UN environment
United Nations Environment Programme

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PROJECT DOCUMENT

SECTION 1: PROJECT IDENTIFICATION

1.1 Project title:

Mainstreaming biodiversity conservation and sustainable landscape management of watersheds containing wetlands within Chile's South Center Biodiversity Hotspot through reformed coastal planning frameworks

1.2 Project number: GEF ID 9766 GFL/ PMS:

1.3 Project type: FSP

1.4 Trust Fund: GEF

1.5 Strategic objectives:

GEF strategic long-term objective: BD-4, Program 9; LD-3, Program 4
Strategic programme for GEF VI:

1.6 UNEP priority: Ecosystem Management

1.7 Geographical scope: National

1.8 Mode of execution: External

1.9 Project executing organization: Ministry of the Environment (EM)

1.10 Duration of project: 60 months
Commencing: July 2019
Completion: June 2024

1.11 Cost of project

	US$	**%**
Cost to the GEF Trust Fund	**5,146,804**	**20.5**
Co-financing Cash		
EM (Ministry of Environment)	6,654,000	26.5
MINVU (Ministry of Housing and Urbanization)	583,333	2.3
MOP –DGA (General Water Department)	48,333	0.2

MOP – DOP (Port Works Department)	9,016,667	35.9
MBN (Ministry of Public Property)	99,289	0.4
MINAGRI (Ministry of Agriculture)	880,416	3.5
SUBDERE (Under ministry for regional development)	102,667	0.4
Arauco Forest Company	63,333	0.3
Audubon International	205,000	0.8
Centro Neotropical de Entrenamiento en Humedales	143,136	0.6
Sub-total Cash	**17,796,174**	**70.8**
Co-financing In-kind		
EM (Ministry of Environment)	848,900	3.4
MOP –DGA (General Water Department)	12,500	0.0
MOP – DOP (Port Works Department)	40,000	0.2
MBN (Ministry of Public Property)	512,567	2.0
MINAGRI (Ministry of Agriculture)	45,833	0.2
SUBDERE (Under ministry for regional development)	116,667	0.5
Arauco Forest Company	11,667	0.0
Audubon International	295,000	1.2
Centro Neotropical de Entrenamiento en Humedales	312,682	1.2
Sub-total In-kind	**2,195,816**	**8.7**
Sub-total Co-financing	**19,991,990**	**79.5**
Total Project Cost	**25,138,794**	**100.0**

1.12 Project summary

Chile is one of only five places in the world with a Mediterranean climate, where the Project area is located, recognized as one of the 35 biodiversity Hotspots, not only for their high levels of wealth and endemism in plant and animal species, but also for being regions with high risk of species extinction. This is especially relevant regarding coastal landscapes and ecosystems, having in this area several types of coastal wetlands, such as salt marshes, brackish and salty coastal lagoons, tidal plains and estuaries and with the presence of different gradients, making for a high level of time-space heterogeneity and therefore the availability of habitats for a wide range of aquatic and shoreline species, in particular migratory birds.

The threats and environmental degradation factors in the Chilean Mediterranean Eco-Region, are for the most part the result of human activities, which play a key role in the advancing deterioration of the

coastal ecosystem functions and habitats. The main factors are habitat loss, fragmentation and degradation caused by agricultural activities, urban expansion and infrastructure, and the scarce legal protection given to these ecosystems.

The objective of the Project is to improve the ecological condition and degree of conservation of ecologically valuable coastal ecosystems in South-Central Chile, including the wetlands and associated watersheds, incorporating them into local development efforts through sustainable management, improving coastal landscape management, reducing pressures on these habitats occupied by diverse migratory species with different conservation problems, and reducing threats to and pressures on the supporting watersheds that contribute to locally significant human activities. This Project contributes to fulfilling the GEF VI objectives BD-4 Program 9 and LD-3 Program 4, which will be undertaken through three components. The first seeks to mainstream the importance of BD conservation and LD problems in coastal landscapes to decision-makers and relevant stakeholders, the second to strengthen political and regulatory frameworks regarding coastal conservation among the diverse institutions with mandates in coastal and watershed areas, and the third, to implement and systematize an array of initiatives in five pilot landscapes to be replicated at the national level by the main institutions involved.

The pilot ecosystems are located between Coquimbo and Araucania, representing different socio-environmental conditions, and these will play a relevant role in generating the data and evidence necessary for demonstrating the need to apply a focus that considers the whole watershed, with strengthened inter-institutional coordination and with productive sectors applying environmentally sustainable practices for conserving and sustainably managing coastal landscapes when these are not protected areas. Each one of the pilots will contribute concrete evidence according to their individual realities regarding threats and present circumstances and will make it possible to have a wide range of options that can be replicated in similar situations. This project will bring together stakeholders from various national, regional and local institutions, committed for the duration of Project implementation, and led by a Steering Committee, which will be in charge of monitoring fulfilment of objectives, a process that will be supervised by the implementing agency, UN Environment. The Project includes a gender focus, where equal opportunity and development actions are proposed for both men and women, and also as a contribution to women's empowerment, for the purpose of increasing their participation and decision-making, as well as their access to the Project's socio-economic services and benefits.

The aims and objectives of this project are consistent with the commitments made by Chile as signatory of the Ramsar Convention, the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), and the Convention on the Conservation of Wild Migratory Species (CMS). Chile has been making efforts to comply with these commitments, approving in the year 2003 its National Biodiversity Strategy (ENB), which led in 2005 to the National Strategy for the Conservation and Rational Use of Chile's Wetlands (ENH), with its respective Action Plan. Later, the National Wetlands Committee was created, formally in 2013, as well as the National Committee for Ecological Recovery (2017) by means of a framework document, for the purpose of achieving effective ecological recovery in degraded areas.

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

AICA's	Significant Area for Bird Conservation
CONAF	National Forestry Corporation
CPA	Clean Production Agreement
CPC	Clean Production Council
CW	Coastal Wetlands
DGA	General Water Department
DIRECTEMAR	General Department of Oceanic Territories and Merchant Marine
DOP	Port Works Department
EM	Environmental Ministry
FFAA	Armed Forces Under-Secretariat
FPA	Environmental Protection Fund
INE	National Institute of Statistics
MINVU	Ministry of Housing and Urbanization
MBN	Ministry of Public Property
MOP	Ministry of Public Construction
NAMA	Nationally Appropriate Mitigation Action
SBAP/SBPA	National Department for Biodiversity and Protected Areas
SEA	Environmental Evaluation Department
SEIA	Environmental Impact Evaluation System
SMA	Environmental Superintendence
SNASPE	National System of State-Protected Wild Areas
SUBDERE	Under ministry for regional development
SUBPESCA	Fisheries Under-Secretariat
UNEP	United Nations Environment Programme
DDU	Urban Development Department
DO	Official Newspaper
FNDR	National Regional Development Fund
GEF	Global Environment Facility
GoC	Government of Chile
GORE	Regional Government
LGUC	Legislation on Urbanism and Construction
NBSAP	National Biodiversity Strategy and Action Plan

OGUC	General Ordinance for Urbanism and Construction
OT	Territorial Planning
PLADECO	Communal Development Plan
PNUBC	National Policy of Use of the Coastal Border
PRC	Township Regulatory Plan
PRDU	Regional Plan for Urban Development
PRI	Inter-Township Regulatory Plan
PRM	Metropolitan Regulatory Plans
PROT	Territorial Planning Regulatory Plans
PS	Sectorial Plan
RENAMU	Natural Municipal Reserves
SCAM	Municipal Environmental Certification System
SERNAPESCA	National Fisheries Service
SERNATUR	National Service for Tourism
SUPPESCA	Under secretariat for Fisheries
SUBMARINA	Under secretariat for the Navy
UNDAF	United Nations Development Assistance Framework
ZBUC	Zoning for the Use of the Coastal Fringe
ZBC	Territorial Planning in Coastal Areas
ZOIT	Zone of Interest for Tourism

SECTION 2: BACKGROUND AND SITUATION ANALYSIS (BASELINE COURSE OF ACTION)

2.1. Background and context

Coastal landscapes situation and trends

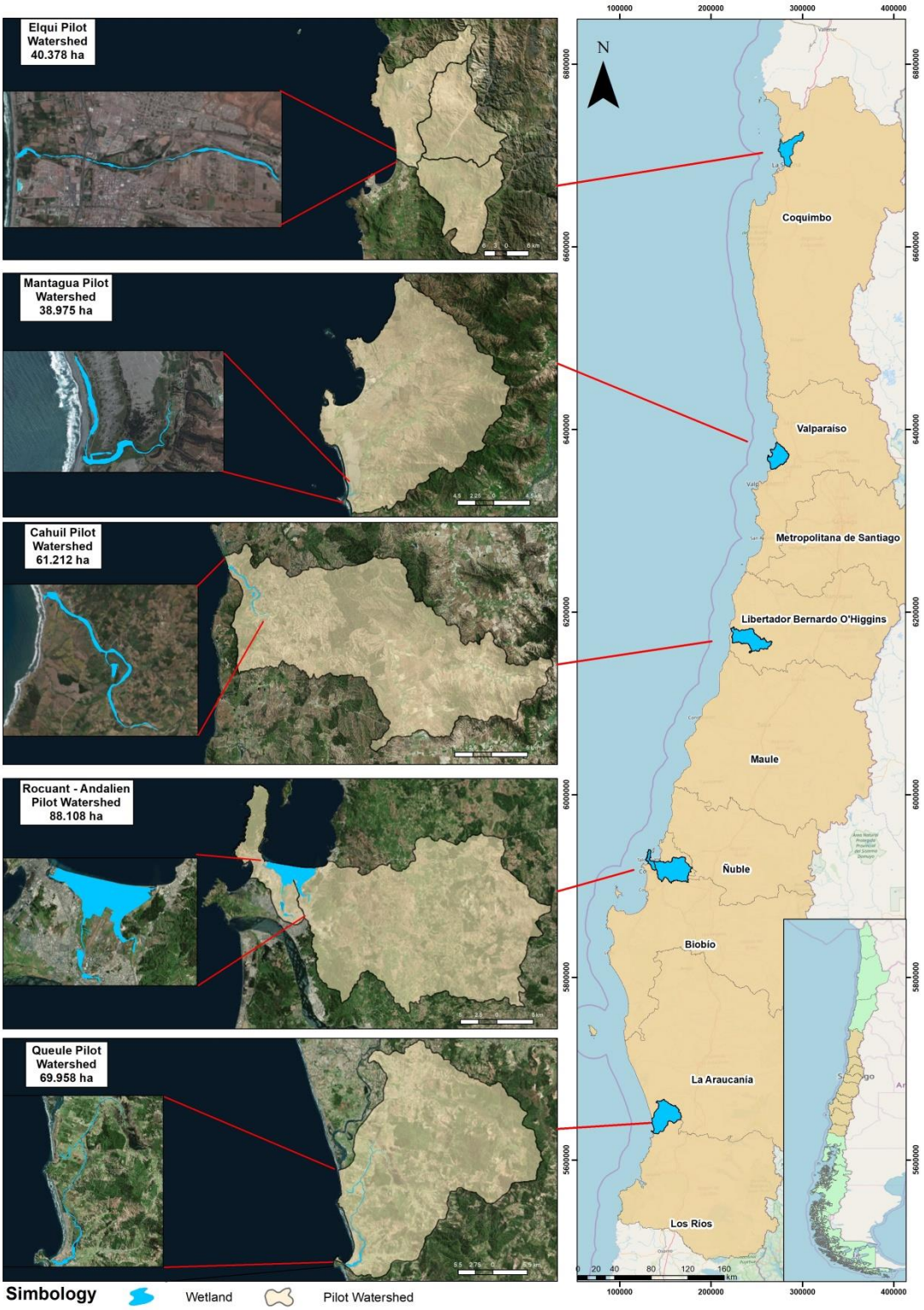
Biodiversity, ecosystem services and Socio-economic context

The Chilean Mediterranean eco-region is located in the heart of the country's Central Zone and is one of five places in the world with a Mediterranean climate (Vogiatzakis et. al., 2006), which are recognized not only for their high levels of wealth and endemism in plant and animal species, but also for being regions with high risk of species extinction (Global 200, WWF). The Mediterranean ecosystems are expected to suffer the highest proportional change in biodiversity by the year 2100 because of their high level of sensitivity to changes in land use and their vulnerability to the impacts of climate change (Lavorel 1998; Sala *et al*., 2000, in GEO-4 Report, UNEP, 2007). In Chile, the mediterranean zones concentrate large numbers of human population because of their benign climate, making them privileged and strategic locations for human development; these zones include about four fifths of the country's population in only 25% of the country´s land surface (INE, 2002), generating excessive resource demands, decrease in agricultural productivity, loss of natural habitats and environmental pollution. In addition, significant pressure is exerted on them in the attempt to obtain high yields and productivity from the land and the coastal areas. Because of these historic tendencies, it has been very difficult in Chile to protect this eco-region, and connectivity between high biodiversity areas is particularly difficult. Very little of the original vegetation (less than 15% according to some sources) remains in the approximately 155,000 km^2 comprising Chile's south-central area, with a high level of fragmentation; nonetheless, it still serves as habitat for nearly 1,500 endemic plant species as well as sclerophyll forests of global significance. Please see "1. Distribution of protected areas on the national level" in Appendix 17 for a graph showing the distribution of protected areas on the national level, which illustrates the deficit in the Project zone.

