00	36,255,000.00

B. Indicative Project description summary

Project Objective

To mainstream ecological and social aspects of sustainability to foster sustainable fisheries production and improved wellbeing of coastal communities in support of emerging Blue Economies in the Canary Current and the Pacific Central American Coastal Large Marine Ecosystems.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Increase demand for sustainable seafood products from CCLME and PACA	Technical Assistance	<p>Outcome 1.1. Increased market demand for sustainable marine commodities in relevant international and domestic markets.</p> <p>Outcome 1.2. Increased market demand for socially responsible seafood commodities.</p> <p>Outcome 1.3. Increased market demand for seafood commodities from fisheries with reduced bycatch and environmental impact.</p>	<p>1.1.1. 12 improved seafood purchasing policies and target sustainability commitments by major supply chain partners in international markets sourcing export-oriented commodities.</p> <p>1.1.2. Four improved seafood purchasing policies and targeted sustainability commitments by key players in domestic markets.</p> <p>1.2.1. Socially responsible seafood standards integrated into the FishSource rating system and available to major supply chain partners worldwide.</p> <p>1.2.2. Three major international supply chain partners integrate socially responsible seafood requirements in their policies and commitments.</p> <p>1.2.3. Two key players in domestic supply chains integrate socially responsible seafood commitments in their policies and commitments.</p>	GET	2,900,000.00	9,795,048.00

1.3.1. Three major international supply chain partners take action to demand seafood sourced from fisheries with reduced bycatch and ecosystem impacts.

1.3.2. Two key players in domestic supply chains take action to demand seafood sourced from fisheries with reduced bycatch and ecosystem impacts.

2. Increase supply of sustainable seafood products from CCLME and PACA	Technical Assistance	<p>Outcome 2.1. Increased supply of seafood products that demonstrate improved fisheries governance and stock health.</p> <p>Outcome 2.2. Increased supply of seafood products that demonstrate improved social responsibility.</p> <p>Outcome 2.3. Increased supply of seafood products that demonstrate reduced bycatch and environmental impact.</p>	<p>2.1.1. Seven government led national co-management platforms that improve fisheries governance and stock health.</p> <p>2.1.2. Six industry-led verifiable Fishery Improvement Projects that contribute to improved fisheries governance and stock health.</p> <p>2.1.3. Artisanal and small-scale fishers and local supply chain partners effectively engage into fisheries improvement projects and co-management platforms.</p> <p>2.2.1. Two sets of guidelines to mainstream social responsibility into fisheries governance and seafood supply chains.</p> <p>2.2.2. Seven fisheries management instruments that integrate social and economic objectives and targets.</p> <p>2.3.1. Three fisheries management instruments that integrate objectives and targets to reduce ecosystem impacts and bycatch.</p> <p>2.3.2. Five FIPs that implement actions to reduce ecosystem impacts and bycatch.</p>	GET	5,600,000.00	18,914,574.00
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3. Knowledge management to support the transformation of the seafood market	Technical Assistance	Outcome 3.1. Reliable and verifiable information of sustainability performance of target marine commodities is available to supply chain partners and the public to drive their purchasing decisions.	3.1.1. The sustainability assessment profiles of all project target fisheries are maintained in FishSource.	GET	1,722,805.00	5,818,950.00	
			3.1.2. The profiles and progress evaluations of all project related FIPs are publicly available.				
		Outcome 3.2. Lessons about mainstreaming ecological and social sustainability into seafood supply chains are available worldwide.	3.2.1. Project lessons documented and disseminated.				
			3.2.2. Project monitoring and evaluation plan.				
Sub Total (\$)					10,222,805.00	34,528,572.00	
Project Management Cost (PMC)							
					GET	511,140.00	1,726,428.00
Sub Total(\$)					511,140.00	1,726,428.00	
Total Project Cost(\$)					10,733,945.00	36,255,000.00	

Please provide justification

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(\$)
Recipient Country Government	Government of Morocco (Ministry of Agriculture and Maritime Fisheries)	In-kind	Recurrent expenditures	4,200,000.00
Recipient Country Government	Government of Mauritania (Ministry of Fisheries and Maritime Economy)	In-kind	Recurrent expenditures	4,402,000.00
Recipient Country Government	Government of Senegal (Ministry of Fisheries and Maritime Economy)	In-kind	Recurrent expenditures	4,118,000.00
Recipient Country Government	Government of Panama (Authority for Aquatic Resources of Panama)	In-kind	Recurrent expenditures	4,260,000.00
Recipient Country Government	Government of Ecuador (Undersecretary of Fishery Resources)	In-kind	Recurrent expenditures	4,331,000.00
Civil Society Organization	Sustainable Fisheries Partnership	Grant	Investment mobilized	5,400,000.00
Civil Society Organization	Sustainable Fisheries Partnership	In-kind	Recurrent expenditures	5,000,000.00
Recipient Country Government	Government of Guatemala (Ministry of Agriculture, Livestock and Food)	In-kind	Recurrent expenditures	4,544,000.00
Total Project Cost(\$)				36,255,000.00

Describe how any "Investment Mobilized" was identified

In the six countries, co-financing will be provided mostly by the national fisheries authority, mobilising their actions and initiatives related to the target fisheries (e.g., fisheries monitoring, research and enforcement). It is foreseen that other agencies and private sector will also contribute to co-finance the project, but this will be estimated during the PPG phase. Grant contributions from the participating countries will be identified during the PPG phase. Sustainable Fisheries Partnership will contribute by mobilising its global work with seafood value chains and projects funded by other sources. Most of SFP's co-financing comes from major philanthropic Foundations such as the Walton Family Foundation and the David and Lucile Packard Foundation, which cover both recurrent expenditures and funding mobilized in support of activities that contribute to project goals. Packard Foundation for example, provides SFP with unrestricted funding, a significant part of which SFP applies to cover some of the organization recurring expenses. Other foundation and development agency funding is planned to be associated with both, recurring and non-recurring

project associated expenditures. Further to philanthropic Foundation funding, estimated investment mobilized includes contributions from private sector in support of non-recurring expenditures linked to project objectives. These investments will primarily contribute to: a) Project Component 1. This includes, amongst others, support provided by retail, branded suppliers and their supply chains to project objectives. For example, through contributions by SFP's retail partners as well as contributions by suppliers participating in SFP's coordinated Supply Chain Roundtables. b) Project Component 2. For example, funding provided by private sector to project supported Fishery Improvement Projects. As part of Project Component 2, SFP will support industry-led FIPs, which envisions the costs of improvements are being internalized by supply chains. Disbursement of investment mobilized (US\$5,4 million) is planned to overlap fully with the project timeframe, with co-financing distribution depending on availability of funding. Details will be further developed during the PPG phase. Letters of co-financing will be provided during the PPG phase to account for planned funding provided by major philanthropic Foundations in support of project goals.

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(\$)
UNDP	GET	Global	International Waters	International Waters	10,733,945	966,055	11,700,000.00
				Total GEF Resources(\$)	10,733,945.00	966,055.00	11,700,000.00

E. Project Preparation Grant (PPG)
PPG Required **true**

PPG Amount (\$)				PPG Agency Fee (\$)			
275,229				24,771			
Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Global	International Waters	International Waters	275,229	24,771	300,000.00
Total Project Costs(\$)					275,229.00	24,771.00	300,000.00

Core Indicators

Indicator 7 Number of shared water ecosystems (fresh or marine) under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem	Canary Current, Pacific Central American Coastal			
Count	2	0	0	0

Indicator 7.1 Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
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Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
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Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministeral Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
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Indicator 7.4 Level of engagement in IWLEARN through participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Canary Current	1			
Pacific Central American Coastal	1			

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)
1,015,000.00			

Fishery Details

About 965,000 t of small pelagic, 31,000 t of octopus (Mauritanian fishery), 1,000 t of shrimps (Panamanian fishery) and 18,000 t of large pelagic fish (ETP sharks) resources will be moved to more sustainable levels (1,015,000 t in total). The estimated breakdown for small pelagic fish is: 134,000 t from the Moroccan fishery (round sardinella, Atlantic horse mackerel and Cunene horse mackerel) + 478,000 t from the Mauritanian fishery (round sardinella, flat sardinella, Cunene horse mackerel and bonga) + 353,000 from the Senegalese fishery (sardinellas, horse mackerels and bonga). The references are Shrimp fisheries in Panama: FAO (2019a), Castrejón & Bucaram (2020). Large pelagic fish: Martíne-Ortiz et al., (2015), Ixquiac et al., (2016), Castrejón & Bucaram (2020), Siu & Aires-da-Silva, (2016). Octopus: FAO (2020), FAO (2020a). Cuttlefish: FAO (2020), FAO (2020c). Small pelagic fish: FAO (2019). See “bibliography” section of the PIF for full references.

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)
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Female	200,000			
Male	300,000			
Total	500000	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

Regarding core indicator 7, the project will contribute to the ongoing efforts to establish collaborative management in the Canary Current Large Marine Ecosystem and the Pacific Central American Coastal Large Marine Ecosystem. The project will contribute to implement actions from the CCLME SAP and will provide inputs for the development of PACA's TDA/SAP process. In particular, the present project will contribute to engage project partners and stakeholders into the International Waters Learning Exchange and Resource Network (IW:LEARN). According to the "GUIDELINES ON CORE INDICATORS AND SUB-INDICATORS", rating 1 means "No participation" and rating 2 means "Website in line with IW:LEARN guidance active". Regarding core indicator 8, it is foreseen that about 965,000 t of small pelagic, 31,000 t of octopus (Mauritanian fishery), 1,000 t of shrimps (Panamanian fishery) and 18,000 t of large pelagic fish (ETP sharks) resources will be moved to more sustainable levels (1,015,000 t in total). The estimated breakdown for small pelagic fish is: 134,000 t from the Moroccan fishery (round sardinella, Atlantic horse mackerel and Cunene horse mackerel) + 478,000 t from the Mauritanian fishery (round sardinella, flat sardinella, Cunene horse mackerel and bonga) + 353,000 from the Senegalese fishery (sardinellas, horse mackerels and bonga). Regarding core indicator 11. There is no detailed publicly available information about the number of people that are part of the target fisheries value chains. Therefore, a proxy was used. The number of fishers for each country was taken from FAO's Fishery and Aquaculture Statistics (FAO, 2021). FAO (2021) does not include information for Guatemala, therefore, for this country data was used from FAO (2018a). Country Number of fishers Year Notes Source Ecuador 64,873 2017 Number of fishers FAO (2021) Guatemala 18,600 2011 Only artisanal fishers FAO (2018a) Mauritania 181,420 2019 Number of fishers FAO (2021) Morocco 124,114 2019 Number of fishers FAO (2021) Panama 26,050 2017 Number of fishers FAO (2021) Senegal 85,369 2019 Number of fishers FAO (2021) Total 481,826 From World Bank (2012) it is known that, in developing countries, post-harvest jobs in marine small-scale and industrial fisheries are, respectively, 2.8 and 3.5 times the number of fishers. From the same authors it is also known that, in developing countries' marine small-scale and industrial fisheries, women are about 36% and 66% of the total workforce, respectively. But, in Mauritania and Morocco, women workforce participation is very small. Therefore, to be cautious we assumed that: [1] The total number of beneficiaries will be about 500,000 persons (capture and post-harvest employment). [2] The percentage of women workforce will be about 40%. During the PPG a detailed estimation of the direct beneficiaries will be prepared.

Part II. Project Justification

1a. Project Description

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Overview

3. A third of marine fish stocks are fished at biologically unsustainable levels and increased demand in the following decades will continue to pressure for more extraction. Marine capture fisheries have a significant worldwide role by providing nutritious food, economic income, and employment. Seafood is crucial for food and nutrition security, particularly in low-income and developing economies (FAO, 2020).

4. The official figures indicate that in the past decades, the provision of marine food and ingredients has been stable. Since 1990 the annual global marine capture has fluctuated around 80 million tonnes (Figure 1). Between 2016 and 2018 it increased from 78.2 to 84.4 million tonnes (FAO, 2000; FAO, 2018; FAO, 2020). However, catch reconstruction shows a different trend, with a peak capture in 1996 (ca., 124 million tonnes) followed by a continuous decline to reach ca., 109.3 million tonnes in 2018 (Pauly & Zeller, 2016; Pauly et al., 2020) (Figure 3). Catch reconstruction reveals that between 1996 and 2018 the capture from industrial fisheries declined from $99.1 \cdot 10^6$ t to $80.9 \cdot 10^6$ t, while the capture from artisanal fisheries increased from $21.1 \cdot 10^6$ t to $25.0 \cdot 10^6$ t.

5. Despite important advances in improving fisheries management worldwide it was not possible to achieve by 2020 the target 14.4 of the Sustainable Development Goal 14. The percentage of fish stocks that are within biologically sustainable levels has continuously decreased since 1974 (Figure 2) and pressure on marine stocks is likely to further increase in the coming decades. The demand and prices of seafood have continuously risen since the 1990s and this trend is likely to continue during the following decade, considering that both population and purchasing capacity are expected to continue to increase. OECD & FAO (2020) estimate that nominal prices for capture fish, fishmeal and fish oil will increase during the 2020s. Similarly apparent fish consumption is expected to increase from 20.4 kg to 21.4 kg per person per year by 2029. Part of the projected increased demand will be caused by the generalised recommendation to substitute the consumption of red and processed meat for seafood because of its health and nutritious benefits as well as the reduction in dietary-related greenhouse gas emissions (Scarborough et al., 2014; Thomsen et al., 2018; Thomsen et al., 2019). For example, the U.S. dietary guidelines 2020-2025 recommend increasing the consumption of seafood to at least 8 ounces per week and introducing it to children when they are around six months old (USDA & HHS, 2020). The demand from international markets is a key driver. For example, in Europe and the USA more than half of their demand is covered with imports (Guillen et al., 2019). Currently, China is the largest seafood market and the leading global seafood exporter (de Jong, 2017; de Jong, 2019). However, by 2030 it is likely that China will have a seafood demand gap that will need to be covered with imports (Crona et al., 2020). All this will continue to press for more extraction from marine stocks and will put at risk food security in developing economies. In the main export markets (e.g., European Union, USA) seafood has become a culinary speciality. In contrast, seafood is a basic staple food in developing economies. Future seafood price increases will further limit access for poor and vulnerable local consumers.

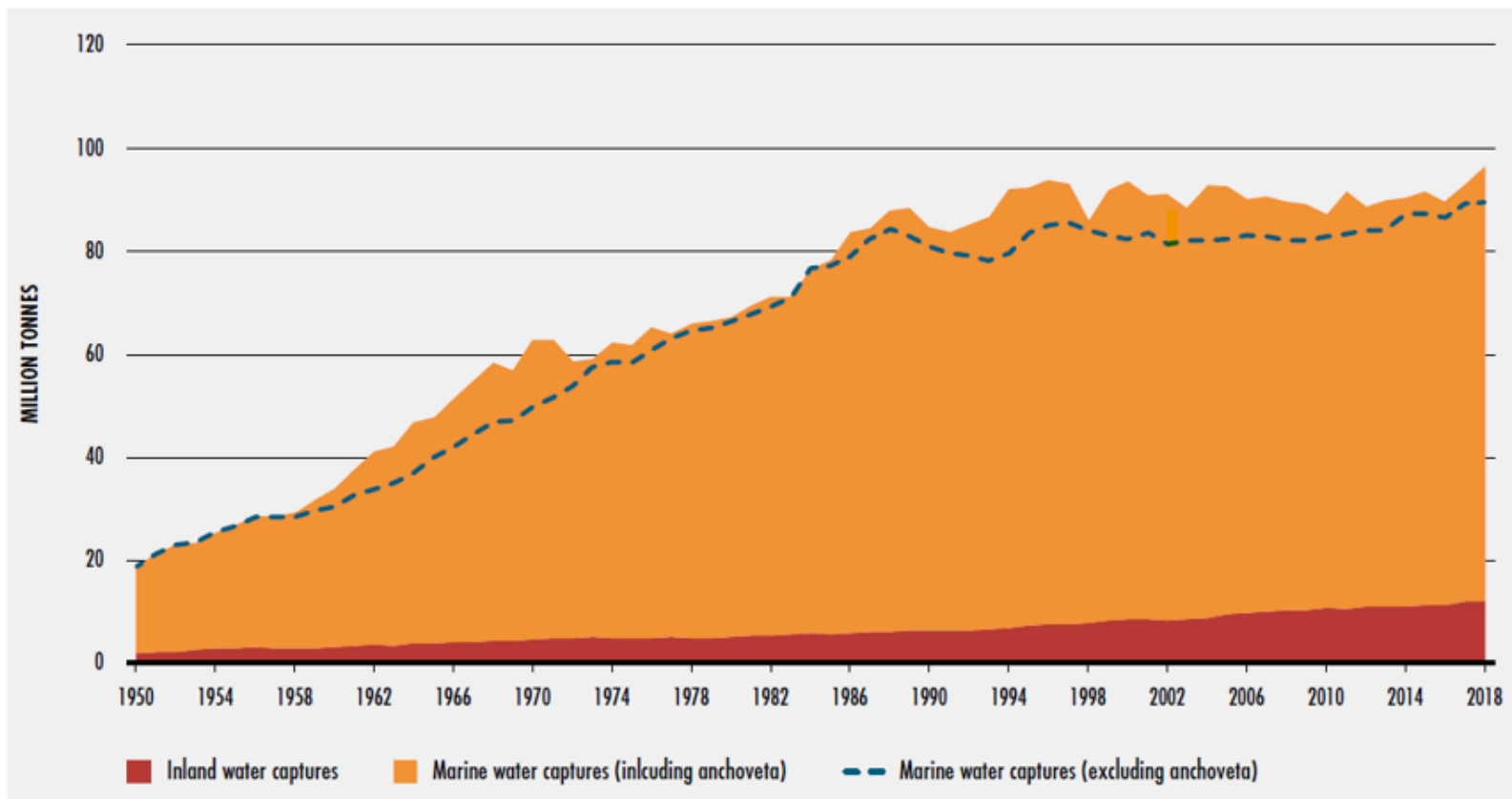


Figure 1. Trend in global captures (FAO, 2020).

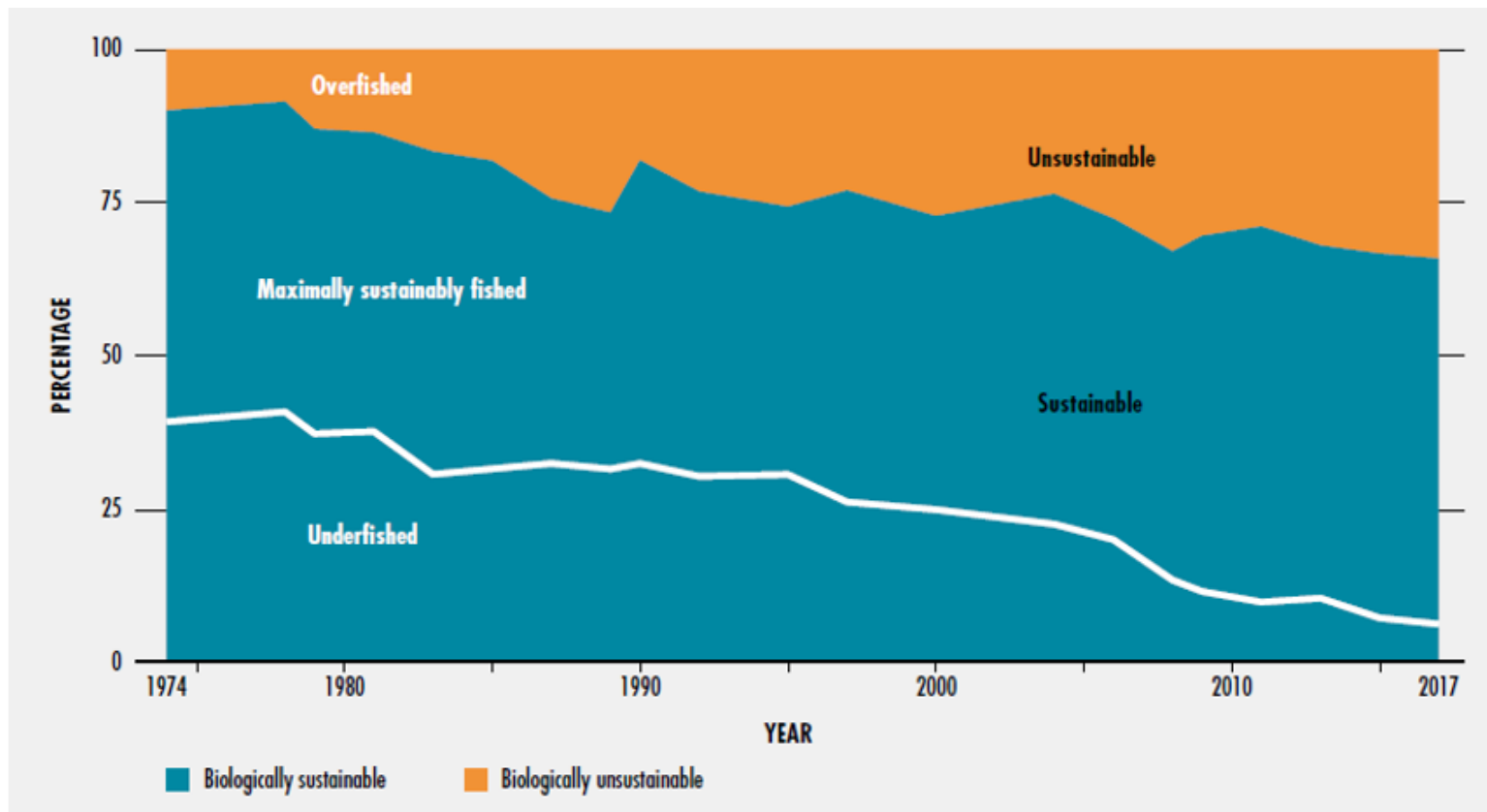


Figure 2. Global trend in the state of the world's marine fish stocks between 1974 and 2017 (FAO. 2020).

