



Empowered lives.  
Resilient nations.

HOST COUNTRY: CHILE

<b>Project title: Catalysing implementation of a Strategic Action Programme for the sustainable management of shared living resources in the Humboldt current system.</b>		
<b>Country:</b> Chile	<b>Executing Agency:</b> Undersecretariat of Fisheries and Aquaculture (SUBPESCA)	<b>Management arrangements:</b> National Implementation Modality (NIM)
<b>UNDAF/Country Programme Outcome:</b> Country Programme Document Chile 2015 – 2018. Outcome 1. Growth and development are inclusive and sustainable, and incorporate productive capacities that create employment and livelihood for the poor and excluded.		
<b>UNDP Strategic Plan Outcome:</b> Outcome 1.3. Solutions developed at national and subnational level for the sustainable management of natural resources, ecosystem services, chemical products and waste.		
<b>UNDP Social and Environmental Screening Category:</b> Moderate		<b>UNDP Gender Marker:</b> 2
<b>Atlas Project ID (formerly Award ID)</b> 00104514		<b>Atlas output ID (formerly Project ID):</b> 00106038
<b>UNDP-GEF PIMS ID number:</b> 5697		<b>GEF ID number:</b> 9592
<b>Planned start date:</b> JUNE 2018		<b>Planned end date:</b> MAY 2023
<b>PAC meeting date:</b>		
<p><b>Brief project description:</b> Large marine ecosystems provide a variety of valuable goods and environmental services, including 85% of wild fish catches. However, the intensification of human activities and the strong fishing pressure jeopardize the functioning of these large ecosystems. The Humboldt current large marine ecosystem (HCLME) supports the largest monospecific fishery of the world (i.e., anchoveta) and biodiversity of high conservation value. The HCLME covers about 261.9 million hectares along the coasts of Peru and Chile. According to the analysis of the evaluation programme of transboundary waters assessment programme (TWAP), the HCLME has a high level of risk.</p> <p>Previously, with the support of the GEF, a transboundary diagnostic analysis (TDA) was carried out and a strategic action programme (SAP) was prepared, which was signed by both countries in 2016. Three key problems were identified: (1) transzonal problem 1 – non-optimal exploitation of fishery resources, (2) transzonal problem 2 - anthropogenic alteration of the marine habitat, and (3) – common problem – high incidental fishing or bycatch and discards. The present project is focused on contributing to catalyse the implementation of the SAP and to address the key identified issues.</p> <p>The objective of the proposed project is “facilitating ecosystem-based fisheries management and ecosystem restoration in the Humboldt current system for the sustainable and resilient delivery of goods and services from shared living marine resources, in accordance with the strategic action programme endorsed by Chile and Peru.”. The intervention has six outcomes, the first five correspond to the objectives of the SAP. Outcome six focuses on knowledge management and project based-learning to serve as a global benefit.</p> <p>The expected outcomes are:</p> <ol style="list-style-type: none"> <li>1. The prioritized fishery resources have improved the existing management scenarios to contribute to their recovery and there are systems to ensure the maintenance at optimum population levels while sustaining a healthy and productive ecosystem considering climate change and El Niño Southern Oscillation scenarios.</li> <li>2. Improved coastal and marine environmental quality through the application of integrated ecosystem management.</li> <li>3. There are systems to contribute to maintain and, if necessary, to recover biodiversity in the Humboldt current system.</li> <li>4. Fishing activities are diversified, and new production opportunities are created for fishers, organized in integrated organizations of civil society, inside and outside the fishing sector.</li> <li>5. The general public benefits from increased food security and food safety, thanks to improved management of ecosystems and fisheries, and better-quality controls of the catch.</li> <li>6. Lessons and good practices have been shared with key stakeholders in each country, between countries and globally.</li> </ol>		

The project has a highly participatory and inclusive approach to promote collaboration and multi-level dialogue between the key stakeholders of both countries. Practical experiences in prioritized resources and specific sites will be implemented to generate learnings that can be enhanced later. A total of four resources were selected by the project partners to focus the project interventions: (i) anchoveta (*Engraulis ringens*), (ii) jibia/pota (*Dosidicus gigas*), (iii) coastal benthic resources and (iv) macroalgae. In addition, the following sites were selected for intervention:

I. Iquique bay in Chile and Paracas bay in Peru, for integrated management interventions of marine-coastal areas and environmental quality.

II. The localities of Coquimbo, Puerto Aldea, Torres del Inca and the stretch between Chañaral and Caldera in Chile and the localities of San Juan de Marcona, and Atico in Peru for productive diversification interventions.

iii. The protected areas of Punta Morro-desembocadura rio Copiapó-Isla Grande de Atacama and Chipana (to be created) in Chile; and the San Fernando National Reserve, Punta San Juan and Punta Atico in Peru for biodiversity conservation interventions and management of productive activities within protected areas.

The project will directly benefit about 200,000 people in Chile and 89,000 people in Peru. However, the greatest contribution will be to assist the countries to establish the bases to execute the SAP and in the long-term, to implement coordinated measures for the sustainable management of the HCLME.

#### FINANCING PLAN

GEF Trust Fund or LDCF or SCCF – binational activities	USD 4,122,756
GEF Trust Fund or LDCF or — activities in Chile administered by Chile CO	USD 1,932,372
<b>[1] Total Budget administered by UNDP Chile</b>	<b>USD 6,055,128</b>

#### PARALLEL CO-FINANCING

SUBPESCA	12,000,000
MMA	1,900,000
IFOP	12,527,000
CIAM	2,273,125
NOAA	160,000
UNDP Chile	356,000
<b>[2] Total co-financing</b>	<b>USD 29,216,125</b>
<b>[3] Grand-total project financing (1)+(2)</b>	<b>USD 35,271,253</b>

#### SIGNATURES

Signature:	Approved by the Government of Chile	Day/Moth/Year:
Signature:	Approved by the Executing Agency - SUBPESCA	Day/Moth/Year:
Signature:	Approved by UNDP	Day/Moth/Year:

<b>Project title: Catalysing the implementation of a Strategic Action Programme for the sustainable management of the shared living resources of the Humboldt Current.</b>		
<b>Country:</b> Peru	<b>Executing Agency</b> Vice Ministry of Fisheries and Aquaculture	<b>Management arrangements:</b> National Implementation Modality (NIM)
<b>UNDAF/Country Programme Outcome:</b> Country Programme Document Peru 2017 – 2021. Outcome 1. Growth and development are inclusive and sustainable and incorporate productive capacities that create employment and livelihood for the poor and excluded.		
<b>UNDP Strategic Plan</b> Product 1.3. Solutions developed at national and subnational level for the sustainable management of natural resources, ecosystem services, chemical products and waste.		
<b>UNDP Social and Environmental Screening Category:</b> Moderate		<b>UNDP Gender Marker:</b> 2
<b>Atlas Project ID (formerly Award ID):</b> 00107511		<b>Atlas output ID (formerly Project ID):</b> 00107797
<b>UNDP-GEF PIMS ID number:</b> 5697		<b>GEF ID number:</b> 9592
<b>Planned start date:</b> JUNE 2018		<b>Planned end date:</b> MAY 2023
<b>PAC meeting date</b>		
<p><b>Brief project description:</b> Large marine ecosystems provide a variety of valuable goods and environmental services, including 85% of wild fish catches. However, the intensification of human activities and the strong fishing pressure jeopardize the functioning of these large ecosystems. The Humboldt current large marine ecosystem (HCLME) supports the largest monospecific fishery of the world (i.e., anchoveta) and biodiversity of high conservation value. The HCLME covers about 261.9 million hectares along the coasts of Peru and Chile. According to the analysis of the evaluation programme of transboundary waters assessment programme (TWAP), the HCLME has a high level of risk.</p> <p>Previously, with the support of the GEF, a transboundary diagnostic analysis (TDA) was carried out and a strategic action programme (SAP) was prepared, which was signed by both countries in 2016. Three key problems were identified: (1) transzonal problem 1 – non-optimal exploitation of fishery resources, (2) transzonal problem 2 - anthropogenic alteration of the marine habitat, and (3) – common problem – high incidental fishing or bycatch and discards. The present project is focused on contributing to catalyse the implementation of the SAP and to address the key identified issues.</p> <p>The objective of the proposed project is “facilitating ecosystem-based fisheries management and ecosystem restoration in the Humboldt current system for the sustainable and resilient delivery of goods and services from shared living marine resources, in accordance with the strategic action programme endorsed by Chile and Peru.”. The intervention has six outcomes, the first five correspond to the objectives of the SAP. Outcome six focuses on knowledge management and project based-learning to serve as a global benefit.</p> <p>The expected outcomes are:</p> <ol style="list-style-type: none"> <li>1. The prioritized fishery resources have improved the existing management scenarios to contribute to their recovery and there are systems to ensure the maintenance at optimum population levels while sustaining a healthy and productive ecosystem considering climate change and El Niño Southern Oscillation scenarios.</li> <li>2. Improved coastal and marine environmental quality through the application of integrated ecosystem management.</li> <li>3. There are systems to contribute to maintain and, if necessary, to recover biodiversity in the Humboldt current system.</li> <li>4. Fishing activities are diversified, and new production opportunities are created for fishers, organized in integrated organizations of civil society, inside and outside the fishing sector.</li> <li>5. The general public benefits from increased food security and food safety, thanks to improved management of ecosystems and fisheries, and better-quality controls of the catch.</li> <li>6. Lessons and good practices have been shared with key stakeholders in each country, between countries and globally.</li> </ol> <p>The project has a highly participatory and inclusive approach to promote collaboration and multi-level dialogue between the key stakeholders of both countries. Practical experiences in prioritized resources and specific sites will be implemented to generate learnings that can be enhanced later. A total of four resources were selected by the project partners to focus the project interventions: (i) anchoveta (<i>Engraulis ringens</i>), (ii) jibia/pota (<i>Dosidicus gigas</i>), (iii) coastal benthic resources and (iv) macroalgae. In addition, the following sites were selected for intervention:</p> <ol style="list-style-type: none"> <li>I. Iquique bay in Chile and Paracas bay in Peru, for integrated management interventions of marine-coastal areas and environmental quality.</li> </ol>		

II. The localities of Coquimbo, Puerto Aldea, Torres del Inca and the stretch between Chañaral and Caldera in Chile and the localities of San Juan de Marcona, and Atico in Peru for productive diversification interventions.

iii. The protected areas of Punta Morro-desembocadura rio Copiapó-Isla Grande de Atacama and Chipana (to be created) in Chile; and the San Fernando National Reserve, Punta San Juan and Punta Atico in Peru for biodiversity conservation interventions and management of productive activities within protected areas.

The project will directly benefit about 200,000 people in Chile and 89,000 people in Peru. However, the greatest contribution will be to assist the countries to establish the bases to execute the SAP and in the long-term, to implement coordinated measures for the sustainable management of the HCLME.

#### FINANCIAL PLAN

GEF, LDCF or SCCF Trust Fund or other vertical fund – – activities in Peru administered by Peru CO	USD 1,944,872
--	---------------

<b>[1] Total Budget administered by UNDP Peru</b>	<b>USD 1,944,872</b>
---	----------------------

#### CO-PARALLEL FINANCING

PRODUCE	3,747,096
MINAM	92,819
SERNANP	600,000
IMARPE	28,315,275
FONDEPES	2,414,774
COPMAR	600,000
A COMER PESCADO	935,938
SNP	25,740,000
UNDP Peru	250,000
<b>[2] Total co-financing</b>	<b>USD 62,422,902</b>
<b>[3] Grand-total project financing (1)+(2)</b>	<b>USD 64,367,774</b>

#### SIGNATURES

Signature:	Approved by the Government of Peru	Day/Moth/Year:
Signature:	Approved by the executing Agency: Vice Ministry of Fishery and Aquaculture	Day/Moth/Year:
Signature:	Approved by UNDP	Day/Moth/Year:

---

## I. TABLE OF CONTENTS

I. TABLE OF CONTENTS.....	5
II. DEVELOPMENT CHALLENGE.....	10
Humboldt Current Marine Ecosystem.....	10
Geographic context.....	11
Environmental context and global significance .....	12
Environmental variability and climate change.....	13
Protected areas.....	14
Social, economic and cultural context.....	16
Fisheries.....	16
Global environmental problems and root causes.....	21
Transzonal problem 1: non-optimal exploitation of fishery resources.....	22
Transzonal problem 2: anthropogenic alteration of the marine habitat.....	22
Common problem: high bycatch or accompanying fauna and discards .....	23
Long-term solution .....	26
Barriers that limit the solution of global problems.....	27
Barrier 1: Limited experience in binational coordination for management with an ecosystem approach .....	27
Barrier 2: Insufficient intersectoral coordination for the management of coastal and marine areas.....	28
Barrier 3: Domestic consumption of priority fishery products does not take off .....	28
Barrier 4: Little experience in comprehensive interventions for diversification of livelihoods of coastal communities .....	29
Barrier 5: There are no consolidated mechanisms to ensure food safety and responsible consumption of fishery products sold in the domestic market.....	29
Barrier 6: The operating mechanisms of the SAP have not been enabled .....	30
III. STRATEGY .....	30
IV. Results and Partnerships.....	31
Expected outcomes.....	31
<b>Component 1: Recovery and maintenance at optimal population biomass levels of the majority of fisheries resources while maintaining ecosystem health and productivity under climate change scenarios.....</b>	<b>32</b>
Anchoveta.....	33
Jibia/pota .....	34
Benthic resources.....	34
Macroalgae .....	36
<b>Component 2: Improve the environmental quality of the marine and coastal ecosystems via integrated management considering the various sources of pollutants.....</b>	<b>36</b>
Bay of Iquique .....	36
Bay of Paracas .....	37
<b>Component 3: Restore and maintain the habitat and biodiversity of marine and coastal systems at sustainable levels. ....</b>	<b>40</b>
San Fernando National Reserve and Punta San Juan de Marcona .....	41
Chipana .....	41

AMCP-MU Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama a.....	42
Technical cooperation network in prioritized marine areas for the conservation of the Humboldt current	43
<b>Component 4: Diversify and add value by creating productive opportunities inside and outside the fisheries sector with people socially organized and integrated</b> .....	44
Experiences with non-traditional fishery products and sustainable value chains .....	44
Exchange of experiences and incorporation of women in productive processes .....	44
Incorporation of women in productive processes .....	45
Anchoveta fishery products for direct human consumption.....	46
Jibia/pota fishery products for direct human consumption.....	46
Sustainable value chains of coastal benthic resources.....	47
Macroalgae products for direct human consumption and supply to the derivatives industry .	48
Use of fish waste as fertilizers .....	50
Experiences in productive diversification based on gastronomy and tourism .....	50
Experiences in production diversification based on cultivation / repopulation of benthic resources and macroalgae .....	52
<b>Component 5: Contribute to the population's food security and food safety</b> .....	53
Promotion of fishery products for food security of vulnerable groups in Peru .....	53
Training programme on food safety of fishery products for the domestic market .....	53
Consumer communications programme on food safety, food security and responsible consumption	54
Experiences of traceability of products for direct human consumption in the domestic market .	54
<b>Component 6: Dissemination and sharing of experience and lessons</b> .....	55
Platform to facilitate communications and dissemination of learnings .....	55
Documentation of lessons and good practices .....	56
Incorporation of gender perspectives .....	56
Partnerships.....	57
Key entities in Chile.....	57
Key entities in Peru .....	58
Strategic allies.....	59
Risks and assumptions .....	60
Stakeholder engagement plan .....	64
Gender equity and empowering women.....	65
South-south and triangular cooperation .....	69
Sustainability and scaling up .....	69
Environmental sustainability.....	69
Social sustainability.....	69
Institutional sustainability.....	69
Financial sustainability .....	70
Replication .....	70
V. PROJECT MANAGEMENT .....	70
Cost efficiency and effectiveness .....	70
Project management .....	71

Environmental and social safeguards.....	72
Agreement on intellectual property rights and use of logo in project deliverables and information...	72
VI. PROJECT RESULTS FRAMEWORK.....	74
VII. MONITORING AND EVALUATION PLAN.....	79
Oversight and monitoring responsibilities.....	79
Binational coordinator of the project.....	79
Steering Committee .....	80
Executing agency .....	80
UNDP country office .....	80
UNDP-GEF unit.....	81
Audit .....	81
Additional GEF monitoring and reporting requirements .....	81
Inception workshop and report.....	81
GEF project implementation report .....	81
Learning and knowledge generation .....	82
GEF focal area tracking tools.....	82
Midterm review .....	82
Terminal evaluation .....	83
Final report .....	83
Mandatory GEF monitoring and evaluation requirements and monitoring and evaluation budget.	83
VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS .....	85
Governance role for project target groups.....	90
Direct project services provided by UNDP at the request of the government .....	90
IX. FINANCIAL PLANNING AND MANAGEMENT .....	90
Parallel co-financing.....	90
Budget revision and tolerance .....	91
Refund to GEF .....	91
Project closure .....	91
Operational closure.....	91
Financial closure .....	92
X. TOTAL BUDGET AND WORK PLAN .....	93
XI. LEGAL CONTEXT .....	113
XII. RISK MANAGEMENT.....	113
XII. ANNEXES.....	115

## Abbreviations

ACA	Administrator and accountant
AMCP-MU	Coastal Marine Protected Area of Multiple Uses
CBD	Convention on Biological Diversity
CBP	Binational Project coordinator
CDR	Combined delivery report
CIAM	Centre for Applied Research of the Sea (Chile)
COPMAR	Artisanal fisheries community of Marcona
COREVIPA	Artisanal Fishing Surveillance Regional Committee
CPAP	Country programme action plan
DIRECTEMAR	General Directorate of Maritime Territory and Merchant Navy (Chile)
DPC	Direct project costs
DPS	Direct project services
DVPA	Office of the Vice-Minister of Fisheries and Aquaculture of Peru
EAF	Ecosystem approach to fisheries
EB	Biodiversity specialist
EDP	Specialist in production diversification
EME	Monitoring and evaluation specialist
ENSO	El Niño southern oscillation
EPCG	Participation, communication and gender specialist
ERC	UNDP Evaluation Resource Centre
FAO	Food and Agriculture Organization of the United Nations
FAP	Fisheries Management Fund (Chile)
FFPA	Fund for the Promotion of Artisanal Fisheries (Chile)
FIPA	Fisheries and Aquaculture Research Fund (Chile)
FONDEPES	National Fund for Fisheries Development of Peru
GEF	Global Environment Facility
GEF ID	GEF project identification number
GIZ	German Corporation for International Cooperation
GORE	Regional government
HACT	Harmonized approach to cash transfers
HCLME	Humboldt current large marine ecosystem
IDP	UNDP information disclosure policy
IFOP	Fisheries Development Institute of Chile
IHMA	Humboldt Institute of Marine and Aquaculture Research (Peru)
IMARPE	Institute of the Sea of Peru
ITP	Technological Institute of Production (Peru)
IW:LEARN	GEF International Waters learning exchange and resource network.
IWC	GEF biennial International Waters Conference
KfW	German Financial Cooperation
LME	Large marine ecosystem
LOA	Letter of agreement
MINAM	Ministry of the Environment of Peru



MINREL	Ministry of foreign affairs of Chile
MMA	Ministry of the Environment of Chile
MRE	Ministry of foreign affairs of Peru
MSP	Coastal and marine spatial planning
MTR	Mid-term review
NIM	National Implementation Modality
NOAA	National Oceanic and Atmospheric Administration of the United States of America
OHI	Ocean health index
ONG	Non-governmental organization
OSC	Civil society organization
PIP	Policy on public involvement in GEF projects
PIR	GEF Project Implementation Report
POAL	Littoral Environment Observation Programme (Chile)
POPP	UNDP programme and operations policies and procedures
PPD Marcona	Demonstration pilot programme of San Juan de Marcona
PRODOC	Project document
PRODUCE	Ministry of Production of Peru
PROFONANPE	Peruvian Trust Fund for National Parks and Protected Areas
RNSF	San Fernando National Reserve (Peru)
RNSIIPG	National Reserve System of Islands, Islets and Guaneras Points
ROP	Fisheries management regulation (Peru)
SANIPES	National Sanitary Fisheries Agency of Peru
SAP	Strategic action programme
SBAA	Standard basic assistance agreement
SERNANP	National Service of Natural Areas Protected by the State of Peru
SERNAPESCA	National Service of Fisheries and Aquaculture of Chile
SESP	UNDP's Social and Environmental Screening Procedure
SNP	National Fisheries Society (Peru)
SONAPESCA	National Fishing Society (Chile)
SUBPESCA	Undersecretariat of Fisheries and Aquaculture of Chile
TDA	Transboundary diagnostic analysis
TE	Terminal evaluation
UNDP	United Nations Development Programme
UNV	United Nations volunteer
USD	United States dollar

---

## II. DEVELOPMENT CHALLENGE

### Humboldt Current Marine Ecosystem

1. The Humboldt Current large marine ecosystem (HCLME) is located in the south-eastern Pacific Ocean and covers an area of *ca.* 261.9 million hectares along the coasts of Peru and Chile (Figure 1). It is one of the 64 large marine ecosystems (LME) of the world.
2. The HCLME is one of the most productive ecosystems of the world and hosts a high diversity in all trophic levels (UNEP, 2006; Heileman et al., 2009; Miloslavich et al., 2011; IOC-UNESCO & UNEP, 2016).

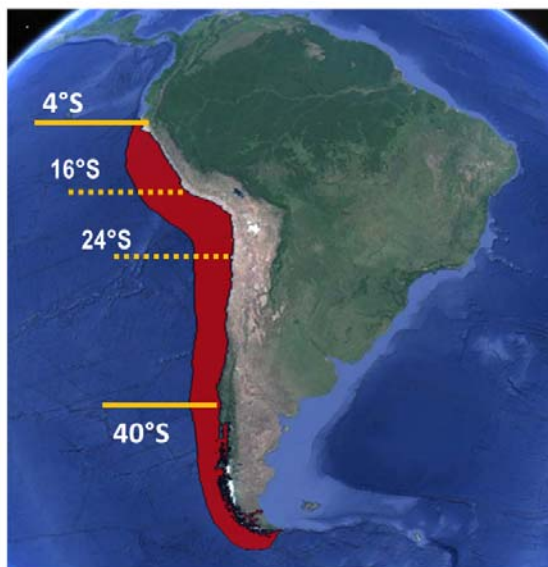


Figure 1. Location of the Humboldt current large marine ecosystem. The sector covered by the Strategic Action Program (SAP) (4°S to 40°S) and the distribution area of the South Peru – Northern Chile anchoveta stock (16°S a 24°S) are indicated.

3. The fishing production of this ecosystem is one of the largest in the world. In 1994 the largest landing was recorded (19.8 million tonnes), afterwards the landings decreased but it has remained high (Figure 2). The average landings between 2003 and 2016 corresponded to 10.6 million tonnes per year, which is equivalent to 13.1% of the marine catch in the world (FAO, 2016). The largest component of this catch is anchoveta (*Engraulis ringens*), which is the largest monospecific fishery of the world. The catches of anchoveta in 2013, 2014 and 2015 were, respectively 5.6, 3.1 and 4.3 million tonnes per year (FAO, 2016; FAO, 2017). This catch is mainly destined for the production of fishmeal and fish oil which supply the world market to produce animal feed. Therefore, the anchoveta fishery plays a crucial role in the food security of the entire world population.

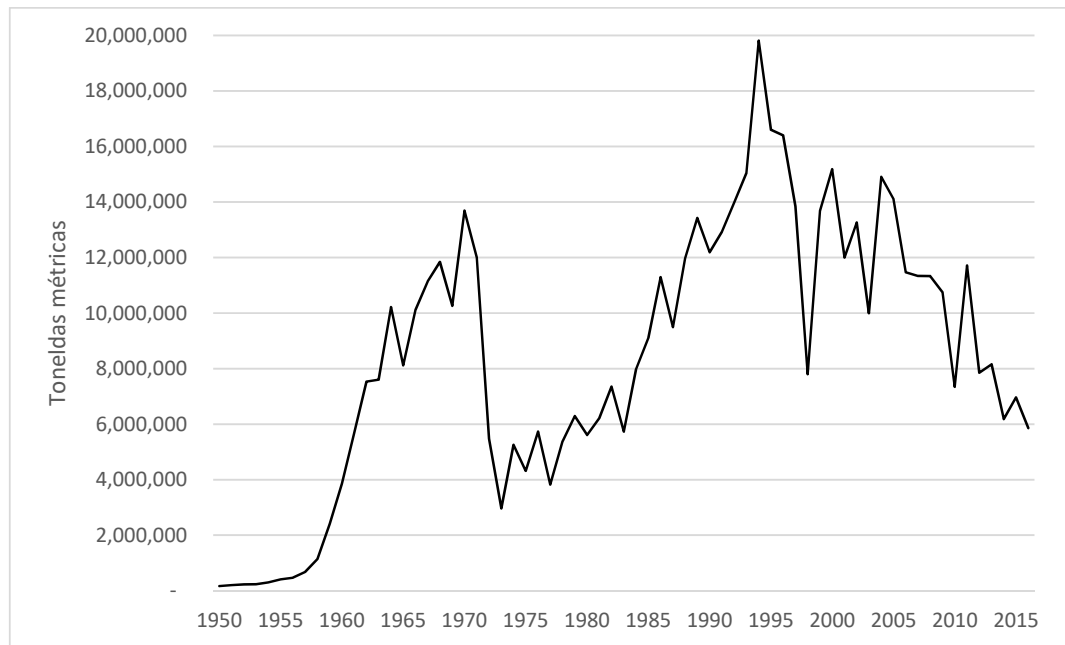


Figure 2. Annual landings in the Humboldt Current Large Marine Ecosystem. Sources: FAO 1950 -2015 and statistical yearbooks of Chile and Peru 2016.

4. The dynamics of the HCLME is basically influenced by the oceanic circulation generated by wind, presenting surface water masses with relatively low temperatures and salinity which, in general flow from south to north towards the Equator along the eastern margin of the South Pacific Ocean, approximately from latitude 40°S to 5°S (Serra et al., 2012). The HCLME comprises a complex mosaic of relatively cold currents and counter currents, but with high biodiversity of global importance (Spalding et al., 2007). The relatively stable winds that flow parallel to the coast (trade winds) towards the Equator cause the upwelling of cold waters rich in nutrients, which generate a high primary and secondary productivity (Tomczak & Godfrey, 2001).
5. However, the upwelling that leads the productivity is eventually interrupted by the development of the warm phase of El Niño Southern oscillation (ENSO) (Brochier et al., 2011). This implies the propagation of an atmospheric disturbance that weakens the strength of the South Pacific anticyclone, with cascading effects on the trade winds of the eastern Pacific Ocean, which weakens or nullifies the upwelling, with impacts on the availability of food for the fish and higher trophic levels (Cubillos et al., 2007). When El Niño event is severe, it can cause the collapse of certain species, as well as strong socioeconomic impacts (Arntz & Fahrbach, 1996; CAF, 2000).

#### Geographic context

6. The Republic of Chile is located in the southwestern margin of South America, it has a surface of 75,609,600 ha of oceanic and continental territory. The continental and oceanic territorial sea has a surface of 12,082.700 ha and 1,412.000 ha, respectively. The length of the coast of the continental territory is 4,300 km.
7. The Republic of Peru has a continental surface of 128,521.560 ha and a marine surface of 114,064.680 ha (Benavides, 1995); the length of the coast is 3,079.5 km.

## Environmental context and global significance

8. HCLME is one of the main upwelling systems of the world and is classified as a medium productivity system<sup>1</sup>. The 1998-2013 average concentration of chlorophyll A and productivity are 417 mg/m<sup>3</sup> (Figure 3) and 281 gC m<sup>-2</sup> y<sup>-1</sup>, respectively.
9. This ecosystem contains six marine ecoregions of two geographic provinces<sup>2</sup> (Spalding et al., 2007). Camus (2001) identified three spatial units: (i) North, north of 30°S containing warm-water biota, (ii) South, south 41°S containing cold-water biota (Magellanic province), and (iii) an intermediate area with presence of biota of both units (Figure 1).
10. A total of 10,201 species have been recorded in this large marine ecosystem (Miloslavich et al., 2011). There are 1,374 species of higher vertebrates, 1,167 species of fishes (the most diverse group), seven species of reptiles, 150 species of birds, and 51 species of mammals (40 species of Cetacea and 11 of Carnivora). Several species are of high conservation value, such as (i) the five species of marine turtles, (ii) the pingüino de Humboldt<sup>3</sup> (*Spheniscus humboldti*), (iii) the potoyunco peruano<sup>4</sup> (*Pelecanoides garnotii*), (iv) the lobo fino<sup>5</sup> (*Arctocephalus australis*), (v) the nutria or chungungo<sup>6</sup> (*Lontra felina*), and (vi) the ballena jorobada<sup>7</sup> (*Megaptera novaeangliae*) that migrates along the South American coast to breed in the warm waters between Costa Rica and Ecuador.
11. The productivity of the sea maintains large populations of (i) seabirds that congregate in islets, points and coastal islands, and (ii) sea lions that form colonies along the coast.
12. The three species of guano birds with the largest population are: guanay (*Phalacrocorax bougainvillii*), pelícano (*Pelecanus thagus*) and piquero (*Sula variegata*). The first two species are classified as near threatened in the IUCN red list. Guano birds consume large quantities of fish (anchoveta) and their survival has been affected by the anchoveta fishery and ENSO events. Other birds also take advantage of the richness of the sea. For instance, albatrosses and petrels (e.g., *Procellaria aequinoctialis* and *Thalassarche bulleri*), including the Galapagos albatross (*Phoebastria irrorata*) (critically endangered in the IUCN red list) which only nests in the Española island of Galapagos and feeds in coasts of Peru. Jahncke et al. (2004) found that the development of the anchoveta fishery contributed to the decline of the guano bird populations.
13. Populations of lobo fino and lobo chusco (*Otaria byronia*) are strongly affected by ENSO events. The Peru-north of Chile subpopulation of lobo fino is classified as vulnerable in the IUCN red list. Half of the population is concentrated in five sites in Peru (Cárdenas-Alayza & Oliveira, 2016). The diet includes large amounts of anchoveta and cephalopods. The lobo chusco is a more common and generalist species, which is affected by pollutants and pathogens due to the interaction with anthropic spaces (Sepúlveda et al., 2015; Salinas et al., 2010). Both species of sea lions interact with fishing activities and therefore, despite being protected species, they are frequently attacked.
14. There is a lack of information about the size of the population of otters, though it is assumed to be declining. This is a species frequently affected by the intensification of activities in the coastal front and the subsequent habitat degradation and fragmentation. This is a species that has adapted to survive in anthropic environments and therefore, it is exposed to pollutants and aggression of animals and people (Pizarro, 2008; Apaza & Romero, 2012; Alfaro-Shigueto et al., 2011; Cursach et al., 2012).
15. Macroalgae meadows located in the intertidal and subtidal areas have great ecosystem value. The composition of species and structure of the communities of the temperate zone of South America is very particular, because apparently it has had little exchange with populations from other areas, which has

<sup>1</sup> The scale has five points, where 1 = very low and 5 = very high.

<sup>2</sup> Warm Temperate South-eastern Pacific province: Central Peru, Humboldtian, Central Chile and Araucanian. Magellanic province: channels and fjords of Southern Chile, Chiloense

<sup>3</sup> Classified as vulnerable in the IUCN red list

<sup>4</sup> Classified as endangered species in the IUCN red list

<sup>5</sup> Classified as vulnerable in the IUCN red list

<sup>6</sup> Classified as endangered species in the IUCN red list

<sup>7</sup> Classified as least concern in the IUCN red list

generated an important level of endemism (Santelices, 1980; Santelices & Meneses, 2000). A total of 444 species of benthic algae have been recorded in the Chilean continent. Of these, 101 species are endemic (22.7%), Brown algae meadows (*Macrocystis integrifolia*, *Lessonia trabeculata* and *Lessonia nigrescens*) host a large number of invertebrates and fish that use this environment for feeding, juvenile rearing and reproduction (Vásquez & Santelices, 1984; Thiel & Vásquez, 2000; Vásquez et al., 2001).

#### Environmental variability and climate change

16. In the HCLME, natural processes and human activities are strongly influenced by oceanic events of high (ENSO) and low frequency (Pacific decadal oscillation and Pacific inter-decadal oscillation). El Niño southern oscillation is the main source of interannual variability in the Pacific Ocean (Rasmusson & Carpenter, 1982), whereas the decadal and inter-decadal variability generate profound changes in the structure of the system (Mantua & Hare, 2002; Chao et al., 2000; Salinger et al., 2001), such as the succession of dominance of anchovetas and sardines in the HCLME (Chávez et al., 2003; Alheit & Niquen, 2004; Swartzman et al., 2008). ENSO events and the decadal oscillation of the Pacific Ocean are directly related (Newman et al., 2003).
17. ENSO affects more intensely the northern segment of the HCLME (i.e., Peru and northern Chile). During El Niño (the warm phase of ENSO), the warm surface waters restrict upwelling and reduce the productivity of the sea, which in turn changes the trophic relations in the entire ecosystem (González et al., 2000; Escribano et al., 2002; Shaffer et al., 2002; Alheit & Niquen, 2004; Tam et al., 2008). The abundance of anchoveta decreases significantly, which in turn affects the species that feed on it. Changes in the food chain and climate conditions (i.e. heavy rainfall and temperature increase) cause changes in the survival and distribution patterns of both coastal and marine biota. Mass mortality of guano birds and sea lions are common (Arntz & Tarazona, 1990; Duffy, 1990; Jaksic, 1998; Jaksic & Fariña, 2010). For instance, El Niño 1982-1983 reduced the colonies of Humboldt penguins in Peru in 65% (Hays, 1986).
18. It has been observed that the system recovers rapidly from El Niño impacts, as the environmental conditions normalize. However, the intensity of fishing and other external factors such as the migration of predators can affect the recovery process (Arntz & Tarazona, 1990; Taylor et al., 2008).
19. El Niño also has severe impacts on the life conditions of the coastal human populations. The heavy rainfall, that occur mainly in Peru, cause severe damages to both homes and public infrastructure. For instance, El Niño 1997-1998 caused losses for USD 7.5 billion in Andean countries; it is estimated that Peru lost 4.5% of the gross domestic product (CAF, 2000; OPS, 2000). In addition, the heavy rainfall exacerbates the sanitary conditions in coastal populations and pollution on the coastal border.
20. It is not yet clear what the impacts of the climate change will be on this large marine ecosystem (Thiel et al., 2007; Wang et al., 2010). Between 1957 and 2012 the average sea surface temperature of the HCLME increased 0.24°C, which is classified as a mild warming<sup>8</sup> (IOC-UNESCO & UNEP, 2016). However, it is foreseen that climate change will cause more intense and frequent ENSO events (Cai et al., 2014; Cai et al., 2015), and that the diverse populations of the biota adapt through changes in their distribution and abundance (Bartsch et al., 2012; Bakun et al., 2015; Riascos et al., 2017).
21. The impacts of climate change on the marine environment and fisheries could strongly affect the livelihoods of the coastal communities and the economy of both countries. Therefore, Chile and Peru are evaluating the possible impacts<sup>9</sup> and developing adaptation strategies (MEFT et al., 2015; MMA, 2014).

---

<sup>8</sup> In the same period, the surface temperatures of all LMEs of the world (except two of them) increased (IOC-UNESCO & UNEP, 2016).

<sup>9</sup> For instance, the projects “adaptation to climate change of the fishing sector and the marine-coastal ecosystem” and “adaptation to the impacts of climate change in the coastal marine ecosystem of Peru and fisheries” in Peru and the project “strengthening of the adaptation capacity to climate change in the fishing and aquaculture sector of Chile” (Annex 12).

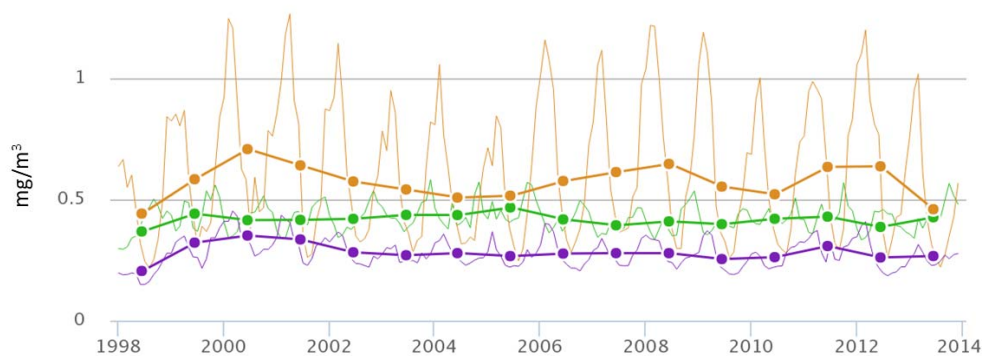


Figure 3. Concentration of chlorophyll-a (mg/m<sup>3</sup>) in the Humboldt Current large marine ecosystem (green line). The concentration of chlorophyll in the large marine ecosystems of the Gulf of California (orange line) and the Pacific of Central America (purple line) are included. Source: onesharedocean.org.

### Protected areas

22. The surface of marine and coastal protected areas (MPA) of the HCLME increased from 246,300 ha in 1983 to 579,800 ha in 2014 (IOC-UNESCO & UNEP, 2016).
23. In Chile, MPAs cover 46,323.077 ha (13.4% of the exclusive economic zone) (Table 1Table 1). However, larger MPAs are in the oceanic area, outside the HCLME:
  - Marine Park “Motu Motiro Hiva” (created in 2010) that has 15x10<sup>6</sup> ha
  - Marine Park “Nazca-Desventuradas” (created in 2016) that has 30x10<sup>6</sup> ha.
  - Coastal marine protected area of multiple uses “Mar de Juan Fernandez” (created in 2017) that has 1.1x10<sup>6</sup> ha.
24. Chile has two marine-coastal Ramsar sites: (i) Salt marshes of Huentelauquén (2,772 ha), and (ii) Laguna Conchalí Nature Sanctuary (34 ha).
25. The authority for the creation and administration of MPAs is divided into several entities<sup>10</sup> (Sierralta et al., 2011):
  - a. Marine sanctuaries are created under the framework of the Natural Monuments Act (laws 17,288 and 20,417) and they are under the custody of the Ministry of the Environment (MMA).
  - b. Marine parks and marine reserves are created under the General Act of Fisheries and Aquaculture (Law 18,892 and modified by the law 20,217) and administered by the National Fishing and Aquaculture Service (SERNAPESCA).
  - c. Coastal Marine Protected Area of Multiple Uses (AMCP-MU) are established by attributions of the Undersecretariat of the Navy and the Ministry of National Assets. The regulation of activities is defined in the corresponding management plan. Their administration is entrusted to public-private administration units with participation of the corresponding Regional Government and civil society organizations (OSC).
26. There are four marine protected areas in Peru that cover 403,915.87 hectares of marine surface (0.48% of the exclusive economic zone) (Table 2). It should be mentioned that the National Reserve System of Islands, Islets and Guaneras Points (RNSIIPG) is made up by a set of 22 islands, islets and groups of isles, as well as 121 points located along the Peruvian coast. There are five marine-costal Ramsar sites: (i) National Sanctuary Mangroves of Tumbes (2,972 ha), (ii) National Sanctuary Mangroves of San Pedro de Vice in the Sechura Bay (3,399 ha),

<sup>10</sup> A bill to create a Service of Biodiversity and Protected Areas that manages a national system of protected areas is under discussion.

(iii) Pantanos de Villa Wildlife Refuge in the urban area of Lima (263 ha), (iv) Paracas Bay (335,000 ha), and (v) Lagunas de Mejias National Sanctuary (690.6 ha).

27. In Peru, protected areas are managed by the National Service of Protected Natural Areas by the State of Peru (SERNANP), which is adscribed to the Ministry of the Environment (MINAM).

Table 1. Marine and coastal protected areas in Chile.