In Chile, several types of coastal landscapes are present in the Mediterranean eco-region, including salt marshes, brackish and salty coastal lagoons, tidal plains and estuaries. Coastal wetlands are very dynamic systems both in space and time, depending on the hydraulic balance and salt levels, regulated by river and ocean flows. One of their most important characteristics is the presence of gradients, making for a high level of time-space heterogeneity and therefore the availability of habitats for aquatic and shoreline species. For this reason, these ecosystems have a high biodiversity concentration, in particular regarding migratory bird species (Wetlands National Action Plan, 2016).

The selected pilot areas of this Project are part of a complex network of south-central Chilean coastal landscapes (Figure 1). The administrative districts included in Chile's "south-central" area (Coquimbo to Araucania Districts) coincide with the Mediterranean eco-region, which is the most threatened of the country's eco-regions, and it is recognized internationally as one of the 35 priority sites for conservation of biological diversity in the world.

Figure 1. Map showing the distribution of the pilot landscapes in Chile



It is necessary to underline the importance of the targeted landscapes and the need for their conservation and sustainable use, both on the global and national levels, because the integrity of these ecosystems must be recovered and their services maintained, including productivity for human well-

being and the significant biological wealth they harbour. Coastal landscapes are the systems which make it possible to sustain areas of agriculture, small-scale estuary fishing, seaweed and shellfish harvesting, as well as tourist activities such as bird watching, recreational fishing and navigation. They serve as regulators by mitigating flooding and limiting tides, they capture and filter industrial effluents, and they constitute the transitional environment between the ocean and continental waters, in addition to providing, in terms of ecological continuity of similar habitats, an essential corridor for coastal species. Their ecological and social contributions are of vital importance to Chile.

The Evaluation of the State of Conservation of the Latin American and Caribbean Land Regions (Dinerstein et al., 1995) indicates that these systems were already in an endangered state in the 1990's. The continuing threats to these ecosystems put the wetlands at risk because these are highly vulnerable and fragile, particularly in the face of the pressures of development based on non-sustainable practices, and due to climate change.

Because of Chile's geographic situation, with climate and orographic barriers such as the Atacama Desert, the Andes Mountains and the Pacific Ocean with its Humboldt Current, it is isolated in a way that makes it biologically and ecologically similar to a biogeographic island. In the same way as occurs with ocean islands, the main characteristic of Chile's biodiversity is its significant percentage of endemic species. Due to this high rate of **endemic species**, where **76%** of amphibious, **58%** of reptiles, **55%** of freshwater fish and **50%** of plants are endemic only to Chile, there is a lack of information on the conservation status of these species in categories such as the **IUCN Red List.** The taxon of several endemic species can only be found in the central part of Chile, and species that have been categorized as Critically Endangered and Endangered by the National Classification System, whose methodology and criteria align with IUCN´s, have not yet been assessed by international standards. In terms of vegetation, the eco-region where the pilots are located has around 2,850 species, of which more than 50% are endemic only to Chile (Arroyo, et al. 1999). Due to their vulnerability to habitat modifications and pollution, of the 160 fern species, 73% have conservation problems, being categorized as Critically Endangered, Endangered or Vulnerable, by the National Classification System; while 95% of the 46 continental fish, 90% of 125 reptiles, 14% of the 502 birds, and 47% of the 148 mammals, of which 130 are native and 19 endemic, are also in one of these categories (Arroyo, et al. 1999).

In Chile, land degradation is largely due to erosion, which although it has natural causes, has also been generated by human activities associated with inadequate land use practices. Some 64% of land in the country shows some type of erosion: lands with higher erosion levels, between moderate and highly severe, represent 49 percent of the total, covering approximately 28.5 million hectares. In the Mediterranean eco-region, areas showing moderate, severe and highly severe erosion problems account for more than 50 percent of the territory, and it is erosion caused mainly by human activity, such as agriculture, exotic forest plantations and mining. Erosion is also a factor in desertification. On a global scale, Chile is one of the most affected countries due to desert encroachment, desertification, land degradation and drought, at a level only comparable to that of the countries in Sub-Saharan Africa[1].

The Project intervention areas in coastal landscapes of the south-central part of Chile, where the pilot sites are located, maintain a diversity of anthropic activities of local and national interest. Given the benign Mediterranean climate, this area has seen the highest rate of human settlement in the country even before the European conquest of the continent, concentrating 85% of the population on 25% of the nation's territory. Agro-climatic and land productivity conditions are also very favourable, sustaining the consequent population growth and economic development in this cross-section of the

[1] http://www.mma.gob.cl/1304/articles-52016_Chapter9.pdf

country. This development however is reaching the boundaries of the land's carrying capacity in terms of competing land uses where urbanization to host the growing population alongside infrastructure development is taking away land that was formerly used for agricultural food production and livestock. The consequences are a) intensification of production on the land with the use of unsustainable methods, which puts increased pressure on the biophysical cycles, ecosystem health and thus ecosystem services provision; and b) intense competition for land uses which forces productive activities to extend throughout the landscape putting in turn pressure on other landscapes such as forests and wetlands. Therefore, they must be recognized as fragile and vulnerable environments in the face of anthropic actions, being at the same time of both economic and social significance. In order for these activities to continue over time, they must be accompanied by adequate safeguards and protection to maintain healthy ecosystem services and for their globally significant biodiversity.

Below is a description of five demonstration landscapes. These were selected to cover a representative range of characteristics in terms of their biodiversity and its threats, and their socioeconomic context, including productive sectorial activities and predominant land uses, in particular ecosystem services and landscape level productivity. Please refer to Figure 1 above and to "2. Distribution of Demonstrative Ecosystems" in Appendix 17 for a map with their location.

Coquimbo District: Elqui River Mouth pilot basin. The pilot area will cover the wetlands and a portion of the watershed, with urbanization areas and agriculture being the main land uses. The wetlands are of an estuary type, and they are near one of the most important tourism centers of the country, La Serena, where a high rate of urban development is taking place. This landscape is located in the Coquimbo district of Chile, it used to be a highly productive agricultural area, famous for fruits such as lemons, papaya and grapes, but has faced more than a decade of drought, together with a desertification process that has affected 80% of the district and seen the loss of more than 15,000 jobs in the agricultural sector in the last 7 years. It is a zone with a high level of endemism, with a variety of plant associations such as native forests, grass and shrub lands, which offer a rich mosaic of habitats to a number of animal and more than 150 different bird species. There are 2 native species classified by IUCN as Critically Endangered and Endangered, together with 6 classified as Vulnerable (of which 3 are endemic only to Chile). More critically, 4 endemic species that can only be found in this region, are classified by the National System as Critically Endangered, but have yet to be assessed by the IUCN Red list. Refer to "5. Human environment report" in Appendix 17 for a comprehensive list with scientific names and conservation status.

The watershed is located within the La Serena Township, whose population growth of 38% can be seen when comparing the 2002 and 2017 census (INE 2002, INE 2017). The inhabitants are to be found mainly in urban areas, reaching 91% of the total, with 9% living in rural areas. The Township Regulatory Plan recognizes urban areas, areas restricted to Urban Development, and Protection Areas. In addition to the above, restricted areas are identified where there is knowledge or presumption of natural threat, and areas for protection of natural resources and cultural heritage. Regarding indigenous communities in the Township, the 2017 census (INE, 2017) indicates that 91% of the local population do not consider themselves or do not belong to any indigenous community, while 8% of the population declare that they belong to the mapuche or diguita ethnic group. In terms of the Township's economic development, their main activities are in the service sector, offering a wide variety of gastronomic and lodging services. During the last decade, tourism has become one of the most important economic activities. In addition, mining, including manganese, iron and gold production, is an important activity. Also significant is the production of table grapes for export, and the production of piscos in the Elqui, Limarí and Choapa Valleys.

Valparaiso District: Mantagua wetland pilot watershed. The pilot area will cover the wetlands and a portion of the watershed. These wetlands constitute a system composed by an estuary and a lake. Native forest also covers areas of the watershed. Land degradation and desertification processes have

strongly affected agricultural productivity in the watershed, where unemployment reaches 20% for rural areas with smallholder farming and 50% of the territory is affected by erosion and drought. As far as significant species for conservation are concerned, and according to the IUCN Red List, this district harbors 2 Critically Endangered species, of which 1 is endemic only to Chile; 2 Endangered species, of which 1 is endemic only to Chile, and 5 Vulnerable species, were 2 are endemic only to Chile. There are also 11 species endemic to this region of which 5 are categorized as Critically Endangered and 6 as Endangered by the National Classification System, but thus far have the "Not assessed" or "Data Deficient" status in the IUCN Red List. Refer to "5. Human environment report" in Appendix 17 for a comprehensive list with scientific names and conservation status.

The wetlands are located in Quintero Township. Regarding population size, the total for the Township had reached 31,923 people according to the 2017 Census (INE, 2017), representing an increase of 50.7% in the Township since the year 2002. Land use in the Township is four-fold: Ports and Industry, Residential, Equipment and Military Services. Most of the population is to be found in the Quintero and Loncura urban area, close to the coastal fringe, this constituting the main residential use in the Township, in proximity to equipment and both bulk and retail commercial services. In the Quintero Township, 92.94% of the population declares that they do not belong to any ethnic group. According to the Township's PLADECO, Quintero presents three areas of economic development: Port and Industry, Residential and Tourism; and Equipment and Services. Furthermore, the Township hopes to develop the city further through tourism and industry.

O´Higgins District: Cahuil wetland pilot watershed. The pilot area includes the wetlands and the surrounding productive landscape of the watershed where SLM will be applied. The wetlands consist of an estuary with a special saline condition, with economic activities, such as tourism, fishing and saline production, depending on the wetlands. Land uses in the watershed consist of agriculture and forestry plantations with exotic species. Although this district possesses the most productive soils in the country, it faces a serious desertification and land degradation problem, with high occurrence of forest fires, due to droughts and exotic species plantations (radiata pine and eucalyptus); unsustainable agriculture, with high crop rotation and excessive exposure of the soil to climatic conditions; together with overgrazing by livestock. Nearly 20% of the district is affected by Very Severe or Severe erosion. In 2008, the National Forestry Corporation established a reserve on the island in the Cahuil salt flats, because it has a hybrid ecosystem where hydrophilic vegetation abounds, creating an environment favourable to endemic flora and fauna development. In the area, two species have the Critically Endangered IUCN conservation status, while 4 have the Endangered status and 9 are considered Vulnerable. Of these, 7 are endemic only to Chile. Another 14 Chilean endemic species are not yet classified by IUCN, but 4 have the Critically Endangered status of the National Classification System while 10 are classified as Endangered. Refer to "5. Human environment report" in Appendix 17 for a comprehensive list with scientific names and conservation status.

These wetlands are located in the Township of Pichilemu. According to the 2017 Census (INE, 2017), the Township population had by that year reached 16,394, an increase of 32.2% since 2002, with most of the population living in the urban area (78.70%) and the rest in rural areas (21.3%). According to the Township Regulatory Plan, they have declared protected areas of interest for their landscape, and in the coastal fringe, forestry activities occupying 48% of occupied territory. In terms of economic activity of the local population, 15% state that they work in bulk or retail trade, followed by 13% in construction, 10% in lodging and food services, and 7% in agriculture, livestock, forestry and fishing. A total of 93.52% of the Township's population declares that they do not belong to any ethnic group, and 6.48% declares that they do belong to one. The local PLADECO indicates that the Township, economically speaking, is characterized by tourist activities and agriculture and livestock (Lorca Carrizo, 2013).

BioBio District: Rocuant-Andalien pilot watershed. These are urban wetlands of over 3,000 hectares, located between the cities of Talcahuano and Concepción, chosen by the Project because of their high level of relevance for biodiversity conservation (MMA, 2002). Among the most significant ecological services these wetlands afford are their capacity to mitigate marine overflows, from storms and tidal waves or tsunamis, as well as to regulate continental water drain flows, thus avoiding flooding which could seriously affect the area's population. This is an area of organic matter and sediment recycling, highly productive in its provision of food for both permanent and migratory birds, recognized world-wide as a significant Area for Bird Conservation (AICA's) by Bird Life International. Furthermore, it is of great value as a landscape, is of interest to tourism, be it recreational, cultural or scientific, harbouring a wide variety of plant species. These wetlands maintain over 20% of the world's population of the species *Larus pipixcan,* of globally endangered species such as *Sterna elegans* (Elegant Gull) and *Tringa flavipes* (Little Pitotoy). Located as it is between two cities, the main threats to these wetlands are from landfills for infrastructure and housing construction.