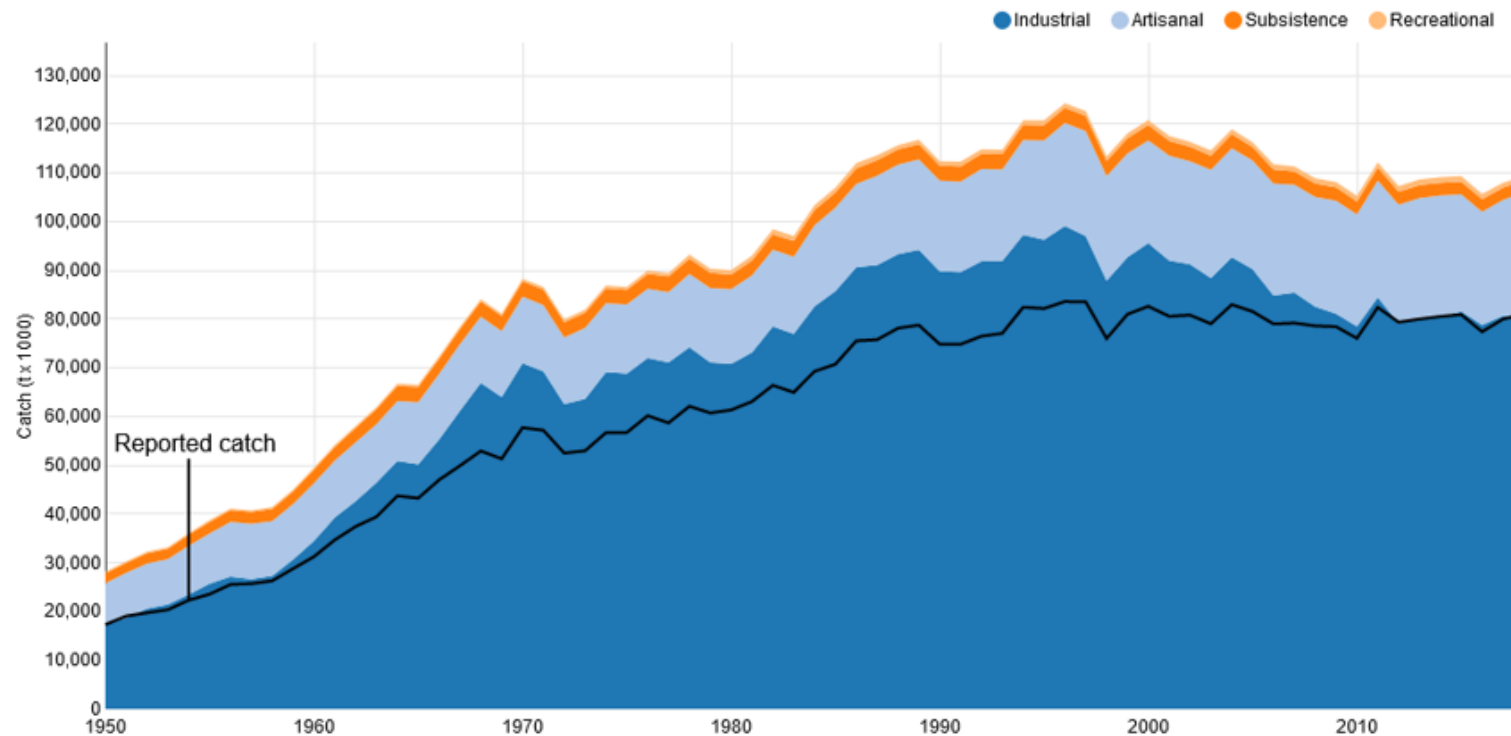


Figure 3. Catch reconstruction of marine global capture fisheries (Pauly et al., 2020).

6. Large marine ecosystems (LMEs) are extensive areas of ocean space characterised by distinct bathymetry, hydrography, productivity, and trophic relationships. LMEs encompass coastal areas out to the seaward boundary of the continental shelves and the outer margins of coastal currents (Sherman & Alexander, 1986; Sherman, 1991; Sherman, 2001). Pauly et al., (2008) estimated that, in 1968, about 91% of the world marine capture was produced within the 66 LMEs of the world. This figure declined to about 76% in 1990 (Pauly et al., 2008). In 2018, about 97% of the global catch was caught within the Exclusive Economic Zones (Sea Around Us, 2020).
7. The Canary Current LME (CCLME) is located in northwest Africa (Map 1). It covers an area of 112,043,900 ha and 19,543,900 ha of continental shelf^[1]. It is bordered by (from North to South): Morocco, Spain, Mauritania, Senegal, Cabo Verde, Gambia, and Guinea-Bissau.
8. The CCLME is a productive LME (class 3^[2]); the average primary productivity is $323 \text{ g C m}^{-2} \text{ y}^{-1}$. This productivity is caused by the Canary Current upwelling system that includes coastal upwellings, filaments and eddies (Johnsons & Stevens, 2000; Kämpf & Chapman, 2016).

9. The CCLME sustain important fisheries. The LME's reported annual catch reached a peak of about 7.7 million tonnes in 1977, fluctuating with a declining trend to reach about 4.4 million tonnes in 2018 (Figure 4). The industrial sector captures most of the catch. However, the capture from the artisanal sector has steadily increased over the past decades.
10. Small pelagic fish are the most abundant fisheries resources, they represent about 75% of the catches (Failler, 2020). Most stocks are shared by two or more countries and include species with an affinity for temperate waters (like the sardine, the chub mackerel and the Atlantic horse mackerel) and species that prefer tropical waters (like the sardinella and the Cunene horse mackerel) (Braham & Corten, 2015). The main species are the sardine (*Sardina pilchardus*), the round and flat sardinellas (*Sardinella aurita* and *Sardinella maderensis*), the bonga (*Ethmalosa fimbriata*), the Cunene and Atlantic horse mackerels (*Trachurus trecae* and *T. trachurus*), the false shad (*Caranx rhonchus*), the anchovy (*Engraulis encrasicolus*) and the chub mackerel (*Scomber japonicus*).
11. The cephalopod fisheries are also important in the CCLME. The main species captured are the common octopus (*Octopus vulgaris*), the cuttlefish (*Sepia officinalis*, *S. hierredda* and *S. bertheloti*) and the squid (*Loligo* spp.) (Figure 5). The fishery for common octopus off northwest Africa is the largest world octopus fishery for a single species in the world. Octopus are captured by industrial and artisanal fleets and are mainly harvested in (from north to south) Morocco, Mauritania, and Senegal (Jereb et al., 2016; Sauer et al., 2021).
12. The conditions of the CCLME are affected by the Atlantic Multidecadal Oscillation (AMO) which drive shifts in ecological boundaries, primary production levels and species abundance (Nye et al., 2014). For example, the warm and cool phases of the AMO affect the abundance and migration patterns of small pelagic fish (Alheit et al., 2014).
13. IOC-UNESCO & UNEP (2015a) estimated that, in 2010, about 33.7 million people lived in the coastal area of the CCLME. It was estimated that the coastal population would more than double by 2100. The Human Development Index (HDI), average for the period 2009-2013, was "very low" (0.5834). The Transboundary Waters Assessment Programme (TWAP) estimated that the CCLME overall risk factor is "very high"[\[3\]](#), based on a combined measure of the HDI and the averaged indicators for (i) fish & fisheries and (ii) pollution & ecosystem health modules (IOC-UNESCO & UNEP, 2016).
14. The GEF sponsored the preparation of a Transboundary Diagnostic Analysis (TDA) (CCLME Project, 2015a) and a Strategic Action Programme (SAP) (CCLME Project, 2015b) for the Canary Current LME (GEF ID 1909[\[4\]](#)). An on-going FAO project (GEF ID 9940) is supporting the development of the regional governance mechanism for SAP implementation.

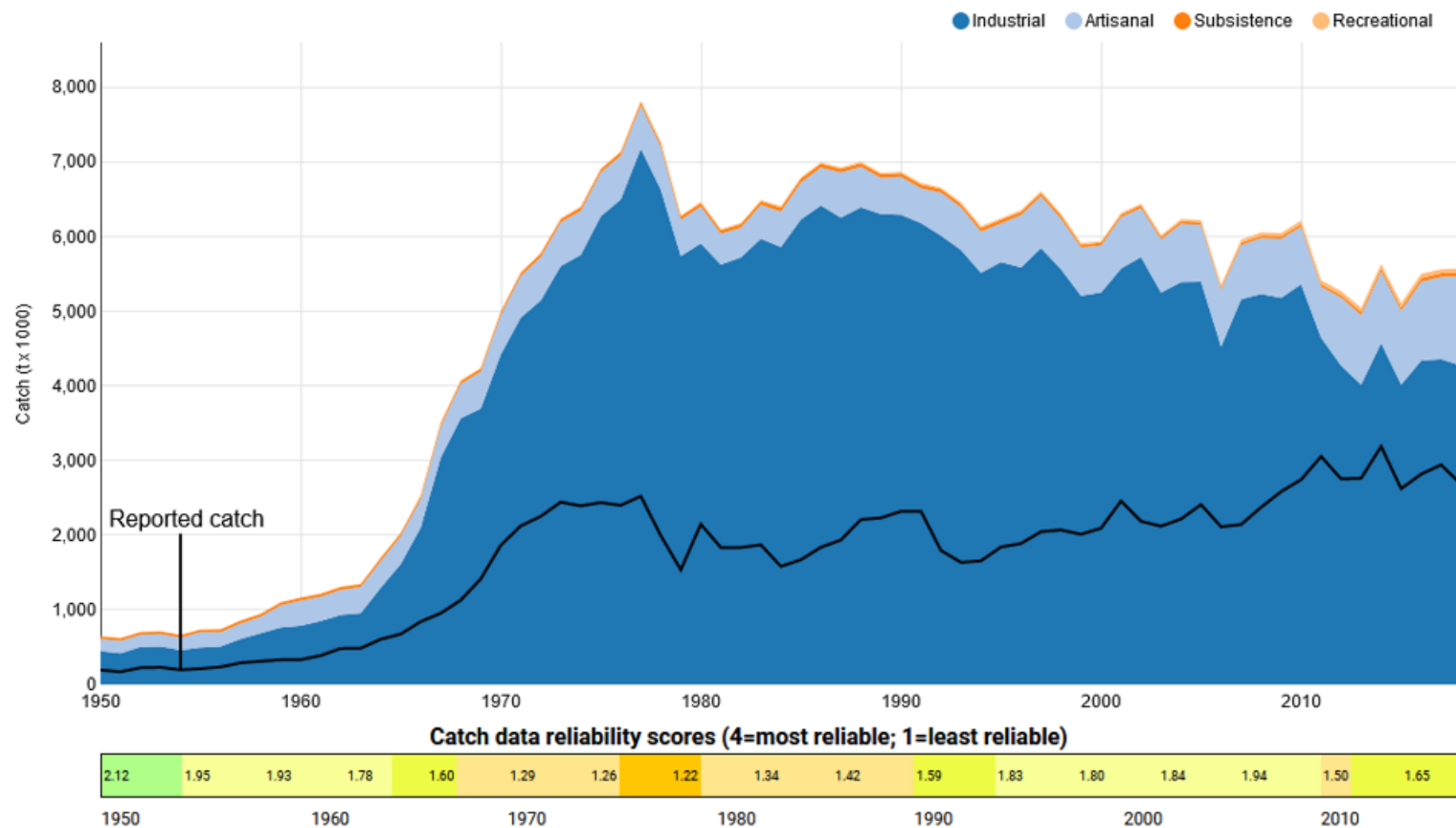


Figure 4. Total reported catch (line) and estimates of actual catch (reconstructed catch) by fishing sector from 1950 until 2018 in the Canary Current Large Marine Ecosystem. Source: Sea Around Us.

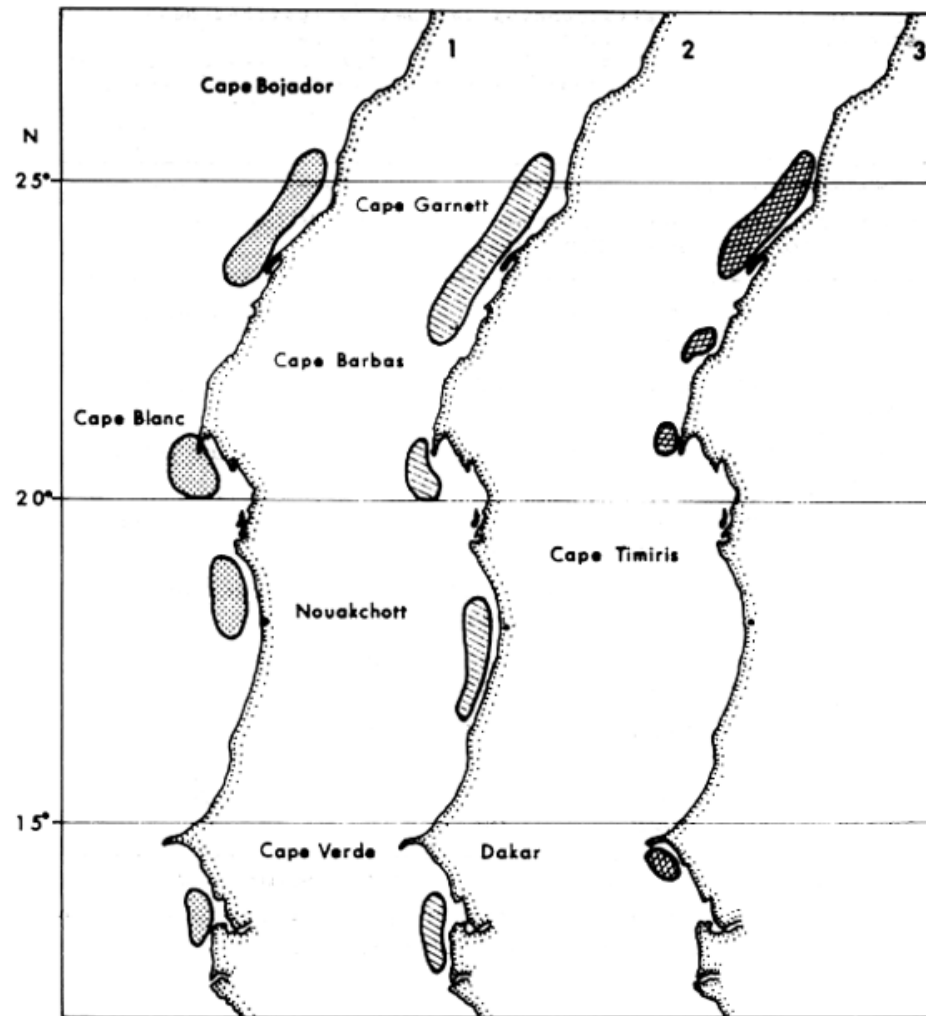


Figure 5. Main cephalopod fishing grounds between Morocco and Senegal. 1 = Octopus. 2 = Cuttlefish. 3 = Squid. Source: (FAO 1985)

15. The Pacific Central American Coastal Large Marine Ecosystem (PACA) extends from southern Mexico^[5] (about 22° north) to Ecuador (Map 2), encompassing a surface of ca., 199,665,900 ha of coastal and marine habitats (IOC-UNESCO & UNEP, 2015), and 20,853,000 ha of continental shelf^[6] (ca., 10.4% of the total area). Nine countries border PACA (from north to south): Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panamá, Colombia, and Ecuador.

16. PACA is a very productive LME (class 4²); the average primary productivity is 407 g C m⁻² y⁻¹. This high primary production is caused by coastal upwelling. In Central America, upwelling develops as a result of locally intense jets of wind blowing from high pressure systems in the Gulf of Mexico and the Caribbean towards the Pacific Ocean; wind jets flow through four passages (i) the isthmus of Tehuantepec, (ii) the Gulf of Fonseca, (iii) the Lake Nicaragua, and (iv) the Panama Canal

(Barton et al., 1993; Trasviña et al., 1995; Martínez Díaz de León et al., 1999; Ballesteros, 2003; Belkin et al., 2003; Heileman, 2009).

17. PACA sustain important fisheries. The reconstructed annual catch shows a peak of about 2.9 million tonnes in 1985 followed by a fluctuating downward trend afterwards to reach about 1.3 million tonnes in 2018 (Figure 6). About 62% of the capture come from the industrial sector. However, the capture from the artisanal sector has greatly increased over the past decades.

18. The most conspicuous fisheries are small pelagic fish, tunas, and shrimp. In 2018, about a third of the total capture was small pelagic fish like *Sardinops sagax*, *Opisthonema* spp., *Engraulis ringens*, *Cetengraulis mysticetus* and *Scomber japonicus*. Tunas are a major fishery in the eastern Pacific Ocean (EPO), most of the capture is done by industrial purse-seine and longline vessels in oceanic areas, but there is also coastal capture by artisanal fleets, a few pole-and-line boats, and sport fishers.

19. In 2010, the total catch of the three main tuna species in the EPO was 510,371 t, increasing to 681,488 t in 2015 (IATTC, 2016). The main fleets and processing capacity are based in Ecuador and Mexico. The tuna fleet also capture billfishes, mainly swordfish (*Xiphias gladius*) and blue marlin (*Makaira nigricans*). In 2014, the total capture of billfishes was 34,899 t; 80.1% of this was captured by the longline fleet (IATTC, 2016).

20. Large pelagic fish (LPF) are highly migratory species which are captured by artisanal fleets, industrial longline and sport fishers. There is a major commercial artisanal fishery for LPF that capture mahi mahi (*Coryphaena hippurus*, locally called dorado), billfishes and tunas (*Thunnus albacares* and *Thunnus obesus*) using longline and gillnets. The artisanal boats operate in coastal areas and the open ocean. Ecuador has an oceanic artisanal fleet that operates as far as 100°W (west of the Galapagos archipelago) and 15°S. A key component of the bycatch of these fisheries are sharks, mainly the blue shark (*Prionace glauca*), the thresher shark (*Alopias pelagicus*), the shortfin mako (*Isurus oxyrinchus*) and the smooth hammerhead shark (*Sphyrna zygaena*). Some of the captured sharks are "endangered, threatened or protected species" (ETP) like the silky shark (*Carcharhinus falciformis*), the scalloped hammerhead shark (*Sphyrna lewini*), the great hammerhead shark (*Sphyrna mokarran*), the smooth hammerhead shark and all thresher sharks (*Alopias* spp.) that are listed in Appendix II of CITES, and the shortfin mako that is listed as "Endangered" in the IUCN Red List (Rigby et al., 2019).

21. On the other hand, LPF are valuable resources for the sport FISHING industry, mainly from Mexico to Panama. Mexico has reserved mahi mahi, marlins, sailfish (*Istiophorus platypterus*), and swordfish for sport fisheries within the first 50 miles offshore. Guatemala reserves the sailfish only for sport fisheries. Similarly, Nicaragua reserve marlins and sailfish only for sport fisheries. Costa Rica declared marlins and sailfish as species of interest for sport fishing, and El Salvador declared marlins, sailfish, swordfish, mahi mahi, and tunas as objects for sport fishing.

22. Sport fisheries for billfishes and tuna can generate very high value for the local economies. In Costa Rica, sport fishing contributes more than commercial fisheries to the gross domestic product (Soto, 2010). In Panama, sport fishing generated USD97 million in 2011 (Southwick et al., 2013). Martin et al., (2016) estimated that the oceanic Eastern Tropical Pacific (excluding the continental platform) produce about USD2.7 billion year⁻¹ in capture fisheries (10 most commercially fished species) and USD 1.6 billion year⁻¹ in sport fisheries (three popular destinations).

23. The shrimp fisheries are important in all PACA countries. The industrial and artisanal fisheries are old long established operations that generate important contributions to coastal communities in terms of direct and indirect employment, income, and food security.

24. The PACA LME is frequently affected by El Niño Southern Oscillation (ENSO) events. El Niño produce intense warming of sea surface temperature in the Panama bight and northern South America, intense rain in Ecuador and Peru, and severe drought in Mexico and Central America. ENSO conditions have strong impacts in the biodiversity, society, and economy of the entire region. For example, the 1997 – 1998 El Niño, one of the strongest in record, produced USD7.5 billion in losses in five Andean countries (CAF, 2000a; CAF, 2000b; OPS, 2000).

25. IOC-UNESCO & UNEP (2015b) estimated that, in 2010, about 50.3 million people lived in PACA's coastal area. It was estimated that the coastal population would almost double by 2100. The HDI, average for the period 2009-2013, was "low" (0.5834). The Transboundary Waters Assessment Programme found the PACA overall risk factor is "high"³ (IOC-UNESCO & UNEP, 2016).

26. A new five-year GEF project will contribute to the preparation of a TDA and a SAP for the PACA LME (GEF ID 10076). The project will start implementation in 2022, having UNDP as the GEF agency.

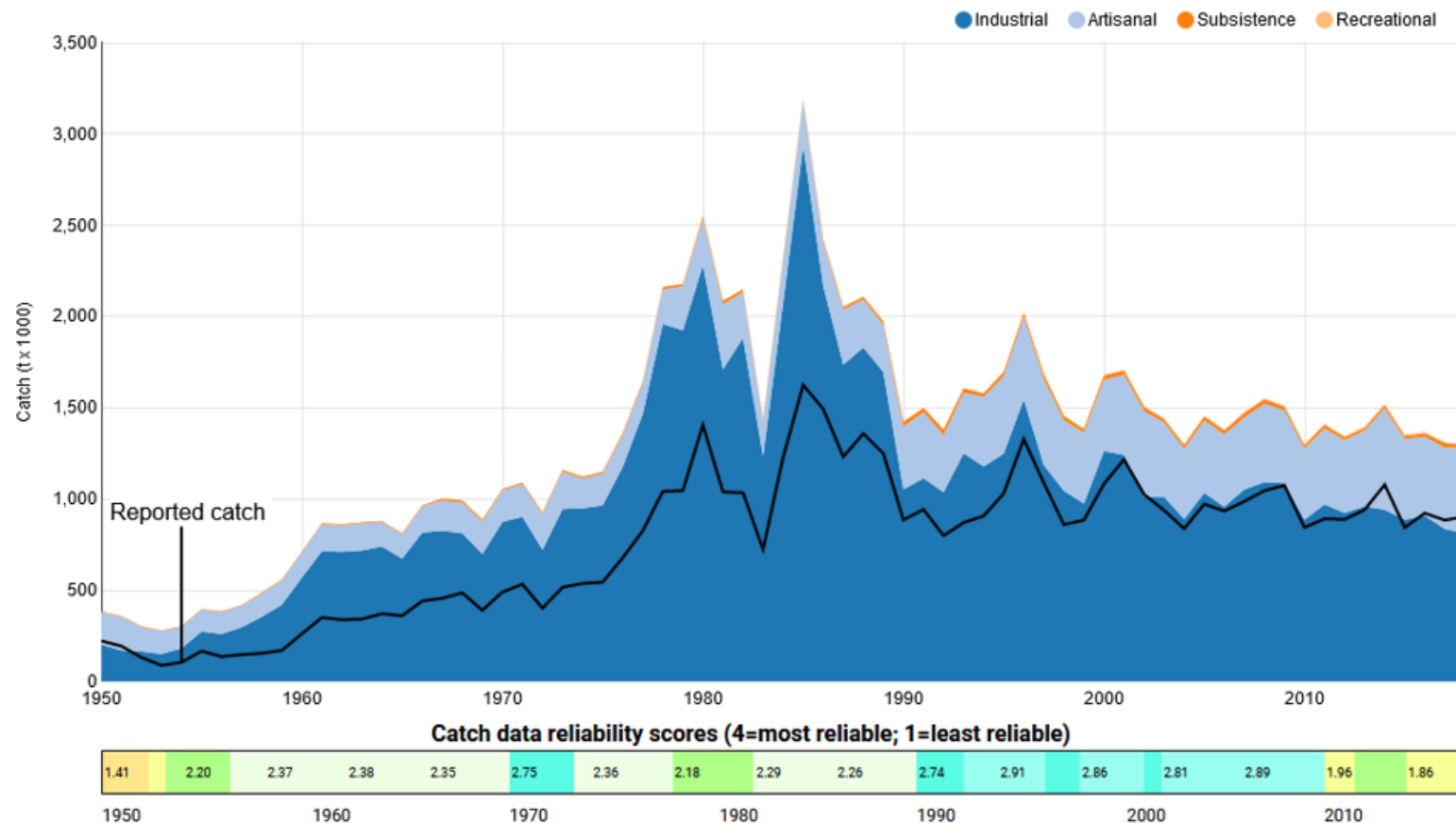


Figure 6. Total reported catch (line) and estimates of actual catch (reconstructed catch) by fishing sector from 1950 until 2018 in the Pacific Central American Coastal Large Marine Ecosystem. Source: Sea Around Us.