Name of the area	Category	Surface (km²)	Percentage per category
Francisco Coloane	Marine Park	15.63	97.4 %
Motu Motiro Hiva		150,000	
Nazca Desventuradas		300,035	
El Arenal		0.44	
El Palillo		0.04	
Montes Crusoe y Selkirk		1,077.89	
Lobería Selkirk		2.58	
Tierra Blanca		0.39	
Bahía Moreno – La Rinconada	Marine Reserve	3.40	0.02 %
Isla Chañaral		26.96	
Isla Choros y Damas		37.78	
Pullinque		2.44	
Putemún		7.53	
Coral Nui Nui	Coastal Marine Protected Area of Multiple Uses	0.15	2.6 %
Fiordo Comau – San Ignacio		4.15	
Francisco Coloane		653.50	
Hanga Oteo		3.48	
Lafken Mapu Lahual		44.64	
Las Cruces		0.18	
Motui Tautara		0.11	
Pitipalena Añihue		238.62	
Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama		39.94	
Mar de Juan Fernández		11,027.66	
Desembocadura Río Lluta	Marine Nature Sanctuaries	0.306	0.002 %
Roca Oceánica		0.009	
Islote Cachagua		0.063	
Islote Pájaros Niños		0.062	
Islote Peñón Peñablanca		0,021	
Bosques de Calabacillo		0.111	
Rocas de Constitución		1,084	
Loberías de Cobquecura		2.500	
Estero Quitralco		1.760	
Islas Salas y Gómez		2.37	
Total surface of protected sea		463,230.77	
Percentage of protected ZEE (updated to June 2017)		13.4%	

Table 2. Coastal and marine protected areas of Peru.

Name	Year of creation	Total surface (ha)	Marine surface (ha)
Reserva Nacional de Paracas <sup>11</sup>	1975	335,000.00	
Santuario Nacional Manglares de Tumbes (sitio Ramsar)	1988	2,972.00	
Reserva Nacional Sistema de Islas Islotes y Puntas Guaneras	2009	140,833.47	403,915.87
Reserva Nacional de San Fernando	2009	154,716.37	
Total protected area		633,521.84	
Percentage of protected ZEE (to December 2017)		0.48%	

### Social, economic and cultural context

28. The population of Chile, in April 2017, was 17, 574.003 people (51.1% women). According to the projection of the National Institute of Statistics, the coastal population to 2017 was 4,625. 903 people. Chile has a very high human development index (0.847) that places it in the 38rd position worldwide (UNDP, 2016). According to the World Bank<sup>12</sup>, in 2016 the per capita income was USD 13,729.9. On the other hand, according to the last economic characterization survey applied in the country (CASEN, 2015): (i) the percentage of people living in income poverty was 11.7% of the economic population, being found a 3.5% in extreme poverty conditions, and (ii) of the households in situation of poverty, 12.9% were female-headed households. In 2017, the global gender gap index was 0.704<sup>13</sup>, which places Chile in the 63rd position between 144 countries (WEF, 2017).
29. In 2007, the Peruvian population was 28,220.764 people and the projection to 2017 is 31,826.018 people (49.9% women) (INEI, 2009). 52.6% of the Peruvian population lives on the coast and 38.8% live in the coastal districts from Tumbes to Tacna. Peru has a high human development index (0.740) that places it in the 87<sup>th</sup> position worldwide (UNDP, 2016). According to the World Bank, the per capita income in 2016 was USD 6,045.7. In 2014, the percentage of unsatisfied basic needs and income were 19.7% and 22.7%, respectively (INEI, 2014). In 2014, the OECD social institutions gender index (SIGI) was 0.0826<sup>14</sup>, which indicates low gender discrimination in social institutions (OECD, 2017). In 2017, the global gap gender index was 0.719, placing Peru in the 48<sup>th</sup> place among 144 countries (WEF, 2017).

### Fisheries

30. The HCLME supports important fisheries for both countries. Landings of marine capture have had a decreasing trend between 2006 and 2015 (Figure 4). However, the annual average of the period for Peru and Chile is 5.9 and 3.7 million tonnes, respectively.
31. Three species constitute most of the total catch in the HCLME: anchoveta, jibia/pota (*Dosidicus gigas*) and jurel (*Trachurus murphyi*) (Figure 5).
32. Anchoveta is the main resource for both countries. In average, during the period 2006 – 2015, anchoveta constituted 82.7% of the landings of Peru and 25.5% of the landings of Chile (Figure 6). Most of the landings are destined to the production of fishmeal and fish oil, though there are significant endeavours to use anchoveta for direct human consumption.
33. In 2015, the Peruvian exports of fishery products had a value of USD 2,385 million. Of this value, 60% corresponded to exports for indirect human consumption, 38% were products for direct human consumption, and 2% other products (algae). In the same year, Chile exported USD 4,106 million of fishery products. Of this value, 9.7% corresponded to fishmeal and fish oil.

<sup>11</sup> Is an important bird and biodiversity area (IBA).

<sup>12</sup> <https://datos.bancomundial.org/indicador/NY.GDP.PCAP.CD>

<sup>13</sup> Where 0 = inequity y 1 = equity.

<sup>14</sup> Where 0 = inexistent or very low discrimination, and 1 = very high discrimination.



34. A total of four stocks of anchoveta are recognized in the HCLME: (i) north-central stock of Peru (located between 4°S and 16°S), (ii) southern Peru – northern Chile stock (located between 16°S and 24°S), (iii) the central – northern stock of Chile (located between 25°S and 30°S), and (iv) the central –southern stock of Chile (located between 33°S and 42°S).
35. Landings of the southern Peru – northern Chile stock have a downward trend. These decreased from 17 million tonnes in 2011 to 446.248 t in 2016 (Figure 7). About 60% of these landings corresponded to Chile. Regarding the total landings by both countries, landings of this stock have represented between 15.5% and 34.4% between 2008 and 2015 (Figure 8).
36. The Humboldt squid (*Dosidicus gigas*), commonly called jibia in Chile and pota in Peru, is the second fishery of Peru, with landings that have fluctuated between 359,000 and 556,000 annual tones between 2006 and 2015 (with an average of  $460 \times 10^3$  t/year). In Chile, the average landing of the period 2006 -2015<sup>15</sup> is  $151 \times 10^3$  t/year. In average, jibia/pota during the period 2006 – 2015 constituted 7.7% and 4.0% of the landings of Chile and Peru, respectively.
37. Most of the catch of jibia/pota comes from artisanal fishing. Landings are processed in a diversity of added value products (e.g., cubes, breaded) that are mostly exported. In Peru, there is internal consumption of pota, which is almost inexistent in Chile.

---

<sup>15</sup> In 2012 an overall quota of 180,000 tonnes was set, fractioned in 80% for the artisanal fishing and 20% for the industrial fishing. In 2013, the quota was increased to 200,000 tonnes, value that has been maintained to date.

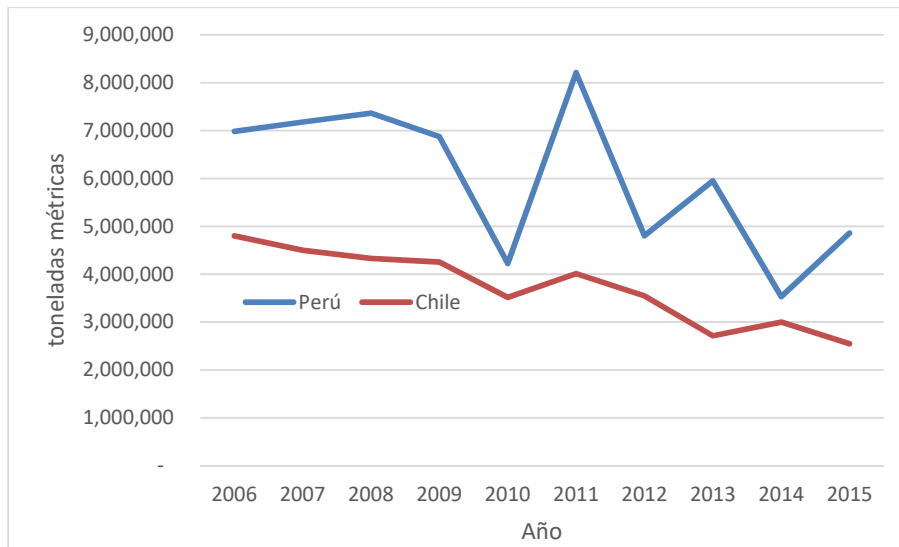


Figure 4. Annual landings of marine fisheries of Chile and Peru. Sources: SERNAPESCA Yearbook 2016 and PRODUCE Statistical Yearbook of Fishing and Aquaculture Sector 2015.

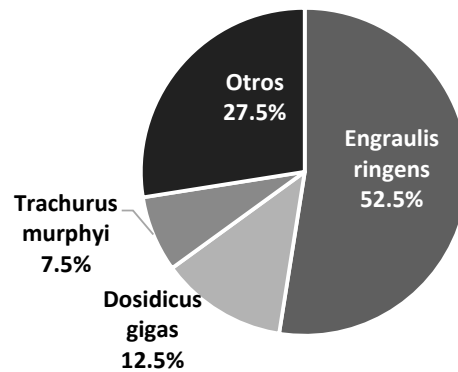


Figure 5. Composition of the total catch in the Humboldt Current Large Marine Ecosystem in 2014. Source: SEA AROUND US.



Figure 6. Composition of the landings of marine fisheries of Chile and Peru. In Chile, macroalgae are excluded.  
Sources: SERNAPESCA Yearbook 2016 and PRODUCE Statistical Yearbook of Fishing and Aquaculture Sector 2015

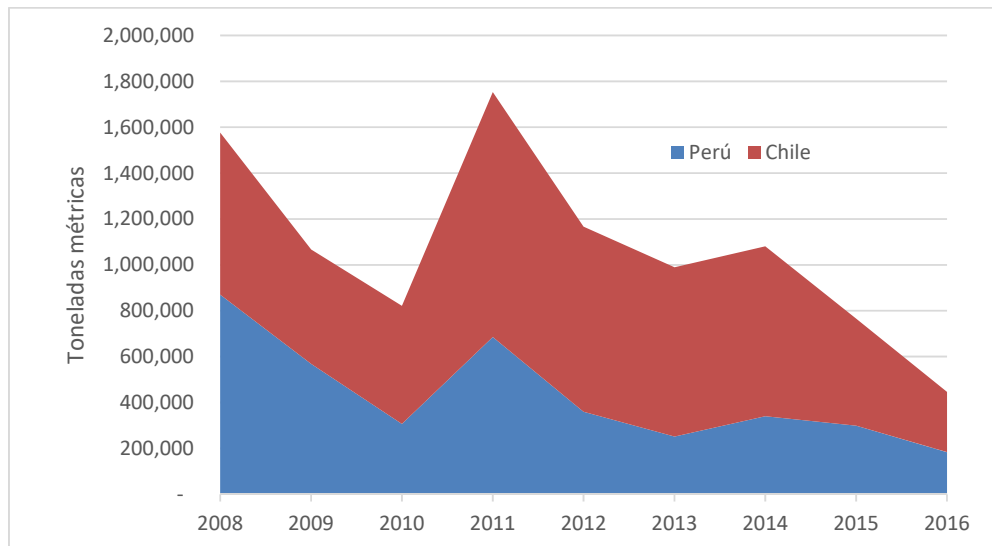


Figure 7. Landings of the southern Peru – northern Chile anchoveta stock

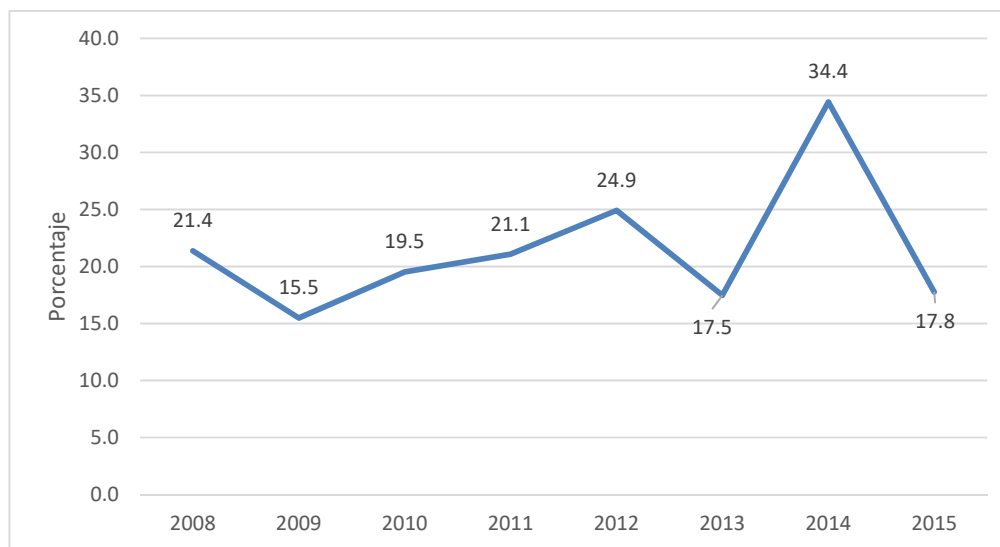


Figure 8. Percentage represented by the landings of the southern Peru - Northern Chile stock with respect to the total landings by Chile and Peru between 2008 and 2015.

## Global environmental problems and root causes

38. The Humboldt Current large marine ecosystem has a “high” level of risk of deterioration, according to the overall risk index of large marine ecosystems (LME overall risk<sup>16</sup>) (IOC-UNESCO & UNEP, 2016). HCLME ranks 24 among the 64 large marine ecosystems of the world (1 highest level of risk, 64 the lowest level of risk). In the case of the HCLME, the level of risk in the components that make up the index is: (1) fishing = low, (2) pollution and economic health = medium, (3) socio-economics = medium and (4) index gap of human development = high (IOC-UNESCO & UNEP, 2016).
39. The transboundary ecosystem diagnostic analysis (TDA), prepared through a participatory approach within the framework of the project “Towards Ecosystem Management of the Humboldt Current Large Marine Ecosystem” that was sponsored by the Global Environment Facility (GEF) (GEF ID 3749) and was completed in 2015, identified two priority problems of transzonal nature and one common problem (GdCh et al., 2015). The transzonal problems are: (i) non-optimal exploitation of fishery resources (PT1), and (ii) anthropogenic alteration of the marine habitat (PT2). The common problem corresponds to high incidental fishing<sup>17</sup> or accompanying fauna and discards (PC).
40. The three identified problems can degrade the HCLME, decreasing its capacity to provide environmental goods and services of local and global benefits. This, in turn, would have severe global consequences, since it has been estimated that both goods and services generated by the HCLME have an economic value of ca., USD 19.45 billion annually (Gutiérrez et al., 2017).
41. In addition to the three problems mentioned above, there are key factors that exacerbate the situation, mainly:
  - [1] The growing global demand for seafood, from wild capture or aquaculture. In turn, this demand is caused by (i) the growth of the world population, (ii) the greater awareness of the population on the nutritional value and health benefits derived of the consumption of seafood (e.g. fish oil), and (iii) the increase in the purchasing power in several countries of high seafood consumption. An additional element is that Chile and Peru have adopted national policies to increase the per capita consumption of seafood, to improve the health conditions of the population and/or combat malnutrition. The increased demand causes an increment in the prices<sup>18</sup>, which in turn promotes greater pressure on the fishery resources, which are mostly fully exploited (e.g., anchoveta, macroalgae) and induces illegal fishing.
  - [2] The intensification of the use of the coastal zone and the continental shelf, due to urban expansion and the development of productive activities such as aquaculture, tourism, hydrocarbon exploitation, and port operations. On the other hand, the competition for the use of the coastal-marine areas causes conflicts between key stakeholders and pressure on natural spaces and native biodiversity.
  - [3] Climate change and variability: climate variability is intrinsic to the functioning of the HCLME, which recurrently experiences the changes related to the cold and warm phases of ENSO and the decadal oscillation of the Pacific. In addition, this has great impacts on biodiversity (e.g., changes in subtidal communities of macroalgae, migration and mortality of guano birds and the Humboldt penguin, which is endemic to Chile and Peru) and in human activities (e.g., floods and droughts). It is foreseen that climate change will increase both frequency and intensity of ENSO (Cai et al., 2014; Cai et al., 2015), which in turn will affect the distribution patterns of fishery resources. It has been identified that climate change could reduce the abundance of

<sup>16</sup> Risk is broadly defined as the likelihood of adverse consequences for humans and the environment in relation to the changing states of transboundary waters. The scale of the indicator ranges from 0 = no risk to 1 = maximum risk.

The risk categories are based on cluster analysis or hierarchical grouping of 11 indicators, which were identified as the most influential on the analysed modules (i.e. productivity, resources and fisheries, pollution, ecosystem health, and governance to): (1) pelagic fishing of low bycatch, (2) proportion of collapsed and overexploited stocks, (3) subsidies that increase the fishing capacity as a fraction of the value of fishing, (4) proportion of the catch that comes from arts that impact the seabed, (5) demersal non-destructive fishing of low bycatch, (6) coastal eutrophication potential index, (7) density of plastic waste, (8) percentage of change in the surface of protected marine and coastal areas, (9) maritime traffic pressure, (10) percentage of rural population within 100 km of the coast, and (11) nightlight development index.

<sup>17</sup> In Chile and Perú, the meaning of incidental fishing, accompanying fauna and discard is different

<sup>18</sup> The FAO fish price index shows a marked increase since 2002 (Tveterås et al., 2012). By 2017, the index is almost double than that in 1990 (see <http://www.fao.org/in-action/globefish/fishery-information/resource-detail/en/c/338601/>).

anchoveta and cause a displacement of the population towards northern Peru (Brochier et al., 2013; BID & CEPAL, 2014).

Table 3. Environmental and socioeconomic impacts of the two transzonal problems and the common problem identified in the TDA.

Environmental impacts	Socioeconomic impacts
<b>Transzonal problem 1. Non-optimal exploitation of fishery resources</b>	
<ul style="list-style-type: none"> <li>Reduction of biomasses and/or catches and changes in the population structure of the exploited resources.</li> <li>Alteration of trophic relations in the ecosystems</li> <li>Alteration of biodiversity, environment and resilience of the ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of net income and employment in fisheries.</li> <li>Decrease in the provision of fishery resources for food security</li> </ul>
<b>Transzonal problem 2. Anthropogenic alteration of the marine habitat</b>	
<ul style="list-style-type: none"> <li>Deterioration of water quality and marine sediments.</li> <li>Mortality of marine organisms</li> <li>Alteration of the biodiversity and reduction of resilience of the ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>Economic loss, employment and reduction of the competitiveness of the productive activity.</li> <li>Reduction in the food security of foods of marine origin.</li> </ul>
<b>Common problem: High bycatch or accompanying fauna and discards.</b>	
<ul style="list-style-type: none"> <li>Affectation of biodiversity and reduction of the abundance of species.</li> <li>Alteration of trophic relations.</li> </ul>	<ul style="list-style-type: none"> <li>Economic losses, employment and market restriction due to bycatch or accompanying fauna and discards.</li> </ul>

#### Transzonal problem 1: non-optimal exploitation of fishery resources

42. PT1 refers to the fact that the volumes of captures of some fisheries could be causing changes in the populations of target resources and associated species, which constitutes an inappropriate use of them, with undetermined effects on other dependent and associated species (GdCh et al., 2015). In the TDA, five impacts (Table 3) and 25 root causes were identified from this problem (Table 4). Among the root causes, the following should be noted: (i) increase in the demand of fishery products and (ii) limited binational coordination for ecosystem approach research and management.

#### Transzonal problem 2: anthropogenic alteration of the marine habitat

43. PT2 refers to the cumulative impacts generated by various human activities such as pollution, abandoned fishing gear, among others. These impacts can generate increasing negative environmental and socioeconomic consequences for both countries. In the TDA, five impacts and 26 root causes of this problem were identified (Table 3 and Table 5). Among the root causes, the following should be mentioned: (i) insufficient knowledge and assessment of the goods and services of the HCLME, (ii) limited multisector articulation, and (iii) insufficient management of coastal-marine zone under an ecosystem approach.

Common problem: high bycatch or accompanying fauna and discards

44. This common problem is caused by the impact of fishing operations on the populations of key species of the ecosystem (that can be categorized as protected, threatened or endangered species), which in turn can cause changes in the trophic web and in the functioning of the ecosystem. In the TDA, three impacts and 15 root causes of this problem were identified (Table 3 and Table 6). Key elements of this problem are: (i) limitations on the use of technology that reduces the capture of non-target species, and (ii) scarce information about the magnitude of bycatch and discards in the fisheries of both countries.

Table 4. Root causes of the transzonal problem “non-optimal exploitation of fishery resources”.

Type	Causes of environmental impacts	Causes of socioeconomic impacts
Social	1. Insufficient environmental education in all training levels that does not allow to strengthen environmental awareness and consciousness.	1. Limited awareness of the conservation and sustainable use of fishery resources.
Economic	2. Increased demand for fishery resources	2. Increased demand for fishery resources for direct human consumption
Knowledge	3. Lack of binational coordination for research with ecosystem approach. 4. Unawareness of the economic, ecological and social valuation of ecosystem goods and services	3. Limited information regarding availability, access, stability and use of hydrobiological resources. 4. Lack of binational coordination for research with ecosystem approach.
Governance	5. Inexistence of binational coordination for management with ecosystem approach. 6. Limited capacity of supervision, control, monitoring and punitive and dissuasive capacity by the State. 7. Insufficient integration of research and knowledge for the sound management and implementation of the management with an ecosystem approach. 8. Insufficient human, physical and financial resources to implement ecosystem-based management 9. Limited capacity for supervision, control, monitoring and punitive and dissuasive capacity by the State. 10. Insufficient policies of incentives for technological innovation oriented to clean production. 11. Lack of a strategic planning for the development of a marine-coastal area with an ecosystem approach.	5. Inexistence of binational coordination for management with ecosystem approach. 6. Insufficient integration of research and knowledge for the sound management and implementation of the management with an ecosystem approach. 7. Insufficient ecosystem-based fisheries management. 8. Insufficient policies and instruments for promoting the productive development of small-scale and artisanal fishing, as well as small-scale productive activities. 9. Limited capacity for supervision, control, monitoring and punitive and dissuasive capacity by the State. 10. Limited capacity of commercial management of artisanal fishermen.
Institutional	12. Insufficient human, physical and financial resources to support implementation of comprehensive	

Type	Causes of environmental impacts	Causes of socioeconomic impacts
	ecosystem-based fisheries monitoring and control. 13. Insufficient resources for the management for marine protected natural areas.	
Environmental	14. Environmental variability modifies the carrying capacity of the ecosystem and the availability of resources.	

Table 5. Root causes of the transzonal problem “anthropogenic alteration of the marine habitat”.

Type	Causes of environmental impacts	Causes of socioeconomic impacts
Social	1. Insufficient environmental education in all training levels that does not allow to strengthen environmental awareness and consciousness.	1. Insufficient environmental education in all training levels. 2. Insufficient education on seafood safety
Economic	2. Concentration of population and productive activities in the coastal area.	3. Reduction of quality and quantity of fisheries resources. 4. Insufficiency in the application good fishing practices.
Knowledge	3. Insufficient research, development and technological innovation for the understanding and identification of causes and sources of deterioration of water quality and marine sediments to establish remediation measures. 4. Insufficient knowledge and valuation of goods and services of the HCLME 5. Insufficient scientific research to identify, prevent and mitigate the mortality of marine organisms. 6. Insufficient scientific research to study the factors that determine the resilience of the marine ecosystem. 7. Insufficient environmental standards 8. Insufficient integrated knowledge of synergic and additive interaction of pollutants in the marine habitat.	5. Insufficient integration of research and knowledge for the sound ecosystem-based management. 6. Limited monitoring programs of monitoring of the quality of water and sediments. 7. Insufficient knowledge and valuation of the goods and services of the HCLME.
Governance	9. Insufficient knowledge and management for the development of the marine-coastal area with an ecosystem approach. 10. Limited capacity of supervision, control, monitoring and dissuasion by the State. 11. Insufficient incentives by the State for adopting good practices and implementation of clean	8. Insufficient articulation of multisectoral policies oriented to ensure food and nutritional security. 9. Insufficient management for the development of the marine-coastal zone under an ecosystem approach.



Type	Causes of environmental impacts	Causes of socioeconomic impacts
	technologies and/or preventive actions. 12. Insufficiency of instruments that allow the environmental management a specific receiving water body in function of its carrying capacity.	10. Insufficient or limited capacity of supervision, control, monitoring and dissuasion by the State.
Institutional	13. Insufficient binational coordination for research in environmental issues with an ecosystem approach. 14. Insufficient multisectoral articulation and limited strengthening of the institutional capacities. 15. Insufficient economic resources and/or budget management for: a) the implementation of a comprehensive system of monitoring and control of the productive activities that impact the marine environment, b) scientific research on the marine ecosystem, and c) research for the management of the protected marine areas.	11. Insufficient economic resources and/or budget management for the implementation of a comprehensive system of monitoring and control of the productive activities that impact the marine environment.

Table 6. Root causes of the common problem “high bycatch or accompanying fauna and discards”.

Type	Causes of environmental impacts	Causes of socioeconomic impacts
Governance	1. Incentives to increase the consumption of fishery products 2. Insufficient incentives for the development of technologies tending to the best use of under-utilized fishery resources. 3. Insufficient implementation of actions to minimize discards. 4. Insufficient capacity for coordination and articulation between the state powers and civil society. 5. Insufficient financial resources for the development and implementation of technologies to reduce bycatch (top predators) or accompanying fauna and discards. 6. Insufficient economic resources to strengthen fisheries monitoring, control and surveillance of fisheries.	1. Insufficient economic resources for scientific research and valuation of use and non-use of bycatch or accompanying fauna and discards. 2. Regulations that do not incorporate technological advances in a timely manner 3. Insufficient economic resources to strengthen fisheries monitoring, control and surveillance of fisheries.
Social		4. Insufficient environmental education at all levels of training, which does not allow to

Type	Causes of environmental impacts	Causes of socioeconomic impacts
		strengthen environmental awareness and consciousness.
Economic	7. Insufficient application of technology and practices to reduce the interference of the fishing activity with bycatch (top predators) or accompanying fauna.	
Knowledge	8. Insufficient scientific research and technology about the effects of fishing methods on marine species and the development of products. 9. Insufficient integration of research and knowledge for sound management and implementation of ecosystem-based management.	
Institutional	10. Insufficient human, physical and financial resources for scientific and technological research in order to implement ecosystem-based management 11. Insufficient economic resources to strengthen the system of monitoring, control and surveillance of fisheries.	

#### Long-term solution

45. Despite the significant national progress of Chile and Peru, the situation of the HCLME has a high risk of deterioration, mainly due to the impacts of alterations of the marine habitat caused by pollution from various sources, as well as the modification and loss of habitats and marine-coastal biodiversity. Both countries have identified that climate change could cause severe impacts on marine and coastal biodiversity, as well as on the distribution and abundance of fishery resources. Global impacts of the deterioration of HCMLE can be very serious, as this is a very productive ecosystem that supports: (i) the largest monospecific fishery of the world<sup>19</sup>, and (ii) biodiversity of high conservation value such as the Humboldt penguin and the sea otter, which respectively are classified as vulnerable and endangered in the UICN red list.
46. The governments of Chile and Peru decided to jointly address the challenges of managing the HCLME. For this reason, they developed a strategic process to prepare a transboundary ecosystem diagnostic analysis, followed by a strategic action programme (TDA/SAP process). Such process was carried out with GEF support (Humboldt project, GEF ID 3749).
47. The SAP was signed by Chile and Peru in 2016, this document establishes (i) priorities for action, (ii) strategic direction, and (iii) the political commitments to address the major problems of the large marine ecosystem shared by both countries (Table 3). The SAP proposes a common vision and five general objectives that contribute to its construction (Table 7). The two building principles for the SAP are (i) sustainable development and (ii) the ecosystem approach to fisheries. The programme also has a mechanism of governance and operation for its implementation. Basically, this includes:
- A binational Steering Committee, co-chaired by the Institute of the sea of Peru (IMARPE) and the Fisheries Development Institute of Chile (IFOP) and formed by representatives of the of the Ministry of Foreign

<sup>19</sup> FAO reported that in 2014 and 2015 respectively, the anchoveta catch corresponded to 3.9% and 5.3% of the world marine capture (FAO, 2017),

Affairs and the fishing and environmental authorities of each country<sup>20</sup>. This committee is responsible for the approval of the annual operating plans and supervision of their compliance. In addition, it establishes coordination processes and both regulation and supervision of the execution of funds and budget.

- Financial commitments will be approved by the authorities of each country, as well as the joint search of co-financing resources for the implementation of the SAP.

Table 7. Vision and general objectives of the strategic action programme for the Humboldt Current large marine ecosystem.

Common vision: A healthy, productive and resilient Humboldt current large marine ecosystem through ecosystem-based management that ensures conservation and sustainable use of its goods and services for the benefit of its people.
General objective 1: To recover and maintain optimal population levels of the main fishery resources, considering environmental variability and maintaining both health and productivity of the ecosystem.
General objective 2: To improve the environmental quality of the marine and coastal ecosystem through integrated management, considering the different sources of pollutants.
General objective 3: To recover and maintain the habitat and biodiversity of the marine and coastal ecosystems at a sustainable level.
General objective 4: To diversity and add value, creating productive opportunities inside and outsider the fishing sector, with socially organized and integrated people.
General objective 5: To contribute to the food security of the population.

#### Barriers that limit the solution of global problems

48. In order to start the implementation of the SAP, the countries prepared a project proposal to the GEF. The project is aimed to invest in actions that stimulate progress towards the achievement of the five general objectives.

49. The main barriers to implement the SAP and to address the three key problems are:

#### Barrier 1: Limited experience in binational coordination for management with an ecosystem approach

50. Both countries have a long history of scientific collaboration on topics of fisheries and biodiversity. For example, since 1992, IFOP and IMARPE have a cooperation agreement for pelagic fisheries (anchoveta and sardina). In addition, Chile and Peru collaborate in various common forums such as the South Pacific Regional Management Organisation (SPRFMO), the Agreement on the Conservation of Albatrosses and Petrels (ACAP), the Inter-American Convention for the Protection and Conservation of Sea Turtles (CIT) and the Permanent Commission for the South Pacific (CPPS). However, it is recent the need for binational collaboration in order

<sup>20</sup> The representatives of Chile in the binational Steering Committee are: Ministry of Foreign Affairs (MINREL), Undersecretary of Fisheries and Aquaculture (SUBPESCA), National Fisheries and Aquaculture Service SERNAPESCA), Ministry of the Environment (MMA) and Fisheries Development Institute (IFOP). The representatives of Peru in the binational Steering Committee are: Ministry of Foreign Affairs, Vice-ministry of Fisheries and Aquaculture of the Ministry of Production of Peru (PRODUCE), Ministry of the Environment (MINAM), National Service of Protected Natural Areas by the State of Peru (SERNANP), and the Institute of the sea of Peru (IMARPE).

to manage fishery resources or shared biodiversity of common interest with an ecosystem approach (e.g., shared stock of anchoveta).

51. An important advance is that both countries are implementing an operational mechanism for integration through binational cabinets and related action plans. The first binational cabinet was held in Lima in July 2017, and the next will be in Chile in 2018. As part of the last meeting, a collaboration agreement was signed for the conservation of the national systems of coastal marine protected areas<sup>21</sup>.

#### Barrier 2: Insufficient intersectoral coordination for the management of coastal and marine areas

52. Despite the existing experience in the management of coastal zones and coastal and marine protected areas, there are still difficulties in coordinating actions and reaching agreements. This is more accentuated in areas such as bays, where it is common that tension and conflicts arise between key stakeholders with diverging perspectives (e.g. tourism versus hydrocarbon exploitation).
53. It is difficult to agree on a common vision of sustainable use of coastal areas. For example:
- In Iquique (Tarapaca region) there are tensions among various key local stakeholders by the confluence of diverse activities in the bays and coastal border. For instance, socioenvironmental conflicts<sup>22</sup> have been generated due to impacts derived from the installation and operation of coal- thermoelectric power plants (INDH, 2016). The communities of artisanal fishermen interested in the conservation of the coastal environment have expressed their concern by the possible impacts on environmental quality and biodiversity derived from fuel transportation, gas emission and the discharge of cooling water into the sea. There is also concern about the impact of the discharge of wastewaters through submarine outfalls.
  - In Paracas bay there are strong tensions among the activities that interact in the area, such as port operation, nature tourism and the scallop fattening. Also, there are serious pollution problems caused by vessel operations and untreated wastewater and garbage discharges from the population. These issues affect the Paracas area and endangers biodiversity of high conservation value such as the Peruvian potoyunco and the Humboldt penguin. Several entities monitor parameters of environmental quality and biodiversity of the bay, but it is still a challenge sharing information and performing integrated analyses that can sustain management action with an ecosystem approach.

#### Barrier 3: Domestic consumption of priority fishery products does not take off

54. For Chile and Peru, it is essential to increase the per capita consumption of fishery products. Three species have been prioritized for their nutritional value and availability: jibia/pota, anchoveta and macroalgae. These species are important in the HCLME, and their use to nourish the population would be a valuable contribution to sustain food security.
55. Jibia/pota is the second export item of Chilean (after salmon) and Peruvian (after anchoveta) fishery products. Both countries produce a variety of processed products (e.g., breaded) that are shipped to a range of countries such as Spain, China, South Korea and Mexico. However, domestic consumption is very low, despite the existing promotion campaigns, consumers are not incorporating jibia/pota in their consumption habits.
56. Something similar occurs with anchoveta and macroalgae:
- In Peru, despite the availability of a number anchoveta products (e.g., canned, hamburgers) together with a strong consumer promotion campaign by the “A Comer Pescado” programme, the domestic demand does not increase.
  - Both countries have traditionally consumed algae, but this consumption is marginal. In Chile, a range of products have been developed such as marmalades, cochayuyo (*Durvillaea antarctica*) and luche (*Pyropia*

---

<sup>21</sup> Inter-institutional agreement between the Ministry of the Environment of the Republic of Chile and the Ministry of the Environment of Peru for the development of actions of governance, management and conservation of the national systems of coastal marine protected areas. This was signed on 7 July 2017.

<sup>22</sup> The map of socioenvironmental conflicts is available at the following link: <http://mapaconflictos.indh.cl/>

sp.) burgers, and enriched flour and biscuits. However, these products have only settled in the gourmet market.

57. The available information indicates that there are multiple factors that constraint the mass consumption of these species. These are related to the supply, quality of raw materials, regulations about the resource and their products, and consumption habits (Villena, 2013; Freón et al., 2014; Ibañez & Ulloa, 2014).

Barrier 4: Little experience in comprehensive interventions for diversification of livelihoods of coastal communities

58. Productive diversification of organized artisanal fishermen is part of the objectives of the SAP. In Chile and Peru, the fishery authorities have several support mechanisms to assist fishermen (e.g., competitive funds, training, credit) that are complemented with initiatives from other entities that support productive entrepreneurship. For example, the Fund for the Promotion of Artisanal Fisheries (FFPA) and the resources from the Production Development Corporation (CORFO) of Chile, or the credits from the National Fund for Fisheries Development (FONDEPES) and the competitions of the Peruvian National Program for Innovation of Competitiveness and Productivity (Innóvate Perú).

59. However, the interventions of the fishery authorities mainly have a sectoral approach and do not incorporate the wider perspective of sustainable human development (UNDP, 1990; UNDP, 2011). Comprehensive development interventions require accompaniment and support for the development of community capitals<sup>23</sup>. This includes, for example, the strengthening of organizations, collaborative networks and community identity (social capital), capacity building (human capital), and financing of productive initiatives (financial capital).

60. There are interesting experiences, whose exchange can contribute to develop more comprehensive interventions, For example:

- In Chile, SERNAPESCA has a gender unity that prepares analyses and frequently generates a report on the activities of women and men in the fishing and aquaculture sector. In addition, SERNAPESCA monitors, among its institutional management indicators, the compliance with the government gender agenda.
- In Peru, FONDEPES applies a gender approach in its credit and training actions. Part of its strategy is to recognize that women and families are key players for the development of the productive fishing activities and related businesses.

61. Some constraints of the current way of operation that should be mentioned are:

- a. Fishermen have difficulties preparing proposals and completing the procedures to apply to competitive funds.
- b. The role of women and other family members in the development of productive enterprises is not given sufficient relevance.
- c. Support to beneficiary groups is punctual (short-term), without considering that associative or family entrepreneurship require maturing time, during which, having accompaniment is a critical success factor.

Barrier 5: There are no consolidated mechanisms to ensure food safety and responsible consumption of fishery products sold in the domestic market

62. In both countries there are strong controls to ensure both food safety and traceability of fishery products for export. However, at domestic level the requirements and controls are laxer, and the competences are divided among several entities (e.g., municipal control in markets) that do not always adequately coordinate their actions. This facilitates the commercialization of products without adequate sanitary management, and cases of fish laundering and seafood fraud.

---

<sup>23</sup> In reference to the five capitals of the sustainable livelihoods approach (Chambers & Conway, 1991).

63. An additional factor is that the national markets do not demand traceability of fishery products and certifications that ensure sustainability and responsible fishing.

Barrier 6: The operating mechanisms of the SAP have not been enabled

64. The strategic action programme was signed in 2016, after which the key actors of both countries focused their efforts in finalizing the Humboldt project (GEF ID 3749) and in preparing the current project. The details have not yet been prepared to make operational the mechanisms for SAP implementation. For example, the internal rules of the binational Steering Committee have not been approved nor have annual operational plans been prepared.

---

### III. STRATEGY

65. This Project is aimed at catalysing the implementation of the SAP, which is the guiding tool to address the three key problems of the Humboldt current large marine ecosystem.
66. The strategy of the project to initiate the implementation of the SAP and address the barriers that limit the solution of the global problems prioritized by the countries include the following elements:
- a. To implement interventions that contribute to advance each of the SAP objectives, which cover a range of issues such as (i) to strengthen the management of fishery resources, (ii) to improve the environmental quality of the marine and coastal ecosystem, (iii) to improve conservation and management of biodiversity, (iv) to diversify the productive activities of fishers, and (v) to improve both food safety and food security.
  - b. To implement practical experiences in prioritized fishery resources and specific sites to generate learnings that can be subsequently enhanced. A central element of the project will be to facilitate collaborative work among key public and private stakeholders of both countries. Four fishery resources were selected by the project partners to focus the project interventions: (i) anchoveta, (ii) jibia/pota, (iii) coastal benthic resources, and (iv) macroalgae. In addition, the following intervention sites were selected:
    - i. The bays of Iquique in Chile and Paracas in Peru, for interventions on integrated management of coastal-marine areas and environmental quality.
    - ii. The localities of Coquimbo, Puerto Aldea, Torres del Inca, and the stretch between Chañaral and Caldera in Chile, and the localities of San Juan de Marcona and Atico in Peru for productive diversification interventions.
    - iii. The protected areas of Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama and Chipana (to be created) in Chile, and Reserva Nacional San Fernando (RNSF), Punta San Juan and Punta Atico in Peru for biodiversity conservation and management of productive activities within protected areas.
  - c. To apply in practice the sustainable human development approach to facilitate opportunities for people, taking into account the interconnections between human systems and the natural systems of the planet.
  - d. To apply a highly participatory and inclusive approach that promotes collaboration and multi-level dialogue among the public and private stakeholders of the project.
  - e. To apply a gender approach and to implement practical measures to promote both participation and empowerment of women.
  - f. To support mechanisms that make more efficient the communication and collaborative work among the project partners, including the use of modern online collaboration technologies.
  - g. To systematically document, exchange and disseminate both experiences and lessons within each country and at international level.
  - h. To encourage the development of operational mechanisms for the implementation of the SAP.

Project actions are based on the following conceptual frameworks:

- FAO code of conduct for responsible fisheries (FAO, 2011).
- FAO voluntary guidelines for securing sustainable small-scale fisheries (FAO, 2015).
- The ecosystem approach as established in the various instruments of the Convention on Biological Diversity (e.g., Decisions IV/1, V/6, VI/12, VII/11 and IX/7).
- The ecosystem approach to fisheries (FAO, 2003; FAO).
- The sustainable livelihoods framework (Chamber & Conway, 1991; UNDP, 2017).
- Sustainable food value chains (FAO, 2014).

---

#### IV. RESULTS AND PARTNERSHIPS

##### Expected outcomes

67. The objective of the project is to facilitate ecosystem-based fisheries management (EBFM) and ecosystem restoration in the Humboldt current system for the sustainable and resilient delivery of goods and services from shared living marine resources, in accordance with the Strategic Action Programme (SAP) endorsed by Chile and Peru.
68. The project is organized in six components and a similar number of outcomes. The first five outcomes are directly related to the five objectives of the SAP. The sixth outcome is focused on knowledge management and project learning. In total, 25 outputs will be generated (Table 8).