These wetlands are spread over the Townships of Concepción, Penco and Talcahuano. Regarding population change between the 2002 and 2017 Censuses (INE 2012, INE 2017), all 3 Townships grew less than the national average (16.25%): Concepción's population grew 3.4% and Penco's only 2.9%, wherein Talcahuano's population decreased by 7.2%. In all three Townships, over 97.9% of the population lives in the urban area, with 2 to 3 % residing in rural areas. According to the 2017 Census (INE, 2017), in all three Townships, 91% of the population declares they do not belong to any ethnic group. The majority of the economically active population of Concepción, Penco and Talcahuano Townships works in the tertiary sector, 80.4%, 77.6% and 73.3%, respectively. Next in importance is the secondary sector, related to industrial and manufacturing activities; and finally, the primary sector: agriculture, fishing, livestock and mining. Regarding this sector, in Concepción Township, there are 832 companies engaged in agriculture, livestock, hunting and forestry, 45 companies in fishing, and 72 companies in mining and stonework. In Penco Township, 45 businesses work in agriculture, livestock, hunting and forestry, 9 in fishing, and 3 in mining and stonework. Finally, in Talcahuano Township, there are 131 companies involved with agriculture, 177 in fishing, and 15 in mining and stonework.

Araucania District: Queule wetland pilot watershed. The pilot area extends into a wide extent of the watershed, where the main land uses are native forest, pastures, agriculture and forest plantations. This district has the highest number of indigenous people and rural inhabitants of the country. It also has the highest deforestation rates, converting native forests into pine plantations, agricultural and pasture areas. The full harvest of exotic plantations and large areas of pasturelands leaves high proportions of soil exposed to the strong rainfalls in this district (averaging 2,000 mm/year), causing loss of superficial soil layers and erosion processes. This site is classified as "of very high priority" for biodiversity conservation in the Araucania Region. According to the IUCN Red List, it has 2 Critically Endangered species (1 endemic), 9 Endangered species (5 endemic), and 9 Vulnerable species (2 endemic). There are 10 endemic species that have not been assessed by IUCN, of which 5 have the Critically Endangered status, while the other 5 have the Endangered one according to the National Classification System. Refer to "5. Human environment report" in Appendix 17 for a comprehensive list with scientific names and conservation status.

These wetlands are located in Tolten Township, where most of the population resides in the rural area (59.90%), with 40.1% living in the Township's urban areas (INE, 2017). Regarding the population's economic activity, 35% work in agriculture, livestock, forestry and fishing, followed by 10% who carry out activities related to bulk and retail trade, and 10% in education. In this Township, 56.77% of the population declares they do not belong to any ethnic group, whereas 43.23% of the population identify with the Mapuche ethnic group. Regarding economic activity that depends upon natural resources, there are 147 businesses in this Township dedicated to agriculture, livestock, hunting and forestry, followed by fishing with 39 businesses.

2.2. Global significance

Worldwide, Mediterranean-type ecosystems represent only 2% of the Earth's surface but include 20% of the world's diversity in flora. Furthermore, in this type of environments, large concentrations of human population have settled, a high level of natural vegetation conversion is present, which when added to the direct use of native plants and animals by the population, translates into significant pressures and threats to the survival of biodiversity. In all of South America, the Chilean Mediterranean eco-region is the only one of its kind. This eco-region is classified as the Chilean Brushland Eco-Region (NT 1201) whose conservation status is "Endangered" as per Dinerstein et al. (1995), and the Global 200 initiative of the WWF (Eco-Region N°122). It includes a rich diversity of plant and animal species as well as a high level of local and regional endemism, especially of the plant species, and is under severe pressures from mankind.

The characteristics of richness and endemism are typical of the Mediterranean ecosystems worldwide. The Mediterranean vascular flora is characterized by its high level of local endemism. This is a characteristic made evident by the high levels of endemism in the regional flora: for example, of the 627 endemic species in continental Chile (43.7%), 422 species are endemic to the Mediterranean area (29.4%). As for fauna species, it has been determined that 50% of the vertebrate land species known in Chile inhabit the Mediterranean-type ecosystem with a level of endemism near 50% (Simonetti, 1999). Reptiles and amphibians merit special attention due to their vulnerability and limited local distribution. The amphibian species endemic to Chile reach 65% (of the 64 species described, 41 are endemic). As for reptiles: in continental Chile, 107 species of native reptiles have been described, of which 67 are endemic (62.6%). In the Region, 16 of the 21 reptile species described are endemic to Chile, reaching a level of endemism of 76% (RBDS-MR Update, in press). As for aquatic fauna, Chile has a rather low number of fish species. Only 44 fish species have been described for the national territory. Despite this low level of diversity, Chile's continental ichthyofauna presents characteristics that make them unique, as well as a level of endemism reaching 54% (24 species; CONAMA, 2008).

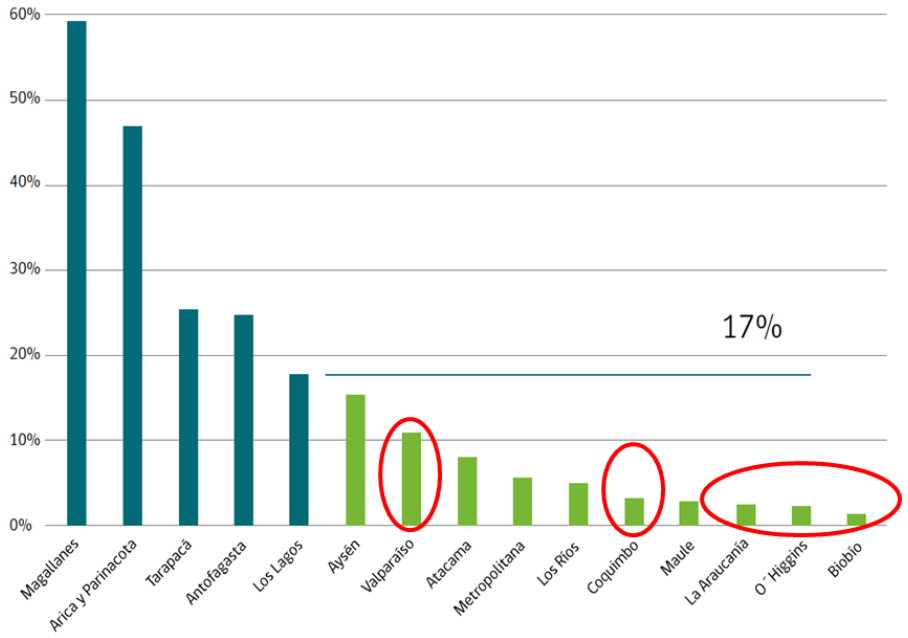
The taxonomical groups of highest concern, in the evaluation of their conservation status, are fresh water fish and amphibians, due to the fact that because of their evolutionary characteristics, their habitats are limited to specific zones, strongly under pressure from various factors: pollution from both domestic and industrial liquid waste; invasive species; habitat modifications from urban sprawl, intensive agriculture, agroindustry, mining and the tourist industry. These two groups of species are indicative of the alteration and response of the ecosystems present in the Project area. For more details on Biodiversity and Land degradation specific to each pilot ecosystem, please refer to previous section 2.1.

Within the Mediterranean Eco-Region, the coastal ecosystems are particularly vulnerable, according to the 2015 **Ramsar Convention Evaluations**: wetlands are continuing to diminish world-wide, both in surface and quality. It is estimated that the total surface area of wetlands in the world shrank between 64% and 71% during the 20th Century, and that degradation and loss of wetlands continues throughout the world.

On the global level, continental wetlands have been seen to diminish between 69% and 75%, whereas about 62% of coastal wetlands surface area has been lost. Although information gaps persist, and every study analysed contains a warning about methodology, the tendency is undeniable: degradation and loss of wetlands persists.

Chile has 13 Wetlands of Global Significance, or Ramsar Sites, which together cover a total surface area of about 361,760 hectares. Regarding the amount of protected wetlands within designated protected areas (SNASPE), not including the Ramsar Sites, these amount to an estimated 2.1 million hectares nation-wide, although the highest concentration is in the Magallanes Region and a very low concentration in the Mediterranean Eco-Region, where the Project's pilots are located (circled in red), where significant protection gaps and imbalances persist, none of the pilot regions reaching the Aichi target of 17% protection (Figure 2).

Figure 2. Protected Wetlands Surface Area by Region



Source: MMA, 2018

This Project expects to strengthen the sustainable management of watershed areas, which are not included in the SNASPE. The Project will give support to conservation efforts in favour of ecosystems with a low level of protection and with species in different conservation categories.

The report of the **Secretariat of the Biological Diversity Convention (2014), Worldwide Perspective on Biological Diversity 4,** includes analyses of regional and global tendencies regarding progress toward the Aichi targets. Some of their conclusions regarding wetlands indicate that these continue to suffer fragmentation and degrading habitats of all kinds, including forests, grasslands, wetlands, and river basins, emphasizing the fact that the ecosystems which provide essential services, including water-related services such as wetlands, continue to deteriorate. For this reason, they urge the Signatories to reduce pressure on those ecosystems that provide services, such as wetlands, and where necessary, improve their protection and recovery. Furthermore, they point out that recent tendencies, the present state and future projections indicate high levels of loss in the total surface area of wetlands. Mangrove swamps and other coastal habitats continue to disappear because of such activities as aquaculture, land reclamation and urbanization.

As indicated in the National Biodiversity Strategy 2017-2030, Chile's varied climatic and geological conditions have generated over 20 types of wetlands. According to the Environment Ministry's recent estimates, over 40,000 wetlands have been recorded, covering a surface area of approximately 4.5 million hectares, nearly 5.9% of its national territory. It should be pointed out that to date, there is some disagreement regarding the total surface that this type of ecosystem comprises in Chile, added to the fact that there are still information gaps regarding some types of wetlands.

Coastal landscapes are ecosystems that sustain a wealth of biodiversity and provide us with a series of significant ecosystem services necessary for good quality of life. These can be found all along the coast, in the form of estuaries, coastal lagoons and salt marshes. All of these provide habitats for fish, crustaceans, amphibians, reptiles, migratory birds, among others. However, they are highly vulnerable ecosystems, especially when threatened by factors such as unsustainable practices and climate change. Chile's wetlands are characterized by their uniqueness, their beauty and their vulnerability, in addition to providing highly valuable conservation-worthy biodiversity. This is due not only to the diverse composition of species finding shelter there, but also to the ecosystem processes resulting from the interaction with abiotic components.

2.3. Threats, root causes and barrier analysis

The threats and environmental degradation factors for the Chilean Mediterranean Eco-Region derive mainly from human activities and pressure, which play a major role in the increased deterioration of the ecosystem functions and of habitats, which in turn affect the resilience of biodiversity and soil productivity.

i) Agricultural and exotic forest plantation expansion

States that have had a greater impact on the general environmental condition of coastal landscapes and their associated wetlands, are land use changes to agriculture and inappropriate intensive production practices including the overuse of fertilizers and machinery, and grasslands conversion. In terms of their level of trophia (nutrient load), progressive deterioration of these systems can be observed. Overgrazing, a non-sustainable practice of livestock production, which involves high densities of livestock and grazing on fragile soils, leads to the conversion of native forest into pastures and shrubs, accelerating the processes of soil degradation and desertification. This turns into a negative impact on aquatic environments, because of changes in the condition of the resource (MMA, 2010). Livestock access to riparian areas has also resulted in negative impacts to vegetation, bank stability and water quality

Forest plantations of alien species have caused sedimentation, due to soil disturbance from forest plantation site preparation and their forest road construction, which exposes soil and makes it more susceptible to erosion, reducing primary productivity, increasing physiological stress, and potentially affect downstream habitats. Harvesting impacts can include machine caused soil compaction and rutting, removal of riparian vegetation and riparian impacts from falling and yarding. These activities can cause soil erosion and sedimentation, loss of riparian functions such as filtration, shading and impacts to habitat supply and functionality. In the Cahuil pilot watershed, more than 56% of the District is covered by *Pinus radiata* plantations, but with only a 5% of the district population employed by the forestry sector.