27. Overexploitation of marine fisheries is a major global issue and a key driver of changes in the marine environment, affecting both biodiversity and ecosystem services (Balvanera et al., 2019). Fisheries have changed the trophic structure of ecosystems and disturbed predator – prey relationships (Pauly et al., 1998; Jackson et al., 2001; Pauly & Palomares, 2005; Pauly et al., 2005). In addition, some fisheries affect non-target species by destroying habitats and capturing organisms that have no commercial use (e.g., sponges, marine worms), including species with high conservation value and endangered species such as sharks, sea turtles, and sea birds. Also, strong fishing pressure can cause the fish to alter their genetic composition and life-history traits (this is called fisheries-induced evolution) with consequences in the marine ecosystems and the fisheries (Kuparien & Hutchings, 2012; Eikeset et al., 2013; Belgrano & Fowler, 2013).

28. The global impact of fisheries on marine biodiversity is vast. For example, (1) Kroodsma et al., (2018) estimated that industrial fishing vessels operate in about 55% of the global oceans, (2) Tickler et al., (2018) reported that subsidised distant water fishing fleets operate in about 90% of the world oceans, and (3) Dulvy et al., (2021) estimated that about a third of chondrichthyan fish species are threatened by overfishing. In 2017, 34.2% of world fish stocks were overfished and 59.6% of stocks were fully fished (FAO, 2020). Human dependence on marine resource for food and income is high, especially in developing countries. Therefore, fisheries collapse is a serious threat for both biodiversity and society.

29 Overexploitation of fishery resources is caused by several interacting factors, including among others, excessive fishing pressure, open access to fishery resources, destructive fishing practices, increased demand for seafood, insufficient scientific knowledge, lack of awareness by fishers and consumers, harmful subsidies, and insufficient enforcement (UNEP, 2006; MARIBUS, 2010).

30. This project specifically focuses on one of these factors, “the demand for seafood” as a driver for overexploitation of marine resources. The harvest of marine seafood has reached a plateau, but the global demand continues to increase. According to the reported catch this plateau is about 80 million tonnes per year, however the reconstructed catch estimated that the global catch has been fluctuating around 105 million tonnes per year during the past decade (Figure 3).

31. The underlying causes of the increase in seafood demand are many, among them (i) the expansion of the world population, (ii) an increased income in developing countries and emerging economies, (iii) increased urbanization and the associated demand for value-added nutritious products, and (iv) larger international trade.

32. The growing demand for seafood puts pressure on the entire value chain and therefore fishers increase the harvest of valuable resources (Figure 7). Most of the demand comes from developed countries, but also from some developing countries and upper middle-income economies like China, which have high purchasing power and cannot supply their demand with local sources. Export-oriented commodities (e.g., octopus, tuna, shark fins) are attractive because they command a higher price. However, there are seafood products with high value and demand in the local markets (e.g., shellfish, whitefish). The access to the fishery resources is regulated by national fisheries authorities, and by Regional Fisheries Management Organisations (RMFOs) in the case of shared stocks or highly migratory species like tunas. However, high prices and increased demand, coupled with insufficient conservation and management measures and ineffective control, can motivate overcapacity, illegal fishing, use of destructive fishing gear and practices, and seafood fraud.

33. There are a number of initiatives and tools to motivate that the demand focus on seafood from sustainable sources. In addition to consumer education and awareness (e.g., sustainable seafood guides), industry engagement, certification, ecolabelling and fisheries improvement projects[7] (FIPs) have shown promising results (Figure 7). However, despite interest from major buyers and members of the fishing industry, the amount of seafood from sustainable sources is still a small fraction of the total supply. A proxy is the Marine Stewardship Council[8] (MSC) certified landings. In 2012, this was 6.5 million tonnes equivalent to about 8% of the marine capture in the same year (MSC, 2013; FAO, 2014). In 2021, 14% of the marine capture was MSC certified (MSC, 2021).

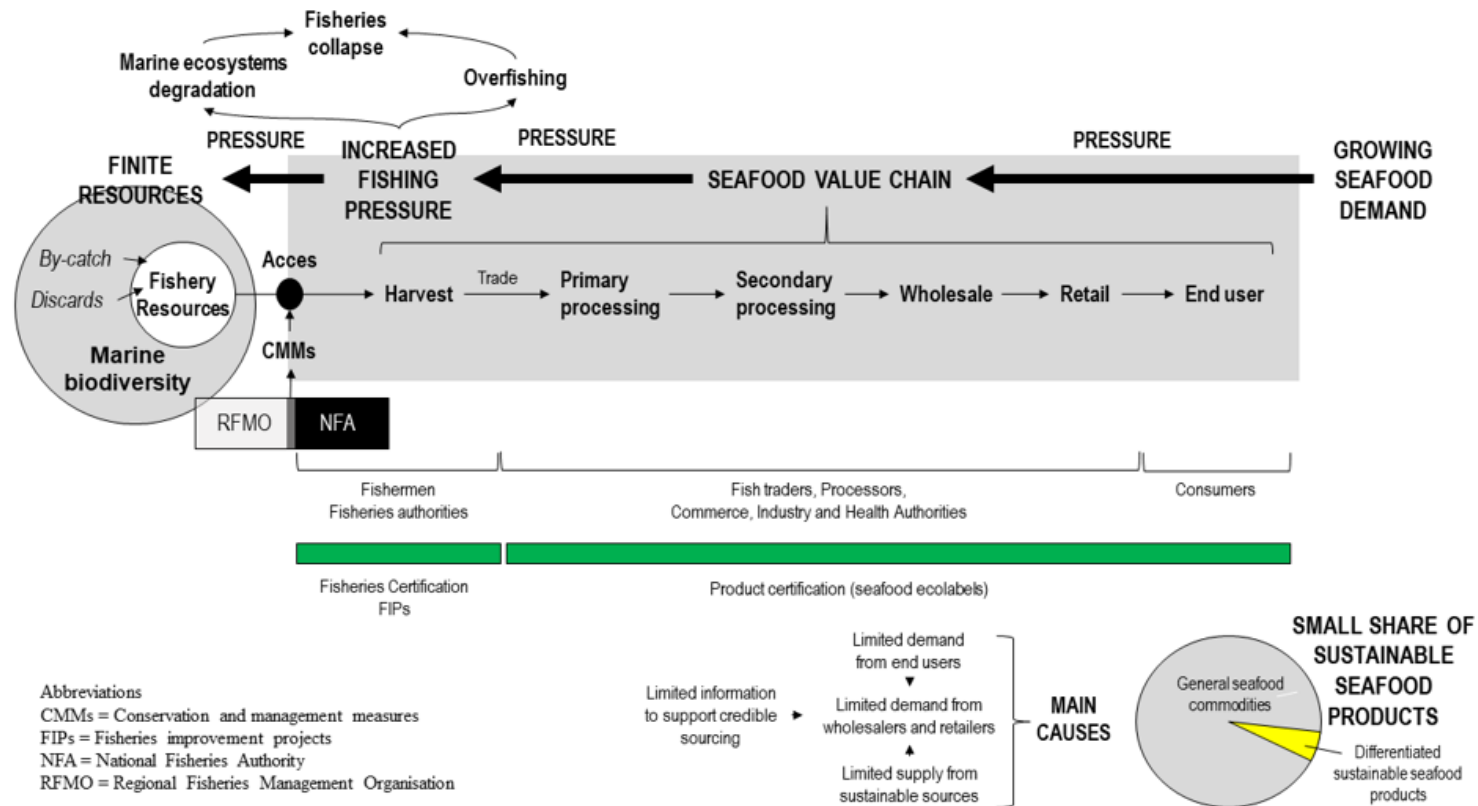


Figure 7. Effect of growing seafood demand on marine fisheries and biodiversity.

34. Market transformation can be a powerful agent of change by increasing the demand for sustainable seafood. During the past decades, the Sustainable Seafood Movement has promoted the use of market forces to promote improvements in fisheries sustainability (Barnett et al., 2016). The basic theory of change of the Sustainable Seafood Movement is that by providing a market signal (e.g., price premium, market access), fishers and processors will be incentivised to adopt sustainable practices. Along this line, the tools for market transformation have proven to be highly effective. That is, instruments like (i) eco-labelling and fishery improvement projects, (ii) pre-competitive buyers' roundtables, (iii) seafood responsible procurement policies, and (iv) information to processors, retailers, and consumers (e.g., through rating systems). Increased demand for sustainable seafood products motivates positive changes along the value chain, like fisheries and product certifications or improved stock management. A recent case is the fishery for small pelagic fish in Ecuador. The increased demand for certified fish meal and fish oil from international aquaculture feed producers was the main incentive for the Ecuadorian industry to develop a FIP aimed at attaining the MarineTrust certification (UNDP, 2020) that led to verified improvements in the stock health of the target species.

35. Fisheries certification and ecolabelling (e.g., MSC, FairTrade, MarinTrust) have been a centrepiece of market transformation. However, it has been recognised that a more comprehensive approach is needed to include (i) a deeper transformation along the production chain, (ii) implementation of well-enforced policies and regulations for fisheries management, and (iii) ensuring access to safe and affordable produce for human nutrition (Bennet et al., 2018; Roheim et al., 2018; Bailey, 2019; Tlusty et al., 2019; Bennet et al., 2020; Belton et al., 2020). In addition, it has been identified that current market tools are not well suited for artisanal and small-scale fisheries, especially in developing economies (Sampson et al., 2015; Barnett et al., 2016; Pérez-Ramírez et al., 2016; Stoll et al., 2019):

- In export-oriented fisheries, artisanal and small-scale producers have difficulties to cover the high costs of certification and to comply with certification standard requirements. For example, it has been observed that several Marine Stewardship Council certified fisheries struggle to access and maintain the certification.
- In non-export-oriented fisheries, seafood is sold in local markets and not subject to the scrutiny of larger supply chains whose players need to deal with business risks, such as reputational risks derived from the purchase of unsustainable fishery products. The demand and willingness to pay for sustainable seafood in the domestic markets of developing economies is negligible.

36. The Global Marine Commodities project (henceforth GMC project, GEF ID 5271) aligned a range of market transformation tools into a comprehensive theory of change (UNDP, 2020a). The GMC model includes two approaches:

- A top-down market-driven approach to build demand in international markets to "pull" the supply of sustainable seafood products. This includes working with major traders and buyers to increase awareness, provide sound information, implement responsible purchasing policies, and facilitate constructive dialogue through supply chain roundtables (SFP, 2021; SFP 2021a).
- A bottom-up approach to build supply of sustainable seafood products. The core element is the sustainable marine commodity platform (a government-led co-management platform) to facilitate multi-level stakeholder dialogue and concrete action to improve fisheries management (UNDP, 2020b) (Figure 5). Complementarily, industry-led FIPs facilitate private sector engagement in practice (UNDP, 2021).

37. The GMC project was implemented between 2017 and 2021 by the fisheries authorities of Costa Rica, Ecuador, Indonesia and the Philippines, with support of UNDP and Sustainable Fisheries Partnership (SFP). The project generated experience and lessons of export-oriented industrial and artisanal fisheries in the four participating countries and enhanced sustainability performance of about 326,000 tonnes of fishery products. The tools and lessons from the GMC project can be found in the following website: globalmarinecommodities.org/en/library/

38. The [terminal evaluation](#) rated the project "highly satisfactory" and found that the GMC model is effective and highly replicable (Ryan, 2021). The terminal evaluation recommended to refine the GMC model and to apply it to other fishery scenarios, giving particular attention to integrating artisanal and small-scale fisheries. The terminal evaluation also pointed out that one of the remaining challenges of the GMC model is to cover a broader range of sustainability areas that expand from the environmental focus to broader ecological concerns by placing greater attention on reducing bycatch of CITES Red-listed species and destruction of ecologically important bottom habitats, as well as addressing social aspects like gender equality.

Main barriers that need to be addressed

39. The long-term solution is to strengthen fisheries market transformation by contributing to increase the demand for and supply of sustainable seafood products. The present project proposes to refine the GMC model to include ecological and social aspects of sustainability into export-oriented and domestic market seafood value chains, and to apply it in key industrial and artisanal fisheries of the Canary Current and the Pacific Central American Coastal Large Marine Ecosystems. It is foreseen that the project will contribute to advance fisheries objectives of the CCLME SAP and to generate lessons to contribute to the development of PACA's SAP. Regarding the CCLME SAP, the project will contribute towards general objective 1: sustainably manage fisheries, restore degraded fish stocks and reduce threats to vulnerable species by 2030. With specific contributions to the corresponding three specific objectives: (1) sustainably manage and restore the small pelagic resources, (2) sustainably manage and restore the demersal resources, and (3) reduce threats to vulnerable species and mitigate their impacts.

40. The main barriers that limit increasing the demand and supply of sustainable seafood products (paragraph 36) are:

Barrier 1. Limited demand from end users.

41. There are several important efforts to inform and educate consumers about the consequences of inadequate fisheries and to assist them to make more informed decisions. These efforts include, for example, seafood guides in various formats and languages (including mobile apps) from a number of organizations like WWF[9], the Marine Conservation Society[10], and the Monterey Bay Aquarium[11]. These guides orient consumers and businesses (e.g., restaurants, catering services, fishmongers) to choose seafood from sustainable sources. Yet, these efforts are mainly focused on developed countries (e.g., USA, UK, Germany, Spain, and Australia). There are a few national focused promotion programmes in developing countries like “Pesca con Futuro” in Mexico and the “Southern African Sustainable Seafood Initiative” (SASSI) in South Africa.

42. In a number of market studies, it has been found that awareness has increased, and that sustainable seafood is a rising trend among consumers, restaurants, retailers and wholesalers. However, the demand from end users is not yet sufficient to drive the industry. The main limitations that have been identified are:

§ Consumer confusion because of the range of information, often contradictory, about seafood products (e.g., different forms of evaluation, differing ranking systems) (Schmitt, 2011; Jacewicz, 2017).

§ Lack of evidence of improved conservation status of the resources that are protected.

§ Environmental concerns are secondary to quality and price as purchase criteria.

§ In some markets, there is a strong concentration on a few species, offer and demand for less common seafood species are weak

§ Consumers are not willing to pay an increase of more than 10% for sustainable seafood.

§ Consumer awareness and education has concentrated on developed countries. Consumers from producing countries and emerging markets (e.g., Latin America, Africa) are not targeted by awareness campaigns.

Barrier 2. Limited demand from wholesalers and retailers.

43. Because of the limited demand from end users, many retailers and wholesalers still do not see market opportunities in sustainable seafood. For these groups, like for consumers, environmental concerns are secondary to quality and price. Organizations like SFP and WWF have concentrated efforts in engaging major buyers by providing information and advice. This has resulted in corporate commitment by major buyers to purchase from sustainable sources (e.g., Walmart, McDonalds).

44. In the past years there have been significant advances in engaging major seafood buyers and retailers (SFP, 2021). For example, SFP (i) provide information through the FishSource platform[12] and the Metrics system, (ii) facilitate public reporting about seafood sourcing through the Ocean Disclosure Project[13], and (iii) promote pre-competitive collaboration through Supply Chain Roundtables[14].

45. The main limitations to further increase the engagement of mayor buyers are:

§ Insufficient investment by supply chain stakeholders in Corporate Social Responsibility commitments and lack of genuine involvement in sustainability initiatives by private sector actors.

§ Insufficient uptake and investment by supply chain companies and private sector in general in information systems (e.g. sustainability rating systems) that enable decision-making (e.g. when purchasing or investing in specific fisheries) based on up-to-date information of the seafood sustainability performance of the source fisheries.

§ Limited information and practical tools to prepare and implement corporate policies and procedures for responsible sourcing of seafood.

§ Lack of traceability systems that guarantee that the providers are actually delivering sustainable seafood and do not incur in seafood fraud.

§ Inadequate monitoring and tracking systems about the conservation status of the fishery stocks.

Barrier 3. Limited supply from sustainable sources.

46. As mentioned before the supply of MSC certified seafood is ca., 14% of the total world production. There are a number of important seafood commodities that are not certified (e.g., mahi mahi, jumbo squid) or have serious limitations to be certified (e.g., small pelagic fish) by using any of the currently available third-party certification standards. Therefore, if more wholesalers and retailers want to buy sustainable seafood, they will not have sufficient supply.

47. In general, certification of sustainable fisheries and export-oriented fishery products seem overwhelming to fishers in developing countries. On the one hand, fishers and producers in developing countries still do not have sufficient information to make an informed decision about the convenience of certification. On the other hand, certification schemes are indeed complex and expensive, especially for artisanal and small-scale fisheries and those fisheries that harvest shared resources and highly migratory fish. Also, producers in developing countries usually do not have the technical and financial resources required to endure the certification process and sustain the certification afterwards. In addition, certified seafood does not necessarily command a price premium for the fishers, who are commonly the most vulnerable within the supply chains. Existing information indicate that producers benefit from improved market access but not from price premiums (FAO, 2014b; FAO, 2014c), as indicated before there is often little consumer awareness of certifications, which is a major reason why price premiums don't always follow certification. Finally, in developing countries, certification or ecolabelling of seafood products for domestic consumption has not yet been fully developed.

48. FIPs have been used to bridge the supply – demand gap for non-certified seafood. On the one hand, they allow interested buyers to purchase seafood from a fishery making verifiable improvements. On the other hand, implementing a FIP allows to address issues to comply with the ecolabelling and certification standards⁸. As a consequence, the number of FIPs has increased rapidly in the past years, from two in 2006 to 153 in 2019 (CEA, 2020). Several tools have been built to guide FIP development and to track their progress and performance (UNDP, 2021; SFP, 2021b). For example, FisheryProgress (fisheryprogress.org) provides a reporting platform and displays a progress rating to facilitate information to buyers. Until 28 March 2021, 154 active FIPs were listed in the FisheryProgress directory. Additionally, the MSC has an “in-transition to MSC” programme. Also, WWF offers an online training course on FIP development^[15] which is available in English and Spanish.

49. FIP development has been very successful in industrial fisheries and high value export-oriented commodities. However, their implementation in export-oriented seafood products from artisanal and small-scale fisheries from developing countries is still a major challenge (CEA, 2020; Samy-Kamal, 2021).

50. The main limitations to further increase the supply of sustainable seafood, from certified fisheries and FIPs, are:

§ Limited understanding on the actual market benefits from fisheries certification and ecolabelling for fisheries from developing countries.

§ For export-oriented seafood commodities, the cost of certification and sustaining it afterwards could be beyond the means of artisanal fishers in developing countries. For domestic-oriented seafood this cost will be nonviable.

§ The cost of implementing a FIP could be beyond the means of fishers and processors in developing countries. Consequently, FIP implementation, in not few cases, is still subsidised by NGOs and development projects. Some dedicated funds are available to aid during the initial phases, including the “Sustainable Fisheries Fund” of the Resources Legacy Fund or the “in-transition to MSC” programme for FIPs working towards MSC certification. SFP promotes industry-driven FIPs by which different actors within the supply chain cover the costs of improvements with the revenues of the fishery. However, this may not be feasible in low value commodities for export or domestic markets.

§ Limited dialogue and collaboration among public and private stakeholders of the value chain to collaboratively confront fisheries sustainability issues and aim towards fisheries improvements.

§ Despite the achieved progress, persists uncertainty about the quality of FIPs, the actual progress in fisheries improvement, and the traceability of the products.

§ Limited capacities for sustainable fisheries management (e.g., legal, technical, financial) and limited governmental support for fisheries improvement. Including, constraints to generate reliable fishery statistics and basic applied research that are the base for science-based decision making.

§ Insufficient leverage from major buyers to national fisheries authorities and RFMOs to promote sound fisheries management and stricter conservation and management measures.

Barrier 4. Limited information to support verifiable sourcing and fisheries improvement.

51. Information is crucial to facilitate changes along the value chain. But different stakeholders have different interests and specific requests of information. Despite the significant advances achieved in the past years, there is a major need for reliable information about the status of seafood stocks and the availability of supply from certified sources or verifiable FIPs. The main limitations are:

§ In developing countries, fishers and value chain members have limitations to access available information because of language and cultural barriers and limited internet access.

§ Numerous countries have limitations to generate reliable fisheries information like basic landing statistics. This shortcoming is more acute in the case of non-export oriented or low-value fisheries. In some cases, there are also constraints to assess the condition of the fish stocks.

§ Knowledge and learnings of current FIPs is seldom captured and shared for the benefit of interested parties worldwide. The GMC project prepared “lessons learned” documents of the FIPs that they supported.

Barrier 5. Difficulties for the involvement of artisanal and small-scale fishers in FIP development and governance dialogue.

52. In addition to the financial barrier to develop FIPs (paragraph 50), fishers face constraints like:

§ Weak formal and informal organisations and collaborative arrangements to confront common issues and to take advantage of opportunities. There are also problems of legitimate representation and gaps in leadership of fisherfolk organisations.

§ Inadequate communication and trust bonds among supply chain actors derived from the power dynamics and multiplicity of roles played by some layers within the value chain, which may lead, for example, to debts and price fixing.

§ Limited capacities to engage into democratic dialogue with government authorities and to submit position statements and sound management proposals.

§ Limited capacities and tools to collect and contribute information about the fishery (e.g., catch, traceability). Though there are important developments in the use of simple applications like electronic logbooks (successfully used in the pomada fishery in Ecuador) and seafood traceability systems (e.g., the TrazApp application used in the mahi mahi fishery in Peru).

Barrier 6. Social considerations are not mainstreamed into certification, rating systems and FIP monitoring schemes.

53. Current seafood sustainability standards mainly address environmental performance criteria (e.g., resource condition, effective fisheries management). However, in the past years there has been a trend to include social responsibility into fisheries certification and FIPs. A turning point emerged from the scandals in Thailand's industrial offshore fisheries (Hodal & Kelly, 2014; Hodal et al., 2014; Lawrence, 2014; ILO, 2014; Marschke & Vandergeest, 2016; Urbina, 2019) that prompted a rapid response from various seafood market stakeholders to develop tools to mainstream social considerations in their practice and to safeguard essential human rights and needs, especially in distant-water fishing fleets (Kittinger et al., 2017; Nakamura et al., 2018; Tickler et al., 2018). For example, SFP included a "Human Rights Risk Index" in their Metrix platform^[16]. Yet, beyond the most egregious forms of human rights abuses, the Sustainable Seafood Movement is still in its infancy when it comes to mainstream social and economic issues (including gender equality) as part of their conceptualisation of sustainability.