Table 8. Project outcomes and outputs.

Outcomes	Outputs
1. The prioritized fishery resources have improved the existing management scenarios to contribute to their recovery and there are systems to ensure the maintenance at optimum population levels while sustaining a healthy and productive ecosystem considering climate change and El Niño Southern Oscillation scenarios.	<p>1.1 Agreed protocols in operation for simultaneous, sequential or joint assessments of the shared stock and the anchoveta fisheries (Southern Peru - Northern Chile).</p> <p>1.2 Document about the status of the anchoveta and its fishery, and future projections, in the context of environmental variability (Southern Peru - Northern Chile).</p> <p>1.3 Document with a comparative analysis of regulations and management strategies for the anchoveta, and recommendations for coordinated actions, including illegal, unreported and unregulated fishing (IUU), discards, by-catch, capture controls, closed seasons and fishing quotas.</p> <p>1.4 Programme for the biological study of the Jibia in Chile, in areas beyond the fishery, with emphasis on growth and renewal rates, to complement those studies carried out in the follow-up project.</p> <p>1.5 Management and monitoring system of benthic resources harvested in Marcona and Atico.</p> <p>1.6 Beached seaweed harvesting strategy for the Marcona district, and management plan for beached seaweed for the San Fernando National Reserve</p>
2. Improved coastal and marine environmental quality through the application of integrated ecosystem management <sup>24</sup> .	<p>2.1 Integrated and coordinated monitoring programme of environmental quality in the Bahía de Paracas.</p> <p>2.2 Plan to improve environmental quality targets for the Bahía de Iquique.</p>

---

<sup>24</sup> The ecosystem approach in coastal and marine areas consider the associated watersheds.

Outcomes	Outputs
	<p>2.3 Public investment project for wastewater treatment and landfill in the Paracas district.</p> <p>2.4 Coastal and marine spatial planning in the Bahía de Iquique to improve environmental quality.</p> <p>2.5 Integrated coastal and marine zone management of the Pisco province (Paracas and Independencia bays).</p>
3. There are systems to contribute to maintain and, if necessary, to recover biodiversity in the Humboldt current system.	<p>3.1 Regional regulations for the management of productive activities in coastal and marine areas in the sector between the Reserva Nacional San Fernando and San Juan de Marcona (including Punta San Juan de Marcona and the Demonstration Pilot program) (Peru).</p> <p>3.2 Marine protected area in Chipana (Chile)</p> <p>3.3 Management plan for the AMCP-MU “Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama”.</p> <p>3.4 Technical cooperation network in marine areas of significant importance for the conservation of the Humboldt current.</p>
4. Fishing activities are diversified, and new production opportunities are created for fishers, organized in integrated organizations of civil society, inside and outside the fishing sector.	<p>4.1 Fishery products with increased added value that can be commercialized (using the prioritised resources) in a context of responsible fisheries in which traceability is demonstrated.</p> <p>4.2 Programme for the diversification of production opportunities (with emphasis on tourism and gastronomy).</p> <p>4.3 Programme for the diversification of production opportunities (with emphasis on culture and/or restocking of benthic species and macroalgae) (Chile)</p>
5. The general public benefits from increased food security and food safety, thanks to improved management of ecosystems and fisheries, and better-quality controls of the catch.	<p>5.1 Technical proposal to promote the consumption of products made with hydrobiological resources (e.g., concentrates, hydrolysates) among vulnerable sectors of the population in Peru.</p> <p>5.2 Training programme in food safety and quality of marine products for direct human consumption in the domestic market of each country (includes: improved production chain of marine based products for direct human consumption) (Chile and Peru)</p> <p>5.3 Communication programme for consumers on food safety, food security and responsible consumption of products from the prioritized resources (anchoveta, jibia, chanque/loco, ostión and macroalgae).</p> <p>5.4 Traceability system for direct human consumption products.</p>
6. Lessons and good practices have been shared with key stakeholders in each country, between countries and globally.	<p>6.1. Digital platform to aid in communication among key stakeholders and for disseminating lessons and good practices.</p> <p>6.2. Documented and disseminated lessons and good practices.</p> <p>6.3 Gender perspective included in the project's management and actions.</p>

**Component 1: Recovery and maintenance at optimal population biomass levels of the majority of fisheries resources while maintaining ecosystem health and productivity under climate change scenarios.**

69. The expected outcome is that the prioritized fishery resources have improved the existing management scenarios to contribute to their recovery and there are systems to ensure the maintenance at optimum population levels while sustaining a healthy and productive ecosystem considering climate change and El Niño Southern Oscillation scenarios.

70. To achieve this outcome, specific actions will be implemented in four fishery resources: (i) shared southern Peru – northern Chile anchoveta stock, (ii) jibia/pota, (iii) coastal benthic resources (chanque/loco<sup>25</sup>, erizo),

<sup>25</sup> *Concholepas concholepas*, called loco in Chile and chanque in Peru.



and (iv) macroalgae. The main focus of this outcome is to contribute to a better management of fishery resources of the HCLME that are of interest for both countries. Project actions, where appropriate, will be in line with the FAO Code of Conduct for responsible fisheries (FAO, 2011) and the FAO

71. The person performing the role of binational coordinator of the project (CBP) will be responsible of coordinating the activities of this outcome as well as providing assistance and technical support to the pertinent project partners.

#### Anchoveta

72. Anchoveta is one of the key species in the HCLME. However, there are limitations to assess the status of the stock shared by both countries and that is exploited by their fleets. Therefore, a scientific – technical<sup>26</sup> coordination subcommittee will be established with technical level executives from IFOP and MARPE and with the participation of the private sector and academic entities (e.g. Centre for Applied Research of the Sea, Humboldt Institute of Marine and Aquaculture Research, universities) to coordinate and guide the actions of binational public – private workgroups. This subcommittee will be established at the beginning of the project and then it will establish its operation rules. The creation of five binational workgroups is expected, but during the implementation of the project the subcommittee will decide the best form of organization of these groups: (i) direct stock assessment, (ii) fisheries oceanography, (iii) fisheries biology-reproduction-growth, (iv) bio-socio-economy, and (v) indirect stock assessment.
73. The workgroups will analyse the stock assessment methods and procedures in use in the countries, in two approaches: (i) direct assessment (acoustics and daily egg production method), and (ii) indirect assessment (mathematical modelling of stock behaviour) to finally agree protocols for the simultaneous, sequential or joint assessment of the shared stock and the anchoveta fisheries (southern Peru – northern Chile) (outcome 1.1). The development of agreed protocols will require intense in-person work and virtual collaboration during the first two years of the project. It is expected that the protocols are formally agreed by the end of year 2 or before the midterm evaluation (Annex 1).
74. The protocols will be implemented through coordinated cruises for direct assessment and oceanography, which will be carried out in properly equipped fishing vessels. Standardized methods will be agreed for joint assessment of the shared anchovy stock status through modelling (indirect methods). It is expected that during the project there is at least one coordinated cruise per year, as well as four joint assessments. GEF resources will support, until year three, the development of the protocols and the preparation and implementation of the cruises and joint assessments through modelling. In the last two years of the project, these actions will be partially financed with national resources. The research institutes will make a great contribution to this process by providing information, qualified personnel and infrastructure (e.g. ships, acoustic and oceanographic equipment). The industry will provide equipped fishing vessels to support the coordinated assessments. Progress will be made in the bioeconomic modelling of the shared anchoveta fishery, as a way to incorporate the ecosystem approach. This task will be in charge of the bio-socio-economy workgroup. During the second year of the project it is expected to advance in the conceptual model and to apply and have the standardized information required by the model. By the fourth year of the project it is expected to have the bioeconomic models that explain the economic-fishing dynamics of the shared anchoveta fishery. Considering the relevance of climate variability in the anchoveta fishery and in general in the resources shared by both countries, a factor that has been considered relevant in the SAP, the technical group on fishery oceanography will focus on biophysical modelling of the sector in which the fishery develops. It is expected that a conceptual model and the standardized data required for the model will be available by mid-project, and to have, by the end of the project, bio-physical models that explain the environmental and biological dynamics of the anchoveta in at least two biological milestones: recruitment and spawning. GEF resources will support the development of biophysical models through training of personnel from the fisheries research institutes of each country, by gathering specialists and by facilitating exchange with international experts, these actions will be partially funded with national funds from the third year onwards.

---

<sup>26</sup> This subcommittee will be part of the Technical Committee of the Project (paragraph 346 and Figure 17).

75. In addition, the scientific-technical coordination subcommittee will lead two outputs: (i) a joint analysis of the status of the anchoveta fishery (output 1.2), and (ii) and a comparative analysis of regulations and management strategies (output 1.3).
76. The joint analysis will include (i) a retrospective analysis about the environmental variation and the anthropogenic action on the pelagic ecosystem, and (ii) design and application of predictive ecosystem and bioeconomic models. The analysis of regulations and management strategies will be completed during the second year of the project. Both outputs will serve to provide recommendations to strengthen the coordinated management of the shared stock to fishery authorities and the industry. The project includes activities to facilitate dialogue among the fishery and environmental authorities to advance the coordinated management of shared resources.

#### Jibia/pota

77. Jibia is another key species of the HCLME (particularly in the pelagic food chain) and of great fishing importance. Peru captures ca., 500,000 tonnes per year and Chile about 150,000<sup>27</sup> tonnes per year. The condition of the resource and its migration patterns are unknown. The existing information indicates that its distribution range has changed, probably as a consequence of climatic factors (Rosa et al., 2013; Stewart et al., 2014).
78. IFOP will invest GEF resources to expand the existing monitoring research programme (output 1.4). The monitoring programme will be designed to have on board observers in areas where the artisanal fleet does not operate. In addition, three annual squid-tagging campaigns will be implemented. The fisheries-biology information will be used to strengthen the studies on growth, renewal rate and migration patterns. After year three, IFOP will maintain the expanded monitoring programme (Annex 1).

#### Benthic resources

79. In Peru, it is necessary to expand the experience on management of coastal benthic resources. The project will support interventions in San Juan de Marcona and Atico districts to build on the existing advances and to generate lessons and learnings that can be used in the country and the region. The aim of the intervention will be to develop monitoring and management systems of coastal benthic resources in both localities (output 1.5). A public – private workgroup will be established to coordinate and guide the actions. Regional governments<sup>28</sup> will be key partners of the process, because they have management competences on the artisanal fisheries  
First, participatory surveillance systems will be designed and implement with direct action of the Comunidad Pesquera Artesanal de Marcona (COPMAR) in San Juan of Marcona, the Sindicato de Pescadores Artesanales y Extractores de Mariscos del Puerto de Atico y Anexos, and SERNANP in those issues related to the San Fernando National Reserve, Punta San Juan de Marcona, and Punta Atico (Figure 9). The Artisanal Fishing Surveillance Regional Committees (COREVIPA) will be activated and supported, and in parallel the regulation basis of these committees will be analysed, and a proposed updated regulation will be prepared to strengthen their functioning and operation. The proposed regulation will give attention to strengthen community-based monitoring and surveillance. It is expected that the Ministry of Production of Peru (PRODUCE) will process and issue the new regulation for the COREVIPAs.

<sup>27</sup> The annual average of the 2010-2015 period is 155,185 t/year. Since 2013, Chile has an annual catch quota of 200 thousand t/year.

<sup>28</sup> By means of the Dirección Regional de la Producción de Ica (DIREPRO Ica) and the Gerencia Regional de la Producción de Arequipa (GEREPRO Arequipa).



Figure 9. Location of San Juan de Marcona and Atico and the surrounding protected areas.

80. In parallel, fisheries management regulations (ROP) or benthic resource management plans for the two districts and the three protected areas will be prepared in a participatory manner:
  - ROP or benthic resources management plan for the San Juan de Marcona district.
  - ROP or benthic resources management plan for the Atico district
  - ROP or benthic resources management plan for San Fernando National Reserve
  - Benthic resources management plan for Punta San Juan of the RNSIIPG.
  - Benthic resources management plan for Punta Atico of the RNSIIPG
81. To support these processes, the project will promote exchange of experiences between both countries. In the second year, a workshop for exchange of experiences will be held between authorities and scientists. Complementarily, there will be two “fisher-to-fisher” exchanges of experiences. In year 2, six Chilean fishers will visit Marcona and Atico, and the following year, six Peruvian fishers from these localities will visit their peers. These exchanges will be focused on the participatory management of benthic resources. It will be very important to capitalize the Chilean experience with the Management Exploitation Areas for Benthic Resources

(AMERB) and the Peruvian experience with the Demonstration Pilot Programme formally implemented in San Juan de Marcona since 2005 (PPD Marcona).

82. Work in San Juan de Marcona and Atico will be supported by two extension officers (one on each district). These people will operate from DIREPRO Ica and GEREPRO Arequipa in coordination with SERNANP, and they will be under the guidance and supervision of the project binational coordinator.

#### Macroalgae

83. In Peru, the management of the use of stranded algae will be strengthened, building on the experience of COPMAR in the San Juan de Marcona district. The purpose of this intervention is to prepare an exploitation strategy for the district and the RNSF considering the participation of Social Organizations of Artisanal Fishermen (OSPA) in the natural protected area, as well as the regulations for macroalgae management (output 1.6). A public-private work group will be formed to coordinate and guide the actions of this intervention.
84. The project will support participatory processes to enhance improve the monitoring and control systems of the harvesting of stranded algae. Surveillance and control will be based on the corresponding COREVIPA. The long-term operation of the improved systems will be the responsibility of the local actors.
85. The process of updating and strengthening COPMAR's stranded seaweed management plan and the preparation of the stranded seaweed management plan for the RNSF will be supported. In addition, the project will foster two assessments of distribution and abundance of macroalgae in the district of San Juan de Marcona, in the first and second years of the project (Annex 1). IMARPE will execute the assessments with assistance of COPMAR fishers. Likewise, it will be important to coordinate activities with the PAN III project that will initiate implementation during 2018 (Annex 12).

#### **Component 2: Improve the environmental quality of the marine and coastal ecosystems via integrated management considering the various sources of pollutants.**

86. The expected outcome is improved coastal and marine environmental quality through the application of integrated ecosystem management. For this purpose, experience and learning will be generated from interventions in Iquique bay in Chile and Paracas bay in Peru.
87. The person who works as biodiversity specialist of the project (EB) will guide and coordinate the implementation of this outcome (Figure 17).

#### Bay of Iquique

88. In this bay, MMA will coordinate the actions to improve environmental quality. In the first year, a baseline diagnosis of the status of the environmental quality and biodiversity of the bay will be prepared (Annex 1, Figure 10). This diagnosis will include the analysis of information from the Littoral Environment Observation Programme (POAL) of the General Directorate of Maritime Territory and Merchant Navy (DIRECTEMAR), as well as environmental impact assessments used to issue environmental qualification resolutions, marine biodiversity studies, cadastre of marine outfalls and other diffuse and punctual sources that discharge pollutants in the bay of Iquique. Based on the baseline diagnosis, indicators will be established to monitor the environmental quality of the bay, pollutants and bioindicators.
89. Subsequently, an action plan to improve the environmental quality of the bay will be prepared in a participatory manner (output 2.2). It is foreseen that the plan will be formally adopted by the corresponding authorities who will assume its implementation. At the end of the fourth year, the project will sponsor a second diagnosis of the condition of the bay that will be used to assess progress and analysis by key stakeholders.
90. In the third year, based on the experience achieved, the necessary inputs to elaborate a proposal of secondary environmental quality standard<sup>29</sup> will be proposed to be considered by the corresponding instances of the Ministry of the Environment.

---

<sup>29</sup> In accordance with the MMA guide for the elaboration of secondary regulations of environmental quality in continental and marine waters.

91. Finally, a coastal and marine spatial planning exercise (MSP) will be implemented, with emphasis on the improvement of environmental quality of the bay (output 2.4). This exercise will be supported by NOAA, which will train the personnel who will develop the experience and will provide mentoring during the entire process. This participatory process will begin during the first year with awareness raising of the key stakeholders (Annex 1). Subsequently, a public–private promoter group will be formed to guide the planning exercise. This will be done in close collaboration with the Regional Commission for the Use of the Coastal Border of the Tarapaca Region. The plan is expected to be ready during the fourth year and will be presented to the formal entities that manage the uses of the coast and the adjacent sea for analysis and reflection. It is expected that this exercise will contribute to the development of regulations and institutions for the management of marine areas



Figure 10. Iquique bay.

#### Bay of Paracas

92. In this bay, MINAM in close collaboration with GORE Ica will guide actions to improve environmental quality. In the first year, work will concentrate in organizing a coordinated program to monitor the environmental quality of the bay (output 2.1). This is fundamental, since several entities measure different parameters in the area, but the information is not shared, and joints analyses are not performed either. An inter-institutional workgroup will be formed within the framework of the local committee for integrated coastal – marine management. This group will harmonize and agreed procedures for monitoring and joint analysis of the information, as well as its public dissemination. It is expected that the protocol for the coordinated monitoring programme of Paracas bay will be signed by the stakeholders during the second year of the project.

93. The information to be compiled and systematized, will be used for an approximation exercise to calculate the ocean health index<sup>30</sup> (OHI) in the Paracas National Reserve and its buffer zone. The OHI was adopted by the Multisectoral Commission of Environmental management of the Coastal Marine Environment (COMUMA<sup>31</sup>) in 2015.
94. In addition, GEF resources will be invested to prepare the feasibility studies and the design of wastewater treatment and final solid waste disposal systems for the city of Paracas (output 2.3). To date, the sewage system is collapsed, and garbage is disposed in an open dump. Consequently, solid and liquid wastes contaminate both the coast and the bay. The designs will be endorsed by the Ministry of Housing, Construction and Sanitation (MVCS) and submitted to a process of public consultation prior to final approval. The project will finance the preparation of a public investment project to obtain fiscal funds for the implementation of the sanitary works.
95. Finally, the project will support progress in the integrated marine-coastal zone management process of the Pisco province (including Paracas and Independencia bays) (Figure 11). The participatory process will be supported by (i) a local promoter who will work for a year with the local management committee and key stakeholders, and (ii) specialized international assistance.
96. The local promoter will support (i) the development of process to prepare the integrated marine-coastal zone management plan of the Pisco province (outcome 2.5), (ii) the strengthening and formalization of the local organizations of users of coastal resources, and (iii) will advise local women that provide tourism services. This person will work under the guidance and supervision of the biodiversity specialist of the project.
97. The integrated coastal-marine zone management process will include (i) the economic valuation of the natural resources of the Paracas and Independencia bays (Figure 11), (ii) the design of a compensation mechanism for ecosystem services<sup>32</sup>, and (iii) an exercise of coastal and marine spatial planning in Paracas bay. The latter will also be supported by NOAA, which will train the personnel that will develop the intervention and will provide mentoring during the process. The project will ensure that the groups that develop the MSP exercises in Paracas and Iquique exchange feedback and share experiences and lessons.
98. The intervention in Paracas bay will be consistent with the guidelines generated by the recently created Multisectoral Commission for State Action in the Maritime Area<sup>33</sup> (COMAEM). The purpose of this commission is to monitor and control sectoral, regional and local policies and to issue technical reports in order to propose a national maritime policy and its permanent updating, and other aspects related to the activities carried out in the national maritime field.

---

<sup>30</sup> OHI is an analytical framework that contributes to a holistic perspective of the condition of a marine area, considering aspects such as water quality, biodiversity, food provision, coastal protection, and carbon storage (Halpern et al., 2012; Halpern et al., 2017). One of the elements that is analysed is opportunities for artisanal fisheries.

<sup>31</sup> COMUMA is a permanent body, chaired by MINAM, whose purpose is the coordination, articulation and monitoring of environmental management in the marine-coastal environment.

<sup>32</sup> Law 30215 of 2014 established a legal framework to implement retribution mechanisms for ecosystem services (e.g. water regulation, landscape scenery, pollination). The regulation of this law was issued in 2016 through Supreme Decree 09-2016-MINAM.

<sup>33</sup> COMAEM was created through Supreme Decree 118-2017-PCM, Published on December 7, 2017.



Figure 11. Paracas bay and adjacent protected areas.



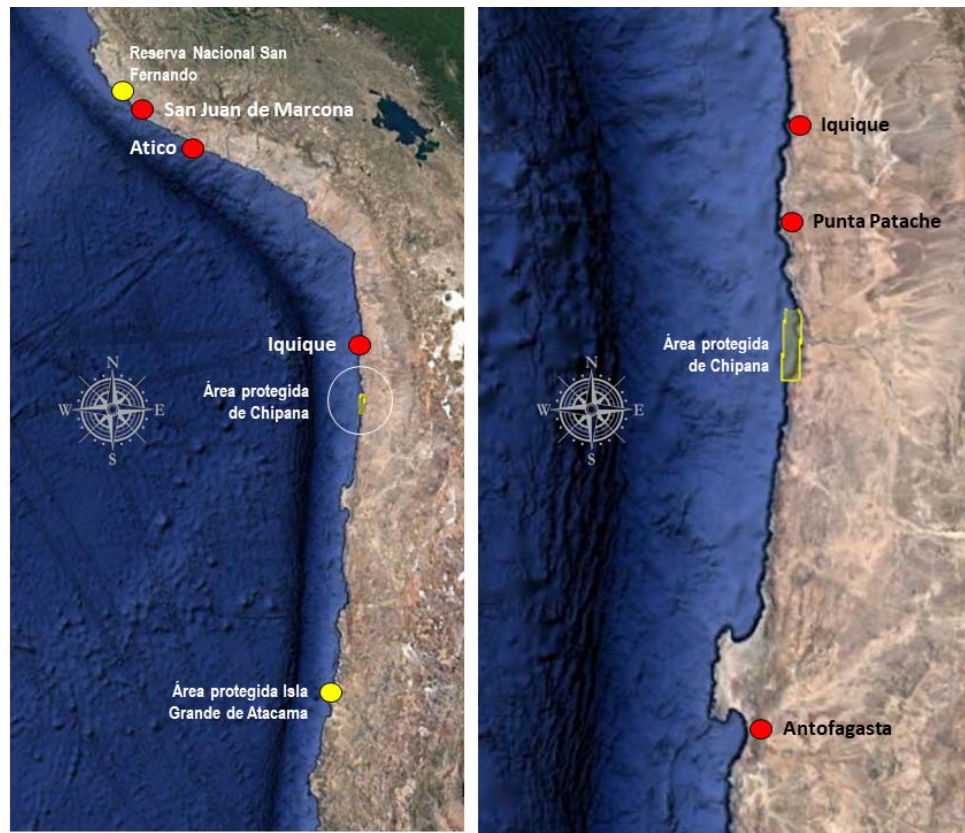


Figure 12. Location of the intervention sites in outcome 3.

**Component 3: Restore and maintain the habitat and biodiversity of marine and coastal systems at sustainable levels.**

99. The expected outcome is that there are systems to contribute to maintain and, if necessary, to recover biodiversity in the Humboldt current system. For this purpose, the work will focus on:
  - Developing regional regulations to manage productive activities in the RNSF and Punta San Juan (Peru) (output 3.1);
  - Creating a new marine protected area in Chipana (Chile) (output 3.2);
  - Preparing a management plan for the AMCP-MU Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama (Chile) (output 3.3); and
  - Developing a technical cooperation network in protected areas of the Humboldt current (output 3.4).
100. The person who will work as biodiversity specialist of the project will guide and coordinate the implementation of this outcome (Figure 17).
101. It is common that the work to strengthen management and establish new MPAs face resistance from some stakeholders concerned that their activities might be negatively affected. Therefore, the project will implement multi-level and intersectoral participatory processes to ensure that the actors can express their uncertainties and, if necessary, reach agreement and consensus. Every care will be taken to prevent that the livelihoods of local user groups are negatively affected by new restrictions or limitations to access and use of key areas or natural resources (see paragraph 294).



## San Fernando National Reserve and Punta San Juan de Marcona

102. The expansion of unregulated tourism can generate impacts on the coastal and marine biodiversity of the area. However, this is an activity that if properly regulated and controlled, can contribute to income diversification of coastal families. Consequently, with GEF resources, regulations for tourism and sport fishing will be prepared for the stretch between RSNF and Punta San Juan de Marcona, including PPD Marcona (Figure 9). Interventions will be closely coordinated between the GORE Ica, SERNANP, Vice Ministry of Fisheries and Aquaculture, General Directorate of Captaincies and Coastguards of Peru (DICAPI), and MINAM.
103. A diagnosis of the situation of sport fishing in the area will be prepared, as well as a proposal for regional regulations for analysis and processing by GORE Ica, based on the PRODUCE's sectoral regulations. Once the regulation has been issued, an extension officer will support the interested local fishers, so they can be trained and formalized in compliance with the regional regulation. This person will work in coordination with DIREPRO Ica, under the guidance and supervision of the biodiversity specialist of the project.
104. In addition, a proposal for a regional coastal tourism regulation will be prepared for analysis and processing by Ica's Regional Directorate of Foreign Trade, Tourism and Handicrafts (DIRECTUR Ica). Also, the following elements will be prepared:
  - A diagnosis of potential visiting sites that could complement the already consolidated sites;
  - Technical criteria and environmental standards for tourism activities in marine and coastal protected areas (RNSF and Punta San Juan de Marcona of the RNSIIPG) and marine-coastal areas; and
  - Economic valuation of natural resources for artisanal fishing and coastal tourism (stretch between RNSF and PPD Marcona).

## Chipana

105. Chipana is a priority site for biodiversity conservation<sup>34</sup> (priority site SP1-002), located ca., 130 km south of Iquique (Tarapaca region, Iquique province, Iquique commune). Its value for biodiversity conservation is (i) being a stepping stone for migratory birds (e.g., *Pluvialis dominica*, *Charadrius semipalmatus*, *Numenius phaeopus*, *Calidris alba*, *Larus pipixcan*), (ii) year-round presence of *Chelonia mydas* (listed Endangered in the IUCN red list), (iii) nesting and feeding area of the gaviotín chico (*Sterna lorata*) (listed Endangered in the IUCN red list), and (iv) subtidal macroalgae meadows formed by *Macrocystis pyrifera* and *Lessonia trabeculata*. In 2012 a baseline analysis and draft management plan were prepared, and the proposed limits adjusted according to consultation with local stakeholders and user groups<sup>35</sup>.
106. The MMA will lead a participatory process with local stakeholders (e.g. artisanal and industrial fishermen, tour operators, residents) to agree a protection scheme for Chipana (Figure 13). Preliminary, it is estimated that the area will cover ca., 11,469 ha, but the extension and protection category will be defined during project implementation.
107. With GEF resources, a case file will be prepared to sustain the creation of the new protected area and its corresponding management plan. It is expected that Chipana's protected area will be created between the second and third year of the project (output 3.2). The protection of the area and the implementation of the management plan will be covered with co-financing resources.

---

<sup>34</sup> Sixty-four priority sites were identified between 2001 and 2002 by the Comisión Nacional del Medio Ambiente (CONAMA) (CONAMA was dissolved in 2010 and replaced by the Ministry of Environment). Their legal status is based on Law 19,300 (article 11, letter d) and Decree 40 of the Ministry of Environment (published on 12 August 2013).

<sup>35</sup> The information of the site is compiled in the national registrar of protected areas. See <http://bdrnap.mma.gob.cl/buscador-rnap/#/busqueda?p=1247>



Figure 13. Probable boundary of the new protected area in Chipana.

#### AMCP-MU Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama

108. This protected area was created in 2004<sup>36</sup> with the support of the project “conserving globally significant biodiversity along the Chilean coast” (GEF ID 1236) (Figure 14). It is in the Atacama region (Copiapó province, Caldera commune) and corresponds to an IUCN category V protected area (i.e., protected landscape/seascape). Its value for biodiversity conservation is being a residence area of endangered species like *Pelecanoides garnotii* (listed endangered in the IUCN red list), *Spheniscus humboldti* (listed vulnerable in the IUCN red list) and *Lontra felina* (listed endangered in the IUCN red list). At the time of its creation its management was not consolidated. Currently, after an important and long-term effort of the Atacama regional government, the social and inter-institutional involvement that requires a successful administration of the AMCP-MU has been achieved. At project start, GEF resources will be used to analyse the previous experience to identify lesson and key barriers that will be useful in future situations. Then, MMA will lead a public – private participatory process to prepare and agree on the management plan for the area<sup>37</sup> (output 3.3). This plan will focus on (i) biodiversity monitoring, (ii) control and surveillance, and (iii) administrative and financial arrangements to support the management of the protected area.

109. It is foreseen that the management plan will be ready and approved during the second year of the project. Immediately, the project will provide a consultant to supply technical assistance and support to those responsible for the area to initiate implementation of the management plan. After this initial support, the management of the area should be sustained with national financial resources.

<sup>36</sup> Created by Decree 360 of the Ministry of Defence issued on 08 December of 2004 and published on 05 February 2005. The national protected area code is WDPA-001. The information of the site is compiled in the national registrar of protected areas. See <http://bdrnap.mma.gob.cl/buscador-rnap/#/busqueda?p=0>

<sup>37</sup> A draft management plan for artisanal fisheries was prepared in 2013 and a protection programme was prepared by MMA in 2015. These proposals will be part of the information to be analysed and reviewed during the process to prepare the management plan for the area. See: <http://bdrnap.mma.gob.cl/recursos/SINIA/PlandeManejo/Programa%20Protecci%C3%B3n%20AMCP%20Isla%20grande%20de%20Atacama.pdf>  
<http://bdrnap.mma.gob.cl/recursos/SINIA/PlandeManejo/Plan%20de%20Manejo%20AMCP%20Isla%20grande%20de%20Atacama.pdf>



Figure 14. Location of the protected area "Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama".

#### Technical cooperation network in prioritized marine areas for the conservation of the Humboldt current

110. During the first Chile – Peru presidential meeting and binational cabinet held in Lima in July 2017, a collaboration agreement for the management of marine coastal protected areas<sup>38</sup> was signed. The project will contribute to operationalize this agreement through the creation of a technical cooperation network in marine areas of significant importance for the conservation of the Humboldt current. (output 3.4).

111. GEF resources will be invested to organize binational meetings focused on:

- exchange of experiences,
- agree on criteria to prioritise sites<sup>39</sup> and conservation targets,
- agree on a strategy for the development of the network, and finally,
- formally establish the technical cooperation network.

112. In addition, the following aspects will be financed:

- Complementary studies in each country to support prioritization of sites and the preparation of national strategies to implement the binational agreements.
- Development and maintenance of a web portal of the binational network. Initially, this portal will be operated by the project team, but will be accessible through the MMA and SERNAP portals. At the end of the third year, the web portal will be transferred to the corresponding entities to be administered by them.

<sup>38</sup> This is an inter-institutional agreement between the Ministry of the Environment of the Republic of Chile and the Ministry of the Environment of the Republic of Peru for the development of actions of governance, management and conservation of the national systems of marine coastal protected areas. This agreement provides diverse forms of collaboration (e.g. exchange of information and experiences, implementation of joint activities) and establishes that a binational technical workgroup on marine coastal protected areas will be formed to develop annual work plans.

<sup>39</sup> The criteria established in the IUCN global standard for the identification of key biodiversity areas will be used (IUCN, 2016). These areas are sites that are significant for the global persistence of biodiversity in terrestrial, freshwater and marine ecosystems.

#### **Component 4: Diversify and add value by creating productive opportunities inside and outside the fisheries sector with people socially organized and integrated**

113. The expected outcome is that the fishing activities are diversified, and new production opportunities are created for fishers, organized in integrated organizations of civil society, inside and outside the fishing sector. For this purpose, the project work will focus on developing pilot experiences in:

- development of non-traditional products for direct human consumption in the national markets (output 4.1), and
- production diversification in the areas of (i) tourism and gastronomy (output 4.2.) and (ii) cultivation/repopulation of coastal benthic resources and macroalgae (output 4.3).

Project actions, will be in line with the FAO Code of Conduct for responsible fisheries (FAO, 2011), the FAO voluntary guidelines for sustainable small-scale fisheries (FAO, 2015), the sustainable livelihoods framework (Chamber & Conway, 1991; UNDP, 2017) and sustainable food value chains (FAO, 2014).

114. The person who will work as specialist in production diversification of the project (EDP) will guide and coordinate the implementation of this outcome (Figure 17). This person will have the support of a United Nations volunteer (UNV).

115. It is expected that the long-term impact of the learnings from this outcome will be: (i) increased domestic consumption of sustainable nutritious products (e.g., anchoveta, algae, and jibia), and (ii) the development of sustainable value chains in domestic markets.

#### **Experiences with non-traditional fishery products and sustainable value chains**

116. The intervention will focus on developing production experiences based on associative businesses of artisanal fishers or their families. Actions will be developed in six topics:

- i. Exchange of experiences and incorporation of women in productive processes.
- ii. Anchoveta fishery products for direct human consumption.
- iii. Jibia/pota fishery products for direct human consumption.
- iv. Sustainable value chains of coastal benthic products.
- v. Macroalgae products for direct human consumption and supply to the derivatives industry.
- vi. Use of fish waste as fertilizer.

#### **Exchange of experiences and incorporation of women in productive processes**

##### **Exchange of experiences**

117. In both countries there is significant public and private experience of in (i) elaborating products for direct human consumption of anchoveta, jibia/pota and macroalgae, (ii) encouraging the consumption of seafood, (iii) promoting responsible consumption, and (iv) developing productive businesses of organized fishermen.

118. For example, The Technological Institute of Production of Peru (ITP) has developed technological packages for anchoveta and jibia/pota products (e.g., spreadable paste, anchoveta charqui). In Chile, several macroalga products have been developed for direct human consumption and there is an algae processing industry, which is mainly supplied by artisanal fishermen.

119. In addition, both countries have promotion initiatives to encourage domestic seafood consumption. In Peru and Chile, the programs “A Comer Pescado / Let’s eat fish (Peru)” (public initiative), “Del Mar a mi Mesa / From the sea to my table (Chile)” (public-private initiative) and “Come pescado y súmate al kilo de salud por año / Eat fish and contribute to the kilo of health per year” (Chile) (private initiative) are being implemented.

120. However, the domestic direct human consumption of anchoveta, jibia/pota and macroalgae is very limited due to various factors, such as consumption habits, price and supply of raw materials.

121. Consequently, the first project activity will be to facilitate the exchange of experiences and negative and positive lessons-learned, to have a common base that serves as a platform for the other interventions in outcomes 4 and 5.

122. At the beginning of the project, experiences and public and private initiatives will be identified in: (i) production of products for direct human consumption, (ii) traceability of fishery products, and (iii) promotion

of domestic seafood consumption. The emphasis will be on four groups: anchoveta, pote/jibia, coastal benthic resources<sup>40</sup> and macroalgae.

123. Once the existing initiatives and experiences have been mapped, a program of experience exchange events will be developed and implemented. Discussions and learnings generated in each event will be documented and systematized in a memory that will be widely disseminated.

#### Incorporation of women in productive processes

124. Women actively participate in the value chains of the fishery products, though their role is not evident. At local level, there are experiences of women in the production of added-value products such as algae jams in Atico in Peru and Navidad in Chile. There are also important experiences in business development that contribute to the family economy such as small restaurants and tourist activities. The official entities are aware that women have a significant role in the development of family businesses. For example, FONDEPES applies a gender approach in its credit operations, because they have identified that women manage their business better. In Chile, the “Mujer Pescadora Emprende / Fisherwoman undertakes”<sup>41</sup> contest has been held twice to give value to the development of businesses opportunities in the artisanal fisheries sector.
125. GEF resources will be invested to prepare a detailed cadastre of social and productive organizations in each project intervention site. In addition, this study will include (i) identification of barriers and opportunities for the incorporation of women in activities of value addition and productive diversification, (ii) training and technical assistance needs required by women, and (iii) a proposal of actions to support the integration of women. This study will be complemented with two additional analyses that will be carried out to identify productive diversification options (see paragraphs 172 and 182). The proposal of actions will be internalized in the interventions of the present outcome.
126. The following actions will be implemented to contribute to the participation and empowerment of women in the initiatives of value addition and diversification on prioritized sites:
- Sensitization meetings with local actors (men and women) during the second and third year of the project.
  - Training in organizational strengthening and leadership in support to organizations of women who participate in the interventions of the present outcome. The project budget includes USD 15,000 per year for years 2 to 4 as a training fund. These resources will be used according to the needs identified during the implementation of the project.
  - Small **donations** to support activities of value addition or production diversification carried out by groups of women (formal or de facto). The project budget includes USD 10,000 per year for years 2 to 4 **for small in-kind donations (see budget note 18)**. The use of these resources will be based on the needs identified during project execution. Its implementation will be done within the framework of UNDP’s guidance on micro-capital grants.
  - **Promote and facilitate networking between women’s groups that implement initiatives of value addition and production diversification. Use social networks and other electronic channels.**
  - Exchange of experiences events in years 3 and 4. In each event, about 10 women will visit the other country to know the progress of the initiatives of value addition and production diversification and to exchange ideas in this regard.
127. All these actions will be coordinated by the person who will work as participation, communication and gender specialist (EPCG) of the project team (Figure 17, Annex 5). This person will evaluate every year the progress, achievements and impacts of the incorporation of women in the activities of value addition and productive diversification of the project. The last evaluation will be done before the terminal evaluation of the project and will provide the integral perspective of everything achieved.

---

<sup>40</sup> Mainly chanque/loco and erizo.

<sup>41</sup> The first contest was held in 2016 and the second one in 2017. The contest offers a prize of ca., USD 1,500 to the winning woman. This is an initiative in which SUBPESCA, SERNAPESCA, BancoEstado and the Ministry of the Woman and gender equity participate.

## Anchoveta fishery products for direct human consumption

128. The promotion of direct human consumption of anchoveta is a priority in both countries due to the high nutritional value of this species. However, despite significant promotion efforts, the consumption is not taking off. Apparently, there are significant barriers of different nature (Freón et al, 2014).
129. At the beginning of the project, a detailed analysis of the critical factors and barriers that limit both production and consumption of anchoveta products will be prepared in each country. These studies will include the situation analysis of sites that have been selected to undertake the production pilots. In Chile, in the Tarapaca Region and in Peru, in the Andes regional commonwealth<sup>42</sup>.
130. The results of the diagnoses will be analysed with the key stakeholders to delineate measures that would be applicable to address the critical problems identified. Binational sessions will be organized to exchange ideas in this regard.
131. The project will support the development of two production pilot projects of production and commercialization of anchoveta products for direct human consumption. The pilot projects will be implemented by organizations of artisanal fishermen, associative companies or family groups. It is expected that these pilot projects will generate learnings about how to encourage this type of initiatives at a national level.
132. In Chile, the pilot will be developed in the Tarapaca region and the products will be provided to the institutional markets (gendarmerie, armed forces and police). In Peru, the project will be implemented in Ica and the products will be oriented to the consumption of the Andes commonwealth.
133. The following aspects will be crucial for the development of these pilot projects:
- To choose proper products, with acceptance in the identified market. It is expected to use the technological packages of the ITP and the outcomes of the project FIPA 2017-73 (Annex 12).
  - To appropriately select the groups with which the pilot projects will be developed. These groups should be motivated, but also organizational and administrative capacities that allow them to develop the productive entrepreneurship. The selection criteria of the groups will be constructed from the experience of national entities such as FONDEPES and FFPA.
  - To ensure medium and long-term accompaniment for the entrepreneurships. It is expected to identify public (e.g., local governments) or private sponsors that establish alliances with the entrepreneurial groups. This will help the initiatives to grow beyond the intervention of the project.
134. The project will support the groups that develop projects with:
- Preparation of the business plan
  - Training, technical assistance and accompaniment.
  - Training and tutoring for the preparation of project proposals to be presented to competitive funds, to finance equipment, infrastructure or working capital (e.g., PNIPA, FFPA, Innóvate Peru, CORFO).
  - Complementary financing (in kind) of the pilot.
135. It is expected that the ongoing promotion programs (e.g., A Comer Pescado, Del mar a mi Mesa) will develop promotion campaigns of the anchoveta products.
136. The experience of the pilot projects will be documented to identify learnings. Regular meetings of reflection and self-assessment will be organized with the groups that develop the pilot projects, as well as exchange of experiences among the groups of both countries.
137. Based on the experience achieved, training courses for production and commercialization of anchoveta products will be developed and programs to promote family or associative businesses will be designed. The project will accompany the start-up of these processes to be then maintained and expanded by local entities.