From the physical point of view, the coastal landscapes' vulnerability lies in changes in water salinity or in its availability affecting soil fertility and water quality not only for production purposes but also

for other uses. Many wetlands are being drained for agriculture, and upstream activities such as offtake of water for agriculture and overgrazing of grassland and desertification have reduced overall water availability for production and consumption as well as reducing the flow to wetlands, drying up some waterways, and decreasing the wetlands' water retention capacity

ii) Urban expansion and port infrastructure

Coastal landscapes are being fragmented by public infrastructure and alteration of sandbars in the case of estuaries, which has produced an important degradation rate and a threat to its diversity (Villagran-Mella et al, 2006). With the high rate of urban expansion into rural landscapes, wetlands are often filled and drained for constructing roads and buildings, where their construction cuts off the water inflow to wetlands, drying them up and generating increased amounts of sediment in the water. Hydroelectrical Power Projects and the construction of dams in the watershed also alters the inflow of water to coastal wetlands, influencing the loss of connectivity of the biological corridors and the isolation of areas of conservation interest.

The Project area is undergoing rapid urbanization processes involving changes in the patterns of land use and in urban morphology, with pilot ecosystems such as Cahuil,(in the Pichilemu District) having an exponential increase in urban development, where housing in the commune increased by approximately 93% in the last 15 years (INE, 2017).

The pilot ecosystem Rocuant-Andalien is located within three urban districts: Penco, Talcahuano and Concepción. This is an emblematic example of a wetland that has been inserted in a large city, where housing and human activity are installed on it. The wetland is divided in two by the "interportuaria" highway of the coast, and has an airport built inside the wetland´s limits. It also has an array of large-scale development projects threatening to fill it up, with different types of structures being built in the coastal fringe.

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iii) Water pollution

Pollution of rivers and lakes has produced higher levels of eutrophication, which is harmful to fisheries, agriculture productivity and human health. Furthermore, marine habitats are becoming polluted by silt, metals and fertilizers flowing in from rivers. Excessive nitrogen in water leads to increasing outbreaks of toxic algal blooms. The use of untreated water affects development especially in the poorer areas. The main causes of pollution are agricultural run-off, industrial and domestic effluents.

The water treatment situation in the city of La Serena, where the Rio Elqui pilot watershed is located, presents a case of a basin where, in the face of critical events, the city's water utility discharges the untreated wastewater into the river, and with parts of the river bend being used as a dumping site for rubble and debris of construction material, with the expected consequences for this ecosystem and making the surroundings of the wetland look like abandoned vacant sites to unload debris and waste, appearing therefore as insecure areas.

iv) Tourism

Uncontrolled mass tourism at coastal and wetland sites has also degraded critical ecosystems through disturbance to wildlife, where the simple presence of people and pets can disturb nesting birds and amphibians. Uncontrolled tourism causes noise trampling and pollution due to motorized activities, increased road access to wetlands, and road crossings of riparian areas that can further disrupt fish and

wildlife migration movements. People, animals and vehicles can accidentally crush bird, amphibian or reptile eggs. It can extend loss of vegetation due to trampling or soil compaction. Changes in water quality can occur due to siltation from erosion and introduced pollutants, together with the introduction and spread of invasive species.

The Mantagua pilot watershed, being close to the capital city has pressures from unsustainable and unplanned mass tourism, with an increased generation of wastes, over-fishing and hunting, together with motorized vehicles going onto sandbars and disturbing endemic and migratory nesting species.

v) Climate change

Climate change is a current and future threat, with potentials to affect coastal ecosystems through sea level rise, increased sea and water bodies' temperatures, changes in hydrology, land use change and water consumption patterns that can accentuate climate change impacts on these ecosystems. Considering that current climate change impact models predict that annual rainfall in the project area will decrease but will be much more concentrated in increasingly narrow time windows, the pilot ecosystems are in potential high risks of being affected.

vi) Invasive species

With such dynamic changes to the landscape, climate and agricultural practices, extensive deforestation and massive global trade, Chile is particularly susceptible to the threat of IAS. Wetlands are particularly threatened and are being damaged by alien water weeds, introduced species of crustaceans, fish, terrapins and even mammals. IAS can invade wetland areas, replacing native vegetation; this in turn can lead to losses of the animals that relied on the wetland habitat

The Queule Pilot Landscape, located in the more pristine section of the project area, is being invaded by different IAS, one of the more problematic being Mink (*Neovison vison*), predating endangered birds and migratory species

Root Causes

Main **Root Causes** for these threats are deficient legal protection for the coastal ecosystem, due that Chile's economy is greatly dependent on exploiting natural resources. Notorious is the overlap of tasks or regulatory anomaly, on the one hand the State promotes instruments of protection, there are more than 20 legal bodies with some degree of impact on the management or conservation of wetlands, of these, 8 instruments are International Treaties or Conventions that have been ratified by Chile, there are also National quality standards of continental surface water and emission for underground waters, marine and continental, whose objective is the protection of coastal ecosystems. On the other hand, State financed incentives are often at odds with these instruments, such as the incentive to irrigation and drainage, fragmentation of landscapes and ecosystems by roads, modification of channels for development of civil works, discharge of liquid waste on bodies of water, loading of sediments by modification of vegetation cover, among others. The regulations have been designed in a singular context, where attributions are included according to the sectorial functions of the Public Services, and to date coherent linkages have not been achieved under environmental sustainability criteria.

Increase in population has led to urban expansion and increasing human pressure on natural resources, with coastline activities intensified, and with planning instruments that do not currently recognize explicitly the concept of sustainable management of coastal wetlands. Integrated management of coastlines is not applicable in Chile and therefore, actions undertaken in coastal systems are motivated

by opportunity (productive or conservationist) instead of by an integrated and well-planned State policy.

Private property is the prevailing land tenure in the Project area, with very few protected areas. The lack of awareness and concern regarding the importance of biodiversity and coastal ecosystem services on the part of many private property owners and the productive sector, together with the scarcity of regulation, poor law enforcement, with nearly no positive incentives to protect biodiversity, facilitate unsustainable productive practices or the use of natural resources with no thought to sustainability, constituting an obstacle to conserving many of the areas of high biodiversity value.

Barriers

To improve the conservation of coastal ecosystems, support their restoration, stop their deterioration, integrate them into local economies, demonstrate their benefits and evaluate their current condition through permanent monitoring for the decision-making process, necessary investment and management priorities, it is necessary to overcome a series of barriers. They have been grouped according to the problems that the Project will address with the three components and their respective outcomes and outputs.

Barriers regarding information and knowledge management

a) Limited knowledge on coastal landscapes ecosystem services and decision support systems for policy formulation, decision-making and planning

Knowledge, experience and opportunities are limited regarding recovery of coastal landscapes and their ecosystem services ranging from agricultural lands and their productivity, forested lands and wetlands and their environment. Furthermore, the negative impact that various production practices, including agriculture, have on land productivity and ecosystem services provision, is not well understood, and the relationship is not always made clear between these poor practices and deterioration of services, e.g. prime agricultural land is lost due to degradation of coastal wetlands. Although there is some basic data, it is dispersed, in different or incompatible formats, and inconsistent in terms of information monitoring and the analytical methods applied to its analysis. The information available regarding ecosystem services provided by the coastal landscapes including wetlands, as well as their economic significance in the different productive systems they support, is insufficient. In addition, the ability to translate this information into effective public policies and adequate management decisions is limited, especially on the sub-national levels.

b) Inadequate understanding of the interdependence between wetland sustainable management and conservation, and sustainable land management in the associated landscapes and watersheds in which they are inserted

The lack of basic knowledge regarding how these ecosystems function at the landscape level, except on the smallest scale (individual landholdings or less in terms of management) prevents a coherent integration of resource utilization. The strictly sectorial focus originates in the lack of operational knowledge in Chile regarding complex ecosystem processes, and both of these gaps feed back into and reinforce each other. Ecosystem health and functions at the wider landscape level are not sufficiently understood, neither in terms of land productivity in sectors such as agriculture and forestry, nor in terms of the causal relationship of the ecosystem components and their interactions. For this reason, if the only considerations for coastal zone and wetland management are effluents and the hydraulic system present, resulting from the processes generated in the watershed that feeds into it, it becomes inviable in terms of sustainable management and ecosystem service provision in the medium and long term. It is true that productive landscapes and coastal wetlands require local-level study and planning; but it is no less true that to achieve understanding of their ecosystem and biophysical dynamics, a wider viewpoint with a landscape approach is required.

c) Limited access to useful information and lack of public awareness regarding the importance of coastal landscape conservation

Most of the population is not aware of the importance of coastal wetlands for biodiversity conservation, of different plant and animal species, nor of the ecosystem services provided on the level of the landscape and to production for local development. Recognition of the significance of coastal landscapes on the national level, awareness of the threats that these ecosystems face, their socio-economic and environmental importance, mitigation of natural disasters, is fundamental for their conservation and to ensure the institutional support needed in order to maintain them. There is a lack of an appropriate mechanism to disseminate and manage information on these ecosystems, most of it is dispersed, and is not being made available to relevant stakeholders, including decision-makers at local, regional and national levels.

Barriers regarding institutional and regulatory frameworks

d) Insufficient policies and regulatory frameworks supporting the development of coastal landscape sustainable management and conservation at national, regional and local levels

Very few robust experiences have been carried out in continuous management or recovery of coastal landscapes in Chile's south-central area. The EM has not been able to implement public policy instruments beyond restriction of certain projects that would have had a particularly devastating impact on ecosystem services and wetlands, through the Environmental Impact Evaluation System (SEIA). Even though there is an existing demand on the part of civil society for action in these areas, this demand is not finding its way into public policies for regulating management and activities. The regulatory framework for conservation of coastal ecosystems and their wetlands is weak, scattered and ambiguous, their management and administration being regulated via sectorial attributions. These shortcomings in the instruments for regulating wetlands and their watersheds generate management deficiencies, compounding inadequate or non-existent ecological criteria for avoiding undesired impacts, in particular regarding activities or construction projects that are not covered by the Environmental Impact Evaluation System, or in ecosystems that are not covered by some form of official protection.

e) Limited and/or inconsistent coordination of national institutions for the sustainable management and conservation priorities in productive landscapes and wetland watersheds

The threats that Chile's south-central coastal landscapes including wetlands are facing, are covered by the mandates of different institutions, i.e. changes in water courses, sandbars and beaches are under regulation by the Armed Forces Under-Secretariat, sand and gravel extraction are supervised by the Mining Ministry, building projects are regulated by the Ministry of Housing and Urbanization as well as local authorities, and capture or harvest of marine biomass are supervised by the Fisheries Under-Secretariat. None of these sectorial authorities takes into account criteria beyond those strictly related to their own areas when regulating activity development. Jurisdiction for regulating and inspecting resource utilization is deficient, dispersed and uncoordinated, making it difficult to establish a coherent and controllable regulation system. The different institutions in charge lack the installed capabilities for adequate implementation of their respective norms, in addition to deficiencies in the norms themselves and lack of coordination between them, all of which contribute to an overall situation with a high level of difficulty to regulate.

f) Lack of specific institutional capacity for sustainable land management and coastal wetland protection

Barriers relating to institutional capacity include lack of know-how for addressing threats specific to coastal landscapes and in particular to wetlands. There are gaps in information and knowledge that are key for decision-making and drawing up policies that ensure sustainable natural resource and biodiversity management. This type of sustainable management requires a process of consultation, negotiation between the different stakeholders, biophysical and social monitoring, supervision and

conflict management, none of which has as yet been integrated into the capacities of the professionals involved. In addition, neither the local communities nor the regional or municipal authorities have the necessary experience for implementing integrated management plans for coastal wetlands.

There are no manuals of best practices and/or protocols that include environmental considerations, which could serve to guide the institutions that have some jurisdiction over productive practices associated with coastal ecosystems or with the private stakeholders associated with these productive sectors, with guidelines regarding the most sustainable forms of intervention in these areas. For example, where, how, when and with what type of materials to carry out construction associated with these ecosystems; or what measures to implement to mitigate forestry, agriculture or livestock practices associated with these basins.