54. A major conceptual advance was the development, in 2017, of a global framework for social responsivity called the "Monterey Framework" (Kittinger et al., 2017; CI, 2019). This framework (a social responsibility scorecard), supported by the Conservation Alliance for Seafood Solutions, is based on three principles: (1) to protect human rights, dignity, and access to resources, (2) to ensure equality and equitable opportunity to benefit, and (3) to improve food, nutrition, and livelihood security. The Monterey Framework has been operationalised through a socially responsibility assessment tool to be applied in FIPs that report in FisheryProgress (CI, 2019a), yet it still far from becoming a useful tool to inform market dynamics. Furthermore, FisheryProgress adopted in 2021 a Human Rights and Social Responsibility Policy (FisheryProgress, 2021) which prompt FIP implementers to identify and reduce the risk of human and labour right abuses in their operations. All FIPs are required to sign the FisheryProgress Human Rights Code of Conduct.

55. The present challenge is the lack of systems (e.g., sustainability rating schemes widely used by the market) that can provide transparent, reliable, and accessible information about social responsibility performance in fisheries to support decision making to value chain businesses. For example, FishSource does not yet include social considerations in their scores. An issue to be taken into account is that the main concern so far has been human rights and labour violations. However, the social aspects of fisheries sustainability include other key aspects like women participation and empowerment, food security and social wellbeing of fishing communities.

2) the baseline scenario and any associated baseline projects

56. Without an intervention, seafood demand will continue to contribute to exert pressure along the value chains, contributing to increase fishing pressure and undesirable practices that will eventually aggravate the condition of fishery stocks and the loss of marine biodiversity and ecological services.

57. The condition of the fishery stocks in the target LMEs is deplorable. In 2018, 50% of CCLME fishery stocks were collapsed and overexploited. In PACA, this figure was higher, 56% (Figure 8). The present project proposes to refine the GMC model and to apply it to three fisheries in the CCLME and two fisheries in PACA (Table 1).

Table 1. Estimated annual catch (t) of the target fisheries in the CCLME and PACA large marine ecosystems. Overexploited fisheries are highlighted.

Countries	Small pelagic fish	Octopus	Cuttle fish	Shrimp	Large pelagic fish
Canary Current Large Marine Ecosystem					
Morocco					
Mauritania	2,525,492	30,540			
Senegal		3,791	4,099		
Pacific Central America Coastal Large Marine Ecosystem					
Guatemala					2,000
Panama				944	8,298
Ecuador				6,500	26,459
Total (t)	2,525,492	34,331	4,099	7,444	36,757

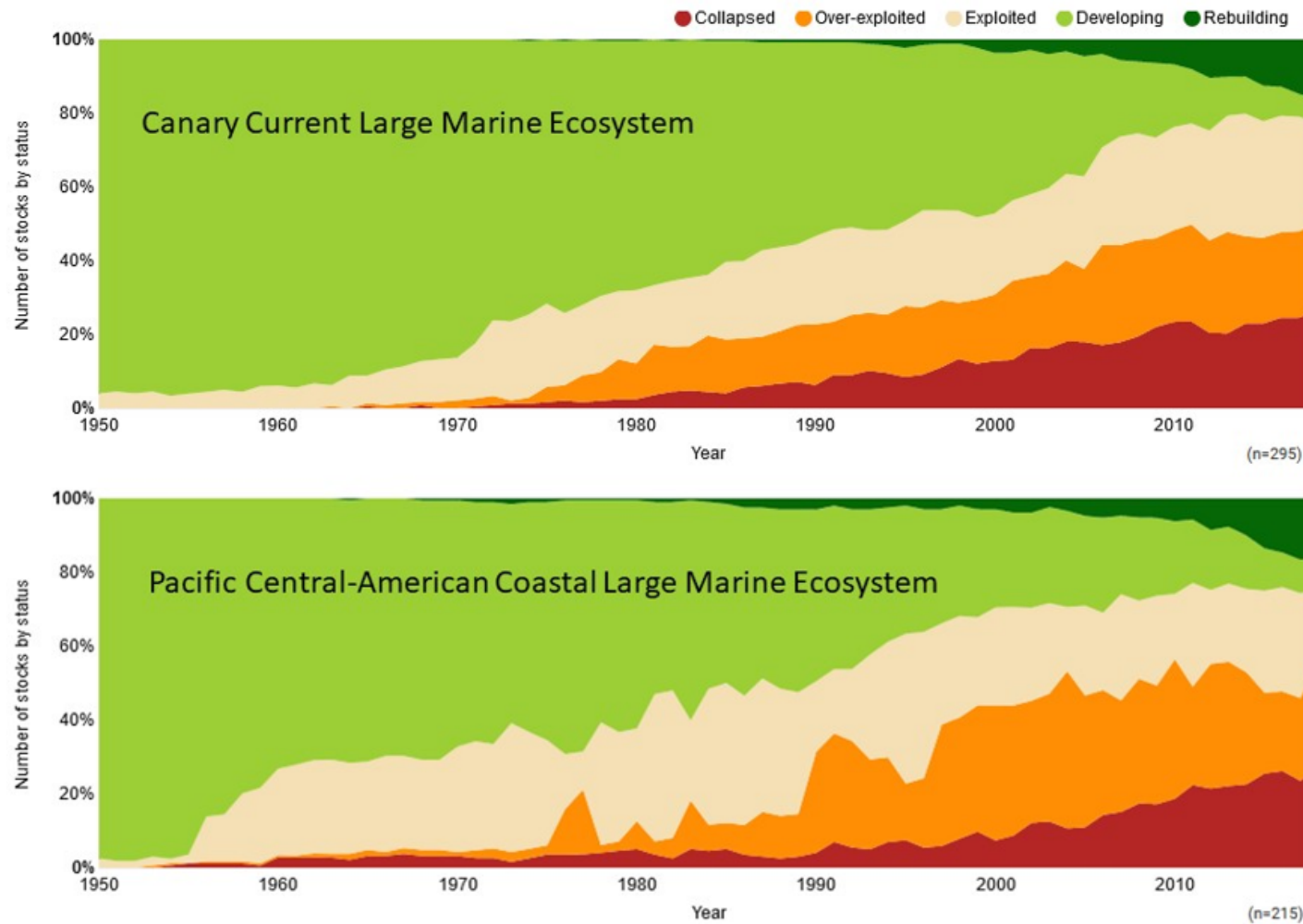


Figure 8. Stock status of fishery resources in the Canary Current and Pacific Central American Coastal Large Marine Ecosystems. Source: [SeaAroundUs](#).

Fisheries in the CCLME.

Northwest African small pelagic fishery.

58. This fishery operates mainly in Morocco, Mauritania and Senegal, the average annual catch (2014-2018) of these countries is about 951,387 t, 423,783 t and 233,104 t, respectively (FAO 2020a). The main captured species are the sardine (about 53% of the 2018 catch), the sardinellas (about 16%) and the Chub mackerels (about 11%) (Figure 9) (FAO 2020b). Small pelagic fish are a staple food across West Africa. Current public information indicates that the population of the round and flat sardinellas, the Atlantic horse mackerel, the Cunene horse mackerel and the bonga are overexploited.

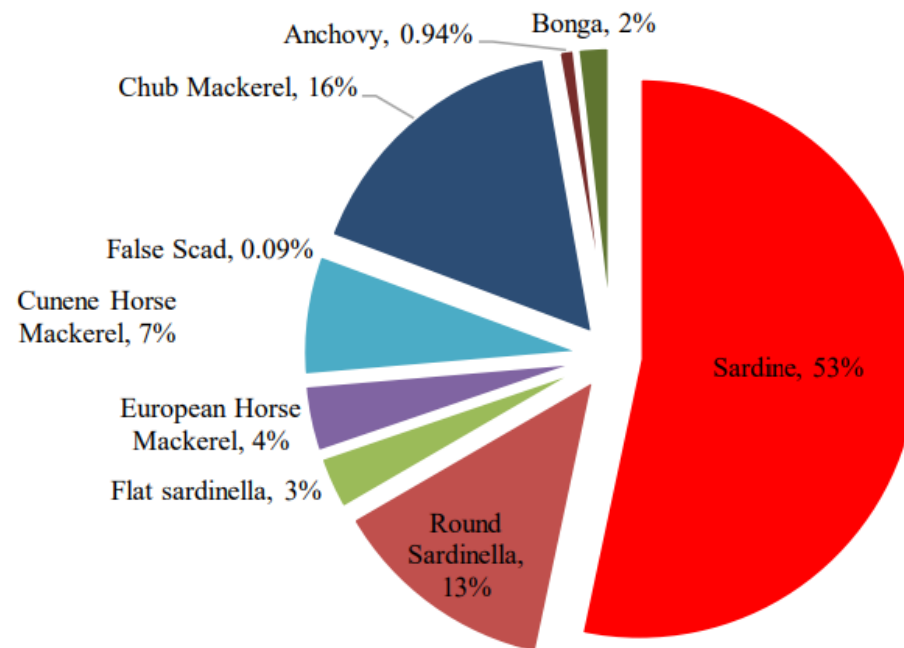


Figure 9. Percentage of each species in catches of small pelagic in the Northwest Africa region in 2018 (does not include Senegal catches).

Morocco, small pelagic fish are captured by four fleets:

§ A coastal fleet of 688 medium-sized coastal seiners that conserve the fish in plastic trays with ice. This fleet take most of the Moroccan catch (Table 2).

§ A refrigerated seawater fleet of 24 pelagic trawlers that store the catch in refrigerated tanks.

§ A fleet of overseas freezer vessels that operate under international fisheries agreements. Thirteen Russian trawlers are authorised to operate in the South Atlantic area beyond 15 miles offshore. They have an overall annual quota of 140,000 tonnes. Fourteen industrial vessels from the European Union (pelagic and semi-pelagic trawlers, and purse seiners) operate with an annual quota of 85,000 tonnes. These vessels do not land their catch in Morocco.

§ An artisanal fleet of about 1,300 – 1,600 small seiner vessels (ca., three tonnes gross tonnage, ≤7m length) that capture sardines for local consumption.

60. The Moroccan catch is mainly exported (frozen or canned) to the European Union, Brazil, the USA, and South Africa.

61. In Mauritania, small pelagic fish are captured by three fleets:

§ An artisanal fleet which, in 2018, consisted of 6,809 boats. Of these, 4,080 (64%) fiberglass boats, 1,959 (31%) wooden boats, as well as aluminium canoes and Latin sailing boats called 'lanches'. It has been estimated that, in 2020, the artisanal fleet was composed by 8,003 vessels. Artisanal fishing uses a wide variety of gears, notably mullet nets and trammel nets. It is important to note that the artisanal fishery targets a wide range of species and that small pelagic represent ca., 20%

of the catch.

§ A coastal fleet that is divided into three "segments" according to the length of the vessel: segment 1 (14.5-26 m), segment 2 (26-40 m) and segment 3 (40-60 m). Segment 1 are large canoes that use a spinning net (ca., 800-1000 m long with a 50m drop) or a felé-felé net used as a drift gillnet or seine net. There are about 650 vessels, ca., 400 are Senegalese boats authorised to fish in Mauritania. Segment 2 are 26 seiners, about 65% of them are Turkish vessels. Segment 3 are refrigerated seawater pelagic trawlers and purse seiners. In 2018 and 2019 there were 59 and 43 vessels respectively. About 30% are Mauritanian registered vessels and the rest are mainly Turkish and a few Chinese vessels.

§ An industrial fleet of pelagic freezer trawler longer than 60 m using onboard freezing facilities mainly from the European Union and Eastern European countries (e.g., Russia). The number of offshore pelagic boats fishing in Mauritanian waters has fluctuated around 70 vessels per year. In 2012, measures were implemented to keep pelagic trawlers away from the coast which led to a drop in the influx to the area, limiting the number deep-sea pelagic vessels to 50 boats per year on average.

62. The Mauritanian catch in 2018 was 695,353 tonnes (FAO 2020a). It is mainly used for the production of fishmeal and fish oil that is exported mostly to China (about 19% of all fishmeal and fish oil export value between 2014 and 2018), Turkey (15%), Norway (13%), and Denmark (11%). Mauritania also exports significant volumes of frozen small pelagic fish to neighbouring countries accounting for almost 90% of the exports by value between 2014 and 2018. Cote d'Ivoire (54% of 2014-2018 Mauritania's export value) is by far the main market for whole frozen small pelagic species from Mauritania. Nigeria (16%) is the second largest importer, followed by Cameroon (8%) and Ghana (6%).

63. In Senegal, artisanal canoes captured about 76% of the 192,621 t landings of small pelagic fish in 2018 (FAO 2020a). It is estimated that about 20,000 canoes operate, although only 11,000 have licences. The main fishing gears used are the purse seine and the encircling gillnet (filet maillant encerclant). In 2018, purse seines and encircling gillnets accounted for 55 – 64% and 7 – 13 % of the landings, respectively.

64. The industrial fleet fishery is made of Senegalese flagged or chartered trawlers and two small purse seiners of Dakar called "sardiniers". These fleets are not specialized and target a wide range of species. There are concerns about the entrance of new trawlers to the fishery (Anon, 2020).

63. A significant proportion of the Senegalese catch is either consumed (11%) or transformed (33%) locally. The balance (56%) is traded nationally and regionally. Most frozen fish is exported to Côte d'Ivoire, about 90% of 2014-2018 export value between 2014 and 2018.

64. Because of the critical condition of the small pelagic fish stocks, the creation of an RFMO has been strongly suggested by various groups. Following a recommendation by the Fisheries Ministers of the 22 COMHAFAT^[17] member countries in 2018, a study on the modalities for the creation of a new RFMO was prepared (Caillart et al., 2019). The parties are still analysing the proposed options.

Table 2. Captures of small pelagic fish in Morocco (INRH, 2019).

	Sardines	Mackerel	Horse mackerel	Sardinella	Anchovies	Total	% by fleet
Coastal Seiners	643,250	109,362	6,694	4,325	19,590	783,221	55%
RSW Trawlers	319,138	98,130	9,793	1,319	3	428,383	30%
Russian Vessels	71,726	45,722	7,452	105		125,005	9%
EU Vessels	23,241	23,844	6,255	108	14	53,462	4%
Canoes	6,099	3,478	384	3	8	9,972	0.7%
Other Vessels	40	20	11,830	0	14	11,904	0.8%
Total	1,063,494	280,556	42,408	5,860	19,629	1,411,947	

Octopus fishery.

67. Octopus are captured by industrial trawlers and canoes operating with bottom trawls, octopus pots or jigs. Industrial fishing was initiated in the early 1970s by Spain and Japan and continued afterwards by Korean and Chinese vessels. The extension of the jurisdiction of coastal states in the 1980s allowed African coastal states to reappropriate their marine resources. Today, the industrial companies of Morocco and Mauritania are the major players in the exploitation of octopus in the Central-East Atlantic.

68. The total average annual catch (2014-2018) of Morocco, Mauritania and Senegal was 89,509 t (FAO 2020a). The average annual catch of Morocco was 52,622 t (58.8%) and the catch of Mauritania and Senegal was, respectively, 30,540 t (34.1%) and 6,347 t (7.1%). Almost all Moroccan octopus is exported to Europe and Japan.

69. In Mauritania, octopus is captured by three fleets: (i) artisanal boats using pots, traps, and jigging, (ii) coastal vessels using pots and traps, and (iii) deep-sea bottom trawlers. Since 2012, foreign cephalopod vessels are not allowed, and the resource is reserved for local fishers.

§ The artisanal fleet, as indicated before, consisted of about 8,000 boats in 2020. The artisanal fleet produced about 65% of the 2018 landings (Figure 10). The fleet of pirogues has largely increased in the past decade. Official estimates indicate that the fleet increased from about 2,000 boats in 2012 to about 6,809 boats in 2018 (IMROP, 2019). The latest estimates by the Institut Mauritanien De Recherches Océanographiques Et De Pêches (IMROP) for 2019 and 2020 are 7,831 and 8,003 boats in 2019 and 2020, respectively.

§ The coastal fleet is formed by 18 coastal ice vessels.

§ The offshore fleet (deep-sea bottom trawlers) is formed by 136 vessels.

70. Octopus is exported mainly to the EU, Japan, and South Korea. The value of exports between 2014 and 2018 was USD1.5 billion.

71. In Senegal, octopus is captured by industrial and artisanal fleets. The industrial fleet is formed by bottom trawlers. The industrial fishery is made of Senegalese flagged or chartered trawlers. These fleets are not specialized, they target a wide range of species but capture significant quantities of cephalopods (octopus, cuttlefish, and squid). Octopus was about 10% of the landings between 1985 and 2007. In addition, shrimp trawlers (equipped with 40 mm mesh for deep-sea fishing and 50 mm for coastal fishing) capture significant quantities of octopus as bycatch. The artisanal fleet is formed mostly by motorized canoes using jigs.

72. Octopus is exported mainly to Spain, Italy, and Japan. The value of exports between 2014 and 2018 was USD250 million.

Cuttlefish fishery.

73. Cuttlefish is an important resource for Senegal. Trawlers began to fish cuttlefish in 1973. In 1975 traps and jigs were introduced in Senegal from Japan, and artisanal fishers started to use these gears to capture cuttlefish (Barry, 1982; Ferraris et al., 1998). Average catches for 2014-2018 were 4,650 tonnes. This species is mostly captured by the artisanal fishery of motorized canoes, using traps, jigs and small-scale lines and to a lesser extent by the industrial bottom trawlers. Unlike Mauritania and Morocco, Senegal does not have an industrial fishing fleet (cephalopod trawlers *sensu stricto*) targeting cuttlefish. This cephalopod is part of large range of bycatch species. It was about 9% of the 1985 – 2007 landings.

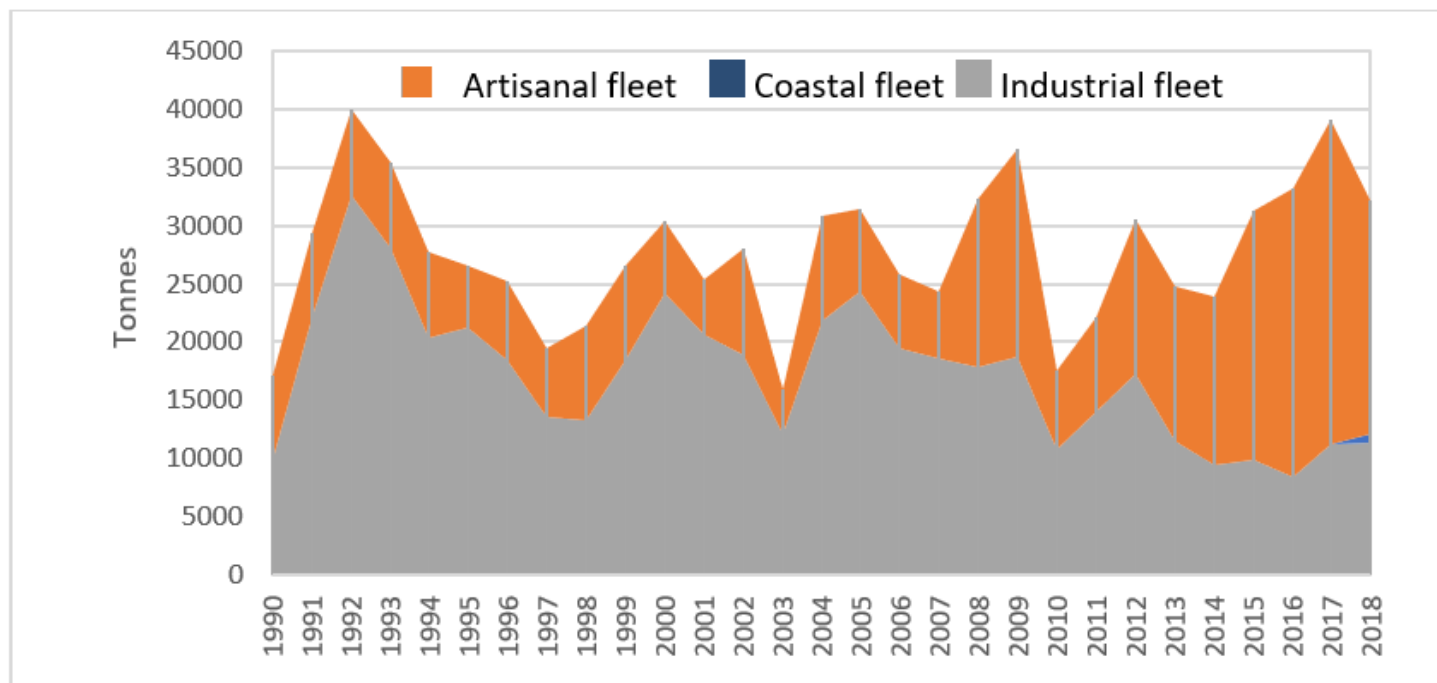


Figure 10. Octopus catches by the artisanal, coastal, and offshore fleets in Mauritania (IMROP, 2019).

Fisheries in PACA.

Shrimp fisheries.

74. The fisheries in Panama and Ecuador are vital for the livelihoods of coastal communities. The project will focus on the white shrimp fishery in Panama and the titi shrimp fishery in Ecuador.

75. In Panama the fishery targets the white shrimp (*Litopenaeus vannamei* and *L. occidentalis*). This fishery generates about USD 80 million per year and 40,000 jobs (Castrejón & Bucaram, 2020). Both artisanal and industrial fleets operate. The artisanal fleet is composed of about 4,600 fiberglass boats with outboard engines that capture shrimp using gillnets. They capture mainly *L. occidentalis* and the yellowleg shrimp (*Farfantepenaeus californiensis*). The industrial fleet is composed of less than 150 Florida-style trawlers that fish in coastal waters between 25 and 100 m depth (ARAP, 2016; Castrejón & Bucaram, 2020). The main target species are *L. vannamei*, *L. occidentalis* and *L. stylirostris*. Secondary species are the Pacific seabob (*Xiphopenaeus riveti*), the crystal shrimp (*Farfantepenaeus brevirostris*) and the kolibri shrimp (*Solenocera agazzizi*). The main fishing grounds are the Gulf of Panama and the Gulf of Chiriquí (Abrego, 2009). Currently, the fleet is old because, in 1986, the government prohibited replacing these vessels to reduce the fishing effort on shrimp. As a result of a deficient cold chain, shrimp do not meet export quality requirements (Castrejón & Bucaram, 2020). The main landing port for the industrial fleet is Vacamonte (ca., 85% of the catch).

76. Artisanal fishers sell the catch to traders or processing plants, to be sold in the domestic market. The industrial fleet concentrates on high-value species that are generally exported to international markets. In recent years, the local market has absorbed an increasing amount of these species of high commercial value due to (i) augmented interest of a part of the population and (ii) the demand from hotels and restaurants (ARAP, 2016).