## Jibia/pota fishery products for direct human consumption

138. Both countries prepare a variety of jibia/pota products for export. However, domestic consumption is low, despite being an accessible and nutritious food. In Peru there is domestic consumption, in part because of private and public consumption promotion campaigns. On the other hand, in Chile the domestic consumption

---

<sup>42</sup> This commonwealth integrates the regional governments of Apurímac, Ayacucho, Huancavelica, Ica and Junín. Within this commonwealth there are severe malnutrition problems and therefore, the supply of accessible food products of high nutritional quality is required.

of jibia/pota is marginal. The public is not familiarized with the product; consumers ignore how to cook this squid and there is some resistance to certain characteristics such as smell and texture. Also, there is limited supply of jibia/pota in the domestic market. The Chilean Government is interested in encouraging the consumption of jibia/pota as part of a long-term strategy to improve both health and nutrition of the population.

139. A pilot will be implemented to produce and commercialize jibia/pota products for domestic consumption in Chile. The pilot will be implemented in the city of Coquimbo, which is an important locality for landing and processing for jibia/pota.
140. At the beginning of the project, the following aspects will be analysed:
  - The existing experiences and critical factors and barriers that limit the production and development of value chains of products for the domestic market, and
  - Market conditions and consumer preferences.
141. The analysis of consumer receptiveness will be based on the products that processors have available and those that have resulted from project FIPA 2017-73 (Annex 12).
142. From these analyses, a strategy will be designed to promote jibia value chains in the Coquimbo Region. It is expected that the strategy is implemented by the Undersecretariat of Fisheries and Aquaculture of Chile (SUBPESCA) in collaboration with GORE Coquimbo.
143. The project will provide technical assistance for two years (e.g., preparation of business plans, technical training), as well as accompaniment to family and associative businesses interested in forming value chains. In addition, the project will support the preparation of proposals to various sources (e.g. CORFO, FPPA) to finance investments for the development of businesses.
144. In addition, the consumption of jibia products will be promoted:
  - The project will design public - private promotion campaigns and the corresponding promotion materials (e.g., recipe books, gastronomic fairs). The campaigns will be aimed to restaurants, cooking schools and homes. The implementation of the campaigns will be in charge of “Del Mar a mi Mesa” and/or “Come pescado y súmate al kilo de salud por año”.
  - The project will design and implement the initial promotion phase of jibia/pota products through neighbourhood stores of Coquimbo in collaboration with the programme “Almacenes de Chile / Chile stores”<sup>43</sup>.
145. The experience will be documented to identify learnings. Regular meetings of reflection and self-assessment will be organized with the groups that develop the initiatives.
146. Based on the experience gained, a processing manual for jibia/pota for direct human consumption will be prepared, which will be disseminated by SUBPESCA.

#### Sustainable value chains of coastal benthic resources

147. Coastal benthic resources (e.g., sea urchin, octopus) have an important domestic demand, which can cause a negative pressure on such resources. The main challenge is to ensure that the supply chain is sustainable and responsible. This implies, among other things, that the products come from legal sources, there is traceability throughout the supply chain and fishermen receive fair prices for their products. Several initiatives to promote responsible consumption are underway, such as the “blue seal” by SERNAPESCA (see paragraph 230) and initiatives from Cocinamar Foundation.
148. The project will support the development of pilot projects for both promotion and development of sustainable supply chains and responsible consumption of benthic resources from Puerto Aldea and Torres del Inca in Chile (Figure 15), and from San Juan de Marcona and Atico in Peru (Figure 9).
149. At project start, the status of the value chains of the coastal benthic resources will be analysed, with emphasis on value chains related to the products of the four selected localities. Subsequently, the project will design

---

<sup>43</sup> This government programme is aimed to enhance competitiveness and profitability of neighbourhood stores. The programme includes online training and a competitive fund with regional calls to finance business initiatives. Information about the program is available at [www.almacenesdechile.cl](http://www.almacenesdechile.cl). At the beginning of the project, collaboration mechanisms with this government program of the Ministry of Economy, Promotion and Tourism will be established.



public – private campaigns and the corresponding promotion materials to encourage responsible consumption of benthic resources. The start-up of the campaigns will be supported, and these will be implemented by “A Comer Pescado” in Perú and “Del Mar a Mi Mesa” and/or “Come pescado y súmate al kilo de salud por año” in Chile.

150. Strategies for the promotion of responsible value chains for each of the four selected localities will be designed. The project will provide support for the implementation of these strategies for one year. The support will consist of technical assistance and accompaniment, that includes as appropriate for each case: (i) training, (ii) preparation of business plans, (iii) feasibility studies and design of value aggregation units, and (iv) tutoring and advice to submit projects to competitive funds.
151. Feasibility studies and design of small processing units will be aimed to add value to the catch and differentiate themselves within the supply chain with which the work is being carried out. Depending on the feasibility, the project will support the implementation and start of operation of small processing units in Puerto Aldea and Torres del Inca. The process will be implemented with funds from other sources in Marcona and Atico.
152. The accompanying processes to fishermen of the four localities will be developed in close collaboration with entities that can sponsor the initiatives and support their development beyond the intervention of the project.
153. Puerto Aldea and Torres del Inca are settled on fiscal lands in which the land tenure has not been regularized. This limits the fact that these fishing communities can access competitive funds and public investment. In the first year, the project will support the preparation of a case file and actions to regularize the land tenure and infrastructure based on the 2017 Fishing Coves Law<sup>44</sup>. The recognition as artisanal fishing coves will enable them to develop multiple activities such as processing of fish products, small-scale aquaculture, shops of seafood products and handicrafts, and tourism.
154. The experience will be documented to identify learnings. Regular meetings of reflection and self-assessment will be organized with each group and the exchange of experiences between fishermen of the four localities will be facilitated.

#### Macroalgae products for direct human consumption and supply to the derivatives industry

155. Coastal macroalgae communities form complex habitats that sustain significant biodiversity and provide a range of goods and ecosystem services. The life cycle of various commercial species (e.g., sea urchins, bivalves) depend on algae meadows. Additionally, macroalgae have a high commercial value in both countries as raw material for the derivatives products industry (carrageenan, agar). Most algae come from wild harvest, which is supplemented with aquaculture (Vivanco et al., 2011; Hayashi et al., 2014; Rebours et al., 2014; Vásquez et al., 2014). In Chile, it is only allowed the collection of beach-stranded algae. In addition, a quota is assigned to each organization which is part of the Management Exploitation Areas for Benthic Resources regime (AMERB). Such quota is declared by the fishermen at the time of commercialization. In both countries there is traditional direct consumption of macroalgae such as the cochayuyo and, in the past years, the development of products such as jams, and dried algae has been promoted.
156. The project will support two types of interventions: (i) the implementation of pilot project to add value to the stranded algae which is sold for industrial purposes, and (ii) the development of products for direct human consumption. The areas of work will be the sector between Chañaral and Caldera (Atacama Region) and Puerto Aldea (Coquimbo Region) in Chile (Figure 15), and San Juan de Marcona and Atico in Peru (Figure 9). Project actions will construct upon the experience of selected groups<sup>45</sup> and the progress made in both countries by various organizations of the civil society<sup>46</sup>, academy and public sector.
157. In Marcona and Atico the project will support COPMAR and the Gremio de Pescadores de Atico to prepare feasibility studies and business plans for macroalgae processing plants. These plants are simple facilities with

<sup>44</sup> Law 21027 was enacted in September 2017. It establishes that through SERNAPESCA, the "destination" of public property under the administration of the Ministry of National Defence and the Ministry of National Assets may be assigned to fishers organised into an artisanal fishing cove. The destination lasts 30 years, renewable. The use of the space and infrastructure of the cove is established in a management plan agreed between the parties.

<sup>45</sup> For example, a summary of the situation in San Juan de Marcona can be seen in: <https://pnudperu.exposure.co/la-revolucion-de-las-algas>

<sup>46</sup> For example, algae collectors of Navidad (Libertador General Bernardo O'Higgins Region) who commercialise cochayuyo and luche products. More information in: [alguerosdenavidad.cl](http://alguerosdenavidad.cl).



basic infrastructure for loading, chopping, sorting, bagging and weighing of macroalgae to be sold to the derivatives industry. Based on the feasibility studies, the preparation of project proposals to obtain financing from competitive funds will be supported, as well as the corresponding procedures before the corresponding authorities. Finally, tutoring and technical assistance will be provided during the installation of these facilities and the initiation of operations. It is expected that DIREPRO Ica and GEREPRO Arequipa will sponsor the initiatives and provide medium and long-term support.

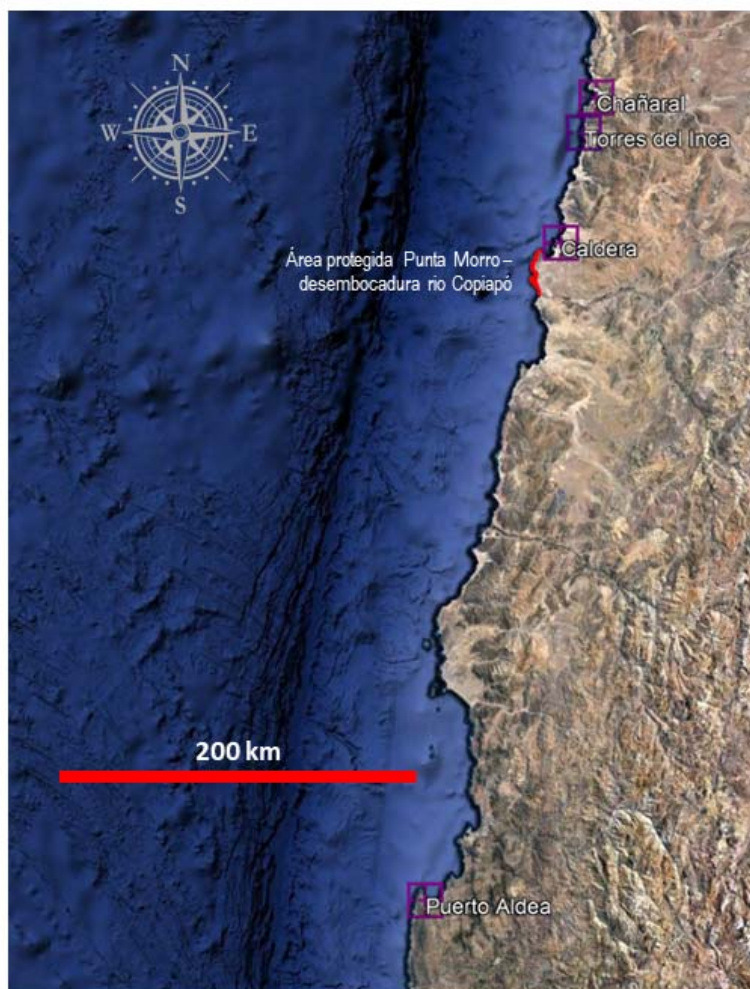


Figure 15. Intervention sites to work with macroalgae in Chile.

158. In Chile, the project will contribute to explore the possibility of installing a plant to extract alginate from seaweed. At project start, an analysis will be prepared to assess (i) the situation of the alginate market, and (ii) the barriers and opportunities for the installation of an alginate plant in Chañaral based on associative administration of artisanal fishers' organizations. Depending on the results of the analysis, support will be provided to fishers' organizations of the sector between Chañaral and Caldera, for the preparation of (i) feasibility studies, (ii) business plan, (iii) processing plant designs and layouts, and (iv) project proposals to secure funds from various competitive sources.
159. The project will contribute to the development of value chains of macroalgae products for direct human consumption. For this, at the beginning of the project, the Chilean experiences (both successful and unsuccessful) of production of added value products for the domestic market consumption will be analysed.

The products with better condition for commercial development by artisanal fishers (organizations or families). will be identified from this analysis Likewise, a market analysis for these new products will be prepared.

160. Based on these results, a strategy to promote value chains of the prioritized products will be prepared for Puerto Aldea and the entire Atacama region. The strategy is expected to be implemented with the support of GORE Atacama and the University of Atacama, which has experience in the development of seaweed products.
161. In support of the promotion strategy of value chains, the project will provide the groups interested in developing production initiatives with the following aspects:
  - Support and tutoring to prepare project proposals to various funding sources (e.g., CORFO).
  - Technical assistance, training and accompaniment to the development of family or associative businesses.
162. Additionally, an extension officer will be located in the area for 12 months to provide direct support to the ongoing initiatives. This person will be under the guidance and supervision of the specialist in production diversification of the project
163. Finally, a public – private campaign to promote consumption of macroalgae products and their corresponding materials will be designed. It is expected that the campaign will be implemented by the “Del Mar a mi Mesa” and/or “Come pescado y súmate al kilo de salud por año” programme.
164. The experience will be documented to identify learnings. Regular meetings of reflection and self-assessment will be organized with each group and the exchange of experiences between fishermen of the localities will be facilitated.

#### Use of fish waste as fertilizers

165. The project will support a pilot to promote the use of fish waste from the experience of the processing industries of Pisco (Peru) on the use of waste to produce compost. The process will be developed in close collaboration with DIREPRO Ica.
166. At project start, feasibility analyses will be prepared for (i) production and commercialization of ictiocompost in Pisco, and (ii) use of caulerpa algae (an invasive species) for compost or other use. Based on the results, a technological package will be designed to produce ictiocompost by small local producers. Once the technological package is ready, a training programme for local producers will be designed, and trainers from national entities will be trained (e.g., DIREPRO Ica, FONDEPES), so they can train the producers. The project will support the start of the training program, though its mid-term implementation will be in charge of DIREPRO Ica.
167. In addition, a business promotion campaign to produce ictiocompost and its use in organic agriculture will be designed. The project will support the start of the campaign, which will be maintained by DIREPRO Ica.
168. In support of the business promotion campaign, the project will provide initial assistance to entrepreneurs for the preparation of business plans and productive accompaniment. The support will continue to be provided by DIREPRO Ica or other entities integrated to the initiative.
169. In year 4, a visit of Chilean fishermen will be organized to know the experience in Pisco. The experience of ictiocompost production will be documented to identify learnings.

#### Experiences in productive diversification based on gastronomy and tourism

170. Fishing communities are vulnerable to the impact of changes in the access and availability of fisheries (e.g., climate change, regulatory framework, markets). The traditional proposal to address such vulnerability has been to promote the diversification of activities of the fishermen; for example, by encouraging them to venture into processing, tourism or aquaculture. There is abundant experience that indicates that the diversification of incomes and activities requires a wide perspective that incorporates families and fishery community, as well as government support actions (e.g., access to basic services, education) (Allison & Ellis, 2001; Brugere et al., 2008; Cinner & Bodin, 2012; Hersoug, 2012; Olale & Henson, 2013).

171. The project will contribute to the development of productive diversification exercises, constructing on both experience and motivations (mainly, gastronomy and tourism) of four fishing communities that use coastal resources (i.e., San Juan de Marcona y Atico in Perú, and Torres del Inca and Puerto Aldea in Chile). A sustainable livelihoods approach will be used to design integrated interventions (Chambers & Conway, 1991; Allison & Ellis, 2001). The learnings with these communities will serve as basis for supporting actions in other coastal localities of the HCLME.
172. At project start, an analysis of options and feasibility of productive diversification will be prepared in the four localities. The analysis will be based on the sustainable livelihoods framework, and it will emphasize in the role of women in production and income generation. This analysis will be prepared in parallel with the study of barriers and opportunities for incorporating women in productive activities (paragraph 125). The results of the analyses will be examined with the local stakeholders of each population, local governments (municipalities and regional governments) and fishing authorities.
173. From the results of the analyses, a strategy for productive diversification will be prepared through a participatory process. The strategy will incorporate a gender approach and will promote the participation of women. The project will support the initial implementation of these strategies and it is expected that the same communities and the local governments are responsible for medium and long-term implementation.
174. In Puerto Aldea and Torres del Inca the project will provide:
  - Small **in-kind** donations to support production diversification initiatives, the project's budget includes USD 30,000 to be invested during year 2 (see budget note 52). These resources will be complemented, as far as possible, with the already described support fund for activities of women (paragraph 126). The execution of these resources will be done within the framework of UNDP's guidance on micro-capital grants
  - Training and tutoring to prepare project proposals for available competitive funds for the development of productive entrepreneurship (e.g., FFPA, CORFO, Fondo de Solidaridad e Inversión Social, Capital Abeja Emprende or the Servicio de Cooperación Técnica)
  - Technical assistance and practical training (hands-on training) during one year to the entrepreneurship, provided by two extension officers (one in each locality). These extension officers will also support the strengthening of social capital on each community. These people will be under the orientation and supervision of the project's specialist in production.
  - Support for the participatory process of preparation of a tourism development programme for each locality. The project will provide support for the initial implementation of these programs, but it is expected that they will be sustained in the medium and long-term by the communities themselves and the tourism units of the local governments.
  - Organization of visits to exchange experiences (one visit per year in years 2 and 4) to visit localities in Chile or Peru with similar initiatives.
175. In Puerto Aldea, the project will support the initiative to promote the locality which is being implemented by the de facto social organization called "Community of Puerto Aldea" that promotes local development. The project will support the participatory process to prepare the promotion strategy for the locality and its initial implementation. It is expected that both the community and local governments will be responsible of the subsequent medium and long-term implementation.
176. In Torres del Inca, the project will support the design and development of a tourist route that includes a camping area. As part of the design, the administration and maintenance mechanisms of the route and its facilities will be developed. The community is expected to take charge of the operation.
177. In Marcona and Atico there are important advances in the development of complementary tourism activities. Therefore, the project will support the participatory preparation of the management plans for tourism activities in the beaches of each locality. These plans will be formally adopted by the local authorities, that will also support their long-term implementation. The project will provide specialized technical assistance for three years (years 2 to 4).
178. Additionally, feasibility analyses will be prepared for the development of a tourist product related to seagrass meadows and the use of stranded algae in Marcona and Atico. Depending on the outcomes of the feasibility studies, the following topics will be supported:
  - Design of tourist products and the corresponding development and promotion strategy.

- Technical assistance for the development of tourism products and the implementation of a promotion strategy. To achieve this, the project will provide two extension officers. One person will provide specialized technical assistance and tutoring for the development of the tourism products. This person will work part-time for two years (years 2 and 3). A second person will provide support for a year for the initial implementation of the promotion strategy. Both persons will work in coordination with organizations and local governments, under the guidance and supervision of the project's specialist in production diversification.
179. The experience of the four communities will be documented to identify learnings. Regular meetings of reflection and self-assessment will be organized with each group and the exchange of experiences between stakeholders of the different localities will be facilitated.

#### Experiences in production diversification based on cultivation / repopulation of benthic resources and macroalgae

180. In both countries there are experiences and advances in the promotion of cultivation and repopulation of macroalgae and benthic resources. Recently, the Law 20925 of 2016 established a bonus<sup>47</sup> to promote repopulation and cultivation of algae in Chile. In support of the implementation of this regulation, the Fisheries Management Fund (FAP) (see paragraph 228) plans (i) to facilitate technical assistance by means of extension officers, and (ii) the installation of demonstration laboratories (hatcheries) to produce macroalgae seedlings.
181. The project will support the development of experiences in Chile, whose learnings could be useful for both countries. Work will be carried out on interventions to promote cultivation of macroalgae in the sector between Chañaral and Caldera, and repopulation of sea urchins in Torres del Inca (Figure 15).
182. At project start, a feasibility analysis of productive diversification in these localities will be prepared. The analysis will be based on the sustainable livelihoods approach and will pay attention to the role of the women in productive activities. The analysis will be executed in parallel to the analyses on incorporation of women in productive activities (see paragraph 125) and production diversification (paragraph 172). In addition, a study of the aptitude of sites for macroalgae production in the sector located between Chañaral and Caldera will be conducted. This study will identify the algae that are produced and that could be produced for various uses (e.g., direct human consumption, derivatives), as well as the production potential.
183. Based on the outcomes from the previous studies, the project will support:
- A feasibility study for the installation of a hatchery for production of macroalgae seedlings in the area. Depending on feasibility, the project will sponsor the design of the hatchery, its management model and the business plan. Hatchery installation and operation will be covered with national funds.
  - The design of an artisanal fisheries extension programme focused on the promotion of macroalgae production in the sector between Chañaral and Caldera. The project will support the extension programme by providing two experienced extension officers for one year, who will train staff and assist in the development of extension materials and logistics. These people will work jointly with SUBPESCA personnel, who will be responsible of implementing the extension programme, under the supervision of the project's specialist in production diversification.
- These interventions will seek to enhance the participation of local women in macroalgae production activities.
184. The experience of the Universidad Católica del Norte will be used to train fishermen of Torres del Inca in sea urchin culture. GEF resources will be invested to prepare materials and to facilitate theoretical and practical training to fishers' families. This will be complemented with technical assistance and tutoring by providing an extension officer for one year at Torres del Inca. This person will work under the supervision of the project's specialist in production diversification.
185. It is foreseen that SUBPESCA will provide mid-term support to the producers and will promote the learnings in other sectors.

---

<sup>47</sup> The bonus supports projects of repopulation or cultivation of native marine macroalgae by artisanal fishermen, organizations of artisanal fishermen and micro and small companies. This law also establishes that FFAP and FAP will have to provide technical assistance to prepare the technical projects required to access the bonus.

186. Both experience and learnings will be documented. Regular meetings of reflection and self-assessment will be organized with each group and the exchange of experiences between the actors of the different localities will be facilitated.

#### **Component 5: Contribute to the population's food security and food safety**

187. The expected outcome is that the general public benefits from increased food security and food safety, thanks to improved management of ecosystems and fisheries, and better-quality controls of the catch. To achieve this, the following elements will be developed: (i) the preparation of an action plan to promote the seafood consumption in vulnerable sectors of Peru (output 5.1), (ii) the design of a training programme on food safety, food security and safe management of fishery products for the actors of the supply chains (output 5.2), (iii) the design of an information programme to consumers on food safety, food security and responsible consumption of seafood (output 5.3), and (iv) the development of a traceability pilot of products for human consumption in each country (output 5.4) (Table 8).
188. The person that will work as specialist in production diversification will guide and coordinate the implementation of this outcome (Figure 17). This person will have the support of a United Nations volunteer.
189. The long-term impact is expected to be that the fishery products sold in the domestic market are safe and that consumers demand safe products from responsible catch and supply.

#### **Promotion of fishery products for food security of vulnerable groups in Peru**

190. The project will contribute to the implementation of national agendas of food security and nutrition<sup>48</sup>. At the beginning of the project, the experience and situation of the use of fishery products (mainly anchoveta and jibia/pota) for food security of the vulnerable population of Peru will be systematized. This information will be analysed in a public – private event. The results from the event will serve as inputs to prepare a proposal of action plan to promote the consumption of fishery resources in vulnerable sectors of the country.
191. The process will be carried out in a participatory manner under the leadership of the Vice ministry of Fishery and Aquaculture, in collaboration with the corresponding sectoral authorities. It is expected that this action plan will be formally approved at the end of the first year of the project and to serve as input for the productive diversification and value-added interventions (outcome 4).

#### **Training programme on food safety of fishery products for the domestic market**

192. Both countries have regulations and institutions to food safety, which are very strict in the case of the fishery products for export. However, problems persist in the manipulation of products that are sold in the domestic market. The origin of these problems is partially related to the lack of infrastructure onboard and on the fishing coves, as well as inappropriate manipulation during processing, transport and retail (e.g. inadequate icing or freezing). The project will support the development of interventions to improve the quality of fishery products in the intervention sites of the project. These experiences will serve as an example to apply the learnings in wider contexts within each country.
193. At the beginning of the project, the safety deficiencies of products for direct human consumption in the supply chains of the prioritized species (i.e., anchoveta, jibia/pota, coastal benthic resources and macroalgae) will be identified in the intervention sites of the project: Iquique, Torres del Inca, Puerto Aldea, and Coquimbo in Chile, and Pisco, San Juan de Marcona and Atico in Peru. Based on the results of the analyses, food security training needs of the supply chain will be identified.
194. A training programme and its corresponding materials will be designed, and trainers of the corresponding national entities will be trained. The project will support the implementation of a training pilot for one year. In this period, training will be provided by local entities and the project will facilitate two extension officers

---

<sup>48</sup> The national strategy of food security and nutrition (COMSAN, 2013) was approved through Supreme Decree N° 021-2013-MINAGRI of 2013. The national plan of food safety and nutrition (COMSAN, 2015) was issued by Supreme Decree 008-2015-MINAGRI, and the national plan for control and reduction maternal-infant anaemia and chronic malnutrition in Peru 2017-2021 was approved through Ministerial Resolution 249-2017-MINSA.

(one in each country) who will provide follow-up, accompaniment and tutoring to the groups that receive training. It will be ensured that this training is properly articulated with interventions of outcome 4. The persons who will work as extension officers will be guided and supervised by the project's specialist in production diversification.

195. The intervention will be documented to identify learnings and good practices. Reflection and self-assessment meetings will be performed with the groups that have participated in the exercise. The exchange of experiences will be facilitated as well as the identification of common elements to both countries. Based on the learnings, the project will invest in:
  - Updating the training program in food safety so it can be applied in other localities.
  - Preparing a manual of good practices for handling of fishery products for the domestic market. The manual will be disseminated through official entities and associates interested in the subject (e.g. fishing organizations, ONG).
196. Finally, in Peru the installation of an ice plant for the Puntilla de Paracas fishing complex will be supported (Figure 11). An analysis of ice supply needs of artisanal fishers will be carried out, and a feasibility study will be prepared, as well as the design of ice plant equipment, management model and business plan. Feasibility analysis and designs will be prepared under the guidance of FONDEPES and the Vice Ministry of Fisheries and Aquaculture.
197. An investment plan will be prepared to obtain financing from the National Program for Innovation in Fisheries and Aquaculture (PNIPA) or other funding sources. It is expected that the local government together with the Vice Ministry of Fisheries and Aquaculture will manage the financing and will direct the subsequent installation and operation of the ice plant.

#### Consumer communications programme on food safety, food security and responsible consumption

198. Programmes such as “A Comer Pescado”, “Del Mar a mi Mesa” and “Come pescado y súmate al kilo de salud por año” have focused on promoting the consumption of fishery products. It is necessary to incorporate in the campaign ideas regarding (i) demand safe products, (ii) food security, and (iii) responsible consumption. Consequently, GEF resources will be invested to identify the concerns and information needs of the consumers of the value chain of the prioritized resources (e.g. anchoveta, jibia/pota, coastal benthic resources and macroalgae).
199. Based on the needs identified, a communication programme aimed at consumers will be designed on: (i) food safety, (ii) food security, and (iii) responsible consumption, as well as its corresponding communication materials. This will be carried out in close collaboration with “A Comer Pescado”, “Come pescado y súmate al kilo de salud por año”, “Del Mar a mi Mesa” and other associates interested in the subject.
200. The Project will support the execution of the first campaign, in coordination with the consumption promotion programmes in each country. The results of the campaign will be analysed to identify lessons to be incorporated in future campaigns. The medium and long-term implementation of the communication program will be responsibility of “A Comer Pescado”, “Come pescado y súmate al kilo de salud por año”, “Del Mar a mi Mesa” and other partners that have interest on this subject.
201. Finally, the project will support the fishing authorities of each country to organise events that promote dialogue, coordination and networking of the public entities with competencies in application of sanitary regulations and quality control in the retail of fishery products (e.g., municipal control of retail sales of seafood in markets). This is necessary, because it is common to ignore competencies and responsibilities.

#### Experiences of traceability of products for direct human consumption in the domestic market

202. Traceability systems of fishery products are mainly focused on meeting the requirements of export markets. On the contrary, the traceability of products for domestic consumption is not well organized nor it is demanded by consumers. Although there are advances, such as the “Blue Seal” by SERNAPESCA, and initiatives of various NGOs in this regard (e.g., TNC, The Future of Fish, WWF).

203. The project will sponsor a comparative analysis of experiences and institutional framework for traceability of seafood products for the domestic market. Outcomes will be analysed in sessions with authorities, producers and OSC (both virtual and in-person meetings).
204. Based on the results of the analyses with key stakeholders, a proposal for a traceability system will be designed for each country. The proposal will be analysed and adjusted participatively with the key actors.
205. Once a first concept of traceability system has been agreed, the project will support a pilot implementation in each country to be tested in the field. The results of the pilot experience will be analysed in formal national and binational meetings to identify common learnings and good practice. It is foreseen that this experience will contribute to strengthen the traceability systems of both countries.

#### **Component 6: Dissemination and sharing of experience and lessons**

206. The expected outcome is that lessons and good practices have been shared with key stakeholders in each country, between countries and globally. (Table 8).
207. Three lines of work will be developed:
- Facilitate communication among key actors of the project and the dissemination of learnings (output 6.1).
  - Document and disseminate the project lessons (output 6.2).
  - Incorporate the gender perspective in the project management and actions (output 6.3).
208. The person who will work as specialist in participation, communications and gender will be in charge of this outcome (Figure 17).

#### **Platform to facilitate communications and dissemination of learnings**

209. At project start, the EPEG will establish a workgroup with the communication teams of the project partners. Each partner entity will designate a delegate that will integrate the workgroup and that will be the channel for the flow of information and communication materials. This workgroup in communication will prepare and agree:
- i. Annual work plans that will be jointly implemented and evaluated, and
  - ii. protocols and procedures for collaboration and joint actions.
- The EPCG will prepare press materials and news, but their dissemination will be done through the channels and social networks of the project partners (e.g., YouTube, Instagram, Twitter).
210. In the first quarter of project implementation, the EPCG will prepare:
- A detailed communications strategy that will be focused on (i) actors and groups of interest, and (ii) intervention sites. The strategy will be analysed with the communication teams and it will be executed through annual joint work plans. At the end of each year, the workgroup will evaluate achievements and performance of the project's communication strategy and it will make relevant adjustments.
  - Three guidelines about:
    - a. Organization of sustainable events (UNEP, 2009; UNEP, 2012),
    - b. Behaviour and use of inclusive language with gender perspective, and
    - c. Organization of inclusive events with gender perspective.
- The guidelines will be agreed with the partners and implemented in all project actions.
211. At the latest in the second quarter of project implementation a communication gap and need analysis will be prepared. This will allow to identify the breach between the needs for communication and collaborative work among project partners and the means and communication technologies that are being used. The study will propose improvements in equipment and software, as well as modern collaboration tools for distributed teams (e.g., Trello, Podio, Slack, Docusign, Dochub) to cover the identified gaps. Based on the results of the study, equipment and software that facilitate both communication and virtual collaboration will be installed in the partner and project offices.
212. The EPCG will be responsible for managing the project website that will be linked to the websites of the project partners, UNDP and IW: LEARN.

213. If necessary, accounts will be created and maintained in virtual platforms and social networks (e.g., Facebook, Twitter, YouTube, Instagram) that are accessible to the target audiences of the project. However, the priority will be that information flows through the partner channels and networks.
214. A quarterly digital bulletin with news and information of the project will be prepared, which will be distributed to all the target audiences of the project.

#### Documentation of lessons and good practices

215. The ECPG will establish both methods and procedures for the project team to systematically document the experience of the project and finally prepare learning systematization documents. The ECPG will guide in the practice the project team so that they can adequately document experiences, good practices and the interventions performed.
216. Yearly meetings will be organised with key stakeholders and beneficiaries of each project output to reflect on and self-assess progress and lessons. A key element of these sessions will be to examine women's contributions and perspectives. The results of these meetings will be systematized and presented to the Steering Committee of the project and reported in the annual reports to GEF.
217. In year 4, it is expected to prepare seven documents that systematise the project experience:
- (1) Coordinated management of the anchoveta stock;
  - (2) Integrated management of Iquique and Paracas bays;
  - (3) In situ conservation of marine and coastal biodiversity;
  - (4) Promotion of direct human consumption of anchoveta, jibia and macroalgae;
  - (5) Promotion of responsible value chains of benthic invertebrates;
  - (6) Promotion of food safety and food security and;
  - (7) Visibility and strengthening of the role of women in fisheries and complementary activities, including value aggregation and productive diversification.

These documents will have dissemination format to be accessible to a broad audience. Each document will have an executive summary in Spanish and English, and will be in high-quality PDF format to be downloaded from the Web.

218. For project closure, a memoir that summarise the project experience will be prepared in a simple and very graphics format. The memoir will have executive summaries in Spanish and English, and will be distributed mainly in PDF format through electronic means. However, it is expected to print a few hard copies (ca., 1000 copies) for audiences without access to the web.
219. The formal closure will be performed in the third quarter of the fifth year. A public event will be organized in each country with broad participation of beneficiaries, key stakeholders and project partners. The scientific advances of the project will be presented in this event.
220. To support dissemination of advances and lessons, GEF resources will be invested to support participation in (i) meetings and international events related to the subject of the project, (ii) **the annual large marine ecosystems meeting organised by IOC-UNESCO**, and (iii) the international waters conferences of 2020 and 2022.

#### Incorporation of gender perspectives

221. The project has a gender action plan that guides the actions to be carried out to contribute to the generate of equal opportunities for men and women and to contribute to the empowerment of women (Annex 13). The gender action plan is resumed below in the PRODOC (paragraph 269).
222. The binational coordinator of the project will be responsible for ensuring the adequate implementation of the gender action plan and for encouraging that the interventions of the project incorporate a gender approach. The EPCG will coordinate the implementation of the gender action plan.
223. The actions of the gender plan are incorporated in all interventions of the project. However, to ensure an effective implementation, the EPCG will organize (at the latest during the second quarter of the project implementation) the training of the project team and key staff of the partners and allies (e.g. regional governments). in key aspects of gender, cultural sensitivity and use of inclusive language. In these meetings,



the gender action plan will be reviewed and the ways in which each person can contribute to its implementation will be analysed. The EPCG will provide induction in gender aspects, cultural sensitivity and use of inclusive language to all new staff that joins the project as well as the new partners that are incorporated during the implementation of the project.

224. After the groups of women in each intervention site have been identified (paragraph 125), meetings will be organized to present the project and the interventions to be carried out.
225. Every six months it will be verified (i) the status of budget execution related the gender action and (ii) there are appropriate conditions for participation and involvement of women in project interventions. This will be documented and reported within the project reports.

#### Partnerships

226. The five project partners in Chile are the Undersecretariat of Fisheries and Aquaculture, the Ministry of the Environment, the Ministry of Foreign Affairs, the National Service of Fisheries and Aquaculture, and the Fisheries Development Institute. In Peru, the five project partners are the Vice Ministry of Fisheries and Aquaculture, The Ministry of the Environment, the Ministry of Foreign Affairs, the National Service of Natural Areas protected by the State and the Sea institute of Peru.
227. The partners will support specific elements of the project (Table 10). In addition, Annex 11 list the key actors with whom the project will interact.

#### Key entities in Chile

228. SUBPESCA (which is a dependency of the Ministry of Economy, Development and Tourism) is the national fisheries authority with competencies to regulate and manage fishing and aquaculture activities. The under secretariat administers two competitive funds:

- The Fisheries Management Fund<sup>49</sup>, that was created through the fisheries and aquaculture act (Law 18892 of 1989) and finances various actions such as promotion and development of artisanal fishing, fisheries research and promotion of seafood consumption.
- The Fisheries and Aquaculture Research Fund (FIPA), also created by law 8892, which through competitive funds finances studies to support decision-making. The project will take advantage of the results of the FIPA projects (Annex 12) and, as far as possible it will seek complementarity with these initiatives.

The under secretariat also leads two key programmes:

- “Del Mar a Mi Mesa” (From the Sea to my Table). This is a new programme that through intersectoral and public – private collaboration will promote responsible consumption of fishery products (Annex 12). The project will articulate actions with this programme to motivate campaigns to promote (i) new products for direct human consumption, (ii) sustainable and responsible value chains, and (iii) food safety and food security.
  - The national strategic program “sustainable fishing” aimed to internalize the sustainability of value chains of fishery products for direct human consumption (Annex 12). The project will promote that the local beneficiaries have access, as much as possible, to competitive funds to finance equipment, development of value chains and promotion of fishery products.
229. MMA is the national environment authority. This entity is in charge of, among other areas of work, the management of wildlife, the national strategy on climate change, the national plan for adaptation to climate change, and the corresponding adaptation plans<sup>50</sup>. The ministry participates in the creation of marine and coastal protected areas, but only maintains custody on marine sanctuaries<sup>51</sup>.

---

<sup>49</sup> FAP and FFPA will be replaced by the National Institute of Sustainable Development of Artisanal and small-scale Aquaculture (INDESPA) since 2018 (the corresponding law was approved by the National Congress of Chile on December 13, 2017).

<sup>50</sup> Regarding the present Project, there are adaptation plans on biodiversity (MMA, 2014) and fisheries and aquaculture (MEFT et al., 2015).

<sup>51</sup> The competence of creation and administration of protected areas is divided between the National Forest Corporation (CONAF), the Ministry of National Goods, MMA, DIRECTEMAR and SERNAPESCA. A law to create a Service of Biodiversity and Protected Areas that manages a national system of protected areas is being processed.

230. SERNAPESCA is the national entity of control and supervision of fishing and aquaculture activities, as well as the sanitary management of export products<sup>52</sup>. Regarding this project, the following elements under the supervision of SERNAPESCA are fundamental:

- The Artisanal Fisheries Promotion Fund (FFPA), which through national and regional contests, finances projects of organizations of artisanal fishermen legally constituted. FFPA financing lines include fishing infrastructure, training and technical assistance, repopulation and cultivation of fishery resources, and commercialization and administration of productions centres. As part of fourth financing line, the participation in the programme “The Kings of the Sea”<sup>53</sup> has been sponsored, as well as the implementation of gastronomic fairs<sup>54</sup>, FFPA has also financed the development of the platform for the strengthening human capital in fishermen coves in Chile<sup>55</sup> (Annex 12). The project will encourage that local beneficiaries have access to FFPA funds for equipment, development of value chains and promotion of fishery resources.
- The Responsible Consumption and Sustainable Fishing Programme (colloquially called “Blue Seal”) is a volunteer certification that accredits peoples, stores and restaurants that sell products of legal origin. It is expected that the groups that will develop production initiatives are certified with the blue seal.
- The administration of marine reserves and marine parks in Chile<sup>56</sup>.

231. IFOP is a non-profit private entity with a public role, dedicated to marine scientific research. It provides advice to the national fishery authority about the management of fisheries and fishery resources.

232. The Ministry of Foreign Affairs of Chile will support the inclusion in the binational agenda of those actions that operationalize the Strategic Action programme.

#### Key entities in Peru

233. PRODUCE exercises its powers of fishery authority through the Vice Ministry of Fisheries and Aquaculture. Several entities are ascribed and form the PRODUCE’s fisheries sector:

- IMARPE is the national scientific research entity of the sea, including the evaluation of the condition of fishery resources, and the monitoring of fisheries.
- FONDEPES is the National Fund of Fishery Development and provides credits and training to artisanal fishers. In addition, it executes public investment projects for the construction of fishery infrastructure in support of the artisanal fishing (e.g., docks, ice plants). The project will encourage local beneficiaries to access FONDEPES funds for equipment and development of chain values.
- SANIPES. The National Fisheries Health Agency is the entity responsible of ensuring both safety and sanitation in the entire productive chain. The project will work with SANIPES for the sanitary qualification of vessels and processing sites, and the training in sanitary regulations and food safety.
- ITP. The Technological Institute of Production supports the competitiveness of companies through the provision of research services, development, innovation, adaptation, transformation and technological transfer. ITP operates through Productive and Transference Innovation Centres (CITE) that transfer technology and promote innovation in companies that can be public or private. ITP has three fishery CITEs in Piura, Callao and Ilo. The CITE of Callao has a pilot plant that develops new fishery products (including anchoveta and pota) and can produce canned and frozen products on demand. The project will work with ITP for the development of fishery products for direct human consumption.
- INACAL. The National Institute of Quality is the governing body of the national system of quality.

234. PRODUCE also head:

- The national programme “A Comer Pescado” (Annex 12) which was created in 2012 to promote the direct human consumption of fishery products. The programme had an original duration of five years

---

<sup>52</sup> SERNAPESCA is not in charge of the control and inspection of the processing and selling of fishery products for the domestic market

<sup>53</sup> This is a television show in which the chefs visit fishing coves to cook and promote typical local products.