Barriers regarding participatory planning and coastal lands sustainable management at the local level

g) Lack of coordination among local institutions and authorities involved in the implementation of land use plans at the landscape level and regulations for the sustainable management of coastal landscapes

At the local level, the lack of coordination among the different institutions with mandates over coastal land use including wetland use and management is further complicated by the role of local governments and municipalities in the decision-making process and enforcement of land use plans at the wider landscape level. At this level the lack of technical capacities is exacerbated, and useful information and data are both scarce and dispersed among the institutions. Thus, it has become very difficult to ensure proper ecosystem functioning, with the consequent negative effects on land productivity on one hand, and biodiversity conservation on the other. Integrated management of the coastlines is not being applied and therefore actions affecting coastal systems are motivated by opportunity (production or conservation), and not as a response to an integrated and planned State policy. Biodiversity conservation and sustainable use in estuary zones, for example, has not been recognized as benefiting small-scale fishermen or the tourism sector.

h) Inadequate municipal-level coastal and watershed planning

Activity along the coastline has intensified and planning instruments do not explicitly recognize sustainable land management of a wide range of land uses or management of coastal landscapes. There is a lack of biodiversity conservation objectives and practices integrated into the planning instruments used at the local level, where an integrated vision of the territory and its ecosystem services regarding activities that support ordering and planning of the coastal fringe are part of the process. Currently the main instruments for coastal land use planning in Chile are the Regional Land Management Plan (PROT) and the Coastal Area Zoning (ZBC) but an integrated coastal zone management law and associated plan are lacking. Unfortunately, the PROT is an indicative plan, and is not normative in nature. Although, there are normative plans (Community Development Plans, or PLADECO in Spanish), their integration at the watershed level is not considered and there is no coordination between the different instruments. The limited capacities of Municipal staff to plan, develop and implement these instruments contribute to the lack of adequate management of coastal and watershed ecosystems based on a common view of the territory.

i) Absence of incentives for the application of SLM and conservation practices

Incentives for local producers to apply sustainable land management practices to increase agricultural productivity are not being made available efficiently due to the lack of capabilities for drawing up and acquiring funding for projects that include ecosystem services considerations. In addition, local producers do not have access to markets which award “premium” value to their commodities produced under sustainable land management and in a manner that is environmentally compatible within the

coastal landscapes. This could be a way to reward and motivate them to utilize resources in a way that increases their land's productivity and at the same time conserves biodiversity.

i) Absence of an integrated monitoring and evaluation system for coastal landscape management and the productive activities they harbour including wetland conservation

At the present time, the services and benefits provided by coastal landscapes and their wetlands, including maintaining species diversity, are not appreciated, monitored or evaluated overall in an effective manner. Data in not only dispersed among the different institutions, but also in terms of temporality, with gaps in different years that negatively affect monitoring and evaluation at the long term. An adequate monitoring, assessment and use of the generated information, is necessary for improving interinstitutional coordination, implement integrated land management at the local levels, improve information on current situation and trends for decision making, and increase citizen participation and awareness through incorporating them to monitoring and evaluation activities.

2.4. Institutional, sectorial and policy context

Institutional and sectorial context

Since 2009, different environmental institutions have been created in Chile, the Environment Ministry, the Environment Authority and the Environment Evaluation Department, thus generating new functions and powers. The Environment Ministry's explicit functions concern the design and application of policies, plans and programs regarding the environment, promoting sustainable development, the integrity of environmental policy and its regulatory norms. Particular attention should be given to Article 70 of Law 19.300, which establishes a series of functions regarding the protection and conservation of biological diversity and renewable natural resources as well as water.

Some of the functions regarding ecosystem, natural resource and water conservation, according to Article 70, are as follows: i) To propose policies and define plans, programs and actions which establish the basic criteria and preventive measures fostering recovery and conservation of water resources, […] ecosystems and natural areas, in particular those that are fragile or degraded, contributing to Chile's compliance with the international agreements for biodiversity conservation; e) To collaborate with the sectorial Ministries in drafting environmental criteria that must be incorporated into their plans and policies, strategic environmental evaluations and planning processes, as well as into those of their related and dependent departments; f) To collaborate with competent bodies in drafting environmental policies for management, sustainable use and benefit of renewable natural resources and water.

This article empowers the Environment Ministry with a wide mandate for making a positive impact on protection of the environmental and all the components of nature. However, the Ministry has encountered obstacles in its attempts to carry out its total mandate as stated in the law, actions that are necessary in order to be effective in protecting biodiversity and, in addition, to establish coherency with public policies and international agreements.

Regarding the Environmental Authority, its mission is to supervise and verify application of the Environmental Qualification Resolutions to all projects that are covered by the SEIA, as well as the measures set out in the Environmental Prevention and/or Decontamination Plans, the contents of the Environmental Quality Norms and Emissions Norms and Management Plans, when appropriate, and of all other instruments related to the environment that the Law establishes. In addition, all sectorial bodies that carry out verification functions must adopt and respect all criteria established by the Environmental Authority regarding the way to carry out such actions. The EA's verification function

consists of determining if the project to be carried out must go through the SEIA system, taking into account qualitative and quantitative criteria, in accordance with the respective resolution (RSEIA).

At the local level, the EM has a voluntary program of the *Municipal Environmental Certification System* (SCAM, in Spanish), to support municipalities that wish to develop a local environmental management process. The program, based on ISO 14.00150 and EMAS51 standard, is an integral and holistic system that allows the municipality to place itself in the territory as an environmental management model.

Together with the Environment Ministry, several State Departments have some incidence in the administration of coastal ecosystems and their watersheds. Since these are transitional ecosystems between the ocean and the continent, their management and protection, from the institutional point of view, are on the fringes of the mandates of both the General Water Department (DGA) and the General Department of Oceanic Territories and the Merchant Marine (DIRECTEMAR). Furthermore, they are affected and influenced by productive and sectorial activities which are under the mandate of other institutions, such as SUPBESCA for fisheries, the Ministry of Public Property (MBN) for the extraction of sand and gravel, among other products, the Ministry of Public Work (MOP), the Ministry of Urban Development (MINVU) for the construction of infrastructure adjacent to the wetlands, and the Ministry of Agriculture (MINAGRI), among the most important. For this reason, estuaries in particular present complications in decision-making regarding this type of ecosystem. Therefore, the challenge and pending task is to integrate and plan in a coordinated manner the actions to be carried out within the framework of the National Wetland Strategy (CONAMA, 2005), not only among the bodies and professionals operating within the related institutions, but also in their policies, strategies, directives, and all instruments for water resource management. At the watershed level, different stakeholders are involved in land management, with the Municipalities and Regional Government involved in land use planning and zoning, the Ministry of Public Property (MBN) in charge of State land uses and allocation purposes, the EM regional bodies (SEREMIA's) as supervising and regulating entities regarding the environmental impacts of development projects, and private stakeholders, consisting of industries and large agricultural owners, together with smallholder farmers.

Territorial Planning

Regarding General and Territorial Planning, at present in Chile there are different bodies involved, to be distinguished mainly according to what department they answer to, their hierarchy and scale of work, and whether they are normative or indicative.

It is the Housing and Urbanization Ministry (MINVU) that is responsible for administrating the Territorial Planning instruments established in the DFL N° 458 which ratifies the new General Legislation on Urbanism and Construction (LGUC), all of which establish dispositions regarding urban planning, urbanization, and construction. Among those instruments of interest to the Project are the **Inter-Township Regulatory Plans (PRI)** and the **Metropolitan Regulatory Plans (PRM)**; the latter consist of instruments appropriate for application in urban areas with over 500,000 inhabitants. Simply put, they are instruments consisting of a set of norms and actions for guiding and regulating the physical development of the corresponding area, implicating at least two neighbouring townships. They define what is meant by urban zones, urban extension and rural zones. Their fields of action include, among others: defining land use in inter-township green zones; defining risk zones or no-building zones (art. 2.1.17 of the OGUC), areas for the protection of valuable natural resources and cultural heritage (art. 2.1.18 of the OGUC). In those rural areas which fall outside the territory regulated by the Inter-Township Regulatory Plan, these instruments CANNOT be applied for regulating land use.

According to Organic Constitutional Law N°19.175 on Regional Government and Administration[2], the highest level of administration of each region in Chile will be centred in a "Regional Government" (GORE), whose purpose will be the social, cultural and economic development of that region. Their functions include actions regarding territorial planning, including establishing policies and goals for integrated and harmonious development of the region's system of human occupation, and to promote and ensure the protection, conservation and improvement of the environment; to this end, their main instruments are the Territorial Planning Regulatory Plans (PROT) and the proposed zoning project for the coastal fringe (to be ratified), as well as possible modifications to current zoning. The PROT corresponds to an "indicative" instrument of a regional nature, which prevails over the rest of the Territorial Planning Instruments and guides the management of the regional territory

The Regional Governments published guidelines entitled "Coastal Zoning in Territorial Planning", a document intended to support the process of territorial planning in coastal areas (ZBC). This guideline takes into account, among other things, the ecosystems and their biodiversity, in addition to the social and economic dimensions. They adopt the concepts of coastal zone, coastal fringe, and area of coastal influence. This document includes within the zone of influence the associated hydrological basin or sub-basin and it underlines the importance of the coastal zone as the link between the marine coastal zones and the coastal hydrological watersheds, making it imperative to link integrated management programs for the coastal zones with integrated management of the associated hydrological basins or watersheds. The ZBC corresponds to an instrument of planning and territorial ordering of regional character that arises from the National Policy of Use of the Coastal Border (PNUBC), which is carried out to order different activities on the coastal territory, recognizing, at the same time, different interests and conflicts. It is a tool to support decision making that encourages the best possible use of the coastline, allowing agreements and / or consensus through participatory processes. The ZBC should be understood as a complementary tool to territorial planning and management, since it is integrated at the communal level with the Community Regulatory Plans and Community Development Plans, at the Inter-communal level with the Intercommunal Regulatory Plan of the Coastal Border and at the regional level with the Regional Development Strategy and the Regional Plan for Urban and Territorial Development. The only pilot landscapes with approved ZBC are Elqui and Cahuil, while the pilots of Mantagua, Rocuant-Andalien and Queule are in different states of development (Refer to "3. Territorial Planning Regulatory Plans for pilot ecosystems report" in Appendix 17 for more details).

The Municipalities have different instruments that can support the sustainable management of coastal landscapes in their administrative areas, such as the Communal Development Plan (PLADECO), the Land Use Program, the Road Infrastructure and Connectivity Program; and as regards environmental consciousness and management; Municipalities have the Local Environment Management Program and the Environmental Education Program. Municipalities can also develop Ordinances to create Natural Municipal Reserves (RENAMU), an instrument of environmental protection for identified natural areas of high biodiversity value, which can be incorporated in the PLADECO or PRC (Communal Regulatory Plan). It is a relatively recent figure and only 3 successful cases are found in the country (non in the pilot landscapes).

As part of the actions undertaken during the Project design phase, the Territorial Planning Regulatory Plans for the pilot wetlands under observation were identified and systematized, for the purpose of evaluating the existing spatial data on land-use management and planning, and to determine whether a territorial planning regulatory plan existed or not for each of the pilot sites (for the complete report,

[2] Published in the Official Newspaper on 20 March 1993 and modified in the year 2018.

see "3. Territorial Planning Regulatory Plans for pilot ecosystems report" in Appendix 17). Following this analysis, a series of activities was defined to be carried out within the Project, identified in its Logical Framework. Among the aspects to be taken into account for each of the pilot ecosystems, are the following:

Coquimbo District: Elqui River Mouth pilot watershed. For these wetlands, planning instruments currently exist on different scales which deal with land use issues. Within the city limits of La Serena, the Township Regulatory Plan (PRC) applies. The present Regulatory Plan, in fact, does not promote conservation or maintenance of this ecosystem as such. There is an instrument, presently in the process of being ratified, that would modify the current plan, bringing it more into line with the goal of protecting and maintaining this ecosystem.

Valparaiso District: Mantagua wetland pilot watershed. These wetlands are located in a less inhabited coastal zone within Quintero Township. For this reason, they are under the jurisdiction of one Inter-Township instrument (Valparaíso's PRI)) that dates back to 1965, and one Metropolitan instrument from 2014. At present, the wetland zone is recognized within the inter-township instrument as being a zone of environmental significance.

O'Higgins District: Cahuil wetland pilot watershed. The Cahuil wetlands are located on the border between the Township's urban and rural zones. At the present time, zoning of the Township's Coastal Fringe is being established, the public participation process having been launched in June and set to conclude in September 2018. The present proposal defines an Ocean Wave zone for protection, which would limit extractive activities and intensive use within the river mouth.

BioBio District: Rocuant-Andalien pilot watershed. The Rocuant-Andalien wetlands are located within the urban area of a highly industrialized township. As an urban wetland area, it is up against strong pressure from its urban surroundings and additional pressure from industrial development activities. Nonetheless, the (Metropolitan Regulatory Plan) PRM recognizes it as a zone of significance, even defining buffer zones of 50 meters to limit activities that could threaten this zone categorized as of Natural Value. This Plan is currently being updated, and the project is intended to use this as an opportunity to integrate BD conservation and LD criteria in the updated version.

Araucania District: Queule wetland pilot watershed. The Queule wetlands are distinguished by the fact that administratively they stretch across 2 different regions; consequently, the Territorial Planning instruments are not tendered along the same timelines and their results may not be coherent between the two sectors of the wetlands. Under these conditions, if the wetlands are located in the rural sector, land use could be determined by applying Inter-Township Instruments. However, at the present time no instruments of this nature are being developed in the zone, making these wetlands among the least protected in terms of Territorial Planning Instruments. In "3. Territorial Planning Regulatory Plans for pilot ecosystems report" in Appendix 17, there is a summary of the currently valid planning instruments by township for each of the pilot ecosystems.