77. The status of the shrimp stocks is unknown. There are limited fisheries monitoring and control, in particular of the artisanal fleet.

78. In Ecuador, the fishery targets the titi shrimp (*Protrachypenaeus precipua*), which locally known as “pomada”. The fishery has two components, an industrial trawl fishery and an artisanal bag fishery. In addition, artisanal boats called “changas” operate without control.

79. Artisanal fishers use “bolsos” (i.e., bag nets or stake nets) set on estuarine banks in the Gulf of Guayaquil. The operation of 1,014 bags belonging to 617 organized fishers (i.e., belonging to 25 fishing organisations) is authorised. The regulation assigns the fishers of each organization the fishing site and the number and type of bolsos allowed. An unquantified number of unauthorized bolsos are known to operate. The catch is sold in the domestic market and to packing plants mainly for export.

80. The industrial fleet operates since 1956. At that time there were five trawlers, currently there are 38 vessels. Most vessel owners belong to the “Primero de Mayo” association. The industrial fishery is well regulated and controlled. The fishing grounds are set, there is an annual quota of 500 t / trawler, it is mandatory the use of an electronic logbook, a vessel monitoring system, and turtle excluding devices. An onboard observer programme covers 20% of the fishing trips. The main landing port is Posorja. Traditionally, boat owners and traders peel the shrimp in artisanal and community shrimp peeling sites. It is estimated that about 1,200 women work on the peeling sites. Afterwards, the peeled shrimp is sold to packing plants that prepare peeled frozen shrimp for the domestic and export markets. Packing plants also source directly from fishing boats. About 75% of the landings of the trawlers is exported mainly to the USA and the European Union. A basic FIP for trawl fishery^[18] was initiated in June 2020, involving a packing company and two overseas importers. The FIP covers 40% of the landings of the trawl fleet.

81. There has been only one stock assessment based on the information of the trawl fishery for 2014 – 2018 (Chicaiza et al., 2019). It was found that the resource is overfished.

Artisanal longline fishery for large pelagic fish.

82. All PACA countries target large pelagic fish, mainly mahi mahi, tunas and billfishes. In Guatemala, Panama, and Ecuador this is a very important fishery in terms of value, employment and food security. Tuna, mahi mahi and billfish have a high value and are exported to the USA and Europe (CEDEPESCA, 2018; FAO, 2014). The Panamanian seafood exports have increased due to the production of fresh and frozen tuna and mahi mahi, causing an important evolution in terms of revenues and employment (ARAP, 2016). However, these fisheries include large volumes of sharks as bycatch. Currently, in Guatemala most of the landings are sharks, since the abundance of mahi mahi has diminished in the past years (FAO, 2018a). The main commercial shark species that are caught in these fisheries are listed in Appendix II of CITES, which requires that PACA countries implement measures to ensure that exports of shark products will not affect the survival of these species.

83. In Guatemala, there is an artisanal fleet of ca., 4,860 vessels (4.8 – 9.7 m length). However, not all these vessels address their effort to mahi mahi and sharks (IATTC, 2016). It is estimated that about 514 fiberglass boats capture sharks and mahi mahi and land in the main artisanal ports of San José, Buena Vista, and Iztapa (Ixquiac et al., 2016). LPF are also landed in Champerico, Monterrico, and Sipacate (IATTC, 2016).

84. There is an industrial longline fleet of 18 medium and five small vessels that captures mahi mahi and sharks. This fleet operates from Puerto Quetzal.

85. Shark landings, from the various fleets, were about 700 t in 2015. The 2010 - 2015 average was 480 t per year (Ixquiac et al., 2016). The three main species are the silky shark, the thresher shark (*Alopias pelagicus*) and the scalloped hammerhead shark (Ixquiac et al., 2016). However, nine shark species are registered in the landings.

86. Mahi mahi is Guatemala's third-largest seafood export product (FAO, 2018a). According to the Guatemalan Exporters Association (AGEXPORT), in 2017, Guatemala exported 8,000 t of mahi mahi representing USD5.38 million (AGEXPORT, 2018). The USA is the primary importer of mahi mahi from Guatemala. In Guatemala, sharks are part of the diet of its population, therefore, there is a large domestic demand (fresh and salted dried fish). Shark meat has a high value and is traded in the local market. For the external market, fins, shark skin and tails, and salted dried meat are the main products that are exported mainly to Hong Kong. Shark meat is also exported to Mexico.

87. In Panama, there is an artisanal fleet of ca., 8,700 vessels of which about 11% fish with longline. Landing of LPF is authorised only in the following ports: Agallito, Aguadulce, Armuelles, Boca de Parita, Caimito, Chorrillo, Coquira, Juan Díaz, Mensabé, Mutis, Pedregal, Puerto Panamá, Remedios y Puerto Vacamonte (Decreto 126, 2019). Longline fishing is regulated by the Executive Decree 126 of 2017 (modified by the Executive Decree 11 of 2019).

88. There is an industrial longline fleet composed of coastal and high-seas vessels. In 2010, according to ARAP's statistics, the longline fleet landed 4,800 t of yellowfin tuna and 1,800 t of mahi mahi. Most of the mahi mahi and yellowfin tuna catches are exported mainly to the USA frozen and fresh market (CEDEPESCA, 2018). Regarding sharks, FAO's statistics reported that Panama caught around 1,780 t of sharks in 2013 (IATTC, 2016). The main destination of Panama shark meat is the USA, while the fins are mainly exported to Taiwan (Ross Salazar et al., 2019). There is a regional FIP focused on the longline fishery of mahi mahi, tuna and swordfish in Costa Rica, Panama and Ecuador that is driven by the Costa Rican company MARTEC^[19].

89. In Ecuador, the artisanal fleet has two components: (i) an inshore fleet and (ii) an oceanic fleet. The inshore fleet is composed of about 7,000 fiberglass boats (7.5 – 9 m length) that fish within a two or three day range (maximum 200 nm). The main landing ports are Esmeraldas, Manta, Puerto Lopez, Santa Rosa and Anconcito. The oceanic fleet carries out an associated fishing operation that uses motherships (called “nodrizas”) (11.5 - 25.9 m in length, mainly with wooden hulls) that operate individually or in an associated manner (towing between one and 10 fiberglass boats). Operations last about 15 to 30 days and reach west beyond the Galapagos Islands (100°W) and south to about 15°S. This fleet operates from the port of Manta. There are 148 motherships registered. The main landing ports are Manta and Jaramijó.

90. There are two types of artisanal large pelagic fish fisheries depending on the target species and gear used: (i) a fishery for mahi mahi that uses a surface longline (called espinel fino) during warm months, and (ii) a fishery for tunas, billfishes and sharks that uses a deep water longline (called espinel grueso) mainly during the cold months. Their fishing areas are different. The operations for mahi mahi fishing concentrate on the coastal zone and in the oceanic area to the southwest (Martínez et al., 2015). In contrast, the operations with espinel grueso extend to the west, between the continental coast and the Galapagos archipelago and between Galapagos and the border with Costa Rica.

91. There is an industrial longline fleet. The national vessel registry list 103 industrial long-line vessels, some of these are motherships. The IATTC regional vessel register records 22 large-scale longline vessels (>24 m length). This fleet lands in Manta.

92. There are not up-to-date accurate landing statistics. In 2012, the oceanic fleet landed 22,360 t, 65.6% were LPF (46.6% of the total landing was mahi mahi) and 34.4% were sharks. LPF and sharks are sold in the domestic market (fresh and frozen) and exported mainly to the USA.

93. Shark meat has been traditionally sold in local markets and consumed in various forms, but using other names or sold as “billfish”. Shark capture is allowed as bycatch and its trade and export is regulated[20]. However, there is great concern regarding the large volume of shark landings and illegal trade of shark fins (Manrique, 2020; Carrere, 2021).

94. There are two national FIPs focused on LPF. A mahi mahi FIP led by a consortium of processing companies[21] and a swordfish FIP led by three fishing and processing companies[22]. It is known that the organisation of nodrizas owners is working to launch a FIP focused on mahi-mahi, tuna, and billfish fishery.

Baseline projects

95. The following projects are relevant for the present proposal:

§ Towards Joint Integrated, Ecosystem-based Management of the Pacific Central American Coastal Large Marine Ecosystem (PACA) (GEF ID 10076) under implementation by UNDP. This regional project will prepare the TDA and SAP for this large marine ecosystem.

§ Conservation and Sustainable Use of Biodiversity in Coastal Marine Production Landscapes (GEF ID 9804) under implementation by UNDP in Panama. This project focus on coastal and marine spatial planning.

§ Towards Sustainable Management of the Canary Current Large Marine Ecosystem (CCLME) – Initial Support to SAP Implementation (GEF ID 9940) under implementation by FAO. This is a regional medium size project, channelled through the Fishery Committee for the Eastern Central Atlantic (CECAF). This project focus on developing enabling conditions to implement the CCLME SAP.

§ Improved regional fisheries governance in western Africa (PESCAO) funded by the European Union and focused on improving regional fisheries governance in Western Africa through better coordination of national fisheries policies.

§ West Africa Coastal Areas Management Program (WACA) implemented by the World Bank in collaboration with a range of national and international partners. This programme focusses on strengthening resilience of coastal communities in 17 countries (including Mauritania and Senegal).

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

Alternative scenario

96 The contribution of the GEF will expedite advancing a worldwide transformation of the seafood market that will increase the demand and supply of sustainable marine commodities. This, in turn, will contribute to reduce pressure on fishery stocks and the marine environment therefore adding to conserve marine biodiversity. Simultaneously, social considerations will be mainstreamed into the value chains therefore adding to encourage socially responsible seafood and improving the

livelihoods of fishers’ families and communities.

97. The project will refine the GMC model by (i) including ecological and social considerations into the demand and supply sides of seafood value chains and (ii) adapting it to serve artisanal and small-scale fisheries and domestic-market focused value chains in developing countries. The improved GMC model will be field tested in industrial and artisanal fisheries with clear indications of overexploitation (Table 1).

98. The alternative scenario will be improved conditions of key fisheries in terms of (i) better collaboration of the value chain members to secure a sustainable fishery and socially responsible seafood products, (ii) strengthened governance and management arrangements, and (iii) reduction of bycatch and impacts on the marine environment. In addition, there will be a set of refined tools to be used to accelerate seafood market transformation in other scenarios. The improved GMC model will be available for worldwide application. Finally, it is expected that the work will contribute to advance the implementation of the CCLME SAP and the preparation of the PACA SAP.

Expected outcomes and project components

99. The project objective is to mainstream ecological and social aspects of sustainability to foster sustainable fisheries production and improved wellbeing of coastal communities in support of emerging Blue Economies in the Canary Current and the Pacific Central American Coastal Large Marine Ecosystems. The project is organised into three component, eight outcomes and 18 outputs to contribute to address the barriers that limit seafood market transformation (Table 3).

Table 3. Contribution of project outcomes to address the main barriers that limit the transformation of the seafood market.

Barriers that limit increasing the demand and supply of sustainable seafood products	Project contribution to advance seafood market transformation
Barrier 1. Limited demand from end users.	Indirect contribution. The project will not engage into the creation of consumer demand.
Barrier 2. Limited demand from wholesalers and retailers.	Outcome 1.1. Increased market demand for sustainable marine commodities in relevant international and domestic markets. Outcome 1.2. Increased market demand for socially responsible seafood commodities. Outcome 1.3. Increased market demand for seafood commodities from fisheries with reduced bycatch and environmental impact.
Barrier 3. Limited supply from sustainable sources.	Outcome 2.1. Increased supply of seafood products that demonstrate improved fisheries governance and stock health. Outcome 2.2. Increased supply of seafood products that demonstrate improved social responsibility. Outcome 2.3. Increased supply of seafood products that demonstrate reduced bycatch and environmental impact.
Barrier 4. Limited information to support verifiable sourcing and fisheries improvement.	Outcome 3.1. Reliable and verifiable information of sustainability performance of target marine commodities is available to supply chain partners and the public to drive their purchasing decisions.
Barrier 5. Difficulties for the involvement of artisanal and small-scale fishers in FIP development and governance dialogue.	Outcome 2.1. Increased supply of seafood products that demonstrate improved fisheries governance and stock health.
Barrier 6. Social considerations are not mainstreamed into certification, rating systems and FIP monitoring schemes.	Outcome 1.2. Increased market demand for socially responsible seafood commodities.

Component 1. Increase demand for sustainable seafood products from CCLME and PACA.

100. This component will focus on building demand for sustainable and socially responsible seafood products. The focus will be the target fisheries (Table 1), but the tools and processes to be developed will have worldwide application and impact. This component has three outcomes aimed at increasing market demand (in international and domestic markets) for (i) sustainable marine commodities, (ii) socially responsible seafood products, and (iii) seafood commodities with reduced

impact on the marine environment.

Outcome 1.1. Increased market demand for sustainable marine commodities in relevant international and domestic markets.

101. To address barrier 2, the project will work with major international buyers and value chain partners to strengthen and improve their sourcing policies and sustainability commitments or to develop comprehensive sustainable seafood sourcing systems. This will be done mainly through the SFP global supply roundtables for octopus and mahi mahi, the Global Roundtable on Marine Ingredients^[23] (run by SFP and IFFO^[24]) and direct work with major international buyers of products from the target fisheries (e.g., Walmart). A main tool will be SFP's Sustainable Seafood Policy Toolkit for Seafood Suppliers and Buyers (SFP, 2021a).

102. Complementarily, domestic and regional value chains will be mapped, and collaboration will be established with engaged major local buyers (e.g., retailers, hospitality, restaurant and catering sector) of key supply chains. Technical assistance will be provided to these stakeholders to develop and implement sustainable sourcing policies and sourcing commitments (e.g., sourcing from verifiable FIPs). A potential tool to foster the domestic and regional demand is the development of national or regional Responsible Sourcing Schemes, which are specific set of commitments adopted collectively by groups of businesses through pre-competitive collaborations (such as the Hong Kong Responsible Seafood Coalition) or by specific supply chains (such as the Better Seafood Philippines initiative).

Outcome 1.2. Increased market demand for socially responsible seafood commodities.

103. To address barriers 2 and 6, the project will develop a set of socially responsible seafood standards (expanding the "Monterey Framework") to be integrated into the FishSource rating system to be available worldwide. The development process will be participatory to include practical perspectives about the elements to be included and measured (e.g., sustainable livelihoods, gender equality, food security) and will be based on the expert network to be developed as part of outcome 2.2 (paragraph 110). Before adoption and launching, the new standards will be field tested in the scenarios of the target fisheries.

104. Information material, guidelines and tools will be prepared to facilitate that key players can mainstream social considerations into international and domestic supply chains. Through the global supply chain roundtables and direct work with major processors and buyers it will be motivated that these key players develop and adopt social responsibility policies, tools, and sourcing requirements.

Outcome 1.3. Increased market demand for seafood commodities from fisheries with reduced bycatch and environmental impact.

105. To address barrier 2, the project will sensitise major seafood suppliers and buyers about the need to reduce bycatch and the negative impacts on the marine environment (e.g., habitat destruction, ghost fishing). Guidance and technical assistance will be provided for the preparation, adoption and implementation of sourcing policies and specific individual or collaborative action like campaigns to prevent selling endangered species, interventions to strengthen seafood traceability, measures to enforce CITES regulations or sponsoring programmes to promote responsible seafood consumption. A major tool in this space is the development of targeted bycatch audits to major suppliers and buyers, so that they have an expanded knowledge of the ecosystem impacts of the fisheries they source from and can adjust their policies with a view reduce bycatch.

Component 2. Increase supply of sustainable seafood products from CCLME and PACA.

106. This component will focus on increasing the provision of sustainable seafood commodities from the target fisheries. The three outcomes aim to strengthen value chain collaboration to improve the management of the fishery resources while mainstreaming social responsibility and reducing bycatch and environmental impacts. This will be done by developing government led platforms and industry-led FIPs. 1. The three outcomes will contribute to address barrier 3. In addition, outcome 2.1 will also contribute to address barrier 5.

Outcome 2.1. Increased supply of seafood products that demonstrate improved fisheries governance and stock health.

107. To address barriers 3 and 5 the project will build supply of sustainable seafood products. To achieve this outcome, the strategy will be to work simultaneously on three fronts:

§ Develop government-led co-management platforms aimed at addressing the key issues of the fishery and improving fisheries governance and management (UNDP, 2020b). These are participatory dialogue platforms that bring together government, fishers and other relevant stakeholders (e.g. processors, traders, civil society or academia whenever relevant) to build joint action to improve the condition of the fisheries and build positive dialogue and trust among parties. The situation of the fishery will be analysed to identify the key issues and the root causes (a causal chain analysis) using as a guidance the tool developed by the GMC project (UNDP, 2021a). These platforms will deliver agreed upon management plans that will enable joint action to improve the sustainability of the stocks upon which the fishery depends upon. In addition, the project will promote that the management plans have (i) clear social and economic objectives and targets and (ii) strategies to address key environmental impacts.

Key action points along this process will be:

§ To mobilise contributions from all parties to achieve the common goals. These contributions can be, for example, provision of information from fishers, collaborative research between value chain members and research institutions, or direct funding of specific actions.

§ To promote public – private collaboration to develop applied research that generate solid peer-reviewed information to support decision making as a basis to develop management plans.

§ To promote engagement and constructive linkages with pertinent RFMOs and regional initiatives to address issues of shared stocks.

§ To mainstream social considerations. Building upon the experience of the GMC project, the causal chain analysis will include social and economic issues like (i) the role of women along the value chain and their participation in decision making, (ii) youth engagement along the value chain, (iii) labour conditions, and (iv) food security. The guidelines about social responsibility (outcome 2.2) will be used to mainstream social considerations in the development of the platforms and the action plans.

§ Develop or support FIPs⁷. A situation analysis will be prepared for each fishery to identify opportunities for the development of new FIPs or the strengthening of existing improvement initiatives. Key elements of the analysis will be: (i) the identification of opportunities for collaboration among value chain actors and particularly major buyers and (ii) the possible contribution of FIPs to mobilise action to strengthen fisheries governance and to put in practice actions from the dialogue platforms. A main challenge will be to adapt the FIP concepts and tools to artisanal fisheries aimed at domestic and regional markets, like small pelagic fish in Senegal, shrimps in Panama, and shark meat in Guatemala. The project will support FIP development with strong emphasis on (i) ensuring that the initiative is industry-led, (ii) that the costs are internalised into the value chain, (iii) that enough support is received from state research and management authorities, (iv) the inclusion of social considerations (paragraph 103), (v) transparent public reporting and (vi) effective engagement of small scale fishers in the improvement process. The tools developed by the GMC project will be used (SFP, 2019; SFP, 2021b; UNDP, 2021) and improved based on new global experience.

§ Support fishers and local supply chain partners to effectively engage into the sustainable marine commodities platforms and the FIPs. The project will provide support in various forms like facilitating multi-level dialogue meetings, implementing self-assessment analyses, technical assistance for organisational strengthening, preparation of position statements, cultural and learning cross-fertilization, applied training and the provision of information and tools (e.g., electronic logbooks, traceability apps). The aim will be that fishers and supply chain members can positively engage and contribute to: (i) the dialogue platforms, (ii) the development of FIPs, (iii) the regional processes regarding shared resources (e.g., IAATC for large pelagic fish, the governance platform for the CCLME SAP), and (iv) fisheries governance.

108. The intervention will be adapted to the situation of each target fishery. For example, the pomada shrimp fishery already has a management plan and a FIP, but no participatory dialogue process (Coello et al., 2021). In this case, the project will (i) focus on building a strong participatory dialogue platform to catalyse the implementation of the existing management plan and to strengthen fisheries governance, and (ii) collaborate with the FIP partners to strengthen its development and to mainstream social considerations.

109. For straddling stocks, such as large pelagic fish in PACA and small pelagic fish in the CCLME, the project will mobilise private sector stakeholders from the producer countries (producers and processors) as well as the key market actors (e.g., major suppliers and buyers in international markets) to become a force of change towards adequate regional governance of the fisheries they depend upon. A number of tools will be used, including regional pre-competitive collaboration between producers to encourage their fisheries authorities to support positive conservation and management measures at the RFMO level. An example of the latter is the case the Regional Committee of mahi Producers and Processors (COREMAHI), an organization of fishers and processors from producer countries who are working with their management authorities and the IATTC to improve the science and management of mahi mahi in the Eastern Pacific Ocean through collaborative research and through the adoption of voluntary practices and joint management measures.

Outcome 2.2. Increased supply of seafood products that demonstrate improved social responsibility.

110. To achieve this outcome the project will work on three fronts:

§ Build alliances and partnerships among international and local organisations and experts that work on seafood social responsibility. This will promote the exchange of ideas and experience and will generate collaborative work on the target fisheries. This process will also contribute to the development of outcome 1.2.

§ Based on up-to-date international knowledge and practice prepare two sets of practical guidelines: (i) to mainstream social considerations into international and domestic supply chains to be used by fishers, processors, buyers, retailers, and (ii) to mainstream social and economic considerations into fisheries governance to be used by fisheries authorities, value chain members and civil society.

§ Work with the members of the dialogue platforms and the value chain members of the target fisheries on the application of the guidelines. The project will support that, on each target fishery and FIP, social issues and impacts are identified to prepare mitigation actions. This will be a practical learning-driven process by which new insights and improvements are identified, tested, and applied. It is foreseen that, by the end of the project, the guidelines will be updated building upon practical experience.

Outcome 2.3. Increased supply of seafood products that demonstrate reduced bycatch and environmental impact.

111. To achieve this outcome the project will work on the following fronts:

§ Map key environmental impacts from the target fisheries. For example, capture of ETP species, habitat alteration by bottom trawling, ghost fishing.

§ Build alliances and partnerships among international and local organisations and experts that work on the key issues identified. This will facilitate access to experience and proven practices and will generate collaborative work on the issues of the target fisheries.

§ Work with the co-management platforms (i) to analyse the main environmental issues of the fishery, (ii) to understand national and international regulations (e.g., CITES, RFMO agreements) and compliance, (iii) to integrate mitigation strategies into the fisheries management plans (paragraph 107), and (iv) to mobilise collaborative action to implement mitigation measures.

§ Work with FIP implementers (i) to understand pertinent national and international regulations, (ii) to develop exercises to apply proven practices or to test new mitigation measures (e.g., gear modifications, modified fishing manoeuvres, handling and release of ETP species) and (iii) to incorporate actions and practices to reduce pertinent environmental impact.

§ The learning generated in the marine commodities platforms and FIPs will be documented and disseminated worldwide.

Component 3. Knowledge management.

112. This component will focus on increasing the provision of verifiable and accessible information to support decision making along the value chains and to capture and share project lessons.

Outcome 3.1. Reliable and verifiable information of sustainability performance of target marine commodities is available to supply chain partners and the public to drive their purchasing decisions.