<sup>54</sup> This contest seeks to promote and position artisanal fishery products.

<sup>55</sup> <http://www.pescadorprofesional.cl/>

<sup>56</sup> By November 2017 there were five marine reserves and five marine parks under the tutelage of SERNAPESCA.

which has been renewed for a similar period (i.e., until 2022). The project will work with A Comer Pescado to implement promotion campaigns of (i) new products for direct human consumption, (ii) sustainable and responsible value chains, and (iii) food safety and security

- The National Program for Innovation in Fisheries and Aquaculture (Annex 12), is aimed to promote innovation and renew the fisheries development model. PNIPA has three innovation projects in fisheries and aquaculture, and of institutional and organizational improvement. These projects are implemented through competitive funds. The project will promote that the local beneficiaries access to PNIPA funds for equipment and development of new fishery products and sustainable and responsible value chains.

235. MINAM is the national environmental authority. It is responsible, among other areas of work, of the biodiversity strategy (MINAM, 2014), the national strategy of climate change (MINAM, 2015), and the pertinent climate change adaptation plans and the environmental territorial planning. In addition, it promotes the integrated management of marine-coastal areas.
236. SERNANP is an entity ascribed to MINAM that administer the national system of areas protected by the State. In addition, there are protected areas that are administered by regional governments, and private conservation areas that are managed by private individuals. SERNANP is the main agency for the implementation of the GEF Guaneras and PAN III projects (Annex 12).
237. The Ministry of Foreign Affairs of Peru will support the inclusion in the binational agenda of those actions that operationalize the Strategic Action Programme.

#### Strategic allies

238. For the implementation of outcome 1, it will be fundamental the collaboration in Chile of the National Fishing Society (SONAPESCA) and the Centre for Marine Applied Research (CIAM), and in Peru, of the National Fisheries Society (SNP) and the Humboldt Institute of Marine and Aquaculture Research (IHMA). These entities will support the development of protocols for coordinated evaluation of the anchoveta shared stock and its immediate application. CIAM has a research programme focused on the anchoveta stock shared by both countries. SNP will finance the participation of private fishing vessels in the evaluation cruises and IHMA has a program for analysis of information provided by the industrial fleet.
239. For the implementation of outcome 2 in Iquique bay, it will be fundamental the collaboration of DIRECTEMAR, the Municipality of Iquique, the Tarapaca Regional Government (GORE Tarapaca) and the Regional Commission of use of the Coastal Border of the Tarapaca Region<sup>57</sup> DIRECTEMAR is the national maritime authority, controls and supervises the activities in the sea, and administer the coastal border. In addition, for more than 20 years, it has been implementing the POAL that monitors parameters of water quality and sediments in various points along the Chilean coast. In Iquique there are two stations where water quality parameters are sampled.
240. For the implementation of outcome 2 in Paracas bay, it will be fundamental the collaboration of local governments: the district municipality of Paracas, the province municipality of Pisco, the Ica regional government (GORE Ica) and the local management committee for the integrated management of marine-coastal areas of the Pisco province. In addition, it is expected that the Ministry of Housing, Construction and Sanitation (MVCS) will contribute to ensure funding for the public investment project that will implement the sewage treatment plant and sanitary landfill in the city of Paracas.
241. NOAA will be a partner in the coastal and marine spatial planning exercises that will be carried out in Iquique and Paracas bays. NOAA will provide training and mentoring to the technical team and promoter groups of the present project. NOAA will be in charge of (i) training technical staff in both countries (training of trainers), (ii) providing materials and support to increase awareness and train local actors, and (iii) providing mentoring and advice to the project team.
242. For the implementation of outcome 3, the following entities will be key partners:

---

<sup>57</sup> The regional commissions of the use of the coastal border are an instance of application of the national policy. Their functions include to prepare and to formalize the regional policy of the use of coastal border. These commissions functionally and administratively depend of the corresponding regional government.

- In Chile, GORE Tarapaca, the municipality of Iquique and DIRECTEMAR (through the Maritime Governance of Iquique) and the users of the coastal areas where the coastal and marine protected area “Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama” and the new area to be created in Chipana are located.
- In Peru, GORE Ica, the district municipality of Marcona, COPMAR, and other user groups of the local protected areas.

243. For the implementation of outcome 4, the following actors will be fundamental:

- In Chile, the regional governments of Coquimbo and Atacama and the municipalities of Coquimbo and Chañaral. GOREs and municipalities have competencies in production and tourist development. It is expected that these entities will sponsor the groups that develop initiatives for the development of new products for direct human consumption and productive diversification. Likewise, support is expected from the National Fisheries Society through the programme "Punta Morro - desembocadura rio Copiapó - Isla Grande de Atacama" (Annex 12) and the public programme “Del Mar a Mi Mesa” to promote new products and foster sustainable value chains and responsible consumption. It is also planned to take advantage of the calls of the Production Development Corporation to finance supports for the development of new fishery products and sustainable and responsible value chains. For productive diversification, the project will work with: (i) the Asociación Gremial de Buzos y Asistentes Pescadores de Puerto Aldea, (ii) the de facto social organization called “Comunidad de Puerto Aldea”, and (ii) the Sindicato de Trabajadores Independientes Recolectores de Algas, Buzos Mariscadores y Ramas Similares de Torres del Inca.
- In Peru, the regional governments of Arequipa and Ica and the district municipalities of Marcona and Atico. These entities have competence in productive promotion and tourism development; it is foreseen that they sponsor the groups that develop initiatives of new products for direct human consumption and productive diversification. The CITE of Callao will support the development of products for direct human consumption. “A Comer Pescado” will support the promotion of new products, sustainable value chains and responsible consumption. In the case of productive diversification, the project will work with COPMAR and the gremio de pescadores de Atico.

244. For the implementation of outcome 5, the following entities will be key allies:

- In Chile, the Chilean Agency for Food Safety and Quality (ACHIPIA), the Ministry of Health and the Ministry of Education to promote training in safety and quality of fishery products for direct human consumption and the responsible consumption of fishery resources. Additionally, it is expected that the programmes “Come pescado y súmate al kilo de salud por año” and “Del Mar a Mi Mesa” will implement campaigns on these issues.
- In Peru, the support of the Ministry of Health and the Ministry of Education is expected, as well as DIREPRO Ica and GEREPRO Arequipa. “A Comer Pescado” will implement campaigns in support of the food safety, food security and responsible consumption.

245. To implement outcome 6, the project will work with the communication teams of the project partners. Action protocols will be agreed and coordinated work plans will be prepared annually. News and information will be disseminated through the channels and networks of the project partners.

246. Several NGOs have actions related to the key matters of the present project (e.g., WWF, TNC, OCEANA) and their support and collaboration is expected. Nevertheless, a key associate will be the Walton Family Foundation (WFF) that has prioritized its intervention in the fisheries of Chile and Peru (including anchoveta and pota/jibia) and which finances the actions of several NGOs that work at the national level (Annex 12).

## Risks and assumptions

247. At the request of the UNDP, the Binational Coordinator of the project will monitor the risks quarterly and their status will be reported to the country office of UNDP. In turn, the country office of UNDP will record the situation in the risk log in the ATLAS system. The risks will be reported as “critical” when the impact and the probability are high (i.e., when the impact is rated 5 and when the impact is rated 4 and the probability of occurrence is rated  $\geq 3$ ). Management responses with respect to the status of the critical risks will be reported to the Global Environment Facility in the GEF project implementation report (PIR).

248. A total of 13 risks have been identified, of which six are critical (Table 9, Figure 16):

Table 9. Project risks.

Description	Type <sup>58</sup>	Impact and probability <sup>59</sup>	Mitigation measures	Responsible	Status <sup>60</sup>
1. Change of central government in Chile in 2018 (before the beginning of the project) and 2022 (before the closure of the project)	Political	P = 5 I = 3	Presentation of the project to the new authorities in SUBPESCA, SERNAPESCA, MMA, MINREL and IFOP	UNDP Chile	Without change
2. Change of central government in Peru in 2021 (before the closure of the project)	Political	P = 5 I = 3	Presentation of the project to the new authorities in the Vice Ministry of Fisheries and Aquaculture, MINAM and MRE	UNDP Peru	Without change
3. Changes of municipal and regional governments in Peru in 2019 (at project start) and 2023 (before the closure of the project)	Political	P = 5 I = 3	To present of the project to the new regional and municipal authorities	UNDP Peru	Without change
4. Direct election of regional governors in Chile <sup>61</sup>	Political	P = 5 I = 5	Analysis of the possible impacts in the implementation of the project. To present the project to the new authorities when appropriate	UNDP Chile	Without change
5. Difficulty in agreeing methodologies and protocols for the assessment of the shared anchoveta <sup>62</sup> .	Operational	P = 5 I = 5	To prepare and implement a facilitation process to enable agreements between the corresponding staff of IFOP and IMARPE.  To ensure the political direction of SUBPESCA and the Vice Ministry of Fisheries and Aquaculture to motivate the achievement of agreements.	CBP UNDP Chile UNDP Peru	Without change
6. Resistance to coordinate methods and actions, and to share data among the entities that monitor environmental parameters in the bays of Iquique and Paracas	Operational	P = 3 I = 3	To prepare and implement a facilitation process to ensure agreements and inter-institutional collaboration.  To motivate the political direction of the corresponding authorities	Biodiversity specialist	Without change
7. Resistance of key stakeholders to ordering the use of resources and areas in Iquique and Paracas bays	Social	P = 3 I = 3	To design and implement a communication strategy that sensitizes the actors and motivates multi-level dialogue.  To have clear messages  To provide information and facts	Biodiversity specialist	Without change

<sup>58</sup> Environmental, Financial, Operational, Organizational, Political, Regulatory, Strategic, Others

<sup>59</sup> 1 = low, 5 = high.

<sup>60</sup> Finished, reducing, increasing, without change.

<sup>61</sup> In December 2016 the Law 20,990 was issued, which allows the direct election of the regional governor, who will replace the present figure of the regional mayor who is appointed by the president of the Republic. This is a major change in the governance mechanism of the regions. It is very likely that the first election of regional governors will occur right before or during the implementation of the project. Since 2014, the regional counsellors are elected by direct vote, for a four-years period. In November 2017, new elections were held, the counsellors will take office in March 2019 and they will be in functions until March 2022.

<sup>62</sup> During the PPG it was observed that methods and perspectives are very different in both countries. It is very probable that the process of agreeing protocols and methods will be very complex. It will be important to count on a strong political support of the fisheries authorities and a strong facilitation of the participatory process to reach agreements.

Description	Type <sup>58</sup>	Impact and probability <sup>59</sup>	Mitigation measures	Responsible	Status <sup>60</sup>
			To prepare and implement a participatory planning process and multi-level dialogue To establish a mechanism for conflict resolution		
8. Resistance of key stakeholders to the creation of new protected areas or in situ conservation areas for biodiversity	Social	P = 3 I = 3	To ensure the political support of key entities To design and implement a communication strategy that sensitizes the actors and motivates multi-level dialogue To have clear messages. To provide information and facts.	Biodiversity specialist	Without change
9. Difficulties and discouragement of the groups that develop the initiatives of production diversification <sup>63</sup> .	Social	P = 3 I = 3	To select rigorously the groups with which the entrepreneurship will be developed and ensuring they have the appropriate conditions. To link each group with a local entity that provides medium or long-term accompaniment	Specialist in production diversification	Without change
10. Limitations to women participation and involvement <sup>64</sup>	Cultural	P = 3 I = 3	To implement proactive measures to motivate the involvement of women (gender action plan)	Specialist in participation, communication and gender	Without change
11. Discouragement of women who develop initiatives to add value and productive diversification due to incompatibility with domestic tasks and family care.	Social	P = 3 I = 3	To ensure conditions that allow women to complement their domestic tasks and family care with activities of value aggregation and productive diversification	Specialist in participation, communication and gender	Without change
12. Effect of ENSO and the interdecadal Pacific oscillation on fishery resources and HCLME <sup>65</sup>	Environmental	P = 3 I = 4	To monitor information and alerts from meteorological entities, NOAA and World Meteorological Organization	CBP	Without change
13. Climate change	Environmental	P = 3 I = 3	To monitor information and to incorporate adaptation to climate change into project activities	CBP	Without change

<sup>63</sup> The associative productive entrepreneurship normally face diverse challenges that motivate discouragements and even abandonment of the entrepreneurship (e.g. problems of internal organization, technical assistance or marketing). These entrepreneurship require medium or long-term accompaniment (no replacement of the social subject or paternalism) to mature.

<sup>64</sup> During PPG, two key issues were identified: (i) the role of women in seafood value chains is not apparent, and (ii) their limited participation in the OSCs of the fishing sector. Traditionally, the fishing sector is a male space, where the advances in the recognition of women and their involvement in organizations and decision-making processes have been slow. Added to this is that women have domestic responsibilities and care for other members of the family and that men restrict the participation of women of their family to these spaces.

<sup>65</sup> By November 9, 2017 there were conditions for a weak La Niña, with a forecast that continues until the southern summer. It is probable that during the implementation of the project another ENSO event will occur. It is also probable that the interdecadal Pacific oscillation (IPO) changes to a warm phase in the coming years. Again, this will have a direct impact on the availability of fishery resources.

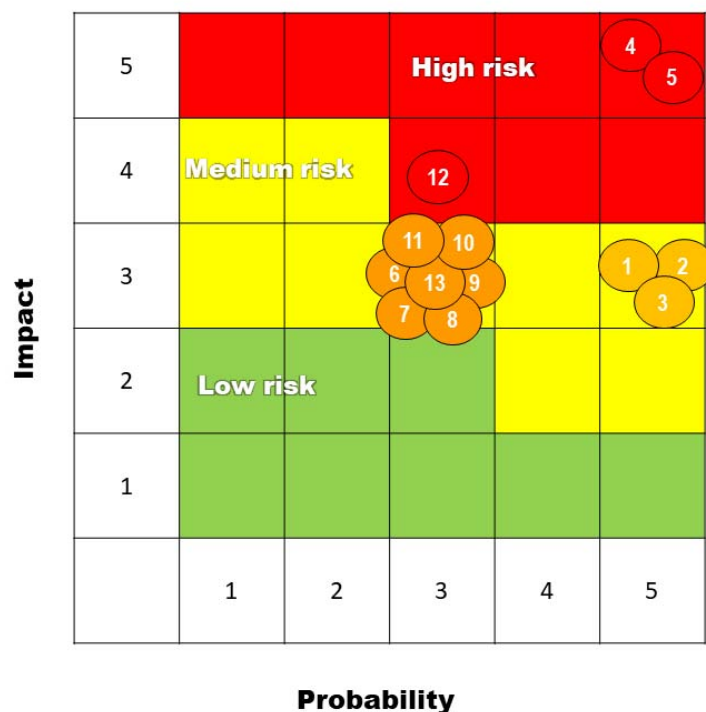


Figure 16. Magnitude of the identified risks.

#### Stakeholder engagement plan

249. During project preparation, an initial mapping of key actors was carried out. This initial list was useful to identify the groups that participated in the national start-up workshops that took place in Lima on May 12, 2017 and in Valparaíso on May 16, 2017. In these workshops the project concept was presented, and the ideas and proposals of public entities and civil society actors were known. In these meetings it was also requested to analyse the initial ideas about fisheries and focus sites for the project.
250. Based on the outcomes of the inception workshops, the work sites were visited to contact local actors and to analyse the viability of the proposed interventions. Additionally, key actors were interviewed to evaluate their interest in being involved in the project and to collect proposals and recommendations.
251. A detailed draft of activities and roles was prepared, which was revised and adjusted by the project partners. The adjusted draft was analysed with the key actors in validation workshops that were held in Lima on 29 September 2017 and Viña del Mar on 5 October 2017. In these workshops the interest of participation of the different groups was confirmed. The final version of activities and roles for each outcome is in Annex 14.
252. The key actors that will have direct participation in project activities are listed in Annex 11. Previously, the roles of the main actors in the implementation of the project have been indicated (see partnerships).
253. The project has a participatory approach that is incorporated in the diverse interventions that will be carried out. A person from the project team<sup>66</sup> will be in charge of conducting and guiding the processes of involvement and participation of actors.
254. At project start, the EPCG will prepare a communication strategy with particular elements for (i) actors and groups of interest, and (ii) intervention sites. The strategy will be operationalized through annual work plans that will be jointly prepared and implemented with the communication teams of the project partners (see

<sup>66</sup> The person who will work as specialist in participation, communications and gender. Annex 5 has the reference terms of the project unit staff.



paragraph 209). In addition, guidelines to direct the organization of group activities, and behaviour and inclusive language<sup>67</sup> will be prepared.

255. The formal involvement of key actors will begin with the project inception workshop, in which organization the EPCG will participate. This will be a binational meeting with the project partners.

Afterwards, national workshops will be organized with key actors of each country. These will be extended meetings (partners, allies and key actors) in which the following aspects will be presented:

- the adjustments made in the inception workshop,
- the work plan and budget of the first year, and
- collaboration procedures will be agreed to start the implementation of the project immediately.

In this meeting, public and private stakeholders will (i) confirm their contributions and participation in project implementation, (ii) agree on coordination mechanisms for each outcome, and (iii) draft a roadmap to prepare the national plan for SAP implementation including public and private contributions<sup>68</sup>.

To ensure proper involvement of women's groups, meetings will be organised to present the project and the interventions to be carried out to the organizations identified during the cadastre to be prepared in the middle of the first year (paragraph 125).

256. The EPCG will guide the project team in the development of participatory processes and multi-level dialogue, as well as practices of cultural sensitivity, social inclusion and gender perspective. In addition, this person will organize annual meeting of reflection and self-assessment with key actors and beneficiaries of each project output.

#### Gender equity and empowering women

257. The Gender Global Gap Index of the World Economic Forum (WEF, 2017) that measures the magnitude of the gap between women and men in 144 countries places Chile in the 63<sup>rd</sup> place and Peru in 48<sup>th</sup> place, with indices of 0.704 and 0.719<sup>69</sup>, respectively. Chile has the largest gap in political participation followed by economic participation and opportunities, which is coincident with the situation in Peru. Thus, both countries have the challenge of strengthening the participation of women in public affairs and in the field of economic development.

258. There are women in leadership positions in the project partners, as well as in research activities. In the sites where outcomes 2 and 3 will be implemented, both men and women participate in productive activities, community management, public administration and management of protected areas. In contrast, both participation and involvement of women in the fisheries value chains is less visible although not absent.

259. Women have a fundamental role in fisheries, which is not commonly visible. In 2014, almost half of the 120 million people who worked in the capture fisheries sector and their value chains were women (FAO, 2016b). They participated in different activities such as fish processing, work in factories and commercialization (formal and informal) of seafood and derived products. The participation in activities associated with value chains is not correctly registered, so that the number of women could be higher. Whereas the statistics reflect in detail the direct work of production in fisheries and aquaculture carried out by men, the work of women (e.g., shellfish collectors, diving, processing or sale) is not recognized or not properly recorded. This leads to little attention to women and the gender dimension in fisheries policies.

260. The FAO study in Chile, Colombia, Paraguay and Peru (FAO, 2016) reached similar conclusions. It is emphasized that women linked to the fisheries and aquaculture sectors play very important roles in the value

---

<sup>67</sup> It is expected that EPCG prepare, three guidelines based on experience and good practices available:

(1) Organization of sustainable events (UNEP, 2009; UNEP, 2012)  
(2) Behaviour and use of inclusive language and with gender perspective.  
(3) Organization of inclusive events and with gender perspective.

The term inclusive refers to social inclusion and cultural sensitivity.

<sup>68</sup> The binational coordinator of the project will encourage the implementation of these roadmaps and will promote that the national plans are prepared through a collaborative public – private effort.

<sup>69</sup> The Index of the World Economic Forum is measured in a scale ranged from 0 = disparity to 1 = parity.

chain, by being involved in preparing the gear, harvest, seafood landing, processing and commercialization. Therefore, they constitute a good part of the workforce, whose numerical and qualitative importance is higher than that presented by the available information. Likewise, it is pointed out that most women related to fishing and aquaculture face labour situations that are far from the concept of a decent work. Both activities present high levels of informality that particularly affect women, mainly heads of households, which is reflected in eventual works, limited access to social security and protection, low associativity and limited access to goods and services for the development of their activities.

261. In Chile, SUBPESCA's statistics show a progressive increase in the participation of women in the sector, in activities that traditionally were only carried out by men, in spite of which there are still significant gaps respect to men. In 2016, of the total of people recorded as artisanal fishermen or fisherwomen, 26% were women (SUBPESCA, 2016), who mainly were registered as algae collectors and in a lesser way, as fisherwomen. The same year there was a lower number of organizations of artisanal fishermen and fisherwomen formed exclusively by women, with respect to those considered mixed and those formed exclusively by men. In 2011, of the total people who participated in related activities (e.g., preparation of gear, maintenance of equipment, preparation of bait, filleting, hauling or discarding), 23.1% were women and 76.9% men (SERNAPESCA, 2011).
262. In Peru, according to the 2012 fishery census (INEI, 2014), a small percentage of fishers in the regions with seafront were women. The departments with greater presence of women in the fishery sector were Ica, Lima, Arequipa and Tacna. Ayala Galdós (2000) reported that the activity carried out by women includes mainly work in local fishing and takes place mainly in coastal and industrial areas. Although women do not participate in the harvesting or capture phase, they do participate commercialization and transformation of seafood. In the artisanal sector, women are mainly dedicated to commercialization and when they perform production activities, they usually do so in fish processing plants of products for direct human consumption, where they are hired for production periods and they are remunerated by shifts, according to their productivity.
263. In the localities in which the project will perform interventions related to fishing and production diversification, there is limited participation of women in the organizations.
264. In Chile:
  - d. Puerto Aldea has three organizations of fishers that group 79 men and 33 women. In the locality operates a de facto social organization called "Comunidad de Puerto Aldea" (Puerto Aldea Community), in which about 34 people participate, 25 of them are women. This group is organized around the generation of gastronomy, tourism and promotion activities of Puerto Aldea as a place of interest and leisure.
  - e. In Torres del Inca, the "Sindicato de Algueros y Ramas Similares Torres del Inca" has 27 members, of which seven are women.
  - f. In Chañaral there are 13 organizations of divers, shellfish collectors and fishers. Some of them are mixed (nine have women among their boards) and they are evaluating initiatives to add value to macro-algae.
  - g. In the Tarapacá Region – where Iquique bay and the Chipana MPA are located -- the Artisanal Fishery Registry<sup>70</sup> (RPA) recorded in 2016 a total of 489 women of which 424 (86.7%) were registered as algae collectors. Of the 18 artisanal fishers' organisations registered at that time, ten were mixed organisations and eight only had men members. The presence of women in the sale of fish and culinary products stands out in the urban coves of Iquique (i.e., Cavancho and Riquelme).
265. In Perú:
  - h. In Marcona, COPMAR congregates 16 organizations with about 600 members. Of these, only 10 are women.
  - i. In Atico, the "Sindicato de Pescadores Artesanales de Atico" has about 150 members, among whom there are no women. However, women actively participate in macroalgae collection. This is an activity complementary to their domestic tasks, without necessarily being their main activity.

<sup>70</sup> [http://www.sernapesca.cl/index.php?option=com\\_content&task=view&id=84&Itemid=222](http://www.sernapesca.cl/index.php?option=com_content&task=view&id=84&Itemid=222)

- j. In Paracas there are at least two organizations related to tourism services around the Paracas National Reserve. The “Colectivo Paracas ADESOSPA<sup>71</sup>” brings together people (mainly women) who work in accommodation, gastronomy and handicraft sale services. Women also participate in the management committee of the RNSIIPG, the management committee of the Paracas National Reserve and the management sub-committee for Chincha and Ballestas islands.
266. In the project priority sites, women's participation can be potentiated and strengthened both in public affairs and in economic development, based on the own resources of the communities where work will be done, as well as with the support of specialized technical assistance. For this, three identified barriers must be addressed:
- Barrier 1: There is little information on the participation of women in (i) activities related and complementary to those of extraction of fishery resources, and (ii) other productive activities in coastal communities, as well as their training and advising needs. This barrier is common to all prioritized sites for project intervention.
  - Barrier 2: The role of women in the fishery sector is not fully recognized and accepted, both by a gender perspective (focused on the role of men) and a vision of the sector itself (focused on extraction), although there is an increasing recognition of it. This barrier is common in all sites, but more accentuated in Atico.
  - Barrier 3: Domestic responsibilities and care for others are an important part of the workload of women and it can limit their participation in several activities (e.g., meetings, production) if the initiatives to be implemented do not consider this factor or are not suited to it. This barrier is common to the prioritized sites for project intervention.
267. In the framework of implementing the present project, incorporating a gender action plan means proposing actions for equality of opportunities and development between men and women, and contributing to the empowerment of women. For this, the specific conditions of men and women in the intervention areas and the gender constructions that this group has should be considered to prevent adverse impacts that a specific action may have. Thus, the social intervention strategies of the project will be oriented to ensure its viability through the commitment of the local populations to the objectives, mainly in relation to coastal-marine ecosystem management and to the activities of value addition and production diversification, strengthening the participation of women in these areas.
268. To address the identified barriers, the gender action plan (Annex 13) incorporates specific measures. At the same time, general measures for the incorporation of women who will participate in other roles (e.g. researchers, professionals) will be considered
269. The measures that will be applied in the present project are summarized as follows:
- General measures:
    1. According to the characteristics of each of the prioritized sites, the participation of women in the project activities will be promoted, mainly in decision-making activities related to coastal and marine environmental quality included in outcome 3, activities to add value and diversify production in outcome 4, and those related to food safety and food security in outcome 5.
    2. At all time promote a gender responsive approach which seeks to ensure that women and men are given equal opportunities to participate in and benefit from the project's interventions and promote targeted measures to address inequalities and promote the empowerment of women.
    3. Working groups, management committees and related meetings and participatory processes will promote and facilitate the inclusion of women and men, mutual respect, and collective decision-making among them, with specific measures to ensure women's priorities and suggestions are included in decision-making processes.
    4. The inclusion of women and men will be promoted in the project implementation team. Inclusive language will be used in the pertinent hiring procedures and documents. One member of the team will have experience in the incorporation of the gender approach into development projects.

---

<sup>71</sup> i.e. Organized Association for the sustainable development of Paracas (ADESOSPA).

5. The inclusion of women will be promoted in the technical committees and working groups considered in the different components of the project and throughout its implementation; as well as in the exchange activities.
  6. The training courses will be inclusive and sensitive to gender and local culture in terms of participation, instructional design and use of language.
  7. All project actions will be culturally sensitive and will consider, if necessary, the needs of people with disabilities.
  8. The diagnosis of the information needs and interests of resource users, as well as the communication strategy of the project, will recognize the concerns and constraints faced by women and men, as well as their perceptions and motivations, to ensure a gender responsive approach.
  9. Communication materials, project documents, and publications will use appropriate gender-sensitive, and culturally inclusive language. The process of documenting the project's learning will pay special attention to recording and informing the contribution and role of women in the implemented activities
  10. The participation in meetings, training courses and other activities will be documented using sex-disaggregated data. If pertinent, this will be applied in the collection of information of consultancies and studies.
- Measures for barrier 1:
    1. At project start, collect up-to-date information in prioritized sites regarding: (i) social and production organizations, (ii) training needs and / or technical advice for women, and (iii) barriers and strengths for incorporation of women in activities of value addition and production diversification (see incorporation of women in productive processes).
    2. To identify experiences carried out by women or in which they have a significant participation, in the corresponding studies to be prepared throughout the project. For instance, experiences and public and private initiatives of (i) production of products for direct human consumption, (ii) traceability, and (iii) promotion of seafood consumption.
    3. To document the lessons of the project in the various outputs and activities, including testimonies of men and women.
  - Measures for barrier 2:
    1. To train organizations of the prioritized sites on leadership and organizational strengthening, mainly directed to women.
    2. To increase awareness regarding the inclusion of women in production diversification and value-added activities on each prioritized site with the participation of women and men.
    3. To support production diversification and value aggregation activities developed by women.
    4. To encourage the exchange of experiences on sustainable production diversification and value aggregation activities among women of both countries.
    5. To implement activities to present the project aimed at motivating and promoting participation in general and particularly of women.
  - Measures of barrier 3:
    1. To train project partner organizations (e.g. regional governments, public entities) and the project team on gender issues, cultural sensitivity and use of inclusive language.
    2. To prepare a guide for the organization of inclusive events with a gender perspective.
    3. To verify the existence of appropriate operational conditions to implement project activities for women's participation.
    4. To incorporate in the technical support actions, professionals with experience in strengthening community capital and inclusion of women, when appropriate.
270. The implementation of the gender plan will be conducted by the person who works as EPCG.
271. Of the five gender indicators of the GEF 6, the project will monitor "share of women and men as direct beneficiaries of the project" (see indicators 2, 10, 12 and 14 in Annex 2). In addition, the monitoring plan includes the following gender-specific indicators:
- Indicator 16: Number of productive diversification initiatives led by women.

- Indicator 17: Number of production diversification initiatives where women are involved (either leading or not).).
- Indicator 18: Women's perception about their participation in accessing resources and decision-making in production diversification initiatives.

#### South-south and triangular cooperation

272. The present project is based on south-south cooperation (SSC). The project expresses the interest of Chile and Peru to coordinate common problems. The backbone of the project is the strategic action program for the Humboldt current large marine ecosystem that was signed by both countries in 2016.
273. The project includes a series of actions for joint development (e.g., outputs 1.1 to 1.3 and output 3.4) and for the exchange of knowledge, experience and learnings among authorities, fishers and key stakeholders. UNDP will catalyse this process by facilitating access to global experiences and motivating alliances among project participants.

#### Sustainability and scaling up

##### Environmental sustainability

274. The central axis of the project is to catalyse the implementation of the SAP, which in turn is based on the ecosystem approach. The incorporation of the ecosystem approach in the management of fisheries and intervention sites will be promoted. The highly participatory approach of the project will contribute to internalize the perspective of the ecosystem management at different levels of society.
275. Climate change will affect the HCLME and the biodiversity of the area. In this regard, the project will encourage the internalization of climate considerations in all interventions (e.g., fishery management plans of benthic resources, management plans for Iquique and Paracas bays, cooperation network of protected areas).
276. All actions will be framed within the corresponding strategies and national plans of biodiversity and climate change.

##### Social sustainability

277. The project includes a participatory approach and emphasizes the involvement of key actors of (i) important fisheries and their corresponding value chains, and (ii) coastal areas (e.g., Iquique and Paracas bays, communities of San Juan de Marcona, Atico, Puerto Aldea, and Torres del Inca). These groups will form several learning communities, facilitating multi-level interaction, dialogue and collaboration. A fundamental element will be that the key actors will collaborate to address common problems and will develop relationships based on trust, which will contribute to strengthening social capital.
278. In the actions of development of new fishery products and production diversification, the project will facilitate the articulation of the groups that develop the ventures with entities (e.g., local governments, NGOs) that can provide them support and accompaniment in the medium or long-term.

##### Institutional sustainability

279. The SAP is the cornerstone that supports the coordinated action of the countries to achieve the five agreed common objectives for the management of the HCLME. In addition, the countries are developing binational ministerial cabinets in which action plans are established on issues of common interest. This is a valuable mechanism that provides political and institutional basis for joint management. During the implementation of the present initiative, project partners will be encouraged to include the management of the HCLME within the agenda of the presidential meetings and the corresponding binational action plans.
280. At the national level, the interventions will integrate multiple private and public actors. It is expected that through this networking, the fundamental elements of the project will continue in the institutional agendas.

## Financial sustainability

281. During project implementation, GEF resources will be used to finance strategic actions (e.g., feasibility studies, business plans, design of communication campaigns), that will be executed later with resources from competitive funds or ongoing programs.
282. The post-project sustainability of the actions is ensured by their integration into the institutional budgets of several stakeholders such as fishing and environmental authorities, research institutes, local governments and OSCs.

## Replication

283. There is a high probability of replication of the lessons and good practices of the project. GEF resources have been strategically assigned to activities with high potential to catalyse learnings. For this purpose, both experience and lessons will be systematically documented and disseminated through the project website, the portals and channels of the project partners and the IW: LEARN platform.
284. Some of the elements with high replication potential are:
- The experience of agreeing protocols for the coordinated assessment of the anchoveta shared stock. This very relevant to the international agenda, and it is very likely that will be useful to other countries of the world that deal with reduction fisheries.
  - Positive and negative lessons in the development of value chains of products for direct human consumption of anchoveta, pota/jibia, and macroalgae for the domestic market. These lessons will be useful at the national level in both countries and can help other countries. There is a large worldwide interest in the use for direct human consumption of non-traditional species (e.g., pota/jibia, macroalgae) as well as species from reduction fisheries (Kılınç et al., 2013; Lange et al., 2015; Cashion et al., 2017).
  - Lessons in the use of a comprehensive approach for the promotion of production diversification in coastal communities.
  - Experience in integrated management of bays and the use of integrated coastal management tools and marine and coastal spatial planning.

---

## V. PROJECT MANAGEMENT

### Cost efficiency and effectiveness

285. The project will ensure the cost – effectiveness of GEF resources by allocating such funds to activities and products with high catalyst potential and complement actions with national funds. For example:
- Articulate scientific collaboration in ecosystem management of living marine resources, based on the capabilities of the research teams of each country.
  - Support collaborative and exchange of technical experiences in conservation of marine and coastal biodiversity.
  - Design and implement a communication strategy focused on interests and specific communication channels of the key actors, beneficiaries and intervention sites.
  - Systematically document and disseminate lessons and best practices.
  - Build upon lessons, practices and outcomes of other initiatives such as GEF Guaneras and CFI projects, the “A Comer Pescado” programme and FIPA financed projects (Annex 12).
  - Disseminate news and information through the mechanisms and platforms used by project partners. The communication teams of the partners and the project will have coordinated work plans and agreed protocols of action.
  - Focus the GEF funding on preparing designs, feasibility studies and business plans. The investment for the implementation of actions (e.g., wastewater treatment system in Paracas, pilot businesses for new fishery products) will be obtained from public financing and existing competitive funds (e.g.

- PNIPA, CORFO, FPPA). The project includes financing of pilot actions that demonstrate the feasibility of implementation and facilitate the access to other sources of financing.
- h. Focus the GEF funding on the design of campaigns and communication materials that will be disseminated through existing initiatives, such as “A Comer Pescado” and “Del Mar a mi Mesa”.
  - i. Invest in equipment and tools to improve communication and virtual collaboration among the project partners.
  - j. Support the development of lessons and good practices that are highly replicable worldwide.
286. In summary, the cost – effectiveness of the project is reflected in the fact that future advances in the implementation of the SAP and the sustainable management of HCLME can be catalysed with relatively little investment in key strategic actions, with a high degree of synergy and replicability.

#### Project management

287. UNDP is the implementing agency of the present project. In Chile, the executing organism is the Under secretariat of Fishery and Aquaculture, which will be in charge of the implementation of the binational components and the national actions in Chile. In Peru, the Vice Ministry of Fisheries and Aquaculture will be the executing organism and therefore, will be responsible of managing the corresponding national actions of the project. In Section VIII the administration arrangements of the project are presented.
288. Project partners will provide support and guidance for the achievement of the various project outcomes, ensuring a fluid and appropriate implementation of both national and binational activities (Table 10).

Table 10. Responsibilities of project partners to provide support and guidance to each project outcome.

Outcome	Responsible partners for support and guidance
Outcome 1: The prioritized fishery resources have improved the existing management scenarios to contribute to their recovery and there are systems to ensure the maintenance at optimum population levels while sustaining a healthy and productive ecosystem considering climate change and El Niño Southern Oscillation scenarios	IFOP and IMARPE
Outcome 2: Improved coastal and marine environmental quality through the application of integrated ecosystem management.	MMA and MINAM
Outcome 3: There are systems to contribute to maintain and, if necessary, to recover biodiversity in the Humboldt current system.	MMA and SERNANP
Outcome 4: Fishing activities are diversified, and new production opportunities are created for fishers, organized in integrated organizations of civil society, inside and outside the fishing sector.	SUBPESCA, SERNAPESCA and Vice Ministry of Fisheries and Aquaculture
Outcome 5: The general public benefits from increased food security and food safety, thanks to improved management of ecosystems and fisheries, and better-quality controls of the catch.	SUBPESCA and Vice Ministry of Fisheries and Aquaculture
Outcome 6: Lessons and good practices have been shared with key stakeholders in each country, between countries and globally.	SUBPESCA and Vice Ministry of Fisheries and Aquaculture

289. The project will be based in the city of Valparaíso, Chile. SUBPESCA will provide office space to house the project unit. There will be a satellite office in Lima (Peru), whose office space will be provided by the Vice Ministry of Fisheries and Aquaculture. The project team will be distributed between the two offices.
290. The project team will be hired for 57 months with GEF funds (Annex 5). The contracts will be under the modality of annual contracts, subject to renewal based on performance evaluation and the criteria established in the contracts by UNDP. The team will be reduced to three people<sup>72</sup> during the last quarter of the multiannual work plan, a period that will be focused on the closure of the project.

<sup>72</sup> i.e. binational coordinator of the project, monitoring and evaluation specialist, administrator and accountant.

291. To ensure the maximum benefit from the programmatic approach of the present project, a series of coordination mechanisms will be established with the existing initiatives and projects (Annex 12) and those that will develop later. This includes:
- a. Annual coordination meetings with relevant GEF projects and other donors.
  - b. Participation in International Water Conferences (IWC) and the IOC-UNESCO annual large marine ecosystems meeting.
  - c. Letters of understanding with projects and relevant initiatives of other donors.

#### Environmental and social safeguards

292. The present project has a moderate level of risk, according to the UNDP<sup>73</sup> social and environmental screening procedure (PNUD, 2014) (Annex 6). Four risks were identified:
- Risk 1: Barriers for women's involvement and participation.
  - Risk 2: Resistance of key stakeholders to the creation of new protected areas or in situ biodiversity conservation areas.
  - Risk 3: Overharvest of fishery resources.
  - Risk 4: Impacts of climate variability and climate change.

The first, **second** and fourth risks have a "moderate" risk level and the other a "low" significance.

293. Risk 1 is related to the barriers that limit the involvement of women in the project, as well as their empowerment. The project includes a gender action plan (Annex 13) and the mainstreaming of actions to address these identified barriers (Annex 1 and 14). The implementation of the gender plan will be monitored and evaluated as part of the monitoring and evaluation plans (Annexes 2 and 3). A person from the team project will be in charge of coordinating the implementation of the gender mainstreaming actions of the project.
294. **Risk 2 has moderate significance because in all cases (outputs 3.1 to 3.3) the intervention sites already have ongoing participatory mechanisms that will be supported by the project. Every care will be taken to prevent economic displacement. Therefore, as a precaution, at project start the workplan for outputs 3.1 - 3.3 will be revised with local partners on each site to include, if necessary, actions and measures to prevent economic displacement. On each site, at the end of the first semester of implementation, the project team will assess if there are risks of economic displacement of local groups, and the report will be presented to the Steering Committee. If needed, the project team will prepare a livelihood action plan for the specific site using the format established in UNDP Social and Environmental Standards (UNDP, 2016a).**
295. **Risks 3 has low significance because, although there will be interventions related to fisheries, the project will contribute to solve the existing problems. Therefore, it is expected that project will generate positive impacts.**
296. Finally, risk 4 is related to the fact that the HCLME is vulnerable to climate variability and climate change (Alheit & Niquen, 2004; Belkin, 2009; Gutiérrez et al., 2016). In addition, both fisheries and coastal communities are highly vulnerable to extreme climatic events such as ENSO. However, it is still not clear what the impact will be on fisheries and marine and coastal areas of both countries. Therefore, the project includes actions to increase awareness and the analysis of ecosystem-based options in the interventions in fisheries and specific sites.
297. **UNDP's Social and Environmental Standards are underpinned by an accountability mechanism<sup>74</sup> that includes stakeholder response mechanisms<sup>75</sup> and social and environmental compliance review<sup>76</sup>. In the annual PIR that will be submitted to the GEF, the project will report on grievances, if any arise.**

#### Agreement on intellectual property rights and use of logo in project deliverables and information

298. To accord proper acknowledgement to the Global Environment Facility for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like

<sup>73</sup> <http://www.undp.org/content/undp/en/home/operations/social-and-environmental-sustainability-in-undp/SES/>

<sup>74</sup> <http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/>

<sup>75</sup> <http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/stakeholder-response-mechanism/>

<sup>76</sup> <http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/social-and-environmental-compliance-unit.html>



publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with the relevant policies, notably the UNDP disclosure policy<sup>77</sup> (IDP) and the GEF public involvement policy<sup>78</sup> (PIP).