Policy context

Application of the different legal instruments available in the country and their effectiveness in achieving conservation of wetlands and coastal ecosystems is varied. There are more than 20 legal documents with some degree of impact on wetland management or conservation, and of these, 8 are International Treaties or Agreements that have been ratified by Chile; in addition, there are superficial continental water quality norms and emission norms for underground, marine and continental water resources, being developed since the year 2000 to the present, and whose purpose is to protect the ecosystems.

The first norm or regulation that explicitly defines wetlands in Chile is D.S. N° 771 of 1981, a norm which ratifies the law regarding the Ramsar Convention. In order to comply with this Convention, it is necessary first of all to designate wetlands that meet all the criteria in order to be included in the List of Globally-Significant Wetlands, for **the country to commit to their conservation** and, among other commitments, to **promote the rational use of wetlands.** The Ramsar Convention urges its Contracting Parties and those responsible for policy-making to take immediate measures to comply with the Ramsar Convention objective of halting and inverting the deterioration and loss of wetlands and the services they provide to people.

Following this, the first official document that makes mention of wetland ecosystems as significant entities for conservation was the National Biodiversity Strategy, in 2004. In December of 2005, 24 years after the ratification of the Ramsar Convention in Chile, CONAMA's Steering Committee approved (by means of Agreement Nº287/2005) the National Strategy for Wetland Conservation and Rational Use (CONAMA, 2006) and the creation of the National Wetlands Committee, whose coordinating body is the National Environment Commission; CONAF was designated to be their Technical Secretariat, and the political focal point for the Ramsar Convention is the Environment Ministry's Environmental Department. In December 2013, the Environment Ministry, via administrative act, published a Resolution that ratified CONAMA's Agreement Nº287/2005.

In the year 2010, in the Partners' Conference (COP-10) in Nagoya - Japan, the CBD's Strategic Plan for Biological Diversity 2011–2020 was approved, consisting of the "20 Aichi Targets". This Plan aims to take effective and urgent measures to halt biodiversity loss. On the national level, Chile has developed a **National Biodiversity Strategy 2017-2030,** ratified through Supreme Decree N° 14, of 28 February 2018 and published in the Official Newspaper on 19 June 2018. It defined 5 strategic lines and an Action Plan. Its strategic lines are the following: (i) Promote the sustainable use of biodiversity for human well-being, reducing threats to ecosystems and species; (ii) Develop awareness, knowledge and participation of the population in protecting biodiversity as a source of their own well-being; (iii) Develop a robust institution, good governance, and just and equal distribution of the benefits of biodiversity; (iv) Include or integrate biodiversity objectives into policies, plans and programs in both the public and private sectors, as well as protection and recovery of biodiversity and its ecosystem services; (**v) Protect and restore biodiversity and its ecosystem services.** Regarding the Action Plan, it includes six fields of interest, one of these being the Action Plan for the **Rational Use of Chile's Wetlands.**

The existing environmental institutionality does not specifically mention regulations or protection for coastal wetlands; however, a series of protection norms have been developed for aquatic ecosystems, others that regulate activities and still others that protect people's health which, if properly implemented, could constitute protection instruments for the sustainable use of these ecosystems. As part of the PPG, a study was carried out of the existing national and international legal instruments relevant to management and administration of coastal landscapes, summarized in a table in "4. National and international legal instruments relevant to management and administration of coastal landscapes" in Appendix 17, indicating each norm, what it regulates, its effectiveness in conserving coastal ecosystems, and what needs to be perfected in order to be more effective in wetland conservation, since it is not possible to solve the situation only through the establishment of protected areas. In addition, this is useful as an input for determining who the relevant stakeholders are, and for revising sectorial legislation that negatively impacts the conservation of these ecosystems ("4. National and international legal instruments relevant to management and administration of coastal landscapes" in Appendix 17).

The regulatory framework for conservation of coastal ecosystems and their wetlands is weak, scattered and ambiguous, regulation of their management and administration being subject to sectorial

attributions, in the context of natural resources utilization, including both continental and marine land and water. Any intervention in these areas is subject to the different sectorial norms and regulations, which in many cases, as we will see below, define land use without considering the existence of wetland ecosystems, since these are destined to be drained because "the excess of superficial or sub-superficial water in the soils presents a limitation to the development of crops" (CNR Law 18.450 /1985). SAG regulates the Law N° 18.755 whose objective is to contribute to the country's livestock and agricultural development and to protect renewable natural resources that affect the country's agriculture and livestock production. On the other hand, the National Irrigation Commission (CNR) finances activities for evacuating excess superficial or sub-superficial water from soils when this is limiting the development of crops (removing sod, removing tree trunks, levelling and planning, constructions, and the manpower required for the above). On the one hand, water-saturated soils are by definition wetlands, therefore they require "protection" as a "resource"; but on the other, they must be drained because "they represent a limitation for crop development".

We have observed the systematic fragmentation of bodies of water, such as rivers and streams for the purpose of consolidating urban housing development, encroaching even on rural areas, without these being taken into account as potential contributions to human well-being in urban planning (A. Figueroa et. al, 2018). Something similar occurs with the use, in particular for agriculture, of flood zones along shorelines, which according to the Water Code and the Civil Code are assigned to the "shoreline owner", making it necessary to determine the exact limits of the shoreline zone.

Furthermore, there is proposed legislation for establishing the Biodiversity and Protected Areas Service and the National System for Protected Areas (art. 34 of Law 19.300), presently being reviewed by Congress, since 2014: it seeks to organize the existing institutions in the field of biodiversity, since there is a multiplicity of standards and actors involved in the current system of biodiversity protection and management of protected areas. It is hoped that this Service become the institution of reference for establishing criteria for the protection and sustainable use of wetlands and their respective watersheds, especially as regards activities which are not regulated by the SEIA, and that it generate diverse and practical funding mechanisms, both public and private; and provide a regulatory framework as well as control mechanisms for the activities to be developed by users of a given area.

2.5. Stakeholder mapping and analysis

During the Project's design stage, various stakeholders have been identified and efforts made together with them in order to establish synergies with the different existing initiatives toward developing and achieving the established objectives.

Table 1 gives the details of the role, potential impact, synergies and potential contribution of each identified stakeholder.

Table 1: Alliances, Synergies and Contributions

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
Government Agencies. National Level				
Environment Ministry (EM), Natural Resources and	Ministerial Division in charge of assuring compliance with lines of action in the field	High	The EM defines Policies to promote conservation of natural resources, including hydrological resources, soil, flora and fauna,	Main project executing partner. EM has a Department for Conservation of Aquatic

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
Biodiversity Division	of biodiversity protection on the national level, compliance with agreements, strategies and policies, as well as facilitating recovery of relevant ecosystems, including aquatic ecosystems. It is also the Biodiversity focal point for Chile.		and wetlands. The EM should ensure the conservation of fragile and degraded ecosystems and must enforce international conventions and propose to the President of the Republic policies and standards that promote these principles and that protect the natural environment. Since wetlands are a fragile ecosystem being degraded by unsustainable uses, the EM is responsible for drawing up and promoting policies and regulations for the conservation of wetlands. It leads the National Wetlands Committee and the implementation of the National Wetlands Plan, of the National Biodiversity Strategy.	Ecosystems that will provide support to all the Project components, as well as carrying out its coordination, and monitoring. Political support and monitoring for achievement of all the objectives, results and products. Cofinancing of the initiatives.
MINVU (Ministry of Housing and Urbanization)	This Ministry is responsible for the country's housing policy and issues of urban, municipal and inter-municipal planning and their respective land use plans. The Ministry's powers also include the creation of shoreline master plans	High	MINVU is the ministry in charge of urban development, developing urban infrastructure in sectors where coastal wetlands are located and is interested in introducing in its regulations best practices and protocols for the conservation of wetlands in future developments	Executing partners, MINVU will provide technical support to the project within their mandates, participate in the development of standards for best practices and protocols. Demonstrating the political will to support conservation projects through infrastructure development in the respective zones To design land use plans, particularly Shoreline Master Plans.
SUBDERE (Under ministry for regional development)	State Under-Secretariat, under the Ministry of the Interior and Public Safety, which oversees contributions to territorial development, strengthening their capacity for good government, through coordinating, promoting and evaluating regional development.	High	The SUBDERE can support strengthening of local environment management, as well as seeking sustainable development of their territories, with training programs targeting municipal personnel, hiring of human resources, studies and programs to emphasize the value of wetlands and coastal areas for sustainable development.	Executing partners, will provide technical support to the Project within their mandates, through financing initiatives presented in the pilot ecosystems within the neighbourhood improvement program, support in development of studies such as Characterization and exploitation of a region's hydrological system. And participate in the development of standards for best practices and protocols.

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
DGA (General Water Department) of the Ministry of Public Works	The General Water Directorate (DGA) is the institution that authorizes water uses and monitors water quality in Chile.	High	It contributes key background information on hydrology and watershed configuration and has a Water Quality Monitoring System that will complement Project monitoring data.	Executing partners, as an institution with water quality and monitoring experience will provide its technical expertise during project implementation, provide training for monitoring and participate in the development of standards for good practices and protocols
DOP (Port Works Department) of the Ministry of Public Works	Its mandate is to provide citizens with ocean, river and lake port and coastal infrastructure services, necessary for improving quality of life, for the country's socio-economic development, and its national and international physical integration.	High	Interests and synergies are associated with the possibility of constructing infrastructure useful for the development of the populations associated with the coastal ecosystems in a more environmentally sustainable form, integrating best use of materials, environmental signposts and other types of best practices in construction. Emphasis can be given to how one can, in the context of infrastructure construction, make the ecosystem more sustainable, regulating and limiting access when necessary, and generating appreciation for the ecosystem services provided by the watershed through publicity and awareness building.	Executing partners Demonstrating the political will to support conservation projects through infrastructure development in the respective zones and participate in the development of standards for best practices and protocols.
Ministry of Agriculture (MINAGRI)	Its mission is to contribute to improving competitiveness, sustainability and equality in the forestry-agriculture-livestock sector on the national and regional levels.	High	Through its functions of coordination, monitoring and efficient application of policies, programs and projects which are implemented through agreements, as in this case with the EM, they will ensure participation of the departments under them, such as CONAF, SAG, INDAP and the Agriculture SEREMI's, throughout Project execution.	Executing partners, will provide support in the implementation of activities in this Project committed to by its departments (SAG, CONAF, INDAP and the pilot regions Agriculture authority. Provide technical support and co-financing for the development of agricultural and forestry activities, participate in the development of standards for best practices and protocols for coastal landscape conservation, and their implementation in pilot ecosystems.
MBN (Ministry	Its mission is to	High	This Ministry is in charge of the	Executing partners, will

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
of Public Property)	recognize, administer and manage the public heritage in the interest of economic, social and cultural development, with an integral and sustainability orientation.		administration of State land, it has the role of determining the use of the land, which can be for production or as protected areas if ecological value is demonstrated. The Ministry can set the management conditions and modalities for protecting the State interests in the land. Supports the sustainable development of public lands under the Ministry's jurisdiction, including the coastal strip and adjoining property and lands belonging to the State. In Chile, the first 80m of the entire coastal strip, measured from the high tide line, is national property.	provide technical support to the Project through the supply of relevant environmental information, in agreement with the IDE (Spatial data infrastructure), to support the Wetlands platform of the EM. Also, through technical support for implementing initiatives which further the sustainable use of the pilot ecosystems and watersheds.
DIRECTEMAR (Armed Forces Sub secretariat, National Commission for the Use of the Coastline)	This is the national maritime authority; they control and inspect all seaborne activities and administer the coastal fringe. In addition, they have been implementing the POAL for over 20 years: annually monitoring parameters such as water and sediment quality at several points along the Chilean coast.	Medium	The Under ministry of the Armed Forces and the Direction of Maritime Interests of DIRECTEMAR are both part of the Ministry of Defence. Each of them has been assigned an important role for the management of coastal wetlands, be it the management of beaches or coastal marine resources, such as the analysis of the levels and concentrations of the main contaminants both in freshwater sources and coastal waters.	They play a key role in the Project as participants and coordinators of local initiatives, they implement the *Coastal Environment Observation Programme* (POAL, in Spanish) to monitor annual fluctuations in the concentration levels of the main components of domestic and industrial waste, petroleum hydrocarbons and POP in bays, lakes and rivers under its jurisdiction, including coastal waters and it impact, and they also develops Environmental Sensitivity Maps to be used by the project.
SUBPESCA (Fisheries Under-Secretariat)	Coming under the Ministry of the Economy, Promotion and Tourism, this is the national fisheries authority with attributions for regulating and administering all fisheries and aquaculture activities. They design fishing	Medium	Strengthening of institutional policies and capacities of professional staff in matters related to biodiversity conservation in the coastal landscapes, improving interinstitutional coordination, monitoring and evaluation of these ecosystems.	Will provide technical training on specific topics within their technical mandate