113. To address barrier 4, the project will work on the following:

§ Improve or enhance existing open-access information platforms (e.g., FishSource, FisheryProgress) to facilitate the provision of independent, reliable, and easy to use information about the status of the fishery resources and the management of the fisheries. This will include the delivery of information about performance on dealing with social issues and main environmental impacts.

§ Develop new information platforms or adapt existing tools to fit the conditions of domestic and regional seafood markets. This will require to develop the full process of developing key indicators and gathering, processing, and presenting information to target audiences. The experience from the global platforms will be useful, but because they are focused on export-oriented fisheries, it will be necessary to develop new approaches to cope with data deficiencies (e.g., basic landing records) and local interests and conditions.

§ Develop guidance and tools to facilitate that value chain members, fisheries authorities and other interested parties can monitor and report progress. The project will support platform members and FIP implementers to apply these instruments.

§ Support that all research efforts and publications are peer-reviewed and promote that the key project results are published in scientific journals and communicated in plain language for the benefit of the public (e.g., newspaper articles, policy briefs, publications in social media).

§ Implement actions to exchange experience, practice, and learnings among key groups. For example, small pelagic fish value chain members of the participating countries.

Outcome 3.2. Lessons about mainstreaming ecological and social sustainability into seafood supply chains are available worldwide.

114. Project lessons and proven practice will be systematically documented. A website and electronic media (e.g., mail server, Twitter, Facebook) will be used to share and disseminate information. Complementarily, in-person meetings among stakeholders (e.g., workshops, exchange visits) will contribute to promote dialogue and the construction of social capital.

115. The information from the project will also be available through the national web platforms of project partners and the IW:LEARN portal. The project will facilitate the presentation of results and lessons in LME related meetings and the International Waters Conferences. At least 1% of the GEF project budget will be dedicated to the IW portfolio learning.

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

116. The present project is in line with GEF-7 programming directions. The project is consistent with objective 1 of the international waters focal area: “strengthening national Blue Economy opportunities to reduce threats to marine and coastal waters”, and its strategic action 1: “Catalyze sustainable fisheries management”. The project’s intention is to contribute to transform the seafood market to mobilise demand for sustainable seafood. There will be specific work with

10 target fisheries in six countries to improve collaborative fisheries governance and the condition of the stocks. In addition, improving fisheries management will indirectly contribute to strategic action 2 "sustaining healthy coastal and marine ecosystems"

117. The proposed project is also in line with the White Paper on a GEF COVID-19 Response Strategy (GEF/C.59/Inf.14), in particular with the following:

118. To address inequities and the need for resilient governance. The supply chain roundtables, government-led marine commodities platforms and industry-led FIPs will be mechanisms to engage public and private stakeholders into collaborative governance arrangements to improve the condition of fisheries resources.

119. To implement natural solutions. The project will contribute to reinforce, into national and international business stakeholders, the value of the ocean's food provision ecosystem service and the linkages between healthy marine ecosystems and fisheries-related employment, economy and livelihoods. Action to mitigate impacts on marine biodiversity will be mainstreamed through the purchase policies, fisheries management instruments and FIPs. The by-catch audits to be developed (outcome 1.3) will be a useful instrument to guide the development of mitigation measures along seafood value chains.

120. The project will directly contribute to Aichi biodiversity target 6[1] and to achieve the 2030 targets 5 and 9[2] of the draft post-2020 global biodiversity framework.

121. The resources from the GEF will support the efforts of the participating countries to achieve Goal 14 of the Sustainable Development Goals, in particular the following targets:

§ 14.4. By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

§ 14.7. By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.

§ 14.9. Provide access for small-scale artisanal fishers to marine resources and markets.

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

122. Without a profound change in the seafood market the fisheries will continue to be driven to overexploit the resources. This market transformation is beyond the means of individual countries and fishery value chains. It requires a comprehensive value chain intervention that spans along various countries and territories. Therefore, GEF support is needed to cover the incremental cost of (i) developing novel tools and methods, (ii) engaging major international players into responsible seafood sourcing, (iii) connecting local fishers and processors to sustainable seafood demand, and (iv) facilitating constructive dialogue and practical collaboration of value chain members through governance platforms and FIPs. The existing local initiatives are insufficient to address the complex dynamics of the global seafood market.

123. GEF support will contribute to further advance on market transformation and to address challenging issues like (i) mainstreaming sustainability considerations into domestic and regional markets, and (ii) incorporating social issues into seafood value chains. In addition, the GEF resources will support the countries to contribute to the Aichi biodiversity targets and to progress towards the Sustainable Development Goals, in particular goal 14.

124. This project will take advantage of and build on the results of the GMC project and current investments by several public and private entities in the six participating countries. For example, national investments in fisheries administration. The participating governments have agreed to provide the shown indicative co-financing for the present project. During the PPG phase these amounts will be further refined and other parties interested in supporting to the project will be identified and their contributions negotiated.

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

125. In the longer term, the project will contribute to transform the seafood market and to improve the condition of important fishery resources. Global benefits will be demonstrated through (i) improved fisheries governance and management of shared fishery resources in two large marine ecosystems, and (ii) enhanced protection of biodiversity of global importance like sharks and other ETP species. In addition, this project will add to GEF-7 target to move 3.5 million tonnes of globally overexploited marine fisheries moved to more sustainable levels.

126. The specific global environmental benefits will be:

127. To mainstream ecological and social responsibility considerations into the value chains of five fisheries that harvest about 2.6 million tonnes per year from the Canary Current and Pacific Central American Coastal large marine ecosystems (Table 1). These value chains include domestic, regional and international markets.

128. To move to more sustainable levels about 1,015,000 t per year harvested by the target fisheries. The expected contributions are: (i) 965,000 t from the Northwest African small pelagic fish fishery, (ii) 31,000 t from the Mauritanian octopus fishery, (iii) 1,000 t from the Panamanian shrimp fishery, and (iv) 18,000 t of ETP sharks from the longline fisheries of Ecuador, Guatemala and Panama.

129. To advance the implementation of the CCLME SAP and the preparation of the PACA SAP. The work with the small pelagic fish and octopus fisheries will contribute to achieve general objective 1 of the CCLME SAP. In the case of PACA, the work with the large pelagic fish and shrimp fisheries will provide inputs the TDA and the SAP. The project will motivate the engagement of project partners and value chain stakeholders into IW:LEARN.

7) innovation, sustainability and potential for scaling up.

Innovation

130. A key element of the proposed project will be to refine the GMC model and to adapt and test it to new conditions.

131. About refining the GMC model, the key elements of innovations are to include ecological and social considerations into the demand and supply sides of the seafood value chains. The main elements of innovation are:

132. To develop new tools to promote that seafood value chain partners incorporate sustainability and social responsibility into their sourcing decisions.

133. To develop and test a set of novel socially responsible seafood standards (outcome 1.2).

134. To refine, further develop and test tools to undertake bycatch audits in seafood value chains (outcome 1.3). The new tools will be tested with the large pelagic fish value chains that include ETP sharks (paragraphs 82 to 94). This will be an effort to apply market-based tools to mitigate bycatch.

135. About adapting the GMC model, it will be modified to serve artisanal and small-scale fisheries and domestic-market focused value chains in developing countries. The main elements of innovation are:

136. To adapt current knowledge and practice to develop a “kind of” verifiable FIPs in artisanal fisheries.

137. To develop tools and practice to promote market transformation into domestic and regional markets.

Sustainability

138. Environmental sustainability. The project will contribute to improve fisheries governance and the condition fishery resources in the CCLME and PACA. This is in line with existing national and regional policies in the area, including the CCLME SAP. There will be close coordination with the GEF PACA project to convey experience and learnings that could strengthen the preparation of the SAP.

139. Social sustainability. The project is based on a participatory approach and emphasizes the involvement of key stakeholders including women. It is expected that the project will foster social capital to sustain collaborative fisheries governance and improvements in the fisheries and value chains.

140. Institutional sustainability. The project is anchored on the national fisheries authorities of the participating countries. However, the project will also include participation of other public and private actors of the national institutional framework that are part of the seafood value chains as well as civil society organizations (national and international) related to marine conservation (e.g., ETP species) and responsible seafood consumption.

141. Financial sustainability. At the national level, this is guaranteed by the annual investment in fisheries administration of the participating countries. It is foreseen that post-project additional actions will be integrated into the institutional budgets in each country. In addition, it is foreseen that seafood value chain members will internalise costs like the provision of trustful information, key applied research, safeguarding ETP species, and the management of key social issues. The terminal evaluation of the GMC project found that this occurred in the interventions in Ecuador and Indonesia.

Scaling up

142. The project is highly replicable at the local, regional, and global levels. The improved GMC model and the novel tools will have immediate worldwide application in a range of contexts and other LMEs. For example, the new socially responsible seafood standards will be applied to all the fisheries covered by the FishSource rating system. Also, the methods for bycatch audit that will be tested with sharks can be expanded to cover other ETP species like sea turtles. The new “kind of” verifiable FIPs in artisanal fisheries can be adapted and further developed in other fisheries of developing countries. Finally, the learnings from dealing with market transformation in domestic markets of developing countries will be useful for further development and application in a wide range of scenarios. Also, the project incorporates specific actions to document and to disseminate worldwide the proven practices and learnings.

[1] Target 6. By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

[2] Target 5. Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health.

Target 9. Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through sustainable management of wild terrestrial, freshwater and marine species and protecting customary sustainable use by indigenous peoples and local communities.

1b. Project Map and Coordinates

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

Please refer to Annex A.

2. Stakeholders

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

Indigenous Peoples and Local Communities

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

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

143. During PIF formulation, short consultations have been carried out with the main public stakeholders that will be part of the project design (Table 4). Due to time and COVID travel limitations, the consultations were carried out remotely between February and April 2022. A simultaneous translation platform (English, Spanish and French) was used for carrying out different meetings with the fisheries authorities, GEF Operational Focal Points and UNDP country offices from the participating countries.

144. During the project preparation phase, as the participating countries have very diverse conditions regarding engagement and participation of stakeholders in fisheries decision making and governance, it will be determined in detail how these differences may affect stakeholders' involvement during project implementation. As an important aspect, the democratic conditions of the participating countries must be taken into account since the latest report of the Global State of Democracy Initiative (International IDEA, 2020), as of December 31, 2020, shows that the democratic conditions and participation of these countries are very diverse^[1]: (i) Morocco has a representative government and an hybrid regime, (ii) Mauritania has an authoritarian regime and has been deepening its processes of autocracy in recent years, (iii) Senegal, has a democratic regime and, like Guatemala, both have a weak-low democratic performance index, (iv) Panama and Ecuador, have democratic regimes with a mid-range level performance. These differences in the democratic conditions of each country must be valued to generate processes of inclusion and participation during the execution of the project. These aspects must be analysed in detail during the project preparation phase (PPG).

145. In this respect, during the PPG a stakeholder analysis of the target seafood chains will be prepared to understand their interest and influence in the project interventions and determine a mechanism and possibilities for their full involvement. A stakeholders engagement plan will integrate specific actions to tackle limitations and barriers for participation, with their pertinent budget for implementation.

146. Table 4 summarize the key stakeholders to be engaged into the project.

Table 4. Key stakeholders to be engaged. The stakeholders that participated in PIF development are highlighted in grey.

Country	Stakeholder	Role pertinent to the project	Expected engagement
Morocco	Ministry of Agriculture and Maritime Fisheries	National fisheries authority	Direct participation in the project preparation
	Ministry of Energy Transition and Sustainable Development	Regulate and conserve biodiversity and administer protected areas	To be consulted/engaged as pertinent

Senegal	Ministry of Fisheries and Maritime Economy	National fisheries authority	Direct participation in the project preparation
	Ministry of Environment and Sustainable Development	Regulate and maintain environmental quality. Regulate and conserve biodiversity and administer protected areas	To be consulted/engaged as pertinent
Mauritania	Ministry of Fisheries and Maritime Economy	National fisheries authority	Direct participation in the project preparation
	Ministry of Environment and Sustainable Development	Regulate and maintain environmental quality. Regulate and conserve biodiversity and administer protected areas	To be consulted/engaged as pertinent
	National Fishing Federation	Organization mechanism for country artisanal fishers' organizations	To be consulted/engaged as pertinent
Panama	Authority for Aquatic Resources of Panama (ARAP)	National fisheries authority. Coordinates fishing, aquaculture and coastal marine management	Direct participation in the project preparation
	Ministry of Environment of Panama	Regulate and maintain environmental quality. Regulate and conserve biodiversity and administer protected areas	To be consulted/engaged as pertinent
	National Association of the Panamanian Fishing Industry (ANDEL AIPP)	Organization mechanism for shrimp and small pelagic vessels owners, processing plants, and exporter.	To be consulted/engaged as pertinent
	Panamanian Association of the Tuna Industry (APIA)	Industrial fishing sector related to the target project fisheries	To be consulted/engaged as pertinent
	Association of Producers, Processors, and Exporters of Seafood (APPEXMAR).	Industrial fishing sector related to the target project fisheries	To be consulted/engaged as pertinent
		Private institutions that operate	

	National Council of Private Enterprise (CONEP)	ate with the target project fisheries in industrial fishing sector	To be consulted/engaged as pertinent
	Panamanian Association of Exporters (APEX)	Private institutions that operate with the target project fisheries in industrial fishing sector	To be consulted/engaged as pertinent
	International Fishing Foundation (FIPECSA)	Private institutions that operate with the target project fisheries in industrial fishing sector	To be consulted/engaged as pertinent
	National Federation of Artisanal Fisheries (FENAPESCA)	Artisanal fishing Federation Coordination	To be consulted/engaged as pertinent
	National Coordinator of Artisanal and Similar Fishermen (CONAPAS)	Artisanal fishing Federation Coordination	To be consulted/engaged as pertinent
Guatemala	Ministry of Agriculture, Livestock and Food (MAGA)	National fisheries authority	Direct participation in the project preparation
	Office of Fishing and Aquaculture Norms (DIPESCA)	Fishing management implementing agency	Direct participation in the project preparation
	Ministry of Environment and Natural Resources (MARN)	Development of policies for conservation fishing resources	To be consulted/engaged as pertinent
	Protected Areas National Council (CONAP)	Fishing regulations in Protected Areas	To be consulted/engaged as pertinent
	National Federation of Artisanal Fishers (FENAPESCA)	Organization mechanism for country artisanal fishers' organizations	To be consulted/engaged as pertinent
	Guatemalan Association of Exporters (AGEXPORT)	Private sector developing products and services for export	To be consulted/engaged as pertinent
	Undersecretary of Fishery Resources	National fisheries authority	Direct participation in the project preparation
		Regulate and promote produ	

Ecuador	Ministry of Production, Foreign Trade, Investments and Fisheries	regulate and promote productive development, integral competitiveness, development of value chains and investments.	Direct participation in the project preparation
	Ministry of Environment, Water and Ecological Transition	Manage biodiversity and protected areas	To be consulted/engaged as pertinent
Regional Level	Central American Organization of the Fisheries and Aquaculture Sector (OSPESCA)	Regional Fisheries regulations / Facilitate intergovernmental cooperation in Central America	To be consulted/engaged as pertinent
	Inter-American Tropical Tuna Commission	Tuna RFMO monitor large pelagic fish and shark populations	To be consulted/engaged as pertinent
	Fishery Committee for the Eastern Central Atlantic (CECAF).	Promote sustainable use of fishery resources	To be consulted/engaged as pertinent

[1] For International IDEA to be classified as a democracy, a country needs to have popular control over public decision-making, political equality, and minimally competitive multiparty elections. As for, hybrid regime, the country combines elements of authoritarianism with democracy, generally adopting the formal characteristics of democracy while allowing little competition for power with weak respect for basic political and civil rights. For authoritarian regimes, a country includes several elements of non-democracy being one-party rule, military regimes, authoritarian monarchies and failed states or war-torn, conflict-ravaged countries without a centralized use of force.

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).

147. There are strong differences in women equality conditions in the participating countries. In the case of Latin America, all countries have in their constitutions extensive aspects related to non-discrimination due to sex, race, or gender, and in all cases, they have regulations, plans and national strategies to promote gender equality. In addition, Panama, Ecuador and Guatemala have signed the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) of 1981.

148. The African participating countries (Senegal, Morocco, and Mauritania), also have constitutional mandates to assure that all citizens, without distinction of races, sex or social condition, are equal before the law. The three countries have also signed the CEDAW. However, Mauritania (signed in 2001) and Morocco (signed in 1993), signed the CEDAW with reservations in parts which are contrary to Islamic Sharia. In the case of Senegal (signed in 1981), until this year has received eight periodic reports reviews from the CEDAW Committee asking to develop measures to tackle and generate actions to prevent female genital mutilation and women illiteracy.

149. The Gender Inequality Index (GII)^[1] rank, which measures inequality in aspects of reproductive health, empowerment, and economic status, are similar between Ecuador and Panama (86 and 94 respectively). In the case of Guatemala, the GI rank is 119, and it is closer to the African participating countries than to the ones of Latin America. In the case of Guatemala, the GI rank is 119, and it is closer to the African participating countries than to the ones of Latin America. In the case of the three Latin American countries, the adolescent birth rates (births per 1,000 women) cause concern: Ecuador 79.3 and Panama 81.8, and Guatemala 70.9. But in the case of Guatemala, it also has a very low range of women in labour participation with a 39.9% compared to 86.3% of men. Mauritania and Senegal are ranked very low in the GI (151 and 130, respectively) showing important concerns regarding the high maternal mortality ratio (766 and 315 deaths per 100,000 live births, respectively) and the very low percentages of women with at least some secondary education (12.7% and 10.3%, respectively), the latter being a very relevant and interconnected factor with the persistence of child labour in these countries (Dey de Pryck, 2013). Morocco has better indices than the other participating countries of the region with a GI rank of 111. However, the three African countries have very low percentage of women participation in the labour force: Mauritania 28.9% women vs 63% of men; Senegal 35% vs 57.5%; and Morocco 21.5% vs 70.1%.

150. Historically, fishing has been assumed as a male domain and for decades, the policy agenda has given priority to the production sphere, which neglects the processing and marketing activities, where women represent approximately 47% of the 120 million people engaged in capture fisheries (Dey de Pryck, 2013). Additional barriers such as poverty, lack of sex-disaggregated data and information, cultural aspects, and a gender-blind policy, have an important impact on the economic conditions for women and poor men who live from fisheries, but these conditions also affect the generation of economic losses in the fisheries sector. These barriers, in addition to the cultural context where the project is developed, have different conditions for each region and their incidence is different in each fishery. Particularly, it is understood that women in Mauritania, Senegal and Morocco face greater gender and cultural barriers for participation, engagement, and empowerment than those faced by women in the three Latin America countries.

151. Taking into account this wide range of aspects, during the PPG, the project will prepare a gender analysis to understand the gender specific conditions related to women barriers for participation on each target seafood supply chain and will develop an action plan for project-gender mainstreaming and for tackling the identified barriers. In particular, the gender analysis will pay attention to gender equality and cultural differences in each country, starting from a deep cause analysis of the situation of women in each of the target fisheries. In addition, the learnings, and contributions of the GMC project and its gender strategy (UNDP, 2020c), will be used to advance in supporting women participation in decision-making in fisheries.

152. The gender action plan will propose affirmative actions for improving women participation and access to decision making, as well as influence on improving their access to the benefits of the project (e.g., engagement into the marine commodities platforms and FIPs). The plan will include measurable indicators related to gender equality and women's empowerment, and for a proper implementation, the pertinent budget will be prepared.

153. As part of the Action Plan, the project will:

§ Promote the integration of gender equality as a principle for socially responsible seafood standards, policies, and commitments (project Component 1).

§ Integrate women participation, as much as possible, in government led platforms, FIPs, capacity building actions, and fisheries governance processes (project Component 2).

Capture and share lessons and proven practices about mainstreaming gender issues in fisheries governance and seafood supply chains (project Component 3).

[1] <https://hdr.undp.org/en/content/gender-inequality-index-gii>

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; Yes

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.

154. Private sector engagement is crucial for the present project. As explained before, the seafood supply chains are constituted by a range of fishers, fishing vessel owners and operators, processors, traders and retailers based on local and overseas locations (Figure 7). Also, the core of seafood market transformation is to incentivise value chain members to demand sustainable seafood products and therefore motivate changes in the fisheries and the management of the marine resources. Therefore, the project will directly work with the range of members of the target value chains, including fishers, processors, buyers, and sellers. The project will directly engage the members of three global supply chain roundtables: mahi mahi, octopus, and marine ingredients (see <https://sustainablefish.org/how-we-work/mobilize-the-seafood-supply-chain/>). The local partners will be identified during the PPG. In Guatemala, it is foreseen that Walmart may well be a key partner.

5. Risks to Achieving Project Objectives

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)

155. The main risks that the project might face are presented in the table below:

Risk	Level	Mitigation measure
1. Changes in political directions and priorities of fisheries authorities. [Political]	High	It is common to have changes of fisheries authorities (e.g., ministers, undersecretaries). During PPG, clear communication channels will be maintained with the pertinent authorities. If changes occur, the new authorities will be immediately informed of the project situation.
2. Major domestic buyers unwilling to mainstream sustainability considerations into their purchasing decisions. [Strategic]	High	Prepare a detailed analyses of the target value chains and their stakeholders. This will serve to identify barriers to mainstream sustainability on the supply and demand sides and opportunities or triggers that could be used to motivate market change.
3. Disinterest of key stakeholders in participating in dialogue platforms and FIPs. [Strategic]	Medium	Prepare a stakeholder analysis of each value chain to identify interests, concerns and limitations.
4. Project implementation delays caused by a number of situations like travel restrictions, increased risk of infection by the emergence of new COVID-19 variants, and increased cost of goods and services. [Operational]	Medium	Use, as much as possible, technological communication tools (e.g., videoconference, phone calls). Undertake, as necessary, budget reviews to assign resources for implementation of mitigation measures. The cost management should periodically review the unforeseen increase of goods and services.
5. Difficulty to materialise the project co-financing because the countries focus budgets on economic pandemic r	Medium	Maintain fluid communication with key project partners to identify difficulties in contributing co-financing. Seek opportunities for collaboration with other ongoing projects and initiatives to find contributions th

ecoverly actions. [Financial]		at can add to project co-financing.
6. Because of the COVID-19 pandemic some stakeholders may have limitations to participate in project activities. [Safety and Security]	Medium	Use, as much as possible, technological communication tools (e.g., videoconference, phone calls). Apply health and safety measures in face-to-face or group meetings.
7. Impacts of El Niño Southern Oscillation (ENSO) and Pacific Decadal Oscillation (PDO). [Natural]	Medium	ENSO and PDO are natural climate fluctuations that have direct impact on the biodiversity and society of the eastern Pacific Ocean. By 10 March 2022 a La Niña event was occurring, with about 53% chance to continue during to continue until the Northern Hemisphere Summer. During PPG and project implementation climate conditions will be monitored, mainly through the climate prediction centre of the National Oceanic & Atmospheric Administration (NOAA).
8. Climate change		Climate change might result in stronger and more frequent climate fluctuations. During PPG and project implementation the potential impacts of climate change will be always considered into planning and decision making.