---

<sup>77</sup> [http://www.undp.org/content/undp/en/home/operations/transparency/information\\_disclosurepolicy/](http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/)

<sup>78</sup> Policy SD/PL/01 de 2012. See: [https://www.thegef.org/gef/policies\\_guidelines](https://www.thegef.org/gef/policies_guidelines)

## VI. PROJECT RESULTS FRAMEWORK

**This project will contribute to the following Sustainable Development Goals:** Objective 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Particularly the following goals:

- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
- 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
- 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information
- 14.b Provide access for small-scale artisanal fishers to marine resources and markets.

**This project will contribute to the following country outcomes included in the UNDAF / Document Country Program**

Document Country Program Peru 2017 – 2021. Outcome 1. Growth and development are inclusive and sustainable, and they incorporate productive activities that create employment and livelihood for the poor and the excluded.

Document Country Program Chile 2015 – 2018. Outcome 1. Growth and development are inclusive and sustainable, and they incorporate productive activities that create employment and livelihood for the poor and the excluded.

**This project is linked to the following product of the UNDP Strategic Plan**

Product 1.3. Solutions developed at national and subnational levels for the sustainable management of natural resources, ecosystem services, chemicals and waste.

Objective / Outcome	Objective and outcome indicators	Baseline	Mid-term target	End of project target	Assumptions
<b>Objective</b> To facilitate ecosystem-based fisheries management (EBFM)	Indicator 1. Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at	3 <sup>79</sup>	7	9 <sup>80</sup>	Political support from national (e.g. fisheries, environment) and local

<sup>79</sup> (1) Strategic action programme (SAP), (2) collaboration agreement between IMARPE and IFOP for fisheries research, and (3) collaboration agreement between MINAM and MMA for the development of actions of governance, management and conservation of national systems of marine and coastal protected areas.

<sup>80</sup> The agreements to be reached by mid-term are:

1. Protocol for joint assessment of anchoveta (output 1.1).
2. Protocol for coordinated monitoring in Paracas bay (output 2.1).
3. Inter-institutional Memorandum of Understanding for the technical cooperation network in marine areas of significant importance for the conservation of the Humboldt current (output 3.4)
4. Agreement for collaboration and exchange of experiences for the promotion of diversification of products for direct human consumption and seafood responsible consumption. (outputs 4 and 5).

The agreements to be reached until the end of the project are:

5. Agreement for the implementation of the plan to improve environmental quality objectives in Iquique bay (output 2.2).
6. Integrated marine-coastal zone management plan for the Pisco province (output 2.5).

Objective / Outcome	Objective and outcome indicators	Baseline	Mid-term target	End of project target	Assumptions
and ecosystem restoration in the Humboldt current system for the sustainable and resilient delivery of goods and services from shared living marine resources, in accordance with the Strategic Action Programme endorsed by Chile and Peru.	national and/or sub-national level, disaggregated by partnership type				(e.g. municipalities, regional governments) authorities. Interest and collaboration of fishermen and user groups of coastal resources.
	Indicator 2. Number of women and men as direct beneficiaries of project activities.	0	200,897 Chile <sup>81</sup> . 98,488 women and 102,409 men 75,128 Peru <sup>82</sup> . 39,126 women and 36,002 men	200,983 Chile. 98,520 women and 102,463 men 89,021 Peru. 44,579 women and 44,442 men	Women are interested in participating in the activities of the project.
	Indicator 3: Number of national plans for SAP implementation, with secured finance contributions.	0	1	2 <sup>83</sup>	Political support from relevant national authorities (e.g. ministries of foreign affairs and economy, fisheries and environment authorities). <i>Private and local stakeholders are willing to participate and contribute to prepare and implement the national plans.</i>
<b>Outcome 1:</b> The prioritized fishery resources have improved the existing management scenarios to contribute to their recovery and there are systems to ensure the maintenance at optimum	Indicator 4: Number of coordinated or joint cruises for population assessment of the shared stock of anchoveta	0	1	3	The scientific staff of IFOP and IMARPE agree on methods and procedures for the coordinated assessment of the anchoveta shared stock. SUBPESCA and PRODUCE provide political support

<sup>81</sup> It corresponds to output 2.2, which has greater number of beneficiaries

<sup>82</sup> It corresponds to output 2.1 which has greater number of beneficiaries

<sup>83</sup> A national plan for SAP implementation in each country.

Objective / Outcome	Objective and outcome indicators	Baseline	Mid-term target	End of project target	Assumptions
population levels while sustaining a healthy and productive ecosystem considering climate change and El Niño Southern Oscillation scenarios.					Interest and support of the industry to assess the population of the anchoveta shared stock.
	Indicator 5: Number of ecosystem-based fisheries management plans for benthic resources	0	≥2	7 <sup>84</sup>	Support of the relevant national authorities (PRODUCE, MINAM, SERNANP) and local governments. Interest and involvement of fishers and other key actors in the value chains of benthic resources and algae.
<b>Outcome 2:</b> Improved coastal and marine environmental quality through the application of integrated ecosystem management	Indicator 6: Number of inter-agency long-term environmental quality monitoring programmes for prioritized bays	0	1 (Paracas)	2 (Paracas and Iquique)	The relevant agencies are willing to coordinate actions, share information and maintain long-term monitoring programmes.
	Indicator 7: Number of participatory integrated management plans for prioritized bays including ecosystem approach, sustainable use of biodiversity, and funding	0	1	2 (Paracas and Iquique)	Local stakeholders are willing to engage in participatory management of coastal and marine areas.

<sup>84</sup> Management plans to be generated are:

1. Management plan of benthic resources for the San Juan de Marcona district.
2. Management plan of benthic resources for Atico district.
3. Management plan of benthic resources for San Fernando National Reserve.
4. Management plan of benthic resources for Punta San Juan of the RNSIIPG.
5. Management plan of benthic resources for Punta Atico of the RNSIIPG.
6. Management plan of benthic resources for San Fernando National Reserve.
7. Improve and update the Management plan of stranded algae of COPMAR.

Objective / Outcome	Objective and outcome indicators	Baseline	Mid-term target	End of project target	Assumptions
	Indicator 8: Percentage of coastline under integrated coastal management.	89 km, 2.88% Perú (Sechura province <sup>85</sup> )	183 km, 5.94% Peru (Sechura and Pisco provinces <sup>86</sup> )	183 km Peru	Local stakeholders are willing to engage in participatory management of coastal and marine spaces.
<b>Outcome 3:</b> There are systems to contribute to maintain and, if necessary, to recover biodiversity in the Humboldt current system.	Indicator 9: Coastal and marine surface (ha) under conservation	46,323,077 ha Chile <sup>87</sup>	≥ 46,334,546 ha Chile (Chipana ca., 11.469 <sup>88</sup> ha.	≥ 46,334,546 ha Chile	Key actors are interested and support the conservation of marine and coastal areas.
<b>Outcome 4:</b> Fishing activities are diversified, and new production opportunities are created for fishers organized in integrated organizations of civil society, inside and outside the fishing sector.	Indicator 10: Number of women and men of small-scale or artisanal fishers' families engaged in diversified productive activities.	0	20 Chile. 10 women and 10 men 100 Peru. 20 women and 80 men	298 Chile <sup>89</sup> . 62 women and 236 men 640 Peru <sup>90</sup> . 20 women and 620 men	The corresponding authorities provide long-term support to the groups interested in diversifying their production activities.
	Indicator 11: Number of plans for diversified sustainable economic activities	0	4	13 <sup>91</sup>	Families of artisanal or small-scale fishers are willing to explore alternative production activities.

<sup>85</sup> Peru has a coastline of 3,080 km (MRE, 2012). By 2017, only the province of Sechura had a coastal-marine zone management plan. The coastline of the province of Sechura is 89 km (IMARPE, 2007).

<sup>86</sup> The coastline of the Pisco province is 94 km (IMARPE, 2010).

<sup>87</sup> Until June 2017. The protected surface corresponds to 13.6% of the exclusive economic zone of Chile. Source: MMA.

<sup>88</sup> The final surface will be defined when the file for the creation of the protected area is prepared.

<sup>89</sup> People from Puerto Aldea, Torres del Inca, and Iquique.

<sup>90</sup> People from Marcona and Atico.

<sup>91</sup> Business plans to be prepared during the project are:

1. Value-added anchoveta products (Chile and Peru).
2. Value-added jibia products (Chile).
3. Value-added products of benthic resources (Torres del Inca, Puerto Aldea, Marcona, Atico) (four plans).
4. Value-added macroalgae products (Marcona, Atico, Chañaral, Caldera) (four plans).
5. Production diversification of Torres Inca and Puerto Aldea fishing coves (two plans).
6. Ictiocompost production (Peru).

Objective / Outcome	Objective and outcome indicators	Baseline	Mid-term target	End of project target	Assumptions
<b>Outcome 5:</b> The general public benefits from increased food security and food safety, thanks to improved management of ecosystems and fisheries, and better-quality controls of the catch together with a better control on the quality of the catch.	Indicator 12: Number of women and men of artisanal or small-scale fishers' families trained on safe seafood handling, processing and distribution	0	Chile. ≥100 people (≥30% women) Peru. ≥ 100 people (≥10% women)	Chile. ≥300 people (≥30% women) Peru. ≥ 300 personas (≥10% women)	Families of artisanal or small-scale fishermen are interested in improving seafood safety. Women are interested and participate in the process. Artisanal or small-scale fishermen make possible and recognize the participation of women.
	Indicator 13: Number of people sensitised about seafood safety and food security.	0	≥1,000 Chile (50% women) ≥1,000 Peru (50% women)	≥2,000 Chile (50% women) ≥3,000 Peru (50% women)	PRODUCE, SUBPESCA and SONAPESCA maintain the existing promotion programmes and incorporate the educational and communications materials prepared by the GEF project.
<b>Outcome 6:</b> Lessons and good practices have been shared with stakeholders in each country, between countries and globally.	Indicator 14: Number of people (men and women, by nationality) who have participated in events for dissemination of lessons and best practice (e.g., workshops, IWC)	0	≥1000 personas ≥ 30% women	≥3000 personas ≥ 50% women	Information is attractive, useful and accessible to key actors and groups of interest.
	Indicator 15: Number of visitors per month (annual average) recorded in the network of electronic platforms used to disseminate project' learnings and best practice	Visits 0 Unique visits 0	Visits ≥2000 Unique visits >1600	Visits ≥4000 Unique visits ≥3200	Families of fishers and coastal communities have proper access to the Internet and social networks.

---

## VII. MONITORING AND EVALUATION PLAN

299. The project outcomes, as outlined in the project results framework (section VI) will be monitored annually and evaluated periodically during project implementation to ensure that the project effectively achieves these outcomes. Based on the activities of outcome 6, the monitoring and evaluation plan of the project (Annexes 2 and 3) will facilitate learning and will ensure that knowledge is widely shared and disseminated to ensure that the outcomes of the project are magnified and replicated.
300. Monitoring and evaluation will be performed based on the requirements stipulated in the UNDP monitoring<sup>92</sup> and evaluation<sup>93</sup> policies. Although these UNDP requirements are not detailed in the present PRODOC, UNDP country offices will work with key actors to ensure that the UNDP requirements of monitoring and evaluation are met in a timely manner and with high quality standards. In addition, specific GEF monitoring and evaluation requirements (mentioned below) will be applied, according with the GEF<sup>94</sup> monitoring and evaluation policy.
301. In addition to the mandatory requirements of monitoring and evaluation of UNDP and GEF, other monitoring and evaluation activities considered necessary to support project-level adaptive management will be agreed during the inception workshop and they will be detailed in the inception report. This will include the exact role of project target groups and stakeholders in the monitoring and evaluation activities of the project, including the GEF operational focal point in each country and other national / regional entities to which monitoring actions of the project were assigned. The GEF operational focal points in Chile and Peru will strive to ensure consistency in the expected approach with respect to GEF specific monitoring and evaluation requirements (especially the relevant monitoring tools) in all projects financed by GEF in the country. This could be achieved, for example, by using a national institute to complete the GEF tracking tools for all GEF-financed projects in the country, including projects supported by other GEF agencies.

### Oversight and monitoring responsibilities

#### Binational coordinator of the project

302. The binational coordinator of the project is responsible for day-to-day project management and regular monitoring of project outcomes and risks, including social and environmental risks. The CBP will ensure that the project maintains a high level of transparency, responsibility and accountability in monitoring, evaluation and reporting project results. The CBP will inform the Steering Committee both progress and outcomes of monitoring and evaluation at least once a year. The CBP will inform the Steering Committee, UNDP country office in Chile and the UNDP-GEF Regional Technical Advisor of any delays or difficulties as they arise during implementation, so that appropriate support and recommendations can be adopted. The CBP will maintain close coordination with the National Directors of the project to meet the approved annual work plan and budget.
303. The CBP will prepare annual work plans based on the multiannual work that it is included in Annex 1, including annual outcome targets to ensure the efficient implementation of the project. The CBP must ensure that both UNDP and GEF requirements are met with the highest quality. This includes, but is not limited to:
- a. ensuring that the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and
  - b. ensuring that monitoring of risks and the various plans /strategies developed to support project implementation (e.g., communication strategy) occur on a regular basis.
304. The binational coordinator will encourage that project target groups and key stakeholders, including the GEF operational focal points in Chile and Peru be involved as much as possible in project monitoring and evaluation actions.

---

<sup>92</sup> <https://popp.undp.org/SitePages/POPPSubject.aspx?SBID=137>

<sup>93</sup> <http://web.undp.org/evaluation/policy.shtml>

<sup>94</sup> <https://www.thegef.org/documents/policies>

## Steering Committee

- 305. The Steering Committee will take corrective actions, if necessary, to ensure the project achieves the expected outcomes. The Steering Committee will carry out annual reviews to assess the performance of the project and appraise the annual workplan for the following year.
- 306. In the third year, the committee will analyse the results of the project mid-term review (MTR) and the corresponding response from the administration. The level of progress in the achievement of outcomes will be assessed and risks and challenges faced by the project implementation will be identified, including the risks for post-project sustainability. The Steering Committee will take the necessary corrective measures to ensure that the project meets the set goals and achieves the outcomes outlines in the PRODOC.
- 307. In the last year of the project, the Steering Committee will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling-up or replicate project outcomes and disseminate the lessons learned to relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation (TE) and the corresponding management response.

## Executing agency

- 308. The executing agency of each country, SUBPESCA in Chile and the Vice Ministry of Fisheries and Aquaculture in Peru, through the National Director is responsible for timely, comprehensive and evidence-based project reporting, including both results and validation of project financial reports (Combined Delivery Report) prepared by the UNDP country office. SUBPESCA and the Vice Ministry of Fisheries and Aquaculture will strive to ensure that, where appropriate the monitoring of project indicators will be carried out by responsible national institutions responsible for the national information systems.

## UNDP country office

- 309. The UNDP country office in the host country will support the binational project coordinator, as necessary, including annual supervision missions. These supervision missions will be carried out in accordance with the schedule described in the annual work. Supervision mission reports will be distributed to the project team and the Steering Committee within one month of the mission. The UNDP country office in Chile will initiate key GEF monitoring and evaluation activities, including the annual PIR, MTR and the independent terminal evaluation. The UNDP country office in Chile will also ensure that the standard requirements of monitoring and evaluation are met with the highest quality. In addition, the UNDP country office in Peru will monitor and evaluate the actions carried out in Peru, as well as supporting the preparation of the PIR.
- 310. The UNDP country offices in Chile and Peru are responsible of complying with all monitoring and evaluation requirements indicated in the UNDP programme and operations policies and procedures (POPP). This includes:
  - a. To ensure that the UNDP quality assurance assessment is applied annually.
  - b. To ensure that annual targets at the output level are developed and monitored and reported using the UNDP corporate systems.
  - c. To periodically update the ATLAS risk log, and
  - d. To update annually the UNDP gender marker, based on progress reported in the GEF PIR and the result-oriented annual report (ROAR).
- 311. Any quality concern identified during the monitoring and evaluation activities (e.g., quality assessments ratings in the PIR) must be addressed by the UNDP country offices in Chile and Peru, and the CBP.
- 312. The UNDP Country offices in Chile and Peru will retain all monitoring and evaluation records for up to seven years after the financial closure of the project to support ex-post evaluations that can be carried out by the UNDP Independent Evaluation Office and/or the GEF Independent Evaluation Office.



## UNDP-GEF unit

313. As required, the UNDP-GEF Regional Technical Advisor and the UNDP GEF unit will provide additional support for the monitoring and evaluation, and assurance of the quality of project implementation, as well as the solution of problems that may arise.

## Audit

314. The project will be audited in accordance with UNDP financial regulations and rules and applicable audit policies on National Implementation Modality (NIM) projects (Annex 8).

## Additional GEF monitoring and reporting requirements

### Inception workshop and report

315. There will be an inception workshop after (i) the project document has been signed by the corresponding parties of each country, and (ii) the CBP has been hired. The inception workshop will serve to:

- a. Orient the project stakeholders in the project strategy and discuss changes in the general context that may influence project implementation.
- b. Discuss the roles and responsibilities of the project team, including reporting and communication lines, and mechanisms for conflict resolution.
- c. Review the results framework and, if pertinent, adjust the indicators, means of verification and monitoring plans.
- d. Discuss reporting, monitoring and evaluation roles and responsibilities, and if pertinent, adjust the monitoring and evaluation budget, identify national / regional entities that could be involved in the monitoring and evaluation actions of the project, discuss the role of the GEF operational focal points in project monitoring and evaluation.
- e. Update and review responsibilities for monitoring project plans and strategies, including the risk log, safeguards requirements, gender plan and communication strategy.
- f. Review financial reporting procedures and mandatory requirements and agree on the arrangements for the annual audit.
- g. Plan and schedule the meetings of the Steering Committee and finalize the annual work plan for the first year.

316. The CBP will prepare the inception report no later than two weeks after the inception workshop. The final version of the inception report will be cleared by the UNDP country office in Chile and the UNDP-GEF Regional Technical Advisor, and then approved by the Steering Committee.

### GEF project implementation report

317. The binational coordinator of the project, the UNDP country office of Chile, and the UNDP-GEF Regional Technical Advisor will provide objective inputs to the annual GEF PIR covering the reporting period July (of the previous year) to June (of the current year). The binational project coordinator will ensure that the indicators included in the project results framework are monitored annually well in advance of the PIR submission deadline, and they are adequately reported in the GEF project implementation report.

318. The PIR that is submitted to the GEF every year must be in English and it will be presented to the project Steering Committee. The UNDP country office in Chile will coordinate as necessary, the inputs for the PIR of the GEF operational focal point and other key stakeholders. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

319. The final PIR of the project, together with the report of the terminal evaluation and the corresponding management response will be the final package of the project report. The final report project package will be analysed with the Steering Committee of the project during the final review meeting to identify lessons learned and opportunities to expand the outcomes.

## Learning and knowledge generation

320. Results from the project will be disseminated within and beyond the project intervention area, through networks and exchange forums. The project will identify and participate, as necessary and appropriate, in scientific, policy and other networks that can be beneficial to the project. The project will identify, analyse and share the learning that could be beneficial for the design and implementation of similar projects and the lessons will be widely disseminated. There will be a continuous exchange of information between this project and other projects of similar approach in the same country, region and worldwide.
321. The lessons from the project will be collected in seven documents of systematization of experiences:
- a. Integrated management of the anchoveta stock
  - b. Integrated management of the bays of Iquique and Paracas
  - c. In situ conservation of coastal and marine biodiversity
  - d. Promotion of direct human consumption of anchoveta, jibia and macroalgae
  - e. Promotion of responsible value chains of benthic invertebrates
  - f. Promotion of food safety and food security
  - g. Visibility and strengthening of the role of women in fisheries and complementary/related activities, including value aggregation and production diversification.
322. The documents for the systematization of experiences will have a dissemination format, to be accessible to a wide audience and they will be available to be downloaded from the web. Each document will include an executive summary in English and Spanish.
323. In addition, a memoir of the project that systematizes both achievements and learnings will be prepared. The memoir will be in a simple and very graphic format, so that it is accessible to the general public. The document will have executive summaries in Spanish and English and it will be available to be downloaded from the web.

## GEF focal area tracking tools

324. In line with its objective and the corresponding focal areas / GEF programmes, the present project will apply the GEF-6 international waters monitoring tool.
325. The tracking tool of Annex 4 corresponds to the baseline situation of the project. The tracking tool will be updated by the CBP and handed to the consultants responsible of the midterm review and the terminal evaluation, before the beginning of the respective review / evaluation missions take place. The updated tracking tool will be presented to the GEF together with the MTR and TE reports.

## Midterm review

326. The independent midterm review process will begin after the second PIR has been submitted to the GEF. The final MTR report will be submitted to the GEF in the same year as the third PIR.
327. The MTR findings and the management response will be incorporated as recommendations to improve the implementation during the last half of the project's duration.
328. The terms of reference, the review process and the final report of the MTR will follow the standard formats and guidelines of the UNDP Independent Evaluation Office<sup>95</sup> (UNDP, 2014). As stipulated in the guide for the MTR, the review will be "independent, impartial and rigorous". The consultants hired for this task will be independent from the entities that participated in the design, implementation or advising of the project. The GEF operational focal points of Chile and Peru will be consulted during the review process. The final MTR report will be available in English and Spanish and will be cleared by the UNDP country office of Chile and by the UNDP-GEF Regional Technical Advisor, and approved by the Steering Committee.

---

<sup>95</sup> <http://web.undp.org/evaluation/guidance.shtml#gef>

## Terminal evaluation

329. An independent terminal evaluation will be carried out once most of the outputs and activities have been completed. The terminal evaluation process will begin three months before the operational closure of the project, facilitating that the evaluation mission acts while the project team is still operating, but making sure that the project is close enough to its conclusion, so that the evaluation team reach conclusions on key aspects such as the sustainability of the outcomes achieved. It is expected that the terminal evaluation is performed in the third quarter of the fifth year of the project, and that the operational closure is carried out during the last quarter of the fifth year (Annex 1).
330. The CBP will remain on contract until the TE report and the management responses have been finalized. The terms of reference terms, the evaluation process and the final TE report will follow the standard formats and guidelines of the UNDP Independent Evaluation Office (UNDP, 2012). As stipulated in the guide for the MTR, the review will be “independent, impartial and rigorous”. The consultants hired for this task will be independent from the entities that participated in the design, implementation or advising of the project. The GEF operational focal points of Chile and Peru will be consulted during the terminal evaluation process. Additional quality assurance support will be available from the UNDP-GEF directorate.
331. The terminal evaluation report will be cleared by the UNDP country office of Chile and the UNDP-GEF Regional Technical Advisor and approved by the Steering Committee. The TE report will be available to the public in English on the UNDP Evaluation Resource Centre (ERC).
332. The UNDP country office in Chile will include the project terminal evaluation within the country office evaluation plan and will upload the final report of the terminal evaluation in English to the UNDP Evaluation Resource Centre, as well as the corresponding management response. Once the documents have been uploaded to the ERC, the UNDP Independent Evaluation Office will perform a quality evaluation and will validate findings and grades that are in the TE and will rate the quality of the TE report. The UNDP independent evaluation office assessment report will be sent to the GEF independent evaluation office together with the terminal evaluation report.
333. The UNDP country office in Chile will retain all monitoring and evaluation records of the present project for up to seven years after its financial closure to support ex-post evaluations that can be carried out by the UNDP independent evaluation office and/or the GEF independent evaluation office.

## Final report

334. The last PIR of the project together with the terminal evaluation report and the corresponding management response will serve as the final project report package. The final project report package will be analysed with the Steering Committee during an end-of-project review meeting to examine lessons learned and opportunities to enhance the outcomes.

## Mandatory GEF monitoring and evaluation requirements and monitoring and evaluation budget

GEF monitoring and evaluation requirement	Primary responsibility	Indicative costs to be charged to the project budget <sup>96</sup> (USD)		Time frame
		GEF	In kind co-financing	
<b>Inception workshop</b>	UNDP country office in Chile	USD 11,560	USD 10,000	Within two months after the signing of the project document

<sup>96</sup> Excluding project team time and UNDP personnel time and travel expenses

GEF monitoring and evaluation requirement	Primary responsibility	Indicative costs to be charged to the project budget <sup>96</sup> (USD)		Time frame
		GEF	In kind co-financing	
<b>Inception report</b>	Binational coordinator of the project	None	None	Within two weeks after the inception workshop
<b>Standard UNDP monitoring and reporting requirements as stipulated in the POPP</b>	UNDP country office in Chile	None	None	Quarterly, annual
<b>Monitoring of indicators of the project results framework</b>	CBP	USD 16,000	USD 16,000	Annual
<b>GEF Project Implementation Report (PIR)</b>	CBP, UNDP country office in Chile, UNDP-GEF team	None	None	Annual
<b>NIM audit according to UNDP audit policies</b>	UNDP country office in Chile and UNDP country in Peru	USD 25,000	USD 25,000	Annual or other frequency, as stipulated in the UNDP Audit policies
<b>Lessons learned and knowledge generation</b>	CBP	None	None	Annual
<b>Monitoring of social and environmental risks and the corresponding action plans</b>	CBP y UNDP country office in Chile	None	None	Continuous
<b>Addressing environmental and social complains</b>	CBP and UNDP country office in Chile Bureau of policy and program support (BPPS), if required	None	None	Continuous
<b>Steering Committee meetings</b>	Steering Committee, UNDP country office in Chile and CBP	USD 11,280	USD 10,000	At least annually
<b>Supervision missions</b>	UNDP country office	None <sup>97</sup>	USD 10,000	Annual
<b>Oversight missions</b>	UNDP-GEF team	None <sup>98</sup>	USD 10,000	Troubleshooting as necessary
<b>Knowledge management as indicated outcome 6</b>	CBP	USD 151,998 (1.9% of GEF grant)	None	Continuous
<b>GEF Secretariat learning missions/site visits</b>	UNDP country office in Chile, CBP, team UNDP-GEF	None	USD 10,000	To be defined
<b>Midterm update of the GEF tracking tool, to be completed by a consultant</b>	CBP	USD 10,000	None	Before the midterm review mission
<b>Mid-term review (MTR)</b>	UNDP country office in Chile, project team, UNDP-GEF team	USD 30,000	USD 10,000	Between second and third PIR
<b>Final update of the GEF tracking tool, to be completed by a consultant</b>	CBP	USD 10,000	None	Before the terminal evaluation mission

<sup>97</sup> Participation costs and UNDP country office time will be charged to the GEF agency fee.

<sup>98</sup> Participation costs and UNDP-GEF team time will be charged to the GEF agency fee.

GEF monitoring and evaluation requirement	Primary responsibility	Indicative costs to be charged to the project budget <sup>96</sup> (USD)		Time frame
		GEF	In kind co-financing	
<b>Independent terminal evaluation (TE) included in the UNDP evaluation plan</b>	UNDP country office in Chile, project team, UNDP-GEF team	USD 40,000	USD 20,000	At least three months before the operational closure of the project (third quarter of year five).
<b>Translation to English of MTR and TE reports</b>	UNDP country office	USD 5,000	None	The GEF only accepts reports in English
<b>Indicative total cost</b> Excluding time of the project team, UNDP staff and travel expenses		USD 310,838	USD 111,000	

## VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

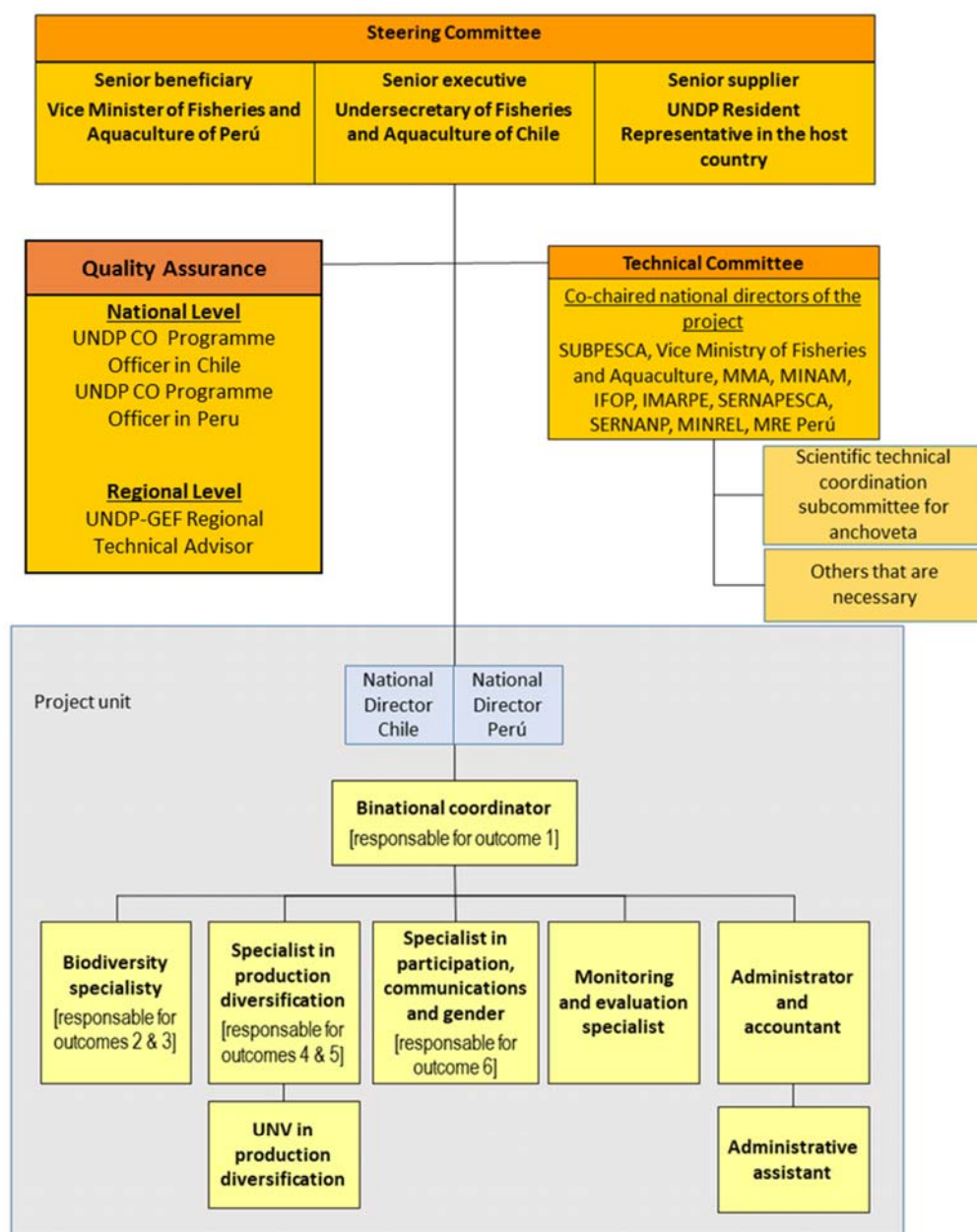
335. The project will be implemented under UNDP's National Implementation Modality (NIM), according to the standard basic assistance agreement between UNDP and the governments of Chile and Peru and the country programme action plan<sup>99</sup> (CPAP). The GEF implementing agency will be UNDP and the lead office will be UNDP Chile. The lead office will supervise the entire project and will directly administer the binational and Chilean financial resources. The UNDP office in Peru will collaborate in the implementation of the project by administrating the Peruvian financial resources of the project.
336. The implementing partner of this project are the Undersecretariat of Fishery and Aquaculture in Chile and the Vice Ministry of Fisheries and Aquaculture in Peru. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The implementing partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems. The executing agency in Chile, in coordination with the implementing agency will be in charge of organizing and coordinating the activities of project initiation (inception workshop) and closure (administrative closure and final report). In addition, it will coordinate the midterm review and the terminal evaluation of the project.
337. The executing agencies may request services of the UNDP country office (UNDP-CO) for the provision of direct project services (DPS) (Annex 8). In this case, the executing agency must sign a letter of agreement (LOA), specifying the services required and the corresponding costs (Annex 10).
338. The project partners in Chile are SUBPESCA, the Ministry of the Environment, the National Service of Fisheries and Aquaculture, and the Fisheries Development Institute. On the other hand, the project partners in Peru are the Vice Ministry of Fisheries and Aquaculture, the Ministry of Environment, the National Services of Natural Areas Protected by the State, and the Institute of the Sea of Peru.
339. The organizational structure of the project has a Steering Committee, a technical committee and a project unit (Figure 17).

<sup>99</sup> Chile's CPAP is being updated. The document of the country program 2015-2018 is available at the following link: [http://www.latinamerica.undp.org/content/dam/rblac/docs/Country%20Programme%20Documents/CHL\\_CPD%202015%202018\\_ENG.pdf](http://www.latinamerica.undp.org/content/dam/rblac/docs/Country%20Programme%20Documents/CHL_CPD%202015%202018_ENG.pdf)  
The country program 2017-2021 of Peru is available at the following link: [http://www.pe.undp.org/content/peru/es/home/library/democratic\\_governance/documento-programa-pais-2017-20210.html](http://www.pe.undp.org/content/peru/es/home/library/democratic_governance/documento-programa-pais-2017-20210.html)

340. The **Steering Committee** (also called **Project Board**) is responsible for making by consensus, management decisions when guidance is required by the project manager (here called binational coordinator), including recommendations for UNDP/Implementing Partner approval of project plans and revisions, and addressing any project level grievances. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Manager. The terms of reference for the Steering Committee are in Annex 5.
341. Specific responsibilities of the Steering Committee include:
- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints.
  - Address project issues as raised by the project manager.
  - Provide guidance on new project risks and agree on possible countermeasures and management actions to address specific risks.
  - Agree on project manager's tolerances as required.
  - Review the project progress and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans.
  - Appraise the annual project implementation report, including the quality assessment rating report. make recommendations for the workplan.
  - Provide ad hoc direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Assess and decide to proceed on project changes through appropriate revisions.
342. The Steering Committee includes representatives of three roles:
- Executive. The Executive is an individual who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency or UNDP. In the present project the Executive will be the Undersecretary of Fisheries and Aquaculture of Chile (Figure 17). The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive must ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and supplier. Specific responsibilities of the Executive, as part of the responsibilities for the Steering Committee, are:
    - Ensure that there is a coherent project organisation structure and logical set of plans.
    - Set tolerances in the annual workplan and other plans as required for the project manager.
    - Monitor and control the progress of the project at a strategic level.
    - Ensure that risks are being tracked and mitigated as effectively as possible.
    - Brief relevant stakeholders about project progress.
    - Organise and chair Steering Committee meetings.
  - Senior beneficiary. The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary role is held by a representative of the government or civil society. In the present project, the Senior Beneficiary will be the Vice Minister of Fisheries and Aquaculture of Peru. The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people. Specific responsibilities of the Senior beneficiary, as part of the responsibilities for the Steering Committee, are:
    - Prioritise and contribute beneficiaries' opinions on Steering Committee decisions on whether to implement recommendations on proposed changes.
    - Specification of the Beneficiary's needs is accurate, complete and unambiguous.

- iii. Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
  - iv. Impact of potential changes is evaluated from the beneficiary point of view.
  - v. Risks to the beneficiaries are frequently monitored.
- c. Senior supplier. The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Supplier will be the UNDP Resident Representative in Chile. Specific responsibilities of the Senior supplier, as part of the responsibilities for the Steering Committee are:
- i. Make sure that progress towards the outputs remains consistent from the supplier perspective.
  - ii. Promote and maintain focus on the expected project outputs from the point of view of supplier management.
  - iii. Ensure that the supplier resources required for the project are made available.
  - iv. Contribute supplier opinions on Steering Committee decisions on whether to implement recommendations on proposed changes.
  - v. Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.
343. The Steering Committee is formed by the following people: Undersecretary of Fisheries and Aquaculture of Chile (**Executive**), Vice Minister of Fisheries and Aquaculture of Peru (**Senior Beneficiary**) and the UNDP Resident Representative in Chile (**Senior Supplier**) or their officially nominated alternate representatives. In addition, the national directors of the project and the GEF focal points of each country will participate as observers. The UNDP Regional Technical Advisor in governance of waters and oceans will participate in the meetings as part of its quality assurance role to provide advice and guidance. The binational coordinator of the project will act as secretary of the committee, but without vote. In its first meeting, the Steering Committee will agree its operating procedures.
344. The **Technical Committee** is an inter-institutional binational coordination space. Its main role is to provide technical guidance to the binational coordinator and the project unit in support to the achievement of the project outcomes. In addition, this entity reviews and pre-approves the work plans and annual budgets before they are submitted for consideration of the Steering Committee.
345. The technical committee will be formed by formally designed delegates from the Under secretariat of Fisheries and Aquaculture of Chile, the Vice Ministry of Fisheries and Aquaculture of Peru, the Ministry of the Environment of Chile, the Ministry of Environment of Peru, the National Service of Fisheries and Aquaculture of Chile, the National Services of Natural Areas Protected by the State of Peru, the Fisheries Development Institute of Chile, , the Institute of the Sea of Peru, the Ministry of Foreign Affairs of Chile, the Ministry of Foreign Affairs of Peru and the GEF operational focal points in each country. Where appropriate, the programme officers or other UNDP specialists will participate. The members will decide on inviting other entities that consider relevant. The committee will be co-chaired by the national directors of the project in Chile and Peru. In its first meeting, the Technical Committee will agree its operating procedures.
346. To facilitate inter-institutional coordination and given the complexity to advance on coordinated management of shared resources with emphasis on the anchoveta, which is one of the project's achievement, a scientific technical coordination subcommittee will be formed. Its role will be to coordinate, and to guide specific actions of the thematic workgroups proposed in output 1.1. The members of the committee will decide about the creation of additional subcommittees when necessary.
347. The **National Directors** of the project will be government officials formally designed by SUBPESCA in Chile and the Vice Ministry of Fisheries and Aquaculture in Peru. These people will be responsible for the execution of the project according to what is established in the PRODOC and the approved work plans. The national directors will supervise the implementation of the national actions of the project and establish

guiding and coordination actions with the CBP, facilitate coordination and cooperation with the various relevant national entities, participate (when necessary) in the processes of recruitment / acquisition of staff, goods and services for the project, and is the person who authorizes the expenditure to be executed.



**Note**

- Binational coordinator, monitoring and evaluation specialist, specialist in production diversification, and administrator and accountant in the main office in the host country.
- Biodiversity specialist, UNV in production diversification, specialist in participation, communications and gender, and administrative assistant in the satellite office in the other country.

Figure 17. Organization chart of the project.