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
	policies and regulations.			
Sernapesca (National Fisheries Service)	They implement national fisheries policy and enforce the laws and regulations governing this activity. Ensure the sanitary quality of fish products for the international market, propose plans to develop sport fishing, protect marine parks and reserves as defined in the Fisheries Law, and provide official statistics for the fisheries sector.	Medium	Strengthening of institutional policies and capacities of professional staff in matters related to biodiversity conservation in the coastal landscapes, improving interinstitutional coordination, monitoring and evaluation of these ecosystems.	Will provide technical training on specific topics within their technical mandate
Chilean National Forestry Corporation (CONAF) (Agriculture Ministry)	Chile's Forestry Department, under the Agriculture Ministry, is in charge of administrating national forestry policy, promoting sustainable use of the forestry resource.	Medium	CONAF is the LDN Focal point for Chile and is part of both the National Restoration Strategy and National Wetlands Committee. CONAF also manages the state protected areas, including several wetlands and their watershed	Supplying survey data on native forests and wetland monitoring data in the Project area, participating in the National Wetlands Committee, working in a team for drawing up a proposal of new standards for sustainable forest management in wetlands watersheds, and adapting accordingly the support instruments they administer, proposing new standards for sustainable soil management, financing initiatives which are submitted to them for sustainable management of forests in wetlands watersheds as well as studies in this realm.
Institute of Agricultural Development (INDAP)	Public Service under the Agriculture Ministry, whose objective is to promote and support sustainable agricultural	Medium	INDAP has institutional goals in line with the Project, such as promoting organic agriculture, best agricultural practices, designations by origin, and improvement of capabilities in best practices, with the intention	INDAP has Incentives System for the Recuperation of Degraded Soils, the Productive Alliances Programme, The Programme for Local Development, The

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
	development working with small producers.		of promoting sustainability of the agricultural environment, seeking to recover deteriorated soils and maintain their restored state. In synergy with this Project, they will promote fulfilment of these initiatives working with agricultural communities within the Project area in coordination with some municipalities.	Indigenous Territorial Development Programme, The Commercial Entrepreneurship Programme; The Rural Tourism; PROGYSO, Management and Organizational Assistance Programme. All of which can contribute to implementation activities in the pilot sites, especially regarding improving livelihood outcome of Component 3.
Chilean National Tourism Bureau (SERNATUR). Ministry of Economy.	Public entity under the Ministry of the Economy, they implement tourism development policy, taking into account the country's cultural, human, economic and environmental variables.	Medium	They have a program for sustainable tourism certification. Encourages the development of tourism as an alternative economic livelihood in the pilot regions. Through this Project, they will be able to demonstrate the potential for ecotourism development as an alternative economic livelihood. The Sernatur has the faculty to Formulate and develop norms, programs and projects tending to the preservation and conservation of the environment and its natural resources, what it realizes through its Planning Department, as well as to define plans, instruments and norms of use of soil and physical development in areas of tourist importance, according to the needs of the sector; Likewise, it elaborates plans of physical ordering like ZOIT (Areas of touristic attraction)	Promoting and incorporating best practices regarding wetlands under the sustainable tourism seal. They will support the regulation of tourism activities in the Area through sectorial instruments, publicity campaigns & related training programs, among others.
Port Authority	An agency of the Chilean Navy that enforces national laws and international agreements currently in force, in order to protect human life at sea and the marine environment and its natural resources. The agency also regulates	Medium	Increasing the institution's participation in protecting Chile's natural heritage	Responsible for protecting the coastal areas and ensuring their safety and the safety of those using these areas, the Port Authority will collaborate in Enforcement and Inspection.

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
	the activities undertaken in aquatic environments under its jurisdiction.			
CONADI (National Commission for Indigenous Development)	CONADI is the institution responsible for promoting, coordinating & implementing the activity of the State for the comprehensive economic, social & cultural development of indigenous peoples & communities, and for encouraging their participation in Chilean society.	Medium	Interested in insuring the development of Indigenous Communities in accordance with the Indigenous Peoples' Law. CONADI will sit on the Local Technical Committee in Araucania, in order to ensure respect for the rights of the indigenous communities involved in the Project. These local indigenous communities are also direct beneficiaries of the Project.	Demonstrating the usefulness of this type of project for the development of alternative livelihoods that take into account the values of local indigenous peoples.
Governmental Agencies. Local Level				
Municipalities within the Project area	The local governments of the municipalities located within the Project area. Among its administrative powers is that of promoting sustainable development within its territories.	High	Being the subsidiary public body and the one closest to the citizen, they have an important role in promoting local dialogue and initiatives. Through local environmental management, they are key in achieving the objectives of environmental and ecosystem services protection. By developing or incorporating environmental issues into routine municipal activities, they will be promoting sustainable development of their territories, in addition to being key agents for education and awareness initiatives, citizen participation, among others.	Play a key role in the Project as local coordinators of initiatives for recovery, land use planning and zoning, and environmental education. Implementing local environment protection legislation, which incorporates biodiversity management and conservation. Supporting coordination activities with the community (education and awareness) and working with productive stakeholders in the zone for promoting sustainable management of wetlands, soil and forests. Training of their personnel in environment issues. Providing political support for achieving the Project's objectives.
Regional Governments	State Entities which administer and govern the Provinces (groups	Medium	Regional governments are responsible for elaborating and approving regional social, cultural	They monitor results of the Project useful for their decision-making and

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
	of townships within a given territory), representing the Region's highest government authority. They implement the government's policies and plans of action at the regional level. Governors are the President's representatives in the Regions and preside over regional governments.		and economic-development plans and programmes and for assigning resources. Sustainable management of wetlands is in their interest under its responsibilities of promoting and supervising environmental protection and conservation and the development of production activities within a responsible framework. They can play a role in supervising the actions of public services within their territories as well as supporting coordination of work between the municipalities within each Province in the Project area. To coordinate the national policies of institutions directly involved in the Project. The Governor presides over the Regional Coastal Committee	planning activities in their respective territories, together with support in coordinating initiatives, which are carried out with the community and municipalities in each Province under this Project. Supports the development and/or consolidation of local economic activities arising from the Project. Demonstrating the political will to support projects that generate alternative livelihoods and promote the sustainable conservation of the natural resources. Driving new forms of development through low-impact productive activities such as special-interest tourism and ecotourism, among others.
Local Community and Producers				
Local Communities and indigenous people	Throughout the Project zone, there is a substantial number of small-scale producers (with up to 12 ha), organized local communities and indigenous communities in the areas of forestry, Agriculture, livestock, and of local tourism promotion initiatives. With the support of the Municipalities, Subdere, INDAP and the Agriculture Ministry, work will be carried out with groups representing each of the pilot watersheds, in order to promote sustainable land management and tourism initiatives.	High	Local-level consultations took place to identify needs, initiate dialogue and promote community participation in recovery and conservation activities. The Project will ensure a strong emphasis on gender representation during stakeholder consultations as well as gender-sensitive activities during implementation.	Local communities will participate actively in the design, planning and implementation of proposed Project activities.

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
NGO's	NGO's focused on conservation and sustainable management of wetlands and coastal landscapes. These include the Kennedy Foundation, WWF, Senderos de Chile, Cosmos, la ROC, CODEFF, AUDUBON International, MHS (Germany), among others.	High	As key institutions with wide experience in the research for conservation and recovery of Wetlands in Chile, there are several opportunities for alignment with this Project, especially with ongoing initiatives and involvement in the Local Technical Committees. Both international NGOs, Audubon and MHS, gave a cofinancing letter to the project, and are going to be the main support in South to South cooperation activities. Audubon with Climate Action Plan for the Americas and the Conservation Strategy for birds in the Pacific. MHS with Network of wetlands of the arid coast in the South American Pacific.	These organizations have insights into local socio-economic and environmental priorities related to community needs. They will provide technical support to Project implementation. The inclusion of NGO's will ensure that interventions address real priorities in local communities in a manner that is culturally sensitive and environmentally sustainable. They will carry out a fundamental role in publishing in their social networks the Project results and outcomes, supporting the Project's communications strategy, as well as supporting through replicas in their area of intervention and in the use of the methodologies and best practices generated.
Private sector	Within the Project area, there are numerous medium and large-scale producers in forestry, agriculture, livestock, and tourism, developing productive activities and services benefiting from coastal landscape ecosystem services. Work will be carried out with some of them, promoting practices which lead to sustainable management and protection of natural resources.	High	Forest companies, tourism companies, agricultural cooperatives and fisheries cooperatives will participate in public-private agreements to use better management practices to conserve wetland biodiversity and decrease land degradation. They will be part of the Local Technical Committees.	Private stakeholders will participate in public-private agreements in the implementation of Project activities, including recovery of degraded areas, development of best practices and protocols, and support in the communication strategy.
Small-scale forestry agriculture and livestock producers and tourism	Throughout the Project zone, there is a substantial number of small-scale producers (with up to 12 ha) in the area of forestry,	High	Better management of their operations/landholdings. Which will include best practices regarding wetland conservation and management, increases productivity, raises property value	Participation in the processes of training in best practices for sustainable soil and forest management and financial instruments, participating in local

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
	agriculture and livestock, and of local tourism promotion initiatives. With the support of the municipalities, Sernatur and the Agriculture Ministry, work will be carried out with groups int the pilot areas to promote sustainable management of water, soil and forests in wetlands watersheds.		and provides higher quality livelihoods.	science for wetlands watershed monitoring and in awareness campaigns on the compatibility of natural resources protection and productivity, as well as promoting organic production or similar techniques. Beneficiaries for implementation of pilot projects in best practices, promoting pilot projects in territorial productive networks, and implementing activities financed by existing instruments.
Civil Society Organizations and Communities	Each township involved in the Project has social territorial organizations, some of which the Project will work with, in coordination with the municipalities.	Medium	Fulfilment of own objectives and foundational aims, with participation in the Local technical Committees.	Citizen participation in the processes of education and awareness regarding the value of the natural resources within their territories, which results in improvements in the local communities' quality of life through opportunities for local employment from sustainable tourism and productive activities associated with the Project.
Children and adolescents	In each one of the townships involved in the Project area, there are several educational establishments for children of from 5 to 17 years of age, public, subsidized and private, some of which, in coordination with the municipalities, will be beneficiaries of the education programs to be created during Project implementation. Priority will be given to those schools with environment certification under the	Medium	Improved awareness of their surroundings, involvement in local science and monitoring programs.	Beneficiaries of the environment education programs emphasizing the importance of biodiversity conservation, knowledge of ecosystem services that nature provides, and the social, economic and environmental benefits of promoting sustainable development. Empowering local leaders from a young age, increases sustainability of Project actions over the long term.

Stakeholders	Role and Description	Impact Potential	Interests or Synergies with the Project	Potential Contribution to the Project
	EM's *SNCAE* Program, and those working with Arauco foundation programs.			
United Nations Environment Programme (UN Environment)	UN agency with the mandate to keep the environment under review and advice countries on environmental policy based on sound science.	High	UN Environment is GEF Implementing Agency. As such, it supports project development and supervision of implementation including Monitoring and Evaluation, ensuring fiduciary standards.	Support Project development and provide technical assistance during the full project cycle.
LDN focal point for Chile (Please note that the BD focal point for Chile is the Ministry of Environment itself as described above)	Comply with the country LDN Target Setting Programme and monitor its progress where the amount and quality of land resources, necessary to support ecosystem functions and services and enhance food security, remains stable or increases within specified temporal and spatial scales and ecosystems.	Medium	Coordination with the institution that will cover LDN measures in the Ministry of Agriculture, consolidated in the PPG phase. There is currently a renovation process in CONAF (the current focal point on LDN), whose responsibilities will be separated into two new institutions. One will be the Law Project for establishing the National Forest Service, and the other, the Proposed Legislation for establishing the SBPA (National Service of Biodiversity and Protected Areas), which will be part of the Environment Ministry.	Participate in the design of activities related to Chile's LDN targets as well as monitoring progress and contributions.

In addition, in order to gain a clearer perception of community organizations in each township associated with the pilot watersheds, in the design phase a study of the human environment was carried out, which allowed us to identify functional community organizations, neighbourhood associations and cultural organizations of possible interest as stakeholders in the Project, and these are presented in "5. Human environment report" in Appendix 17.

Baseline analysis and gaps

In the present baseline scenario, there has been progress regarding initiatives by the different stakeholders involved, including drawing up a Wetlands Strategy, a Wetland´s National Action Plan, and Proposed Legislation for establishing the Service for Biodiversity and Protected Areas (SBAP), but these efforts are just beginning to emerge, have not yet been consolidated and are going to require much effort to ensure successful implementation.