156. The following social and environmental risks associated to the project were identified:

Description	Impact and Likelihood	Description of assessment and management measures
Risk 1: In Mauritania and Senegal, fisheries authorities and research institutions have limited capacities to support the development and application of fisheries management measures, which may limit or delay the development of the government-led fisheries platforms and the industry-led fisheries improvement projects. [Social & Environmental]	I = 3 L = 4 Moderate	During the PPG phase, specific actions will be developed to confront this risk as part of the project's design and in the safeguards instrument as determined necessary for SES compliance. This risk and others (as appropriate) will be covered by an ESMF prepared during the PPG, if confirmed as a risk.

		during the PPG, it is confirmed as a requirement for SES compliance.
Risk 2: Women may face cultural and gender barriers to participate in the fisheries governance and fisheries improvement processes promoted by the project. [Social & Environmental]	I = 3 L = 3 Moderate	During the PPG phase, the project will prepare a Gender Analysis to understand the specific conditions related to women participation on each target seafood supply chains, and will develop an Action Plan for gender mainstreaming to address specific barriers. In addition, to guarantee proper implementation, specific allocation for affirmative actions will be included in the project budget.
Risk 3: Potential exclusion of stakeholders from fully participating in decisions related to fisheries governance and fisheries improvement processes that may affect them. [Social & Environmental]	I = 3 L = 4 Moderate	<p>During the PPG phase, a detailed stakeholder analysis of each value chain will identify specific engagement and participation barriers on each country. A comprehensive Stakeholders Engagement Plan will be prepared to foster the involvement of stakeholders' groups along seafood chains.</p> <p>Additionally, the project includes specific actions to facilitate fishers' engagement into FIPs and the multi-stakeholder platforms (output 2.1.3). During the PPG this output will be analysed in detail to ensure that possible exclusion risks are minimised.</p>
Risk 4: The project may inadvertently contribute to worsen the condition of the fishery resources. [Social & Environmental]	I = 3 L = 2 Moderate	As a precautionary measure it is considered that the project may generate unforeseen changes in the scenario that maintain the poor condition of the fishery resources. Therefore, this risk will be further analysed during the PPG.

Risk 5: The target fishery resources are affected by climate variability and climate change. [Social & Environmental]	I = 3 L = 3 Moderate	During the PPG the potential effects of climate change on the target value chains will be assessed and mitigation actions will be mainstreamed into the project interventions (e.g., fisheries platforms).
Risk 6: Management measures to address overfishing may result in access restrictions to fishers, causing economic displacement. [Social & Environmental]	I = 4 L = 3 Substantial	The possible impacts of probable fisheries management measures will be assessed during the PPG. This will allow to identify if livelihood action plans or other management or assessment plans will be needed. In addition, the project will explicitly indicate that the management measures to reduce overfishing must include actions to mitigate possible economic and social impacts.
Risk 7: Indigenous peoples natural resources, territories or traditional livelihoods may be affected (positively or negatively) by the implementation of measures to improve the management of target fisheries in the participating countries. [Social & Environmental]	I = 4 L = 3 Substantial	During PPG there will be a detailed analysis to assess if there are indigenous territories or resources in the project intervention area, and whether the activities of the project will impact them, positively or negatively. Then, correspondent measures or management plans will be developed.
Risk 8: Mainstreaming social considerations into the seafood supply chain may inadvertently generate negative impacts on the working conditions of fishers and workers of the processing plants or perpetuate existing violations. [Social & Environmental]	I = 3 L = 3 Moderate	During the PPG, a more in-depth analysis will be prepared to identify possible risks derived from strengthening the demand for socially responsible seafood products on the target fishery and supply chains.
Risk 9: Tightening market requirements for reduced capture of endangered, threatened and protected species may generate unforeseen impacts on the trading	I = 3 L = 2 Moderate	The project will aim that major buyers demand that the produce come from fisheries with reduced bycatch. The possible direct and indirect impact

and use of the bycatch in the target value chains. [Social & Environmental]		s of this market measure will be assessed during the PPG. In addition, pertinent mitigation measures will be developed to prevent negative impacts on ETP species captured as bycatch.
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COVID-19 opportunities and challenges for project implementation.

Introduction

The COVID-19 viral pandemic is an unprecedented global phenomenon. The pandemic has had severe impacts in human livelihoods and wellbeing. The pandemic generated global health and socioeconomic crises. There was a severe health crisis and a disruption of the global economy that still is affecting the whole world. It disrupted production systems and supply chains and produced societal impacts, exacerbating inequalities and increasing poverty (Alon et al., 2020; Sumner et al., 2020; Torales et al., 2020; Van Lancker & Parolin, 2020). Sumner et al. (2020) estimated that the pandemic would increase global poverty by as much as half a billion people.

The World Health Organisation forecasts that the pandemic's acute phase could end during 2022 (Collins, 2021; Anon, 2022). However, COVID-19 will still be a public health challenge in the years to come (Shaman & Galanti, 2020; Katzourakis, 2022; Markov et al., 2022; Mukaigawara et al., 2022), and there is a high risk that new emerging disease events will develop in the near future (IPBES, 2020; Poorolajal, 2021).

In the scope of the project, the pandemic strongly affected the economies and societies of five six participating countries (ADB, 2021; ECA, 2021; CEPAL, 2022). For example, Ecuadorian GDP contracted about 9% and home income declined about 14% in Ecuador (CEPAL, 2022). In Morocco, real GDP contracted by -5.9% in 2020 and unemployment rose to 12.7% in 2020 (ABD, 2021). All countries have experienced several infection waves and impacts in their fisheries sector (FAO & ECLAC, 2020; ADB, 2021a).

The GEF is contributing to respond to this crisis and to mitigate the impacts of possible future pandemics by mainstreaming specific strategic actions into project design and implementation. The purpose of this intervention is to assist the countries to advance towards green recovery^[1] and to build resilience strategies.

The present document outlines a preliminary scoping of COVID-19 related challenges and opportunities for the project "Mainstreaming Sustainable Marine Fisheries Value Chains into the Blue Economy of the Canary Current and the Pacific Central American Coastal Large Marine Ecosystems". It also details project preliminary mitigation actions and contributions to advance towards green recovery.

1. Main impacts of COVID

The main impacts in the project area were:

- (i) A health crisis caused by widespread of the virus and limited capacity of the health system to attend the large number of infected persons in particular those with acute respiratory distress.
- (ii) The suspension of economic activities impacted tourism, fisheries, commerce, transportation, restaurants, health, education, and the provision of services in general, affecting all people employed and dependent on these economic activities, however, in some cases, the situation of populations with fewer resources worsened.
- (iii) Government expenditures made to meet health urgent needs (above budget allocations) generated a significant contraction of the economies.

2. Project contributions to confront the main impacts of COVID

The project will contribute in the following ways to recover from the impacts of the pandemic and to improve sustainability and resilience:

§ The project will mainstream sustainability and social responsibility considerations along the value chains of the target fisheries. This will add to improve gender equality throughout the fisheries value chain.

§ The government led national co-management platforms and the FIPs will strengthen fisheries governance and promote sustainable fisheries management.

§ The new tools to undertake bycatch audits in seafood value chains will contribute to mitigate negative impacts on the marine environment and food chains.

§ Women specific needs in the target value chains will be identified to enable them to participate in the economic recovery while meeting the needs of their families.

3. Main risks during project implementation

The three main project risk identified:

[1] Project implementation delays caused by a number of situations like travel restrictions, increased risk of infection by the emergence of new COVID-19 variants, and increased cost of goods and services.

To mitigate project implementation delays the following actions will be applied:

Challenge	Response
Risk of infection during in-person work.	<ul style="list-style-type: none"> - Prepare and implement guidelines for in-person meetings/interaction under COVID-19 scenario based on advice from the World Health Organization and the corresponding national authorities from the two countries. - During the implementation of the project, design alternatives to implement virtual meetings whenever it is not possible to make in-person meetings, and apply biosafety protocols for in person meetings/interaction (social distancing, masks, cleaninghands as regular as possible, use of hand sanitizer) - Undertake, as necessary, budget reviews to assign resources for implementation of biosecurity protocols and strengthening capabilities for web-based collaboration.
Travel restrictions (e.g., lockdowns, travel bans) limit in-person meetings and field work.	<ul style="list-style-type: none"> - Use electronic tools to support remote work and interactions with project partners and stakeholders.
Limited capacity and experience for remote work and online interactions.	<ul style="list-style-type: none"> - The project will use, as much as possible, the virtual communication means that local stakeholders prefer (e.g., Zoom, WhatsApp video calls). - The project personnel must design the activities using appropriate methodologies to efficiently take advantage of virtual meetings and communications (e.g., maximum concentration times, effectiveness of resources, friendly messages, and presentations). - When possible, hybrid meetings will be used.
Limited / unreliable internet access limit remote collaborative work and stakeholder engagement particularly in rural areas.	<ul style="list-style-type: none"> - Consider actions to facilitate internet access in areas where there are difficulties and provide support technological opportunities to make participation processes effective.
Increased cost of goods and services may occur.	<ul style="list-style-type: none"> - Undertake, as necessary, budget reviews to assign resources for implementation of biosecurity protocols and strengthening capabilities for web-based collaboration, as well as facilitate internet access providing technological support. <p>The cost management should periodically review the unforeseen increase of goods and services.</p>

[2] Difficulty to materialise the project co-financing because the country focuses budget to economic pandemic recovery actions.

To mitigate this risk the following actions will be applied:

§ Maintain fluid communication with project partners to identify difficulties in materializing co-financing.

§ Encourage project partners to maintain as much as possible their contributions to the project.

§ Seek opportunities of collaboration with national post-pandemic socioeconomic recovery strategies, and other projects and initiatives to obtain contributions that can add to project co-financing.

[3] Due to the potential economic difficulties derived from the pandemic, some stakeholders may have limitations to get involved as well as not much time may be devoted to project activities, and their interest may decrease.

To mitigate this risk the following actions will be applied:

§ Maintain fluid communication with project partners to identify difficulties in local areas.

§ Encourage local project stakeholders to actively participate due to the future environmental and social benefits derived from the project.

§ Develop communication actions based on the stakeholder engagement plan where interest, involvement and participation in the project can be attracted and maintained.

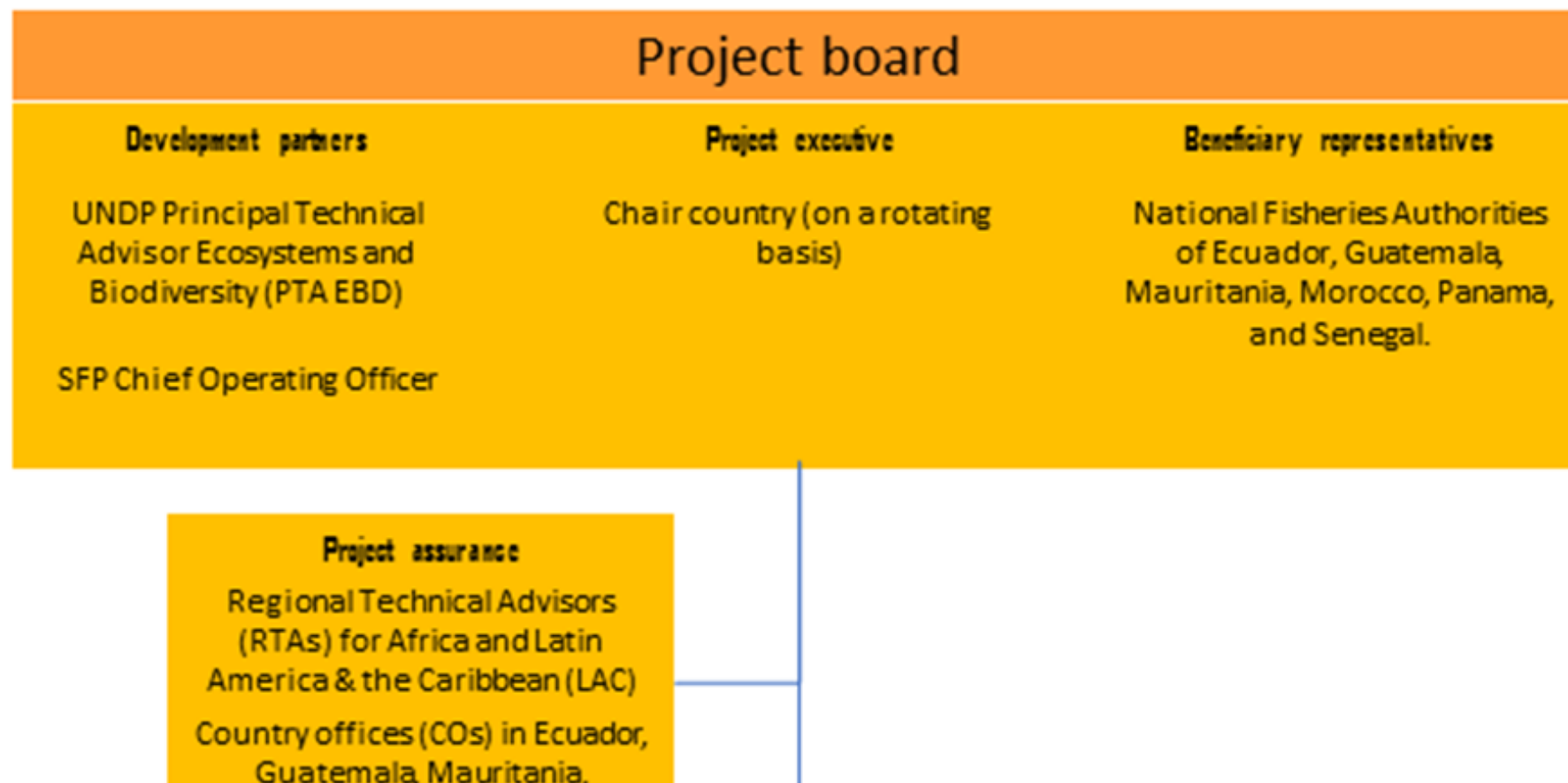
[1] For the GEF green recovery strategies and actions include investments in sustainable, inclusive, resilient, low-carbon, low-polluting, nature positive and circular economy-based pathway for society to withstand future shocks coming from climate change, natural and manmade disasters, and other global challenges.

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.

157. The detailed institutional arrangements will be developed during the PPG phase. However, it is foreseen that there will be a steering committee (Project Board) and an Implementing Partner (also called Executing Agency) that will execute the project (Figure 11). The Project Board will include the national fisheries authorities of the participating countries, UNDP and SFP. UNDP will implement its project assurance role through: (i) the two Regional Technical Advisors that cover the Africa and America and the Caribbean regions and (ii) the country offices in the six countries. It is probable that the project will have a global project management unit and three subunits to work on (i) Mauritania & Senegal, (ii) Morocco and (iii) Ecuador, Guatemala and Panama.

Project governance arrangements



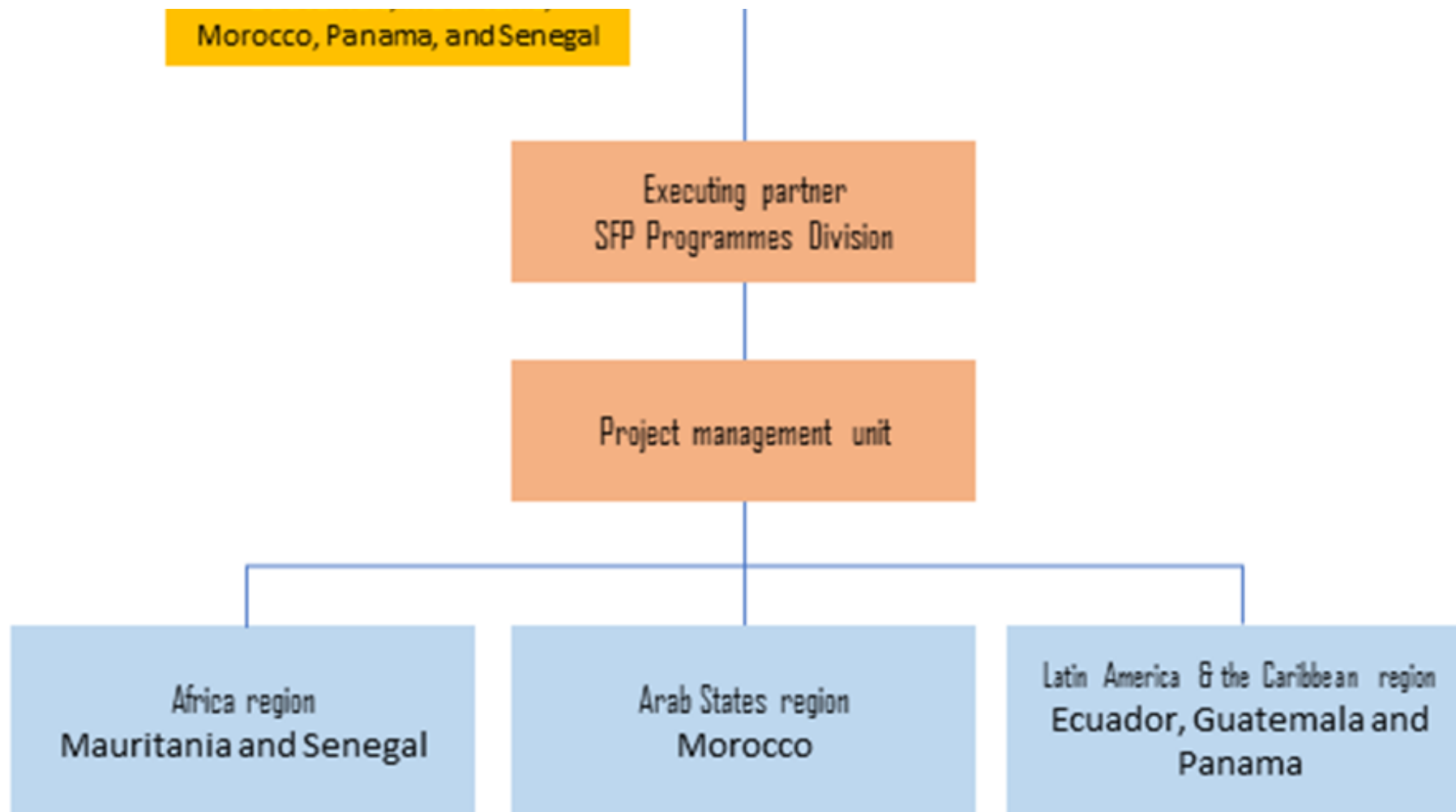


Figure 11. Draft organizational chart for the project.

158. The present project will establish communication channels to exchange information and regular coordination meetings with key projects. The project will coordinate actions with the following projects:

§ Towards Joint Integrated, Ecosystem-based Management of the Pacific Central American Coastal Large Marine Ecosystem (PACA) (GEF ID 10076) under implementation by UNDP. This regional project will prepare the TDA and SAP for this large marine ecosystem.

§ Conservation and Sustainable Use of Biodiversity in Coastal Marine Production Landscapes (GEF ID 9804) under implementation by UNDP in Panama. This project focus on coastal and marine spatial planning.

§ Towards Sustainable Management of the Canary Current Large Marine Ecosystem (CCLME) – Initial Support to SAP Implementation (GEF ID 9940) under implementation by FAO. This is a regional medium size project, channelled through the Fishery Committee for the Eastern Central Atlantic (CECAF). This project focus on developing enabling conditions to implement the CCLME SAP.

§ Improved regional fisheries governance in western Africa (PESCAO) funded by the European Union and focused on improving regional fisheries governance in Western Africa through better coordination of national fisheries policies.

§ West Africa Coastal Areas Management Program (WACA) implemented by the World Bank in collaboration with a range of national and international partners. This programme focusses on strengthening resilience of coastal communities in 17 countries (including Mauritania and Senegal).

159. The project will seek to find complementarities and to exchange lessons with the following projects:

160. Integrated Management of Water Resources of the Mira-Mataje and Carchi-Guaitara, Colombia–Ecuador Binational Basins (GEF ID 9566) under implementation by UNDP. This project focuses on the collaborative management of three transboundary basins that drain into the PACA LME.

161. Catalysing Implementation of a Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Humboldt Current System (HCS) (GEF ID 9592) under implementation by UNDP. This project supports implementation of the SAP of the Humboldt Current LME and includes extensive work on fisheries improvements.

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

162. The project is consistent with the national biodiversity strategies of the participating countries (in alphabetic order):

§ Ecuador's National Biodiversity Strategy and Action Plan 2015-2030. In particular the Strategic Objectives 1.- Incorporate biodiversity, and the associated ecosystem goods and services, into the management of public policies and the Strategic Objective 2.- Reduce pressures and inappropriate use of biodiversity to levels that ensure its conservation.

Guatemala's National Biodiversity Strategy and action plan 2012-2022. In particular axis 3.3. Sustainable use of biological diversity and its ecosystem services

§ Mauritania's National Biodiversity Strategy and action plan 2011-2020. Strategic direction 4: Ensure sustainable and equitable use of biodiversity, in particular Objective 7: Reduce pressure on biodiversity and Objective 8: Ensure the sustainable of the use of biological resources.

§ Morocco's National Biodiversity Strategy and action plan 2016-2020. National strategic axis B. Ensuring the sustainable use of biodiversity and biological resources. In particular, National operational objective B1. Develop management plans for the most exploited marine fish and invertebrate stocks in order to avoid their collapse.

§ Panama's National Biodiversity Strategy issued in 2000. Strategic objective 4. sustainable use and management. In particular action line 4.1. Strengthening of instruments that promote sustainable use and the fair and equitable distribution of benefits and action line 4.2. Sustainable use.

§ Senegal's National Biodiversity Strategy and action plan of 2015. Strategic Axis C: Promoting the consideration of biodiversity in economic and social development policies. Specific Objective C.1. Take biodiversity into account in development policies and strategies. Line of Action C.1.1. Integrate biodiversity conservation into national development policies and strategies.

163. The project is also consistent with the national fisheries policies and regulations.

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.

164. Component 3 will focus on knowledge management. As indicated before, outcome 3.1 will focus on facilitating information to support purchasing decision making and outcome 3.2 will focus on documenting and disseminating project learning.

165. Outcome 3.1 will strengthen the provision of key independent and reliable information about the status of the fisheries and FIPs to domestic and international stakeholders (see paragraph 113 for details). The two main knowledge products will be the fisheries profiles to be available through FishSource (output 3.1.1) and the FIP public profiles to be available in open access platforms (output 3.1.2).

166. Outcome 3.2 will focus on documenting and disseminating project learning. Lessons will be systematically documented and shared through the project's website, national and regional websites (e.g., fisheries authorities) and IW:LEARN. The project's website will be developed and maintained following the IW:LEARN guidance. Project experience will be documented and disseminated using the GEF IW templates for experience notes and results notes. Country representatives and the project team will participate in IW:LEARN meetings and the International Waters Conferences. At least 1% of the GEF project budget allocation will be dedicated to IW portfolio learning.