348. The **project unit** is headed by the binational coordinator and includes eight people<sup>100</sup> (Figure 17). National directors are considered members of the project unit.
349. The **Binational Coordinator of the project (also called Project Manager)** has the authority to run the project on a day-to-day basis on behalf of the Steering Committee within the constraints laid down by the board. The Binational Coordinator is responsible for day-to-day management and decision-making for the project. This person's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The CBP will perform the daily tasks on behalf of the executing agencies and within the limitations established by the Steering Committee. The Implementing Partner appoints the Binational Coordinator, who should be different from the Implementing Partner's representative in the project board. The function of the CBP will finalize when the terminal evaluation report and other documentation required by GEF and UNDP have been completed and submitted to UNDP (including the operational closure of the project). The CBP will ensure fluid communication and coordination with the national directors, UNDP and the project partners, as well as other entities that contribute to project execution (e.g., local governments, OSC, international cooperation, NOAA). The CBP will directly coordinate the activities of the project outcome 1.
350. The terms of reference for the Binational Coordinator are found in Annex 5, specific responsibilities include:
- a. Provide direction and guidance to the project team.
  - b. Liaise with the Steering Committee to assure the overall direction and integrity of the project.
  - c. Identify and obtain any support and advice required for the management, planning and control of the project.
  - d. Be responsible for project administration.
  - e. Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan.
  - f. Mobilise personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work.
  - g. Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required.
  - h. Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures.
  - i. Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports.
  - j. Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis.
  - k. Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required. Update the status of these risks by maintaining the project risks log.
  - l. Capture lessons learned during project implementation.
  - m. Prepare the annual workplan for the following year and update the Atlas Project Management module if external access is made available.
  - n. Prepare the GEF PIR and submit the final report to the project Steering Committee.
  - o. Based on the GEF PIR and the project board review, prepare the annual workplan for the following year.
  - p. Ensure that the midterm review process is undertaken as per the UNDP guidance, and submit the final MTR report to the project Steering Committee.
  - q. Identify follow-on actions and submit them for consideration to the Steering Committee.
  - r. Ensure that the terminal evaluation process is undertaken as per the UNDP guidance, and submit the final TE report to the Steering Committee.
351. There will be four thematic specialists (Figure 17), who will coordinate specific outcomes and will work together with project partners and other participating entities. The specialist in participation, communication and gender (EPCG) and the monitoring and evaluation specialist (EME) will have cross-cutting functions to all project outcomes. The EPCG will be responsible of promoting and coordinating the

<sup>100</sup> All members of the project unit will be contracted with GEF funds. Annex 5 contains the terms of reference for each post.

effective participation of diverse key stakeholders, direct beneficiaries and local groups, as well as the implementation of the gender action plan (Annex 13). The EME will coordinate actions to document and monitor the project activities and will be directly responsible of the execution of the monitoring and evaluation plans (Annexes 2 and 3).

352. The binational coordinator of the project, the monitoring and evaluation specialist, the specialist in production diversification and the administrator and accountant (ACA) will be based on the main office. The biodiversity specialist, the specialist in participation, communication and gender, the UNV in production diversification, and the administrative assistant will be based on the satellite office.
353. **UNDP provides a three – tier supervision, oversight and quality assurance role – funded by the GEF agency fee – involving UNDP staff in country offices and at regional and headquarters levels. Project Assurance must be totally independent of the project management function. The quality assurance role supports the Steering Committee and project unit by carrying out objective and independent project oversight and monitoring functions. This role ensures that appropriate project management milestones are managed and completed. The Steering Committee cannot delegate any of its quality assurance responsibilities to the project manager. This project oversight and quality assurance role is covered by the GEF Agency.** The UNDP quality assurance team, among other actions, will revise and analyse project reports and the draft annual work plan and budget, after they are approved by the Technical Committee and before they are submitted to the Steering Committee and will make recommendations to optimize the project performance.

#### Governance role for project target groups

354. The EPCG will organize semi-annual meetings (both virtual and in-person) with the key stakeholders and direct beneficiaries of each project outcome. In these meetings, the progress will be jointly reviewed, and comments, feedback and recommendations will be received for the execution of the project. The CBP and the EME will participate in these meetings. The results if these meetings will be reported to the Steering Committee.

#### Direct project services provided by UNDP at the request of the government

355. At the request of the executing agencies, UNDP may provide Direct Project Services (DPS), according to its specific policies and conveniences (Annex 8). In this case, each executing agency will sign a specific letter of agreement for the services to be provided and their respective costs (Annex 10). In accordance with GEF requirements, the costs of the services (i.e., direct project costs or DPC) will be part of the administration costs of the project of the corresponding executing agency identified in the project budget. UNDP and the governments of Chile and Peru recognize that these services are not mandatory and will only be provided in full compliance of the UNDP direct cost recovery policies. DPC will be annually charged by using the UNDP universal price list (UPL) in Chile and the local price list in Peru.

---

## IX. FINANCIAL PLANNING AND MANAGEMENT

356. The total cost of the project is USD **99,639,027**. This is financed through a GEF grant of USD 8,000,000 and USD **91,639,027** of parallel co-financing. UNDP, as the GEF implementing agency, is solely responsible for the execution of GEF resources and the cash co-financing that it is transferred to the UNDP bank account.

#### Parallel co-financing

357. The actual realization of the project co-financing will be monitored during the midterm review and terminal evaluation processes and will be reported to the GEF. The planned parallel co-financing will be used as follows:

Co-financing				Planned Activities / Outputs	Risks	Risk Mitigation Measures
Source	Category	Type	Amount			
SUBPESCA	Public	In kind	12,000,000	Outcomes 1, 4 and 5	[1]	[A]
MMA	Public	In kind	1,900,000	Outcomes 2 and 3	[1]	[A]
IFOP	Public	In kind	12,527,000	Outcomes 1, 4 and 5	[1]	[A]
PRODUCE	Public	In kind	3,747,096	Outcomes 1 to 6	[2]	[A]
MINAM	Public	In kind	92,819	Outcomes 2 and 3	[2]	[A]
SERNANP	Public	In kind	600,000	Outcomes 1 to 3	[2]	[A]
IMARPE	Public	In kind	28,315,275	Outcomes 1 to 3	[2]	[A]
FONDEPES	Public	In kind	2,141,774	Outcomes 1, 4 and 5	[2]	[A]
COPMAR	OSC	In kind	600,000	Outcomes 1 to 5		
A COMER PESCADO	Public	In kind	935,938	Outcomes 4 and 5	[2]	[A]
SNP	Private	In kind	25,740,000	Outcomes 1, 2, 4 and 5		
CIAM	Private	In kind	2,273,125	Outcomes 1 to 5		
NOAA	Public	In kind	160,000	Outcome 2		
UNDP Chile		In kind	356,000	Outcomes 1 to 6		
UNDP Perú		In kind	250,000	Outcomes 1 to 6		
TOTAL			91,639,027			

Notes:

[1] Change of central government in 2018 and 2022 and possible adjustments in the priorities of the national budget.

[2] Change of central government in 2021 and possible adjustments in the priorities of the national budget.

[A] Present the project to new authorities and promote the operational and financial support

#### Budget revision and tolerance

358. As per UNDP requirements described in the POPP, the Steering Committee will agree on a budget tolerance level for each component, according to the general annual work plan that allows the CBP to spend during the year up the tolerance level approved, without requiring a committee review. Should the following deviations be required, which are considered significant amendments by the GEF, the CBP and the UNDP country office, based on the approval of the Steering Committee, will request approval of the UNDP-GEF team:
- a. Budget re-allocations among project components with amounts that exceed 10% of the total grant or more;
  - b. Introduction of new budget items or components that exceed 5% of the GEF original allocation.
359. Any expense incurred that exceeds the amount of the grant of the Global Environment Facility will be absorbed with non-GEF resources (e.g., UNDP TRAC or cash co-financing).

#### Refund to GEF

360. In the event that a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF unit in New York.

#### Project closure

361. The project will be closed following the UNDP requirements described in the POPP. Exceptionally, a no-cost extension beyond the initial duration of the project may be requested to the UNDP office in the host country and to the UNDP-GEF executive coordinator.

#### Operational closure

362. The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final approval of the terminal evaluation report (that will be available in English) and the corresponding management response and the end-of-project review Steering Committee meeting. The executing agencies, through a decision from the Steering Committee of the project will notify the UNDP office in the host country when the operational closure has

been completed. At that time, the relevant parts will have already agreed and confirmed in writing the arrangements for the disposal of any equipment that it still owned by UNDP.

#### Financial closure

363. The project will be financially closed when the following conditions are met:
- a. The project has been operationally completed or has been cancelled.
  - b. The executing agencies have reported all the financial transactions to UNDP.
  - c. UNDP has closed the project accounts.
  - d. UNDP and the executing agencies have certified the final Combined Delivery Report<sup>101</sup> (that serves as the final budget review).
364. The project will be financially completed within 12 months after the operational closure or after the cancellation date. Between the operational and financial closure, the executing agencies will identify and settle all financial obligations and prepare a final expense report. The UNDP country office will send the final signed closure documents, including the confirmation of the final cumulative expenditure and unspent balance to the UNDP-GEF unit for confirmation before the project will be financially closed in ATLAS by the UNDP country office.

---

<sup>101</sup> The Combined Delivery Report (CDR) is a mandatory report that represents expenses of the project and available funds. UNDP verifies that the financial information is complete and correct and is consistent with the annual work plan and budget stipulated in the ATLAS.

## X. TOTAL BUDGET AND WORK PLAN

### CHILE – HOST COUNTRY

Total Budget and work plan													
Atlas Proposal or Award ID:		00104514				Atlas Primary Output Project ID:				00106038			
Atlas Proposal or Award Title:		Humboldt II											
Atlas Business Unit		CHL10											
Atlas Primary Output Project Title		Humboldt II											
UNDP-GEF PIMS No.		5697											
Executing agency		Under secretariat of Fisheries and Aquaculture (SUBPESCA)											
GEF Component Atlas Activity	Responsible Party Atlas Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Description	Budget	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
BINATIONAL ACTIVITIES													
1 - Recovery and maintenance at optimal population biomass levels of the majority of fisheries	SUBPESCA	62000	GEF	71200	International Consultants	-	70,000	-	-	-	-	70,000	1
				71400	Contractual Services Individual	-	53,766	109,625	44,702	45,596	43,811	297,500	2
				71500	UNV		990	1,010	1,030	1,050	804	4,884	3
				71600	Travel		9,800	9,800	9,800	9,800	9,800	49,000	4
				72100	Contractual Services Companies	-	-	20,000	20,000	-	-	40,000	5
				72400	Communications		360	360	360	360	360	1,800	6
				75700	Training		94,680	136,880	89,880	40,080	40,080	401,600	7
					Subtotal		159,596	347,675	165,772	96,886	94,855	864,784	
2 - Improve the environmental quality of the marine and coastal ecosystems	SUBPESCA	62000	GEF	71400	Contractual Services Individual	-	49,236	50,221	51,225	52,249	46,044	248,975	8
				71500	UNV		2,970	3,029	3,090	3,152	2,411	14,652	9
				71600	Travel		9,800	9,800	9,800	9,800	9,800	49,000	10
				72400	Communications		360	360	360	360	360	1,800	11
					Subtotal		62,366	63,410	64,475	65,561	58,615	314,427	
3 - Restore and maintain the habitat and	SUBPESCA	62000	GEF	71400	Contractual Services Individual	-	51,926	47,864	48,822	49,798	43,811	242,221	12
				71500	UNV		1,980	2,020	2,060	2,101	1,607	9,768	13

biodiversity of marine and coastal systems at sustainable levels.				71600	Travel		9,800	9,800	9,800	9,800	9,800	49,000	14
				72100	Contractual Services - Companies	-	15,000	10,000	8,491	-	-	33,491	15
				72400	Communications		360	360	360	360	360	1,800	16
				75700	Training		11,760	11,760	11,760	-	-	35,280	17
					Subtotal		90,826	81,804	81,293	62,059	55,578	371,560	
4 - Diversify and add value by creating productive opportunities inside and outside the fisheries sector with people socially organized and integrated	SUBPESCA	62000	GEF	71400	Contractual Services - Individual	-	56,826	57,963	59,122	60,304	52,562	286,777	18
				71500	UNV		7,920	8,078	8,240	8,405	6,430	39,073	19
				71600	Travel		9,800	9,800	9,800	9,800	9,800	49,000	20
				72100	Contractual Services - Companies	-	61,400	-	-	-	-	61,400	21
				72300	Materials and Goods		-	10,000	10,000	10,000	-	30,000	22
				72400	Communications		360	360	360	360	360	1,800	23
				75700	Training		-	43,000	38,200	37,200	-	118,400	24
					Subtotal		136,306	129,201	125,722	126,069	69,152	586,450	
5 - Contribute to the population's food security and food safety	SUBPESCA	62000	GEF	71300	Local Consultants		-	18,000	18,000	-	-	36,000	25
				71400	Contractual Services - Individual	-	117,686	68,440	79,208	59,993	35,238	360,565	26
				71500	UNV		3,960	4,039	4,120	4,202	3,215	19,536	27
				71600	Travel		9,800	9,800	9,800	9,800	9,800	49,000	28
				72100	Contractual Services - Companies	-	-	100,000	60,000	-	-	160,000	29
				72400	Communications		360	360	360	360	363	1,803	30
				75700	Training		-	69,000	39,000	-	-	108,000	31
					Subtotal		131,806	269,639	210,488	74,355	48,616	734,904	
6 - Share and disseminate experiences and learnings	SUBPESCA	62000	GEF	71400	Contractual Services - Individual	-	53,832	46,758	97,704	53,668	93,757	345,719	32
				71500	UNV		1,980	2,020	2,060	2,101	1,607	9,768	33
				71600	Travel		19,220	15,260	29,480	15,260	19,220	98,440	34
				72100	Contractual Services - Companies	-	11,000	6,000	6,000	6,000	6,000	35,000	35
				72200	Equipment and Furniture		14,000	10,000	-	-	-	24,000	36
				72500	Supplies		4,000	4,000	4,000	4,000	4,000	20,000	37
				74100	Professional Services		2,500	2,500	2,500	2,500	2,500	12,500	38
				74200	Audio Visual&Print Prod Costs		-	5,000	-	-	68,228	73,228	39

				74500	Miscellaneous Expenses	8,000	-	-	-	-	8,000	40
				72400	Communications	84,600	17,000	17,000	17,000	17,000	152,600	41
				75700	Training	47,560	34,720	22,720	22,720	39,998	167,718	42
					Subtotal	246,692	143,258	181,464	123,249	252,310	946,973	
PM	UNDP	62000	GEF	71400	Contractual Services - Individual	40,788	41,604	42,436	43,285	39,542	207,655	43
				73100	Rental & Maintenance-Premises	2,660	2,660	2,660	2,660	2,657	13,297	44
				74596	Direct project costs	16,542	16,541	16,541	16,541	16,541	82,706	45
					Subtotal	59,990	60,805	61,637	62,486	58,740	303,658	
					<b>TOTAL BINATIONAL</b>	<b>887,582</b>	<b>1,095,792</b>	<b>890,851</b>	<b>610,665</b>	<b>637,866</b>	<b>4,122,756</b>	

NATIONAL ACTIVITIES IN CHILE												
1 - Recovery and maintenance at optimal population biomass levels of the majority of fisheries	SUBPESCA	62000	GEF	71600	Travel	-	12,960	12,960	-	-	25,920	46
				72100	Contractual Services - Companies	30,000	88,000	88,000	88,000	-	294,000	47
					Subtotal	30,000	100,960	100,960	88,000	-	319,920	
2 - Improve the environmental quality of the marine and coastal ecosystems	SUBPESCA	62000	GEF	71200	International Consultants	4,800	9,600	4,800	-	-	19,200	48
				71600	Travel	16,500	33,000	16,500	-	-	66,000	49
				72100	Contractual Services - Companies	35,000	15,000	10,000	11,250	-	71,250	50
				74200	Audio Visual&Print Prod Costs	8,000	22,000	23,000	-	-	53,000	51
				75700	Training	11,675	32,000	10,000	2,000	-	55,675	52
					Subtotal	75,975	111,600	64,300	13,250	-	265,125	
3 - Restore and maintain the habitat and biodiversity of marine and coastal systems at sustainable levels.	SUBPESCA	62000	GEF	71400	Contractual Services - Individual	-	-	18,000	-	-	18,000	53
				72100	Contractual Services - Companies	-	60,000	30,000	-	-	90,000	54
				75700	Training	4,680	9,360	4,680	-	-	18,720	55
					Subtotal	4,680	69,360	52,680	-	-	126,720	
	SUBPESCA		GEF	71300	Local Consultants	-	72,000	18,000	18,000	-	108,000	56

4 - Diversify and add value by creating productive opportunities inside and outside the fisheries sector with people socially organized and integrated		62000		71400	Contractual Individual Services -	65,000	160,000	135,000	33,000	-	393,000	57
				72100	Contractual Companies Services -	70,500	131,000	230,000	25,000	10,000	466,500	58
				72300	Materials and Goods	-	30,000	-	-	-	30,000	59
				75700	Training	41,500	98,120	22,420	22,420	-	184,460	60
					Subtotal	177,000	491,120	405,420	98,420	10,000	1,181,960	
PM	UNDP	62000	GEF	74596	Direct project costs	7,731	7,729	7,729	7,729	7,729	38,647	45
					Subtotal	7,731	7,729	7,729	7,729	7,729	38,647	
					<b>TOTAL CHILE</b>	<b>295,386</b>	<b>780,769</b>	<b>631,089</b>	<b>207,399</b>	<b>17,729</b>	<b>1,932,372</b>	

#### Chile Budget Summary of Funds

Entity	Amount year 1	Amount year 2	Amount year 3	Amount year 4	Amount year 5	Total
GEF	1,182,968.00	1,876,561.00	1,521,940.00	818,064.00	655,595.00	6,055,128.00
IFOP	1,252,700	2,818,575	2,818,575	2,818,575	2,818,575	12,527,000
MMA	190,000	427,500	427,500	427,500	427,500	1,900,000
SUBPESCA	1,200,000	2,700,000	2,700,000	2,700,000	2,700,000	12,000,000
CIAM	227,313	511,453	511,453	511,453	511,453	2,273,125
NOAA	16,000	64,000	64,000	16,000	-	160,000
UNDP Chile	35,600	80,100	80,100	80,100	80,100	356,000
<b>TOTAL</b>	<b>4,104,581</b>	<b>8,478,189</b>	<b>8,123,568</b>	<b>7,371,692</b>	<b>7,193,223</b>	<b>35,271,253</b>



PERU

Total Budget and work plan												
Atlas Proposal or Award ID:		00107511			Atlas Primary Output Project ID:			00107797				
Atlas Proposal or Award Title:		Humboldt II										
Atlas Business Unit		PER10										
Atlas Primary Output Project Title		Humboldt II										
UNDP-GEF PIMS No.		5697										
Executing agency		Vice Ministry of Fisheries and Aquaculture (PRODUCE)										
GEF Component Atlas Activity	Responsible Party Atlas Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
NATIONAL ACTIVITIES IN PERU												
1 - Recovery and maintenance at optimal population biomass levels of the majority of fisheries	PRODUCE	62000	GEF	71300	Local Consultants	-	36,000	-	-	-	36,000	61
				71400	Contractual Services - Individual	8,000	181,000	-	-	-	189,000	62
				71600	Travel	-	12,750	12,750	-	-	25,500	63
				75700	Training	-	63,600	23,600	-	-	87,200	64
					Subtotal	8,000	293,350	36,350	-	-	337,700	
2 - Improve the environmental quality of the marine and coastal ecosystems	PRODUCE	62000	GEF	71200	International Consultants	72,400	4,800	2,400	-	-	79,600	65
				71300	Local Consultants	9,000	27,000	-	-	-	36,000	66
				71400	Contractual Services - Individual	-	75,000	-	-	-	75,000	67
				71600	Travel	13,125	26,250	13,125	-	-	52,500	68
				72100	Contractual Services - Companies	39,100	144,325	-	-	-	183,425	69
				74200	Audio Visual & Print Prod Costs	8,000	26,000	6,000	-	-	40,000	70
				75700	Training	38,000	65,500	-	-	-	103,500	71
					Subtotal	179,625	368,875	21,525	-	-	570,025	
3 - Restore and maintain the habitat and biodiversity of marine and coastal	PRODUCE	62000	GEF	71300	Local Consultants	-	18,000	-	-	-	18,000	72
				71400	Contractual Services - Individual	30,000	10,000	15,000	-	-	55,000	73
				72100	Contractual Services - Companies	-	-	-	35,000	-	35,000	74

systems at sustainable levels.					Subtotal	30,000	28,000	15,000	35,000	-	108,000	
4 - Diversify and add value by creating productive opportunities inside and outside the fisheries sector with people socially organized and integrated	PRODUCE	62000	GEF	71300	Local Consultants	-	27,000	9,000	-	-	36,000	75
				71400	Contractual Services Individual	145,000	205,000	70,750	20,000	-	440,750	76
				72100	Contractual Services Companies	60,000	10,000	5,000	-	-	75,000	77
				72300	Materials and Goods	-	40,000	40,000	20,000	-	100,000	78
				75700	Training	-	71,250	15,000	15,000	-	101,250	79
					Subtotal	205,000	353,250	139,750	55,000	-	753,000	
5 - Contribute to the population's food security and food safety	PRODUCE	62000	GEF	71400	Contractual Services Individual	40,000	35,000	-	-	-	75,000	80
				72100	Contractual Services Companies	40,000	-	-	-	-	40,000	81
				75700	Training	-	10,000	-	-	-	10,000	82
					Subtotal	80,000	45,000	-	-	-	125,000	
6 - Share and disseminate experiences and learnings	PRODUCE	62000	GEF	74100	Professional Services	2,500	2,500	2,500	2,500	2,500	12,500	83
					Subtotal	2,500	2,500	2,500	2,500	2,500	12,500	
PM	UNDP	62000	GEF	74596	Direct project costs	7,731	7,729	7,729	7,729	7,729	38,647	45
					Subtotal	7,731	7,729	7,729	7,729	7,729	38,647	
					<b>TOTAL PERÚ</b>	<b>512,856</b>	<b>1,098,704</b>	<b>222,854</b>	<b>100,229</b>	<b>10,229</b>	<b>1,944,872</b>	

<b>GRAND TOTAL</b>	1,695,824	2,975,265	1,744,794	918,293	665,824	8,000,000
--------------------	-----------	-----------	-----------	---------	---------	-----------

#### Peru Budget Summary of Funds

Entity	Amount year 1	Amount year 2	Amount year 3	Amount year 4	Amount year 5	Total
GEF	512,856.00	1,098,704.00	222,854.00	100,229.00	10,229.00	1,944,872.00
COPMAR	60,000	135,000	135,000	135,000	135,000	600,000
A COMER PESCADO	93,594	210,586	210,586	210,586	210,586	935,938
FONDEPES	186,877	488,724	488,724	488,724	488,725	2,141,774
IMARPE	2,831,527	6,370,937	6,370,937	6,370,937	6,370,937	28,315,275

MINAM	9,282	32,487	27,845	18,564	4,641	92,819
PRODUCE	374,710	843,096	843,097	843,096	843,097	3,747,096
SERNANP	60,000	135,000	135,000	135,000	135,000	600,000
SNP	2,574,000	5,791,500	5,791,500	5,791,500	5,791,500	25,740,000
UNDP Perú	25,000	56,250	56,250	56,250	56,250	250,000
<b>TOTAL</b>	<b>6,727,846</b>	<b>15,162,284</b>	<b>14,281,793</b>	<b>14,149,886</b>	<b>14,045,965</b>	<b>64,367,774</b>

Overall Budget summary

	Year 1 (USD)	Year 2 (USD)	Year 3 (USD)	Year 4 (USD)	Year 5 (USD)	Total (USD)
Binacional	887,582.00	1,095,792.00	890,851.00	610,665.00	637,866.00	4,122,756.00
Chile	295,386.00	780,769.00	631,089.00	207,399.00	17,729.00	1,932,372.00
Peru	512,856.00	1,098,704.00	222,854.00	100,229.00	10,229.00	1,944,872.00
Total	1,695,824.00	2,975,265.00	1,744,794.00	918,293.00	665,824.00	8,000,000.00

Budget notes

Number	Budget note
1.	<ul style="list-style-type: none"> <li>35,000 training of 10 professionals (5 from Chile 5 from Peru) biophysical and ecosystem modelling, an international consultant is hired to visit Peru and Chile alternately over two months. It includes consultant fees, travel and DSA costs.</li> <li>35,000 training 6 professionals (3 Chile 3 Peru) bio economic modelling, an international consultant is hired to visit Peru and Chile alternately over two months. It includes consultant fees, travel and DSA costs.</li> </ul>
2.	<ul style="list-style-type: none"> <li>123,648 Project Manager. Percentage of time allocated to activities of this project result.</li> <li>13,024 Biodiversity specialist. Percentage of time allocated to activities of this project result.</li> <li>13,024 Specialist in productive diversification. Percentage of time allocated to activities of this project result.</li> <li>18,234 Specialist in participation and communication. Percentage of time allocated to activities of this project result.</li> <li>41,216 Specialist in monitoring and evaluation. Percentage of time allocated to activities of this project result.</li> <li>6,869 Administrator and accountant. Percentage of time allocated to activities of this project result.</li> <li>4,885 Administrative Assistant. Percentage of time allocated to activities of this project result.</li> <li>21,600 Support specialist for protocol preparation. USD3000 /per month x 6 months. International tickets 2 x USD600. DSA USD240 x ten-day mission.</li> <li>15,000 Prepare binational retrospective analysis. Four months of consultant fees (USD3000x4 months). An international flight ticket (USD600). Ten days of DSA (USD240x10 days).</li> <li>40,000 Two consultants (1 for Peru 1 for Chile) to carry out the required analysis together, estimated 4 months of work. Their participation in national workshops are included.</li> </ul>
3.	<ul style="list-style-type: none"> <li>4,884 UNV in productive diversification. Percentage of time allocated to activities of this project result.</li> </ul>
4.	<ul style="list-style-type: none"> <li>15,000 international travel of the project team. USD600x5 travels per year</li> <li>10,000 National project team travel USD250 / ticket x 8 flight tickets per year</li> <li>24,000 DSA of the project team. USD240 / per day x twenty-day mission / per year (5 years).</li> </ul>
5.	<ul style="list-style-type: none"> <li>40,000 Study of environmental dynamics and biophysical modelling (tool for determining and predicting recruitment)</li> </ul>
6.	<ul style="list-style-type: none"> <li>1,800 communication service (e.g., WebEx, SKYPE for business) plus high-speed internet access for communications project team USD30 / per month</li> </ul>
7.	<ul style="list-style-type: none"> <li>26,400 Travel costs for 5 people from Peru to Chile or vice versa /three-day mission as agreed, between years 1 and 3. Travel costs will be reduced at least in half during year 4 and 5.</li> <li>19,800 Travel costs for 15 people for a three-day mission as agreed. No budget will be available for rental of spaces (conference rooms)</li> <li>108,000 Travel costs for 30 people for a five-day mission during the first two years for the preparation of evaluation protocols. No budget will be available for rental of spaces (conference rooms)</li> <li>36,000 Travel costs for 5 people for a five-day mission the first 3 years. Travel costs will be reduced at least in half during year 4 and 5.</li> <li>84,000 Exchange visits for professionals from both countries. Travel costs for 10 people for a fifteen-day mission the second and third year.</li> <li>26,400 Bi national meetings of authorities to establish a coordinated management of the anchovy stock. Travel costs for 4 people for a three-day mission per year.</li> <li>81,000 Bi national meetings for the analysis of evaluations and models. 15 people (3 members of each working group, there are 5 working groups), meet once a year for a five-day mission.</li> <li>20,000 Bi national public-private meetings for validation of recommendations.</li> </ul>
8.	<ul style="list-style-type: none"> <li>61,824 Project Manager. Percentage of time allocated to activities of this project result.</li> <li>78,146 Biodiversity specialist. Percentage of time allocated to activities of this project result.</li> <li>26,049 Specialist in productive diversification. Percentage of time allocated to activities of this project result.</li> <li>18,234 Specialist in participation and communication. Percentage of time allocated to activities of this project result.</li> </ul>

Number	Budget note
	<ul style="list-style-type: none"> <li>41,216 Specialist in monitoring and evaluation. Percentage of time allocated to activities of this project result.</li> <li>13,739 Administrator and accountant. Percentage of time allocated to activities of this project result.</li> <li>9,767 Administrative Assistant. Percentage of time allocated to activities of this project result.</li> </ul>
9.	<ul style="list-style-type: none"> <li>14,652 UNV in productive diversification. Percentage of time allocated to activities of this project result.</li> </ul>
10.	<ul style="list-style-type: none"> <li>15,000 International travel costs for the project team. USD600 x5 trips / per year</li> <li>10,000 National travel costs for the project team USD250 / 8 trips / per year</li> <li>24,000 DSA of the project team. USD240 /per day x 20 days / per year</li> </ul>
11.	<ul style="list-style-type: none"> <li>1,800 communication service (e.g., WebEx, SKYPE for business) plus high-speed internet access for communications project team USD30 / per month</li> </ul>
12.	<ul style="list-style-type: none"> <li>61,824 Project Manager. Percentage of time allocated to activities of this project result.</li> <li>78,146 Biodiversity specialist. Percentage of time allocated to activities of this project result.</li> <li>26,049 Specialist in productive diversification. Percentage of time allocated to activities of this project result.</li> <li>18,234 Specialist in participation and communication. Percentage of time allocated to activities of this project result.</li> <li>41,216 Specialist in monitoring and evaluation. Percentage of time allocated to activities of this project result.</li> <li>6,869 Administrator and accountant. Percentage of time allocated to activities of this project result.</li> <li>4,883 Administrative Assistant. Percentage of time allocated to activities of this project result.</li> <li>5,000 Specialist to create a website to establish a network for both countries. Website will be linked to the official websites of the MMA and SERNANP. Budget will be available for this website maintenance services for the first three years, from year 4 MMA and SERNANP fully incorporate this website to their web portals.</li> </ul>
13.	<ul style="list-style-type: none"> <li>9,768 UNV in productive diversification. Percentage of time allocated to activities of this project result.</li> </ul>
14.	<ul style="list-style-type: none"> <li>15,000 International travel costs of the project team. USD600 x5 trips/ per year</li> <li>10,000 National travel costs for the project team USD250 / x 8 trips / per year</li> <li>24,000 DSA of the project team. USD240 / per day x 20 days / per year</li> </ul>
15.	<ul style="list-style-type: none"> <li>15,000 Consultancy to systematize existing information on significant marine areas and key species in both countries.</li> <li>18,491 Consultancies for complementary studies in each country that are necessary for site prioritization and the preparation of national strategies</li> </ul>
16.	<ul style="list-style-type: none"> <li>1,800 communication service (e.g., WebEx, SKYPE for business) plus high-speed internet access for communications project team USD30 / per month</li> </ul>
17.	<ul style="list-style-type: none"> <li>11,760 Binational workshop to exchange national experiences on marine protected areas. Two-day mission for 20 people. Includes travel and DSA for 10 people and supplies for the workshop.</li> <li>11,760 Binational workshop to agree criteria to prioritize sites and species. Two-day mission for 20 people. Includes travel and DSA for 10 people and supplies for the workshop.</li> <li>11,760 Binational workshop to prepare a joint strategy based on national strategies to develop a network. Two-day mission for 20 people. Includes travel and DSA for 10 people and supplies for the workshop.</li> </ul>
18.	<ul style="list-style-type: none"> <li>61,824 Project Manager. Percentage of time allocated to activities of this project result.</li> <li>26,049 Biodiversity specialist. Percentage of time allocated to activities of this project result.</li> <li>104,194 Specialist in productive diversification. Percentage of time allocated to activities of this project result.</li> <li>18,234 Specialist in participation and communication. Percentage of time allocated to activities of this project result.</li> <li>41,216 Specialist in monitoring and evaluation. Percentage of time allocated to activities of this project result.</li> <li>20,608 Administrator and accountant. Percentage of time allocated to activities of this project result.</li> <li>14,652 Administrative Assistant. Percentage of time allocated to activities of this project result.</li> </ul>
19.	<ul style="list-style-type: none"> <li>39,073 UNV in productive diversification. Percentage of time allocated to activities of this project result.</li> </ul>

Number	Budget note
20.	<ul style="list-style-type: none"> <li>15,000 International travel costs of the project team. USD600 x5 trips/ per year</li> <li>10,000 National travel costs for the project team USD250 / x 8 trips / per year</li> <li>24,000 DSA of the project team. USD240 / per day x 20 days / per year</li> </ul>
21.	<ul style="list-style-type: none"> <li>30,000 Consultancies in Peru and Chile to identify experiences and public/ private initiatives on (1) production of CHD, (2) traceability and (3) promotion of seafood consumption (anchoveta, pota/jibia, benthic resources and macroalgae).</li> <li>31,400 Consultancies in each country (prioritized sites) to: 1) Prepare a register of women's organizations (productive or non-productive), mixed organizations (productive/ women and men) and organizations of men (productive); 2) Identify training needs and / or technical advice for women; 3) Identify barriers and strengths for the incorporation of women in activities for added value and productive diversification; 4) Develop proposals for added value and productive diversification with groups of women defined by the project. Two consultants, one per country, for 4 months including all costs (e.g., consultancy fees, transportation).</li> </ul>
22.	<ul style="list-style-type: none"> <li>30,000 implement small in-kind donations in support of production diversification initiatives executed by women's groups.</li> </ul>
23.	<ul style="list-style-type: none"> <li>1,800 communication service (e.g., WebEx, SKYPE for business) plus high-speed internet access for communications project team USD30 / per month</li> </ul>
24.	<ul style="list-style-type: none"> <li>18,000 meetings or workshops, 10 people travel for 5 days to implement the exchange experience program.</li> <li>45,000 annual fund for building capacities mainly of women in organizational strengthening and leadership.</li> <li>20,000 awareness workshops for the incorporation of women in activities for value added and productive diversification in each prioritized site with the participation of women and men</li> <li>26,400 Two binational workshops (10 people travel for 3 days each time) to promote exchange of experiences between women from both countries in sustainable experiences of value added and productive diversification. It includes the participation of two professionals from the gender area of the project partners (e.g., SERNAPESCA, SUBPESCA, FONDEPES, A Comer Pescado)</li> <li>9,000 5 people travel from Chile to Peru for the exchange of experiences on ictiocompost production</li> </ul>
25.	<ul style="list-style-type: none"> <li>36,000 Local consultants, one for each country, for 12 months (USD1,500 per month): To provide technical assistance to local groups trained in food safety and responsible management of fishery resources</li> </ul>
26.	<ul style="list-style-type: none"> <li>41,216 Project Manager. Percentage of time allocated to activities of this project result.</li> <li>26,049 Biodiversity specialist. Percentage of time allocated to activities of this project result.</li> <li>52,097 Specialist in productive diversification. Percentage of time allocated to activities of this project result.</li> <li>18,234 Specialist in participation, communication and gender. Percentage of time allocated to activities of this project result.</li> <li>41,216 Specialist in monitoring and evaluation. Percentage of time allocated to activities of this project result.</li> <li>6,869 Administrator and accountant. Percentage of time allocated to activities of this project result.</li> <li>4,884 Administrative Assistant. Percentage of time allocated to activities of this project result.</li> <li>30,000 Consultancies in Peru and Chile: Diagnosis of current training in food safety of fishery products for the domestic market (in the project's intervention sites).</li> <li>20,000 Consultancies in Peru and Chile: Design a training program in food safety of fishery products for the internal market (in the intervention sites of the project).</li> <li>20,000 Consultancies in Chile and Peru: Document and systematize the training program on food safety of fishery products for the internal market (at project intervention sites).</li> <li>20,000 Consultancies in Chile and Peru: Update the training programme based on lessons learnt.</li> <li>20,000 Prepare manuals of good practices for conservation, food safety and responsible consumption of seafood for producers and actors of the value chain</li> <li>30,000 Consultancies in each country: Analyse consumer information necessities and articulate public and private initiatives on food safety and responsible consumption of prioritized resources (anchoveta, jibia/pota, benthic resources and macroalgae).</li> <li>20,000 Consultancies in each country: Design of communication strategy for consumers of both countries on food safety and responsible consumption of prioritized resources</li> </ul>

Number	Budget note
	<ul style="list-style-type: none"> <li>10,000 Consultancy in each country: Preparation of communication materials aimed at consumers on food safety and consumption of prioritized resources</li> </ul>
27.	<ul style="list-style-type: none"> <li>19,536 UNV in productive diversification. Percentage of time allocated to activities of this project result.</li> </ul>
28.	<ul style="list-style-type: none"> <li>15,000 international travels of the project team. USD600x5 travels per year</li> <li>10,000 National project team travels USD250 / 8 tickets / per year</li> <li>24,000 DSA of the project team. USD240 / per day x 20 days / per year</li> </ul>
29.	<ul style="list-style-type: none"> <li>40,000 communication campaign focused on main markets of products of the prioritized marine resources in each country (expenses for dissemination)</li> <li>80,000 (1) Analysis of experiences and legal-institutional framework of traceability of seafood products for direct human consumption in the national market of each country. (2). Prepare a proposal for a traceability system, adaptable to each country, including governance of the system and inter-sectorial articulation of competent entities. (3). Establish a process of joint analysis of the proposal with key actors of both countries, and necessary adjustments for its implementation in each country (virtual and face-to-face meetings).</li> <li>40,000 Technical assistance for the implementation of a pilot traceability system in each country, including women and organizations in which they participate.</li> </ul>
30.	<ul style="list-style-type: none"> <li>1,803 Web-based communication service (e.g., WebEx, SKYPE for business) plus high-speed internet access for communications project team.</li> </ul>
31.	<ul style="list-style-type: none"> <li>30,000 Capacity building in Peru and Chile: aimed to capacity builders and the preparation of training materials. Training in food safety and security of fishery products for the internal market (in the project's intervention sites).</li> <li>30,000 Training in Peru and Chile: Initial implementation of the training program in the intervention sites of the project. Training in food safety and security of fishery products for the internal market (in the project's intervention sites).</li> <li>30,000 Forums or events to promote the articulation of public institutions at regional and local level for the application of sanitary regulations of their competence.</li> <li>18,000 Binational meetings to share lessons learnt regarding traceability issues in fisheries.</li> </ul>
32.	<ul style="list-style-type: none"> <li>20,608 Project Manager. Percentage of time allocated to activities of this project result.</li> <li>26,049 Biodiversity specialist. Percentage of time allocated to activities of this project result.</li> <li>26,049 Specialist in production diversification. Percentage of time allocated to activities of this project result.</li> <li>82,053 Specialist in participation, communication and gender. Percentage of time allocated to activities of this project result.</li> <li>54,955 Specialist in monitoring and evaluation. Percentage of time allocated to activities of this project result.</li> <li>13,739 Administrator and accountant. Percentage of time allocated to activities of this project result.</li> <li>9,766 Administrative Assistant. Percentage of time allocated to activities of this project result</li> <li>3,000 Information technology consultant for situation analysis and options to improve virtual communication and collaboration among project partners (SUBPESCA, PRODUCE, IFOP, IMARPE, MMA, MINAM, SERNAPESCA y SERNANP). Cost includes honorarium and travel.</li> <li>40,000 Independent terminal evaluation. Lump-sum to cover international consultant, national consultant (specialist), airplane tickets (international and national), food and lodging.</li> <li>12,000 Annual measurement of the results framework. Annual global amount that can be used in several ways such as contracting measurements, generating maps or generating information</li> <li>20,000 Midterm and end-of-project measurement of METT indicators. Total amount that can be used in several ways such as contracting measurements, generating maps or generating information</li> <li>7,500 Annual monitoring of compliance with social and environmental safeguards. Total amount that can be used in several ways such as contracting measurements, generating maps or generating information</li> <li>30,000 Independent midterm review. Lump-sum to cover international consultant, national consultant, airplane tickets (international and national), food and lodging.</li> </ul>
33.	<ul style="list-style-type: none"> <li>9,768 UNV in production diversification. Percentage of time allocated to activities of this project result.</li> </ul>