167. The project will (i) develop and maintain an electronic platform (e.g., website, social networks) to facilitate communication and information exchange, and (ii) support working groups and systematically document and disseminate lessons to key stakeholders in the two LMEs and worldwide.

168. The documents to be produced will be gender and culturally sensitive. Documents with appropriate language will be prepared for decision makers and key stakeholders. Technical documents will have English summaries to facilitate international access.

169. The project's will develop a strategic knowledge network. This will include key entities working on seafood market transformation and fisheries sustainability as well as organisations related to the target LMEs and fisheries value chains. The purpose of this network will be to build two-way communication to exchange information, learnings, practice, and feedback.

170. This project builds upon the lessons from the GMC project and the developments on seafood market transformation work. The project will emphasise on a learning approach to identify, together with project partners and local practitioners, positive and negative learnings. It is foreseen that project advances will be discussed with the members of the Sustainable Seafood Movement to exchange experience on current practices. Additionally, Strategic communications will be based on a network with key entities to exchange practice, learnings and feedback. During the PPG, the members of this network will be identified and the mechanisms for its operation will be developed. It is foreseen that the development and operation of this knowledge network will be included into the project's communication strategy.

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9. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

Measures to address identified risks and impacts
Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

Project Information

<i>Project Information</i>	
1. Project Title	Mainstreaming Sustainable Marine Fisheries value chains into a Blue Economy for Targeted Large Marine Ecosystems
2. Project Number (i.e. Atlas project ID, PIMS+)	6591
3. Location (Global/Region/Country)	Africa and Latin America: Canary Current (Morocco, Mauritania, Senegal) and Pacific-Central America Coastal LME (Panama, Ecuador, Guatemala).
4. Project stage (Design or Implementation)	Design
5. Date	March 31, 2022

Part A. Integrating Programming Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Programming Principles in Order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the project mainstreams the human rights-based approach

The project's objective is to mainstream ecological and social aspects of sustainability to foster sustainable fisheries production and improved wellbeing of coastal communities in support of emerging Blue Economies in target countries in Africa and Latin America. The project will tend to mainstream the human rights-based approach as it:

- Supports actions to ensure sustainable consumption and efficient use of fisheries resources (consistent with the right to food).
- Will support inclusive dialogue and meaningful participation of key stakeholders in project design, implementation, monitoring, evaluation and learning, considering that participating countries have quite diverse conditions regarding engagement and participation of stakeholders in fisheries decision making. Key elements will be the government-led platforms, fisheries improvement projects (FIPs), capacity building activities and value chain roundtables. All this will be coordinated through the project's Stakeholders' Engagement Plan (consistent with participation and inclusion human rights principle) which will be prepared in detail during the PPG.
- A grievance mechanism for stakeholders involved in the project will be designed during PPG (as part of the Stakeholders' Engagement Plan) to raise and voice their concerns, claims and/or grievances in cases where project interventions may adversely impact them (consistent with accountability and rule of law human rights principle).

Briefly describe in the space below how the project is likely to improve gender equality and women's empowerment

There are strong differences in women conditions in the participating countries. In the case of Latin America, all countries have in their Constitutions aspects of non-discrimination due to sex or gender, and they count with regulations, plans or strategies to promote equal opportunities for women. In addition, Panama, Ecuador and Guatemala have signed the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) of 1981. The African participating countries (Senegal, Morocco and Mauritania), also have constitutional mandates regarding non-distinction because of sex or social condition before the law. The three countries have also signed the CEDAW. However, Mauritania and Morocco, signed the CEDAW with reservations in parts which are contrary to Islamic Sharia. In the case of Senegal, until 2022 has received eight periodic reports reviews from the Committee asking to develop measures to tackle female genital mutilation and women illiteracy. In this sense, it is understood that women in Mauritania, Senegal and Morocco face greater gender and cultural barriers for participation, engagement, and empowerment than those faced by women in the three Latin America countries.

During the PPG phase, the project will prepare a Gender Analysis to understand specific conditions related to women barriers for participation on each target seafood supply chains and will develop an Action Plan for gender mainstreaming to address the identified barriers. The plan will include measurable indicators related to gender equality and women's empowerment. The gender plan will be adapted to the particular conditions on each country. As part of the Action Plan, the project will:

- Promote the integration of gender equality as a principle for socially responsible seafood standards, policies and commitments;
- Integrate women participation, as much as possible, in government led co-management platforms, Fishery Improvement Projects, capacity building actions, and fisheries governance processes; and;
- Capture and share lessons and good practices about mainstreaming gender issues in fisheries governance and seafood supply chains.

To guarantee proper implementation of the gender action plan, the pertinent budget will be prepared during the PPG.

Briefly describe in the space below how the project mainstreams sustainability and resilience

The project aims to integrate and mainstream ecological and social aspects of sustainability (e.g., gender equality, reduced bycatch) in support of emerging Blue Economies in Africa and Latin America. It will mainstream sustainability and resilience by:

<ol style="list-style-type: none"> 1. Increasing the demand for sustainable marine commodities. To increase the demand for sustainable seafood products in global and domestic supply chains the project will promote that the markets adopt social and environmental requirements and standards that contribute to greater social-ecological resilience. 2. Increasing the production and supply of sustainable marine commodities. This will be done by motivating resource users and processors in producing countries to work with governments to develop and run public-private partnerships and initiatives (such as industry-led Fishery Improvement Projects, Government led Co-management Platforms, and collaborative multi-actor research) to: i) develop science-based fisheries management, ii) improve fishing practices and policies to address resource governance gaps, iii) address social and wellbeing challenges, and iv) meet increased market demand for seafood products. 3. Generating knowledge by developing integrated monitoring, evaluation, and learning systems to measure the effectiveness of the Global Marine Commodities model (GEF Project ID: 5271) and to capture and disseminate lessons learned and good practices within and outside Blue Economies of target countries.
<p><i>Briefly describe in the space below how the project strengthens accountability to stakeholders</i></p> <p>The participating countries have diverse conditions regarding engagement and participation of stakeholders in fisheries decision making and governance.</p> <p>In this respect, the project design will aim to be developed through a participative process that allows key stakeholders to have a voice, raise their concerns and contribute with their ideas and inputs.</p> <p>The project will develop in the PPG phase a Stakeholder Analysis of the targeted seafood chains in order to understand their interest and influence in the project interventions and determine a mechanism for their full involvement. The specific barriers for stakeholders' participation will be identified and appropriate mitigation measures will be developed. In addition, the Stakeholders Engagement Plan will integrate specific actions to tackle limitations for participation, with their pertinent budget for implementation; as well as it will have a grievance mechanism to facilitate that stakeholders and the general public raise concerns, claims and/or complaints in cases where project interventions may adversely impact them.</p>

Part B. Identifying and Managing Social and Environmental Risks

<p>QUESTION 2: What are the Potential Social and Environmental Risks?</p> <p><i>Note: Complete SESP Attachment 1 before responding to Question 2.</i></p>	<p>QUESTION 3: What is the level of significance of the potential social and environmental risks?</p> <p><i>Note: Respond to Questions 4 and 5 below before proceeding to Question 5</i></p>			<p>QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High</p>
<p><i>Risk Description</i> <i>(broken down by event, cause, impact)</i></p>	<p><i>Impact and Likelihood (1-5)</i></p>	<p><i>Significance</i> <i>(Low, Moderate Substantial)</i></p>	<p><i>Comments (optional)</i></p>	<p><i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i></p>

		<i>ntial, High)</i>		
<p>Risk 1: In Mauritania and Senegal, fisheries authorities and research institutions have limited capacities to support the development and application of fisheries management measures, which may limit or delay the development of the government-led fisheries platforms and the industry-led fisheries improvement projects.</p> <p>Principle 1. P.2.</p>	<p>I = 3 L = 4</p>	Moderate	<p>The fisheries authorities in Mauritania and Senegal have limited capacities to undertake and implement fisheries governance processes. In addition, fisheries research is dispersed, underfunded and not supported by user groups. The conditions in Ecuador, Guatemala, Morocco and Panama are different, therefore this risk does not apply to these countries.</p>	<p>During the PPG phase, specific actions will be developed to confront this risk as part of the project's design and in the safeguards instrument as determined necessary for SES compliance.</p> <p>This risk and others (as appropriate) will be covered by an ESMF prepared during the PPG, if confirmed as a requirement for SES compliance.</p>
<p>Risk 2: Women may face cultural and gender barriers to participate in the fisheries governance and fisheries improvement processes promoted by the project.</p> <p>Principle 2. P10, P.11.</p>	<p>I = 3 L = 3</p>	Moderate	<p>Women in Mauritania, Senegal and Morocco face greater gender and cultural barriers (e.g., participation, engagement) than those faced by women in the three Latin America countries.</p>	<p>During the PPG phase, the project will prepare a Gender Analysis to understand the specific conditions related to women participation on each target seafood supply chains and will develop an Action Plan for gender mainstreaming to address specific barriers. In addition, to guarantee proper implementation, specific allocation for affirmative actions will be included in the project budget.</p>
<p>Risk 3: Potential exclusion of stakeholders from fully participating in decisions related to fisheries governance and fisheries improvement processes that may affect them.</p> <p>Principle 3. P.13. Standard 5. Q.5.2.</p>	<p>I = 3 L = 4</p>	Moderate	<p>The participating countries have quite diverse conditions regarding engagement and participation of stakeholders in fisheries decision making.</p> <p>These conditions may limit or delay the development of participatory government-led fisheries governance platforms and the industry-led fisheries improvement projects. In addition, fishers f</p>	<p>During the PPG phase, a detailed stakeholder analysis of each value chain will identify specific engagement and participation barriers on each country. A comprehensive Stakeholders Engagement Plan will be prepared to foster the involvement of stakeholders' groups along seafood chains.</p> <p>Additionally, the project includes specific actions to facilitate fishers' engagement into FIPs and the multi-stakeholder platforms (output 2.1.3). During the PPG this output will be analysed in detail to ensure that possible exclusion risks are minimised.</p>

			<p>face limitations to engage into FIPs and certification programs.</p>	
<p>Risk 4: The project may inadvertently contribute to worsen the condition of the fishery resources.</p> <p>Standard 1. Q.1.10</p>	<p>I = 3</p> <p>L = 2</p>	<p>Moderate</p>	<p>The project directly involves harvesting of small pelagic fish (e.g., sardines), large pelagic fish (e.g., billfishes, tuna), shrimp and octopuses. It is foreseen that project actions will not have negative impacts on these fisheries. On the contrary, it is expected, that the project will generate positive impacts since it will focus on building the enabling environment to increase the demand and supply of sustainable seafood. Through several instruments (e.g., purchasing policies, fisheries platforms, fisheries improvement projects, applied research) bycatch reduction will be mainstreamed, therefore contributing to reduce impacts in the marine food chain and ecosystems.</p> <p>The proposed intervention strategy based in the GMC model produced positive impacts in the previous GMC project (GEF ID 5271), therefore for the present project, it is highly likely that there will be improvements in the target value chains.</p>	<p>As a precautionary measure, it is considered that the project may generate unforeseen changes in the scenario that maintain the poor condition of the fishery resources. Therefore, this risk will be further analysed during the PPG.</p>
	<p>I = 3</p>	<p>Moderate</p>	<p>The target fisheries in the</p>	<p>During the PPG the potential effects of climate change</p>

<p>Risk 5: The target fishery resources are affected by climate variability and climate change.</p> <p>Standard 2. Q.2.2.</p>	<p>L = 3</p>		<p>Canary Current Large Marine Ecosystem (CCLME) and the Pacific Central American Coastal Large Marine Ecosystem (PACA) are affected by climate variability. In the CCLME, the Atlantic Multidecadal Oscillation (AMO) determine the abundance and migrations of small pelagic fish. Similarly, in PACA, the El Niño Southern Oscillation (ENSO) strongly affect the condition of the populations of shrimps, tunas, billfishes and coastal resources. The AMO and the ENSO affect global climate patterns and marine ecosystems. It is foreseen that AMO influence on global warming will increase during the second half of the twenty-first century and that climate change will generate stronger and more frequent ENSO events[1].</p>	<p>ge on the target value chains will be assessed and mitigation actions will be mainstreamed into the project interventions (e.g., fisheries platforms).</p>
<p>Risk 6: Management measures to address overfishing may result in access restrictions to fishers, causing economic displacement.</p> <p>Standard 5. Q.5.2</p>	<p>I = 4 L = 3</p>	<p>Substantial</p>	<p>The shrimps in Panama and the small pelagic fish in Mauritania and Senegal are overfished. To deal with this situation, the project will promote (through the government-led platforms, FIPs and purchase policies) management measures to recover the fisheries resources in these countries. These measures may limit fishi</p>	<p>The possible impacts of probable fisheries management measures will be assessed during the PPG. This will allow to identify if livelihood action plans or other management or assessment plans will be needed. In addition, the project will explicitly indicate that the management measures to reduce overfishing must include actions to mitigate possible economic and social impacts.</p>

			ng operations.	
<p>Risk 7: Indigenous peoples natural resources, territories or traditional livelihoods may be affected (positively or negatively) by the implementation of measures to improve the management of target fisheries in the participating countries.</p> <p>Standard 6. Q.6.1, 6.3.</p>	<p>I = 4 L = 3</p>	Substantial	<p>During the PIF stage, a rapid assessment was prepared to identify whether there are (i) indigenous people's fishers, and (ii) indigenous peoples territories or fishery resources related to the project area and scope. Although in this stage, there is no evident interaction with indigenous peoples and their resources, a more profound assessment will be done during the PPG.</p>	<p>During PPG there will be a detailed analysis to assess if there are indigenous territories or resources in the project intervention area, and whether the activities of the project will impact them, positively or negatively. Then, correspondent measures or management plans will be developed.</p>
<p>Risk 8: Mainstreaming social considerations into the seafood supply chain may inadvertently generate negative impacts on the working conditions of fishers and workers of the processing plants, or perpetuate existing violations.</p> <p>Standard 7. Q.7.1, 7.3, 7.4.</p> <p>Principle 1. P.4</p>	<p>I = 3 L = 3</p>	Moderate	<p>During the PIF, the situation of labour conditions in the target fisheries and supply chains was analysed. No evidence was found of child labour or forced labour occur, though a more in-depth assessment will be done during the PPG.</p>	<p>During the PPG, a more in-depth analysis will be prepared to identify possible risks derived from strengthening the demand for socially responsible seafood products on the target fishery and supply chains.</p>
<p>Risk 9:</p> <p>Tightening market requirements for reduced capture of endangered, threatened and protected species may generate unforeseen impacts on the trade</p>	<p>I = 3 L = 2</p>	Moderate	<p>The large pelagic fisheries in Guatemala, Panama and Ecuador capture sharks as bycatch. Some of these sharks are endangered, threatened and protected (ETP) species. The project will promote that major domestic and international buyers apply more stringent require</p>	<p>The project will aim that major buyers demand that the produce come from fisheries with reduced bycatch. The possible direct and indirect impacts of this market measure will be assessed during the PPG. In addition, pertinent mitigation measures will be developed to prevent negative impacts on ETP species captured as bycatch.</p>

g and use of the bycatch in the target value chains.			ements, therefore demanding that their produce (e.g., mahi mahi, tuna) come from traceable operations with minimal bycatch of ETP species. A potential risk is that some fishers and processors will not comply with this market demand and shift to buyers that do not demand these conditions.	
Standard 1. Q.1.0.; 1.14.				
QUESTION 4: What is the overall project risk categorization?				
		Low Risk	<input type="checkbox"/>	
		Moderate Risk	<input type="checkbox"/>	
		Substantial Risk	<input checked="" type="checkbox"/>	
		High Risk	<input type="checkbox"/>	
QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are triggered? (check all that apply)				
Question only required for Moderate, Substantial and High Risk projects				
		<u>Is assessment required? (check if "yes")</u>	<input checked="" type="checkbox"/>	
		if yes, indicate overall type and status		
				Targeted assessment(s)
				Gender analysis, stakeholder analysis planned (during PPG)
			<input type="checkbox"/>	ESIA (Environmental and Social Impact Assessment)
			<input type="checkbox"/>	SESA (Strategic Environmental
			<input type="checkbox"/>	To be confirmed during PPG
			<input type="checkbox"/>	To be confirmed

		<input checked="" type="checkbox"/>	ESMP (Strategic Environmental and Social Assessment)	To be confirmed during PPG
Are management plans required? (check if "yes")	<input type="checkbox"/>			
<i>If yes, indicate overall type</i>		<input checked="" type="checkbox"/>	Targeted management plans (e.g. Gender Action Plan, Emergency Response Plan, Waste Management Plan, others)	Gender action plan, Stakeholders action plan to be developed in PPG Phase.
		<input type="checkbox"/>	ESMP (Environmental and Social Management Plan which may include range of targeted plans)	To be confirmed during PPG
		<input type="checkbox"/>	ESMF (Environmental and Social Management Framework)	To be decided in PPG.
Based on identified risks, which Principles/Project-level Standards triggered?		Comments (not required)		
Overarching Principle: Leave No One Behind				
Human Rights	<input checked="" type="checkbox"/>			
Gender Equality and Women's Empowerment	<input checked="" type="checkbox"/>			
Accountability	<input checked="" type="checkbox"/>			
1. Biodiversity Conservation and Sustainable Natural Resource Management	<input checked="" type="checkbox"/>			
2. Climate Change and Disaster Risks	<input checked="" type="checkbox"/>			
3. Community Health, Safety and Security	<input type="checkbox"/>			
4. Cultural Heritage	<input type="checkbox"/>			
5. Displacement and Resettlement	<input checked="" type="checkbox"/>			
6. Indigenous Peoples	<input checked="" type="checkbox"/>			
7. Labour and Working Conditions	<input checked="" type="checkbox"/>			
8. Pollution Prevention and Resource Efficiency	<input type="checkbox"/>			

[1] McPhaden, M. J., Santoso, A., & Cai, W. (Eds.) (2020). El Niño Southern Oscillation in a changing climate. Geophysical Monograph Series 253. John Wiley & Sons, 506 pp.

Chylek, P., Klett, J. D., Dubey, M. K., & Hengartner, N. (2016). The role of Atlantic Multi-decadal Oscillation in the global mean temperature variability. *Climate Dynamics*, 47(9), 3271-3279.

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
6591 GMC2 SESP at PIF stage	

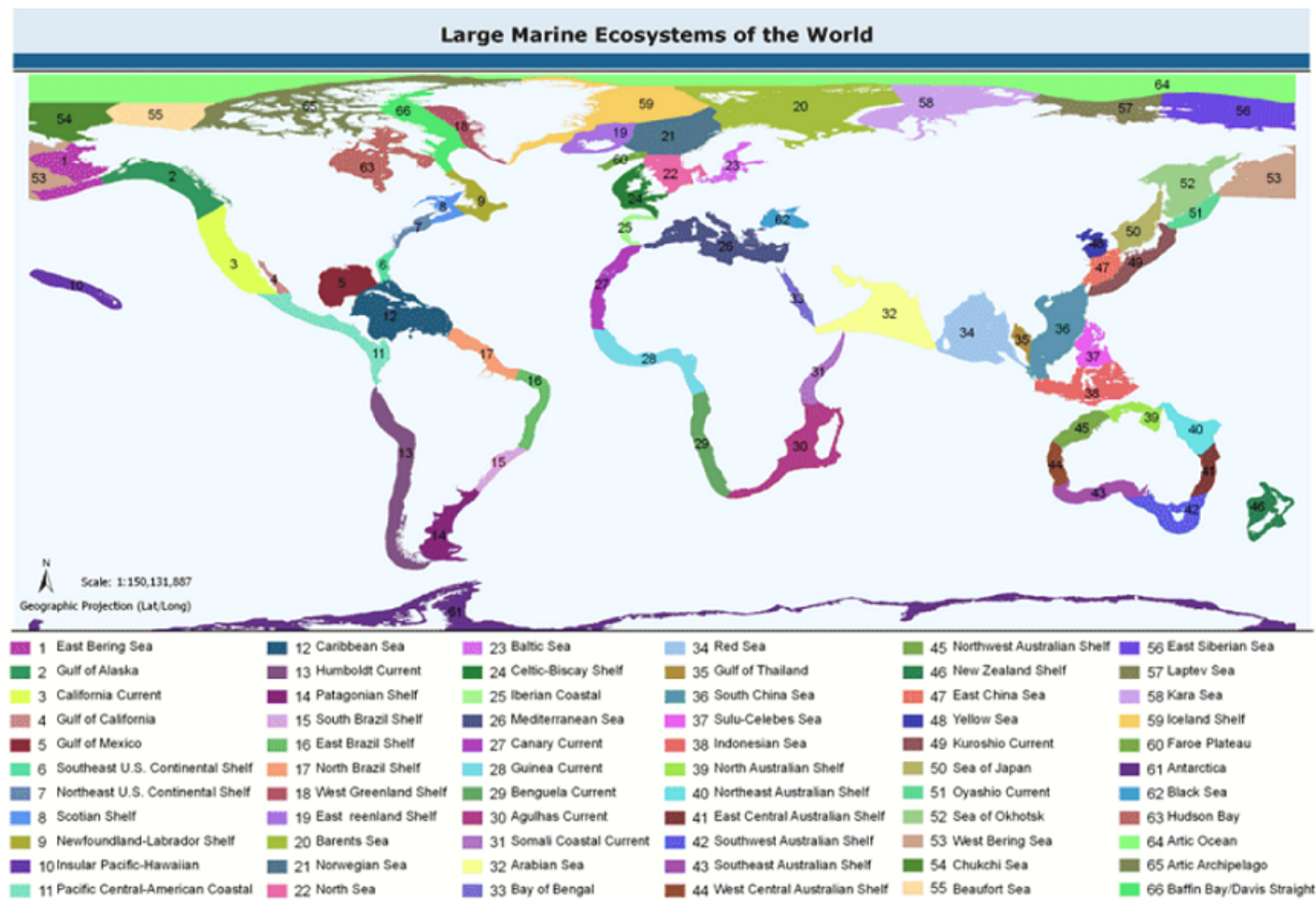
Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)

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
José Luis Naula	GEF Operational Focal Point for Ecuador	Ministry Of Environment, Water and Ecological Transition	4/8/2022
Mohamed Yahya Lafdal	GEF Operational Focal Point for Mauritania	Ministry Of Environment and Sustainable Development	4/6/2022
Rachid Firadi	GEF Operational Focal Point for Morocco	Ministry Of Energy Transition and Sustainable Development	4/6/2022
Raúl Pinedo	GEF Operational Focal Point for Panama	Ministry Of Environment	4/4/2022
Baba Drame	GEF Operational Focal Point for Senegal	Ministry Of Environment and Sustainable Development	2/23/2022
Jenifer Calderon Sintora	GEF Operational Focal Point for Guatemala	Ministry of Environment and Natural Resources of Guatemala	2/23/2022

ANNEX A: Project Map and Geographic Coordinates

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



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.