Number	Budget note
34.	<ul style="list-style-type: none"> <li>55,780 Financing of participation in international meetings to present achievements and lessons from the project (including IOC-UNESCO annual large marine ecosystem meetings).</li> <li>42,660 Participation in the IWC2018, IWC2020 and IWC2022. Three people per travel (two from each country + project manager). Six-day travel (two days per travel). Cost per person = USD3,000 / tickets + 6 days x 240 DSA / per day + 300 miscellaneous expenses (e.g., visa) = USD4,740 / per person x 3 people = USD14,220 / conference.</li> </ul>
35.	<ul style="list-style-type: none"> <li>5,000 Project website development linked to the web portals of the project partners, UNDP and IWLEARN</li> <li>30,000 Maintenance and operation of the project website (outsourced).</li> </ul>
36.	<ul style="list-style-type: none"> <li>14,000 Furniture USD2000 /per office x 2 offices. Six computers x USD1200 / per computer. Two multi-function printers x USD700 /per printer. Two digital projectors x USD700 /per projector</li> <li>10,000 Two plotters for printing large-scale maps in support of all project results. USD5,000 / per plotter. A plotter in each project office (main and satellite).</li> </ul>
37.	<ul style="list-style-type: none"> <li>20,000 office supplies, including paper and ink for plotters</li> </ul>
38.	<ul style="list-style-type: none"> <li>12,500 annual financial audits. USD2,500 / per year.</li> </ul>
39.	<ul style="list-style-type: none"> <li>18,000 Lumpsum to prepare and edit project learning documents (7 documents). The documents will be in a disclosure format to be accessible to a broad audience. Each document will include an executive summary in Spanish and English. The documents will be in high quality PDF format, to be downloaded from the web.</li> <li>25,000 Prepare and distribute the project's report. Prepare and edit the document in a simple and very graphic format, accessible to the public, with executive summaries in Spanish and English. 1000 PRINTED COPIES and high quality digital PDF file for downloading. (example: document beneficiary's testimony's, audio-visual media, pen drives, etc.)</li> <li>20,228 Graphic design and brochures of dissemination materials</li> <li>10,000 Translation of mid-term review report and terminal evaluation report.</li> </ul>
40.	<ul style="list-style-type: none"> <li>8,000 Adaptations in main and satellite offices. <b>ATLAS 74500 Miscellaneous Expenses.</b></li> </ul>
41.	<ul style="list-style-type: none"> <li>24,000 High-speed internet service USD 100/month per partner in Peru: PRODUCE, MINAM, IMARPE, SERNANP. USD100/month x 4 partners x 60 months.</li> <li>25,000 Online communication services (e.g., WebEx, SKYPE for business) - USD 200/month x 60 months = USD 12,000, plus high-speed internet service (main and satellite offices) - USD 100/month per office x 2 offices x 60 months = USD 12,000, plus webhosting USD200/year x 5 years = USD1,000.</li> <li>18,000 High-speed internet service USD 100/month per partner in Chile (excluding SUBPESCA that already has this service): IFOP, MMA, SERNAPESCA. <b>USD100/month x 3 partners x 60 months.</b></li> <li>18,000 Cell phone service and landline for the two project offices. <b>USD 30/month landline x 2 offices x 60 months = USD3,600. USD 30/month landline x 2 offices x 60 months = USD3,600. USD30/month cell phone service x 8 cell phone lines x 60 months = USD 14,400.</b></li> <li>18,000 Acquisition of minor equipment and software to strengthen communication and virtual collaborations. Includes cell phones for 8 members of the project team, two telephones for two offices. It also includes purchase of furniture.</li> <li>18,000 Equipment and software to strengthen communication and virtual collaborations amongst project partners in Peru. Four teleconferencing equipment's for project partners. PRODUCE, IMARPE, MINAM, SERNANP</li> <li>10,000 Equipment and software for communication and virtual collaborations of the project. One server + two teleconferencing equipment's (main office and satellite office) + software</li> <li>7,600 Equipment and software for website and social platforms. Two servers (USD4,000) + two video cameras (USD1,400) + two recorders (USD200) + video, audio and image editing software (USD1,000) + web administration software (USD1,000).</li> <li>14,000 Equipment and software to strengthen communication and virtual collaborations amongst project partners in Chile. Three teleconferencing equipment for project partners. It excludes SUBPESCA which already has teleconferencing systems. MMA, IFOP AND SERNAPESCA</li> </ul>
42.	<ul style="list-style-type: none"> <li>24,000 Project presentation meetings with organizations of the prioritized sites (specially with women)</li> </ul>



Number	Budget note
	<ul style="list-style-type: none"> <li>8,000 Capacity building for local authorities (e.g., regional governments, public entities) and project team on aspects of gender, cultural sensitivity, and use of inclusive language. Two workshops per country. USD 2000 / per workshop.</li> <li>11,560 Binational project inception workshop. Travel expenses for 8 people. Tickets USD600 * 8 + DSA USD240 / per day x 3 days + support logistics USD 1000</li> <li>16,000 National start-up workshops in each country. Includes travel for participants, premises, DSA</li> <li>54,000 annual meetings for dialogues and evaluation with key stakeholders and beneficiaries of each product. Meetings at work sites. Includes travel for participants (local actors), premises, DSA.</li> <li>14,160 Face to face meetings of the project's board of directors. Travel expenses for 4 people. Tickets USD600 x 4 + DSA USD240 /per day x 2 days + support logistics USD 400 a year, in years 2, 3 and 4.</li> <li>39,998 Project closing events in each country. Public events with the participation of partners, beneficiaries, and key actors. Amount per country (USD20,000) to cover logistics, materials and, if necessary, travelling of beneficiaries.</li> </ul>
43.	<ul style="list-style-type: none"> <li>41,216 Project Manager. Percentage of time allocated to activities of this project result.</li> <li>13,024 Biodiversity specialist. Percentage of time allocated to activities of this project result.</li> <li>13,024 Specialist in production diversification. Percentage of time allocated to activities of this project result.</li> <li>9,117 Specialist in participation and communication. Percentage of time allocated to activities of this project result.</li> <li>13,739 Specialist in monitoring and evaluation. Percentage of time allocated to activities of this project result.</li> <li>68,693 Administrator and accountant. Percentage of time allocated to activities of this project result.</li> <li>48,842 Administrative Assistant. Percentage of time allocated to activities of this project result. In year 5 only nine months</li> </ul>
44.	<ul style="list-style-type: none"> <li>13,297 Office maintenance (rent, electricity bills, small repairs).</li> </ul>
45.	<ul style="list-style-type: none"> <li>160,000 direct project costs (DPC) UNDP. DPC for binational activities = USD82,706. DPC for national activities in Chile = USD38,647. DPC for national activities in Peru = USD38,647.</li> </ul>
46.	<ul style="list-style-type: none"> <li>25,920 Collection of jibia samples by observers on board. 40% travel expenses for personnel on board (scientific observers) 3 scientific observers x 15 days x 3 months x 2 years</li> </ul>
47.	<ul style="list-style-type: none"> <li>15,000 Consultancy to design a biological sampling system for jibia in high seas areas</li> <li>15,000 Consultancy to study the rates of renewal and growth of Jibia</li> <li>264,000 Tagging exercise for Jibia. All-inclusive costs. Includes daily boat cost USD3,846 / per day for 20 days /per year for 3 years + cost of brands USD8,460 (six thousand marks) + fishing gear + transfers + boarding pass (USD50 x 5 people) + incentives for recovery of brands</li> </ul>
48.	<ul style="list-style-type: none"> <li>19,200 Expert in marine spatial planning. USD60 /per hour x 320 hours (40 days). Provides training, mentoring and accompaniment to the process, which will complement the staff co-financed by NOAA.</li> </ul>
49.	<ul style="list-style-type: none"> <li>66,000 NOAA staff travel for training and accompaniment of the process. USD1500 ticket x 3 people x 8 travels. Travel expenses USD250 x 3 people x 40 days.</li> </ul>
50.	<ul style="list-style-type: none"> <li>15,000 Consulting to raise baseline and process available information.</li> <li>11,250 Consultancy at the end of the project to process information and compare with environmental baseline in the Iquique bay.</li> <li>15,000 Consultancy to prepare an action plan to improve environmental quality of the Iquique bay.</li> <li>10,000 Consultancy to elaborate a proposal of environmental quality secondary norm.</li> <li>20,000 Prepare strategy for communication and involvement of key players, including key messages, materials, workplan for three years and performance indicators.</li> </ul>
51.	<ul style="list-style-type: none"> <li>25,000 Brochures and material (e.g. radio commercials) for the implementation of the communication strategy and citizen involvement in the exercise of marine spatial ordering</li> <li>10,000 Design and preparation of the marine spatial ordering plan. Document in electronic form for electronic divulgation. Print on paper of summary in divulgation format</li> </ul>

Number	Budget note
	<ul style="list-style-type: none"> <li>18,000 Translation of training material and simultaneous translation for training exercises of marine spatial ordering</li> </ul>
52.	<ul style="list-style-type: none"> <li>14,675 Meetings for participative process of analysis and management of environmental quality in Bahía de Iquique</li> <li>15,000 Meetings of the promoter group and key actors for the development of the marine spatial ordering process</li> <li>26,000 Training of local personnel and promoter group for the spatial marine planning exercise. Three training sessions: (1) local personnel (e.g., MMA, DIRECTEMAR, GORE, municipality), (2) promoter group (key actors), and (3) awareness of key actors. Facility, refreshments and supplies USD 26,000.</li> </ul>
53.	<ul style="list-style-type: none"> <li>18,000 Local consultant for 1 year (products) for support in the implementation of the management plan of the protected area AMCP-MU Isla Grande de Atacama.</li> </ul>
54.	<ul style="list-style-type: none"> <li>30,000 Consultancy to elaborate a proposal (ITJ) for the creation of the MPA in Chipana. All costs included in the consultancy.</li> <li>30,000 Consultancy to prepare the management plan of the MPA in Chipana</li> <li>30,000 Consultancy to prepare the management plan for the MUMPAS in Isla Grande de Atacama.</li> </ul>
55.	<ul style="list-style-type: none"> <li>9,360 Meetings of the participative process for the creation of the MPA in Chipana</li> <li>9,360 Meetings of the participative process to enhance management and elaborate management plan of the MUMPAS in Isla Grande de Atacama</li> </ul>
56.	<ul style="list-style-type: none"> <li>18,000 Extension officer (one year x USD1,500 per month) to give support to the groups operating the processing plants for benthonic resources in Puerto Aldea and Torres del Inca</li> <li>36,000 Two extension officers for 12 months (USD1,500 each person / month), on each location: technical support and training to enhance productive enterprises and local initiatives in Puerto Aldea and Torres del Inca, incorporating gender approach and women participation.</li> <li>36,000 Two extension officers for 12 months (USD1,500 each person / month) for support in the initial implementation of the fishery extension system (personnel training, extension material, technical assistance) for macroalgae production.</li> <li>18,000 Extension officer for 12 months (USD1,500 per month) to accompany and give initial guidance for the implementation of erizo repopulation.</li> </ul>
57.	<ul style="list-style-type: none"> <li>5,000 Consultancy to identify groups to develop the pilot for production and commercialization, including the identification of industrial processors in Tarapaca or other regions with experience in products for direct human consumption</li> <li>20,000 Consultancy to provide technical assistance and support to the group developing the pilot</li> <li>10,000 Guidance for the preparation of projects to be presented to FAP or other funding sources</li> <li>20,000 Design the plant and business plan for production of anchoveta products for direct human consumption (based on pilot results)</li> <li>25,000 Consultancy to enable the plant for production of anchoveta products for direct human consumption.</li> <li>10,000 Preparation of a manual for processing of anchoveta products for direct human consumption based on pilot experience.</li> <li>30,000 Technical assistance and support for family and associations businesses (PYMES) as pilot experiences for the development of value chains of jibia products in Coquimbo</li> <li>15,000 Design and initial implementation of strategies that enhance responsible value chains (including market differentiation) for localities in Torres del Inca and Puerto Aldea in Chile</li> <li>10,000 Legal procedures to regularize ownership of the terrains where the fishing bays Torres del Inca and Puerto Aldea are located, under the new Act of Coves (Chile) (prepare legal folders).</li> <li>20,000 Feasibility studies of processing areas for benthonic resources in Puerto Aldea and Torres del Inca (Chile).</li> <li>15,000 Prepare designs and business plans for Puerto Aldea and Torres del Inca (Chile), depending on the feasibility studies</li> <li>20,000 Prepare feasibility study, and if viable, designs and business plans for an alginate plant in Chañaral.</li> <li>10,000 Analyse successful and unsuccessful experiences of production of macroalgae products with added value in the internal Chilean market</li> <li>20,000 Support the preparation of projects to be presented to various funding sources</li> <li>20,000 Technical support and guidance for family and associations businesses (PYMES) in Atacama region</li> <li>18,000 Technical support and guidance for groups that start algae production initiatives for direct human consumption in Atacama Region. Extensionist for 12 months</li> </ul>

Number	Budget note
	<ul style="list-style-type: none"> <li>• 20,000 Analysis of options and viability of diversification of the productive activities of the fishing communities in Puerto Aldea and Torres del Inca.</li> <li>• 20,000 Advise and support to local groups to implement / secure resources from various instruments financed by the government.</li> <li>• 25,000 Enable a touristic route with camping zone in Torres del Inca for diversification of productive activities</li> <li>• 15,000 Initial support for implementation at medium term of the strategy for promotion of the Puerto Aldea locality.</li> <li>• 20,000 Preparation and initial implementation of the sustainable tourism programme in Puerto Aldea and Torres del Inca, with a gender approach and women participation.</li> <li>• 15,000 Initial support for implementation at medium term of the sustainable tourism programme in Puerto Aldea and Torres del Inca</li> <li>• 10,000 Design of the system or fishing extension to produce macroalgae in Chañaral and Caldera sectors</li> </ul>
58.	<ul style="list-style-type: none"> <li>• 10,500 Contract the preparation of pilot products of anchoveta and test their acceptance</li> <li>• 10,000 Acceptability and potential consumption study of anchoveta for DHC products (critical factors and barriers).</li> <li>• 20,000 Funds for the pilot of anchoveta for DHC</li> <li>• 10,000 Analysis of critical factors and barriers that limit production and development of value chains for jibia products with added value in the internal Chilean market</li> <li>• 10,000 Analysis of the internal Chilean market for jibia products (critical factors and barriers).</li> <li>• 10,000 Design of strategy of promotion of value chains for jibia products in the Coquimbo region</li> <li>• 15,000 Design of public – private campaign for promotion of internal consumption of jibia products (consumers, cooking schools, restaurants).</li> <li>• 6,000 Preparation of material for the promotion of internal consumption of jibia products, including recipes / guides for homes and restaurants.</li> <li>• 10,000 Design of campaign for promotion of consumption of jibia products in grocery shops in Coquimbo</li> <li>• 35,000 Initial implementation of pilot campaign for consumption of jibia products in grocery shops in Coquimbo</li> <li>• 10,000 Analysis of the situation of value chains of benthonic resources in Chile (emphasis in value chains that are part of the production of Puerto Aldea and Torres del Inca)</li> <li>• 5,000 Design and initial support of public – private campaign for promotion of (responsible) consumption of benthonic resources in Chile</li> <li>• 5,000 Prepare material for promotion of responsible consumption of benthonic resources in Chile</li> <li>• 5,000 Initial implementation of campaigns for promotion of responsible consumption of benthonic resources in Chile.</li> <li>• 80,000 Enable processing plant and saleroom in Puerto Aldea, utilizing existing facility</li> <li>• 80,000 Enable processing plant of benthonic resources in Torres del Inca</li> <li>• 10,000 Evaluation of market and entry barriers for the installation of an alginate plant in Chile, based on associative production of artisanal fishermen.</li> <li>• 15,000 Analysis of Chilean market for selected products of macroalgae (critical factors and barriers)</li> <li>• 15,000 Design a strategy for promotion of value chains for macroalgae products in Atacama Region</li> <li>• 10,000 Initial implementation of strategy for the promotion of value chains for macroalgae products in Atacama Region</li> <li>• 15,000 Design of public – private campaign for the promotion of internal consumption of macroalgae products and preparation of promotional material for internal consumption of microalgae products.</li> <li>• 20,000 Initial implementation support for a campaign for the promotion of internal consumption of macroalgae products</li> <li>• 15,000 Feasibility analysis of product diversification based on erizo repopulation in Torres del Inca, and cultivation / repopulation of algae in the sector located between Chañaral and Caldera (Chile)</li> <li>• 20,000 Study of suitability of sites for production of macroalgae between Chañaral y Caldera (Chile)</li> <li>• 10,000 Evaluate the feasibility of the installation of a hatchery for production of macroalgae seedlings (Chile)</li> <li>• 15,000 Depending on feasibility, design of a hatchery for production of macroalgae seedlings and its management model (Chile)</li> </ul>

Number	Budget note
59.	<ul style="list-style-type: none"> <li>30,000 Implementation of small in-kind donations to support diversification of production activities in Puerto Aldea and Torres del Inca, with gender approach and participation of women.</li> </ul>
60.	<ul style="list-style-type: none"> <li>10,500 Workshop, 5 days, 10 passengers, for the analysis of critical factors and barriers that limit production and consumption of anchoveta products.</li> <li>14,200 Training to prepare a proposal for competitive funds relevant for pilots of anchoveta production (e.g., FAP, FFPA, CORFO).</li> <li>35,760 Annual training to support the preparation of proposals to various funding sources (e.g., FAP, CORFO) that can finance investments that support the development of value chain business in jibia products in Coquimbo region</li> <li>10,250 Technical support and guidance to families / organizations that develop actions for value aggregation and improve the value chain of benthonic resources of Torres del Inca and Puerto Aldea in Chile</li> <li>10,250 Tutorial and guidance to groups In Puerto Aldea and Torres del Inca to prepare projects to be presented to competitive funds that can finance investments in equipment and facilities.</li> <li>10,000 Support to local groups to prepare proposal to competitive funds that can finance the alginate plant in Chañaral</li> <li>10,500 Meetings/workshops to prepare, under a participative approach, the strategy of diversification of productive activities in Puerto Aldea and Torres del Inca, with a gender approach and participation of women.</li> <li>10,500 Meetings / workshops for the preparation and initial implementation of the strategy of promotion of the locality of Puerto Aldea, with a gender approach and participation of women.</li> <li>31,500 Three workshops, one per year (5 days, 10 passengers) for dissemination / share experiences of Puerto Aldea and Torres del Inca</li> <li>15,500 Preparation of materials and training course in erizo repopulation for fishermen families in Torres del Inca</li> <li>25,500 Theoretical and practical training for fishermen families in erizo repopulation, includes salary, travel, accommodation, supplies for the course and purchase of erizo seeds</li> </ul>
61.	<ul style="list-style-type: none"> <li>36,000 Two extension officers (Marcona and Atico) to support DIREPRO and GEREPRO in the initial implementation of management plans (1 year). USD1500 each person per month. 12 months each person.</li> </ul>
62.	<ul style="list-style-type: none"> <li>48,000 Consultancy to support the work of the technical group of benthonic resources in the Marcona and Atico localities, with emphasis in chanque and erizo. It serves as technical secretariat (management plan elaboration) (USD 4000/month per one year).</li> <li>36,000 Design and implementation of the information collection system on the extraction of non-embarked benthonic resources in Marcona and Atico. Training for OSPA is included.</li> <li>36,000 Consultancy to reform the regulation that enables the existence of COREVIPAs, including enhanced competences to secure their effectivity.</li> <li>48,000 Local consultant to support the work of the technical group in macroalgae for the Marcona locality and that serves as technical secretariat (management plan elaboration) (1 year). Includes salary and local travels.</li> <li>21,000 Design and implementation of the information collection system on macroalgae extraction in the framework of COREVIPA in Marcona. Includes training of fishermen about data collection.</li> </ul>
63.	<ul style="list-style-type: none"> <li>25,500 Participation (allowance and transportation) of IMARPE personnel for two evaluations of the distribution and abundance of macroalgae in the Marcona district. 15 passengers for 5 days each time.</li> </ul>
64.	<ul style="list-style-type: none"> <li>20,000 Workshops (4) for the design of the management plans for benthonic resources in Marcona and Atico</li> <li>15,840 Workshop for experiences sharing at government level, and at scientific level, in benthonic resources management, between the two countries. 3 days workshop, 6 specialists in each travel.</li> <li>31,360 Peer exchanges. Six Chilean fishermen visit Marcona and Atico fishermen organization on the year 2. Year 3, six Peruvian fishermen travel to Chile. On each travel: 6 persons x 7 days. Additional USD 2.000 for miscellaneous (fuel, mobilization)</li> <li>20,000 Workshops (4) to improve and validate the management plans of stranded seaweed in Marcona</li> </ul>

Number	Budget note
65.	<ul style="list-style-type: none"> <li>70,000 Technical assistant for training and guidance on the process of elaborating the integrated management plan of the marine – coastal zone of Pisco – Paracas (includes training course, support for the integrated management plan of the marine – coastal zone).</li> <li>9,600 Expert on marine spatial ordering. <b>USD480/day x 20 days</b>. Provides training, tutorial, and support for the exercise of Marine Spatial Ordering. This person complements the personnel financed by NOAA.</li> </ul>
66.	<ul style="list-style-type: none"> <li>18,000 One local promotor <b>for one year</b> to coordinate and organize the process and work with key players, specially the management committee, for the integrated management of the marine-coastal zone. <b>USD1500/month x 12 months</b>.</li> <li>18,000 One local promotor to support the key players in organizational strengthening and formalization, and advise women in environmental management, waste management, commercial strengthening, and business plan. In the context of integrated management of the marine-coastal zone. <b>USD1500/month x 12 months</b>.</li> </ul>
67.	<ul style="list-style-type: none"> <li>15,000 Consultancy to harmonize / coordinate monitoring protocols in the Paracas bay</li> <li>20,000 Consultancy to organize the information and publish it on the webpage of an institution to be determined. Make the bay monitoring information publicly available (in existing information systems at regional and national level). One electronic platform: software and hardware to improve the SIAR and training for the systematization of the DATA and interoperability with the sectors.</li> <li>10,000 Consultancy to execute a process of public consultation of the sanitary infrastructure for Paracas.</li> <li>30,000 Consultancy to present the public investment project, plot identification and physical and legal normalization, for the sanitary infrastructure in Paracas.</li> </ul>
68.	<ul style="list-style-type: none"> <li>52,500 NOAA personnel travel for training and support of the marine spatial ordering exercise. NOAA. <b>USD1500</b> air ticket x 3 persons x 5 trips. Allowance <b>USD250</b> x 3 persons x 40 days.</li> </ul>
69.	<ul style="list-style-type: none"> <li>100,325 Feasibility studies and designs for the systems of residual water treatment and final disposal of solid wastes in Paracas. Includes the preparation of public investment project to secure funds and their corresponding environmental impact assessment that includes the identification of plots – physical and legal normalization. Developed during the first and second year, consultant team in charge.</li> <li>14,100 Prepare strategy for communications and involvement of key actors on the integrated management process of the marine-coastal zone of Paracas, including key messages, materials, workplan for three years and performance indicators.</li> <li>69,000 Consultancy to estimate the economic value of the natural resources of the Paracas and Independencia bays and the design of the retribution mechanism for ecosystem services.</li> </ul>
70.	<ul style="list-style-type: none"> <li>12,000 Brochures and materials (e.g., radio commercials) to implement the strategy of communications and involvement, for the integrated management of the marine-coastal zone of Pisco Paracas</li> <li>10,000 Design and preparation of the Integrated Management Plan of the marine-coastal zone of the Pisco – Paracas province. Document in electronic format for electronic divulgation. Paper printed summary in divulgation format.</li> <li>18,000 Translation of training material and simultaneous translation during trainings of the marine spatial ordering exercise.</li> </ul>
71.	<ul style="list-style-type: none"> <li>13,500 Initial workshop to establish an inter-institutional group (linked to Local Management Committee) about Paracas bay monitoring.</li> <li>13,500 Workshops to define information use and decision making (and in which levels) of the Paracas bay monitoring activities</li> <li>27,000 Workshops to agree procedures for the inter-institutional analysis of the information, divulgation of information and results, and mechanism of information sharing of the Paracas bay monitoring.</li> <li>13,500 Workshops for an exercise of approximation to the calculus of the ocean health Index of the Reserva Nacional de Paracas and its buffer zone</li> <li>10,000 Meetings of the participative process to prepare the integrated management plan of the coastal zone of the Pisco province (includes marine spatial ordering exercise). Includes material and refreshments for meetings</li> <li>26,000 Training of local personnel and promotor group for the Marine Spatial Ordering exercise. NOAA. Three training sessions: (1) local personnel, (2) promotor group (key actors), and (3) key actors awareness. Facility, refreshments, and supplies.</li> </ul>

Number	Budget note
72.	<ul style="list-style-type: none"> <li>18,000 Extensionist for 12 months (USD 1500/month) for support the training and formalization of artisanal and sport fishermen to comply with existing regional regulations</li> </ul>
73.	<ul style="list-style-type: none"> <li>30,000 Consultancy to prepare a diagnostic and regulation of sport and recreational fishery.</li> <li>10,000 Consultancy to prepare and issue the regional norm about coastal and marine tourism</li> <li>15,000 Consultancy to prepare a diagnostic of the potential touristic destinies, complementary to the consolidated ones (inventory and priority)</li> </ul>
74.	<ul style="list-style-type: none"> <li>15,000 Consultancy to establish technical criteria and environmental standards for the development of touristic activities in marine protected areas and in marine-coastal zones</li> <li>20,000 Consultancy to estimate the economic value of the natural resources from the RNSF to the PPD Marcona (including Punta San Juan) in the context of management of artisanal fishery and marine-coastal tourism</li> </ul>
75.	<ul style="list-style-type: none"> <li>18,000 Extension officer (six months per year or half time - USD1,500/month) to support (technical assistance / guidance) first actions of the development of the touristic product in Marcona and Atico.</li> <li>18,000 Extension officer (12 months x USD1,500/month) for support in the implementation of the strategy for development and promotion of the touristic product in Marcona and Atico</li> </ul>
76.	<ul style="list-style-type: none"> <li>15,000 Technical support for the implementation of "corrective" measures based on recommendations of the analysis of critical factors that limit the growth of value chains of anchoveta products for DHC</li> <li>20,000 Consultancy to study and identify experiences and learned lessons of business initiatives related to value chains for anchoveta DHC in Peru.</li> <li>15,000 Consultancy to design a strategy of development of inclusive value chains for anchoveta DHC in the regional association Ica – Ayacucho – Huancavelica – Apurímac</li> <li>20,000 Technical support consultancy to implement the strategy of development of inclusive value chains for anchoveta DHC in the regional association Ica – Ayacucho – Huancavelica – Apurímac</li> <li>10,000 Consultancy to design a strategy for the promotion of direct human consumption of anchoveta products in the regional association Ica – Ayacucho – Huancavelica – Apurímac</li> <li>15,000 Consultancy to prepare material for divulgation and communication, to promote DHC of anchoveta in the regional association Ica – Ayacucho – Huancavelica – Apurímac</li> <li>20,000 Consultancy (year 1 to 4) to support the implementation of the strategy for promotion of consumption of direct human consumption anchoveta products in the regional association Ica – Ayacucho – Huancavelica – Apurímac</li> <li>10,000 Consultancy to identify groups to develop initiatives of anchoveta products production</li> <li>20,000 Consultancy for technical support and guidance to family groups or associations that develop initiatives of production and commercialization of anchoveta products (including development of business plans).</li> <li>10,000 Consultancy for tutorial in the preparation of projects to be presented to competitive funds (e.g., PNIPA, FONDEPES, Innóvate Perú) (production of DHC anchoveta products).</li> <li>10,000 Prepare the programme and training materials for the processing of anchoveta for direct human consumption in the regional association of Ica – Ayacucho - Huancavelica - Apurímac</li> <li>20,000 Prepare the programme and training materials for the strengthening for family and associations businesses in the value chain of anchoveta DHC</li> <li>15,000 Design and initial implementation of strategies of promotion of responsible value chains (including market differentiation) for the Marcona and Atico localities in Perú</li> <li>30,000 Feasibility studies for benthonic resources processing plants in Marcona and Atico (Perú).</li> <li>15,000 Depending on the results of the feasibility studies, prepare designs and business plans (Marcona y Atico)</li> </ul>

Number	Budget note
	<ul style="list-style-type: none"> <li>• 20,000 Preparation of feasibility studies, business plans and project proposals (technical folders) for the processing facilities in San Juan de Marcona and Atico (Perú).</li> <li>• 15,000 Prepare feasibility studies for the installation and operation of a chopped macroalgae plant and infrastructure for trucks weighting (for by-products industry) in Marcona and Atico (Perú)</li> <li>• 10,000 Depending on the results of the feasibility studies, prepare business plans and project proposals (technical folders) for the macroalgae processing plants in San Juan de Marco and Atico (Perú).</li> <li>• 20,000 Support for local groups in the preparation of proposal for competitive funds to finance macroalgae processing plants in Marcona and Atico</li> <li>• 10,000 Design of a technological package for training in ictiocompost production for local producers in Pisco</li> <li>• 10,000 Design of a training programme for ictiocompost production for local producers in Pisco, with a gender approach and with women participation, according to feasibility analysis, pertinence and sustainability for them.</li> <li>• 10,250 Training. Consultant that provides initial support for the preparation of business plans for local ictiocompost producers in Pisco.</li> <li>• 10,250 Consultant that provides technical assistance to local ictiocompost producers</li> <li>• 10,250 Consultant that provides support in the preparation of business plans and guidance to local ictiocompost producers in Pisco.</li> <li>• 20,000 Design of site plan for touristic activities planning in the beaches of Marcona and Atico</li> <li>• 30,000 Support for adoption and implementation of the touristic activities planning in Marcona and Atico.</li> <li>• 10,000 Feasibility study to develop a touristic product related to macroalgae meadows and their utilization in Marcona and Atico.</li> <li>• 20,000 Depending on feasibility, design a touristic product and strategy for development and promotion for each locality (related to macroalgae meadows and their utilization in Marcona and Atico), with a gender approach and women participation.</li> </ul>
77.	<ul style="list-style-type: none"> <li>• 10,000 Study of critical factors and barriers that limit the development of value chains for DHC anchoveta products in the regional association Ica – Ayacucho - Huancavelica - Apurímac</li> <li>• 10,000 Analysis of the situation of value chains of benthonic resources in Perú (emphasis on value chains that are part of Marcona and Atico production)</li> <li>• 5,000 Design and initial support of public – private campaign for the promotion of (responsible) consumption of benthonic resources in Perú</li> <li>• 5,000 Preparation of material for the promotion of responsible consumption of benthonic resources in Perú</li> <li>• 15,000 Feasibility analysis of the production and commercialization of ictiocompost in Pisco (Perú). Design of a technological package about ictiocompost production for local producers</li> <li>• 15,000 Feasibility analysis on the utilization of alga caulerpa for compost production and other uses.</li> <li>• 10,000 Design of a promotion campaign about the use of fishery wastes for ictiocompost production and its use in organic agriculture.</li> <li>• 5,000 Initial implementation of a campaign for the promotion of fish waste to produce ictiocompost and their utilization in organic agriculture.</li> </ul>
78.	<ul style="list-style-type: none"> <li>• 40,000 Materials to start the implementation of competitive fund to provide seed capital (in-kind support) to promote the development of family or association initiatives to produce anchoveta products for direct human consumption.</li> <li>• 60,000 Materials to start the implementation of competitive fund to provide seed capital (in-kind support) to promote the implementation of family and associative initiatives in the anchoveta value chain for direct human consumption (support services in the anchovy value chain)</li> </ul>
79.	<ul style="list-style-type: none"> <li>• 45,000 Training courses (one per year) on anchoveta processing for direct human consumption and development of family or associations businesses.</li> <li>• 10,250 Technical assistance and guidance for families / organization that develop actions of value aggregation and improvement of the value chain of benthonic resources in Marcona and Atico in Perú</li> <li>• 10,250 Tutorial and guidance to groups in Marcona and Atico to prepare project to be presented to competitive funds to finance investments in equipment and infrastructure.</li> <li>• 15,250 Tutorial and guidance for the initial operation of groups that install and operate macroalgae processing plants in Marcona and Atico</li> </ul>

Number	Budget note
	<ul style="list-style-type: none"> <li>10,250 Training. Education of trainers of national entities (DIREPRO Ica, FONDEPES) so they can train and provide technical assistance to ictiocompost producers (includes preparation of business plans). All expenses included</li> <li>10,250 Training. Initial implementation of the training programme of local groups to produce ictiocompost by local producers in Pisco</li> </ul>
80.	<ul style="list-style-type: none"> <li>20,000 systematise experience and situation analysis of the use of hydrobiological products (mainly anchoveta and pota) for food security of vulnerable population</li> <li>20,000 Prepare proposal of action plan to promote the consumption of products in vulnerable sectors, aligned with the national strategy for food and nutrition security.</li> <li>20,000 Prepare technical folder for the ice plant for the fishery complex La Puntilla (Paracas, Perú)</li> <li>15,000 Technical assistance and support for the presentation for funding of the ice plant project to PNIPA or other available resources.</li> </ul>
81.	<ul style="list-style-type: none"> <li>40,000 Design of the ice plant for the fishery complex La Puntilla (Paracas, Perú) (including management model and business plan).</li> </ul>
82.	<ul style="list-style-type: none"> <li>10,000 Public – private analysis event organized by the project team. Includes costs for facility rental, refreshments and supplies. Analysis of the situation of hydrobiological products use (mainly anchoveta and pota) for food security of vulnerable population.</li> </ul>
83.	<ul style="list-style-type: none"> <li>12,500 annual financial audits. USD2,500 / per year.</li> </ul>



---

## XI. LEGAL CONTEXT

365. The project document (PRODOC) shall be the instrument referred in the numeral I, article II of the agreement between the Government of Chile and the United Nations Special Fund on assistance of the special fund signed in 1960, and the article I of the agreement on technical assistance services signed between the Government of Peru and the United Nations Technical Assistance Commission, signed in 1956. All references regarding the “executing agency” in the aforementioned agreements will be referred to the “executing agency” of the present document.
366. This project will be executed by the Under secretariat of Fisheries and Aquaculture of the Ministry of Economy, Development and Tourism of Chile, and the Vice Ministry of Fisheries and Aquaculture of the Ministry of Production of Peru (executing agencies), in accordance with their financial regulations, rules, practices and procedures, as long as these do not contravene the financial regulations and rules of UNDP. UNDP regulations will be applied when the financial regulations of the executing agency do not provide the guidance required to ensure the best quality-price relation, equity, transparency, and effective international competition.
367. The UNDP Resident Representative in the host country of the project is authorized to perform in writing the following types of revisions of this project document, provided that the GEF-UNDP unit conformity has been verified and it is ensured that the other signatories of the document have no objections to the proposed changes: (i) revision or addition of any of the annexes of the project document, (ii) revisions that do not imply significant changes in objectives, outputs or immediate activities of the project, but are caused by the reorganization of the already agreed inputs or by the increase in costs due to inflation, (iii) annual mandatory revisions that re-establish the delivery of agreed inputs of the project, or the increase of costs of experts or others due to inflation or that take into account the flexibility of the expenses of the agency, and (iv) the inclusion of additional annexes and attachments only as stated here in this project document.
368. The present document together with the Country Program Action Plans (CPAP) signed by the governments of Chile and Peru and the UNDP constitute the “project document” indicated in the Standard Basic Assistance Agreement (SBAA) [or other appropriate agreement] and all CPAP provisions, are applied to this document.
369. Any designation on maps or other references used in this project document do not imply the expression of any opinion from UNDP about the legal status of any country, territory, city, area or its authorities, or on the delimitation of its borders or limits.

---

## XII. RISK MANAGEMENT

370. Based on the Standard Basic Assistance Agreement security protocols to safeguard personnel, assets and properties acquired by the project will be established.
371. The project undertakes to ensure that none of the funds received under the PRODOC will be used to support people or entities associated with terrorism and the recipients of the amounts provided by UNDP are not in the list maintained by the Security Council Committee established based on resolution 1267 of 1999. The list can be accessed through <https://www.un.org/sc/suborg/es/sanctions/1267>. This provision should be included in all subcontracts or sub-agreements concluded under the project document.
372. Social and environmental sustainability will be strengthened through the application of social and environmental standards<sup>102</sup> (PNUD, 2014a) and the UNDP accountability mechanism<sup>103</sup> that includes stakeholder response mechanism<sup>104</sup> and social and environmental compliance review<sup>105</sup>. In the annual PIR, the GEF will be informed about the application of these mechanisms.
373. The project must:
- (a) Develop the project activities in a manner consistent with the UNDP social and environmental standards (PNUD, 2014a);

---

<sup>102</sup> [www.undp.org/ses](http://www.undp.org/ses)

<sup>103</sup> <http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/>

<sup>104</sup> <http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/stakeholder-response-mechanism/>

<sup>105</sup> <http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/social-and-environmental-compliance-unit.html>

- (b) Implement any management or mitigation plan prepared by the project to meet the standards; and
  - (c) Act in a constructive and timely manner to address any concern or complaints raised through the response mechanism.
374. UNDP will seek to ensure that communities and other interested stakeholders of the project are informed and have access to the accountability mechanism.
375. All signatories of the project document will cooperate in good faith with any exercise to evaluate the commitments related to the project or compliance of UNDP social and environmental standards. This includes providing access to intervention sites of the project, relevant staff, information and documentation.
376. The project will take appropriate measures to prevent misuse of funds, fraud or corruption by its officials, consultants, responsible stakeholders, contractors and sub-recipients of the project or using UNDP funds.
377. The requirements of the following documents valid at the time of the signing of the project document are applied to the project: (a) UNDP policy against fraud policies and other corrupt practices<sup>106</sup>, and (b) investigation guidelines of the UNDP Office of Audit and Investigations<sup>107</sup>. The executing agencies accept the requirements of the previous documents, which are an integral part of this PRODOC and are available online at [www.undp.org](http://www.undp.org).
378. In the event that an investigation is required, UNDP has the obligation to conduct investigation related to any aspect of the UNDP projects and programs. Participants in the project will provide full cooperation, including the availability of personnel, relevant documentation and the concession of access to their facilities (and their consultants, responsible stakeholders, subcontractors and sub-recipients), in reasonable conditions and times, as required for the purposes of an investigation. If there is a limitation to comply this obligation, UNDP will consult with the corresponding executing agency in order to find a solution.
379. The signatories of this PRODOC will inform each other without delay, with due confidentiality, in case of incidence of inappropriate use of funds or allegations of fraud or corruption.
380. When an executing agency is aware that in a project or activity of UNDP, in whole or in part, there are indications of alleged fraud /corruption, the executing agency will inform the Resident Representative / Head of Office of UNDP, who will promptly inform the UNDP Office of Audit and Investigations (OAI). The executing agency must provide daily updates to the head of UNDP in the country about the status and actions related to the investigation.
381. In the event that there is transfer of funds to the project unit and the misuse of them is proven, UNDP will be entitled to be reimbursed for funds that have been inappropriately used, including through fraud or corruption or otherwise paid that is not in accordance with the terms and conditions of the project document. Such amount may be deducted by UNDP from any payment due under this or other agreement. In the event that such funds cannot be recovered, the corresponding executing agency and UNDP will agree on the mechanism to be applied.
382. Each contract issued in connection with this project document shall include a provision stating that no fees, gratuities, reimbursements, gifts, commissions or other payments other than those set forth in the proposal have been granted, received or promised in connection with the selection process or in the contract execution, and that the recipient of the funds will cooperate with each and every one of the investigations and post-payment audits.
383. In the event that UNDP requests the relevant national authorities for alleged irregularities related to the project, the Government will ensure that the corresponding national authorities actively investigate them and take legal actions against the people who have participated in the crime, and the recovered funds are returned to UNDP.
384. The project will ensure that all obligations established in the present section named "risk management" are transmitted to each responsible party, subcontractor and sub-recipient, and that all clauses of this section "standard risk management clauses", mutatis mutandis, in all subcontracts or sub-agreements entered further to this project document.
385. About in this matter, the existing and valid agreements between the governments of Chile and Peru will be applied. The legal context agreed between the Government of Chile and UNDP is found in Annex 15.

<sup>106</sup> [http://www.undp.org/content/dam/undp/documents/about/transparencydocs/UNDP\\_Anti-fraud\\_Policy\\_English\\_FINAL.pdf](http://www.undp.org/content/dam/undp/documents/about/transparencydocs/UNDP_Anti-fraud_Policy_English_FINAL.pdf)

<sup>107</sup> [http://www.undp.org/content/dam/undp/documents/about/transparencydocs/OAI\\_Investigations\\_Guidelines.pdf](http://www.undp.org/content/dam/undp/documents/about/transparencydocs/OAI_Investigations_Guidelines.pdf)

---

## **XII. ANNEXES**

Annex 1.	Multi-year work plan
Annex 2.	Monitoring & Evaluation Plan
Annex 3.	Co-Financing Letters
Annex 4.	GEF tracking tool (baseline)
Annex 5.	Terms of reference for project board and key personnel
Annex 6.	UNDP social and environmental screening template (SESP)
Annex 7,	UNDP project quality assurance report
Annex 8.	Definitions
Annex 9.	Literature cited.
Anexo 10.	Letter of agreement template (LOA)
Annex 11.	Key stakeholders and direct beneficiaries
Annex 12.	List of relevant projects for coordination / collaboration.
Annex 13.	Gender analysis and action plan
Annex 14.	Detail of activities in the outputs and outcomes of the project.
Annex 15.	Legal text agreed between the Government of Chile and UNDP.