In the South-Central coastal wetlands, biodiversity and natural resources baselines exist, but there is neither systematic monitoring nor evaluation of their ecosystem services, nor interventions to promote a more integrated focus, at the watershed or the landscape level. There have been a few evaluations of the impact of industrial or construction activities, but no specific requirements focused on these issues within the Environmental Impact Evaluations of the SEIA (Environmental Impact Evaluation Service),

the Ministry of Public Works (MOP) or the Ministry of Urban Development (MINVU). Nor do the current Local Development Plans or Territorial Planning at the Subnational levels include specific frameworks for conserving or protecting coastal wetlands. More awareness is needed on the part of public stakeholders as well as the general public, regarding the role of the wetlands and the wider watershed in providing ecosystem and productive services, in addition to their role in protecting local biodiversity and their significance as rest stops for numerous species of migratory birds.

In addition n, Chile's South-Central area is the zone that concentrates the greatest proportion of this nation's population, with a growing housing sector, active deforestation processes going back to the colonial period, and ever more frequent droughts that contribute to an increase of forest fires within the wetlands watersheds or in neighbouring zones, all of which are threatening the adequate conservation of these ecosystems.

The proposed GEF Project will complement and augment on-going initiatives, helping to integrate those being carried out by different stakeholders on the national level, as described below.

2.6.1 Baseline analysis

Initiatives led by the Environment Ministry (EM)

In 2005, CONAMA's Steering Committee approved the National Strategy for Conservation and Rational Use of Wetlands in Chile, within the framework of the "National Biodiversity Strategy" of 2003. These processes come under the Biological Diversity Agreement (CBD, ratified in Chile in 1994), whose purpose is to compatibilize with the Strategic Plan for Biological Diversity (2011-2020), with an allocated budget for its updating plan of USD 910,000; and with the Aichi Targets, whose mission is to take the necessary measures to arrest the loss of biological diversity to ensure that by 2020, the ecosystems will be resilient and will continue to provide essential services. In this way, the diversity of life on our Planet will be assured, contributing to human well-being and to the eradication of poverty. It should be emphasized that this Strategy emerges as a complement to the international commitment with the Ramsar Convention, agreement which Chile signed in 1971.

In 2005, in addition to approval of the Strategy, the National Wetlands Committee was established, including 13 State bodies under the leadership of the Environment Ministry, who drew up the "National Action Plan for the Conservation and Rational Use of Wetlands in Chile" in 2016, with the support of different stakeholders from civil society led by the Environment Ministry. The cost of developing this Plan was USD 8,000, and the budget allocation for its implementation is in the process of being determined with the assistance of the GEF-NSBPA Project, together with the other Action Plans proposed in the Strategy. The purpose of applying this public policy instrument is to advance toward halting the deterioration and loss of wetlands and their watersheds and to actively promote their conservation.

Development and progress in the area of coastal landscapes, which takes into account the current state of these systems and brings us closer to understanding some of their characteristics, is based to some extent on studies carried out before the establishment of the National Wetlands Strategy (2005); these studies were undertaken by different stakeholders and national bodies, both public and private. The Ministry is working on the **Aquatic Systems Environmental Condition Monitoring Network**, with an allocated budget of USD 107,000 for the next 5 years, and whose purpose is to set up a network for monitoring the environmental conditions of aquatic systems through acquiring portable equipment to feed data into the wetlands monitoring system, for the Environmental Under-Secretary's future Coastal Wetlands Monitoring Network. In addition, an effort is being made to organize and catalogue all of this data for the purpose of defining and establishing the present state of Chile's wetlands; this corresponds with the establishment of the National Survey of Chilean Wetlands, carried out by the Environment Ministry in 2011 and updated in 2012, 2014, 2015 and 2018. The Survey includes a total

of 40,378 wetlands, corresponding to 1,317,704 ha of the national territory. Furthermore, this Survey includes the Chilean Ramsar Sites and those included in the State Protected Areas.

Despite the existence of this Wetlands Survey, it is essential today to take into account in defining their present state of conservation, not only the basic ecology of the wetlands, but also the relationship between the wetlands and people, essentially through the goods and/or services that they provide, these relationships or uses being often what generate the threats to the ecosystem, and consequently to humans' own well-being.

The EM has also established the Secondary Norms for Environmental Quality (NSCA), which is a regulatory instrument aimed to conserve and preserve aquatic ecosystems through the maintenance and improvement of continental and marine water quality. It evaluates the impact of pollutants and protects wetlands against eutrophication within a Landscape approach to maintain pristine environments in high biodiversity areas. Currently, there are four NSCA in force for rivers and two for lakes, while four more are planned. Though the project will be aligned with these regulatory instruments, and make advancements in term of data gathering, the project timespan makes it inviable to apply this norm to the pilot ecosystems.

In two of the regions within the Project's area of intervention (Valparaiso and BioBio), the EM is implementing the Programs for Social and Environmental Recovery (PRAS); the GEF Project will coordinate with these efforts since these are multi-sectorial work strategies that seek dialogue between the different stakeholders from the State, citizenry and industry, within territories that have historically suffered from highly complex social-environmental problems. The PRAS's mission is to improve its inhabitants' quality of life, making it possible for them to live in a pollution-free environment. Its implementation led to the establishment of Social and Environmental Recovery Councils (CRAS) where priorities were identified for environmental recovery as well as for what the community expressed as their most important problems and the situations they hoped to achieve, defining objectives, shortfalls and obstacles, proposing options for solving them to be considered and implemented by all the stakeholders in order to reach a sustainable existence between industrial activities, protecting the environment and social equality

In the BioBio Region, the EM is also in charge of the Program for Recovery of Environmental Services in Arauco Province (PRELA), an FNDR project (National Fund for Regional Development), which seeks to promote maintenance and recovery of the ecosystem services provided by the Lanalhue and LleuLleu Lake watersheds, in order to increase this territory's competitiveness. Its objectives include establishing governance, ecological recovery, and transfer of knowledge and capabilities useful to the GEF Project, which will constitute a significant part of the co-financing of this institution, both in developing methodological guidelines and as a source for sharing experiences in restoring wetlands and their watersheds.

In the realm of landscape recovery, the EM is in charge of the National Landscape Restoration Strategy: regarding the issue of governance, this Ministry carried out a technical assistance activity with the support of the Center for Climate Change Technologies and Networks (CTCN) and the CATIE (Costa Rica's Center for Tropical Investigation), making it possible, through analysing stakeholders and recovery initiatives in the O'Higgins and Maule Regions, included within the GEF Project's area of intervention, to propose a platform for multi-scale governance, taking into account local, regional and national levels. The base unit for governance are the territories containing recovery initiatives. The EM, within the framework of the National Landscape Restoration Plan, to be developed during 2019, hopes to adapt this model to all Chile's regions as part of a recovery management rationale. This focus could contribute to optimizing public policy efforts in the area of biodiversity, directing them to where they are most effective from a socio-ecological and economic point of view. In this way, they would be addressing one of the system's present shortcomings, characterized by scattered and isolated initiatives, and especially the insufficient advantage taken of

opportunities for synergies in the territories under recovery or with a potential for recovery. This occurs because of a lack of knowledge, visibility, appropriation, connection and continuity in promoting actions. In order to adopt this model, it is necessary to generate a structure of relationships between stakeholders on the territorial, general and local levels, and establish an adequate operational, decision-making and communications management framework. The advantage of the EM-CTCN-CATIE technical assistance model is that it provides the elements for constructing this governance structure and putting it into operation, and wherein this GEF Project has a significant role in progressively applying this governance model in its pilots.

The EM is in the process of obtaining approval of the SBPA (Service for Biodiversity and Protected Areas) by Congress. Even if the proposed legislation is approved during the Project implementation phase, there will still be a few years of installation and consolidation of the SBPA. Nonetheless, the Project could pilot some of the SBPA instruments in field interventions of component 3. The instruments are:

- Management Plans for Conservation (Ar. 42 law 19,300), where compliance will be mandatory, and it will establish management plans for NRM with requirements for natural resources use permits, use of pesticides and other agro-chemicals, alteration of fluvial, river, wetlands or lake systems and species hunting control, among others.
- Ecological Recovery Plans, which will cover measures and actions leading to the recovery of degraded ecosystems, developed by Municipalities with Regional Governments and the EM regional bodies (SEREMIA's).
- Conservation Landscapes, recognizing that Municipalities with associated stakeholders can apply to the SBPA, with the benefit of priority access to incentives and other instruments.
- Biodiversity Compensations, where the Service will define criteria and standards for recovery and conservation practices that can be presented for compensation payments, from an SBPA PES fund.
- Certification of Sustainable Practices in high biodiversity and priority areas, through SBPA Eco-labels that certify the incorporation of sustainable management practices in productive activities.
- Certification of Biodiversity and Ecosystem Services, as a system for recognition of activities, practices or territories that contribute to the conservation of BD and maintenance and recovery of ecosystem services, such as private areas for conservation, deforestation/reforestation with high priority species, species with conservation issues or degraded lands in high BD areas.

Initiatives led by other public institutions

The General Water Department (DGA), that has an institutional annual budget of USD 30,243,632, under the Ministry of Public Works, has a real time Hydrometeorological Satellite Service, where it is possible to request data obtained from satellite receptor stations located in Chile's main hydrological watersheds, as well as the Water Quality Monitoring Network, which reports data such as temperature, pH, dissolved oxygen levels, electrical conductivity, etc. The lake water level monitoring stations measure water levels in these bodies of water, making it possible to follow variations and volume over specific time periods. In addition, the sedimentometric stations make it possible to estimate the total sediment load of a flow, as well as soil loss by erosion, or the amount of sediment deposited on natural and artificial (dam) lake bottoms. The lake and lagoon water quality control Network takes into account a total of 20 bodies of water located in the Central and Southern macro-zones that are monitored periodically to determine their degree of trophia, established on the basis of three parameters: Phosphorus, Nitrogen and Chlorophyll.

The Port Works Department (DOP), that has an institutional annual budget of USD 122,535,629, under the Ministry of Public Works, is developing infrastructure in the coastal areas of Chile, such as port and piers construction and improvements, walking pathways and sightseeing platforms, together with loading docks and bays for fishing activities. Thanks to the GEF funding, the DOP will be able to integrate protocols and guidelines to preserve wetlands into their development processes.

The BioBio SUBDERE is financing a project for characterization and exploitation of this pilot region's hydrological system, with a strategic study for re-evaluating the network of wetlands in and around the city of Concepción, with a budget of over USD 170,000, where the goal is to seek to enhance these ecosystems through creating infrastructure, recovery efforts, and awareness building regarding their importance for the region's sustainability. With the GEF Project, we hope to replicate these initiatives in other regions within the GEF's area of intervention.

The General Department of Oceanic Territories and Merchant Marine (DIRECTEMAR), with an institutional annual budget of USD 127,000,000, has at its disposal the Program for Observation of the Coastline Environment (P.O.A.L. in Chile), which was set up to monitor annual fluctuations in the levels of concentration of the main components of domestic, industrial, petroleum hydrocarbon and POC effluents in bays, lakes and rivers under DIRECTEMAR's jurisdiction. Under the P.O.A.L., the levels and concentrations of the main pollutants are determined and evaluated both in coastal and sweet waters, their main focus being those bodies of water in Chile that are subject to a greater level of use or intervention. The potential effects of two major factors are taken into account: waste from activities being carried out on land adjacent to the body of water (industry, sanitary services, etc.), and the impact generated by those activities carried out within the body of water itself (such as fishing, aquaculture, beaches, boating, etc.).

The Municipality of La Serena, where the Elqui pilot wetlands are located, has developed together with the Serena University, a series of community talks and educational field trips related to conservation and biodiversity and the importance of the wetlands, in order to increase awareness in the community. The Municipality of Quintero, where the Mantagua pilot wetlands are located, has entered into the Environment Ministry's basic environmental certification process: in this township, work is being done on environmental education, environmental audit, and integrating environmental aspects into the land-use planning and management program. The Municipality of Pichilemu, where the Cahuil pilot wetlands are located, has obtained support from the EM (Environmental Ministry) Environmental Protection Fund (FPA) for a project to contribute to the conservation of the wetlands through a local environmental program, with a cost of USD 34,000. The municipality of Tolten, where the Quelue pilot wetlands are located, has also received funds through the FPA to create a germplasm bank for high biodiversity value species in the wetlands and its watershed, with a cost of USD 43,000. Investments by municipalities are substantive and vary widely throughout the Project implementation area.

Initiatives led by Civil Society

A series of projects from the EM's Environmental Protection Fund (FPA) have made it possible to finance studies by different NGO's within the selected pilot ecosystems, including in the Cahuil Wetlands, a project for local environmental management as a contribution to conservation of coastal wetlands; in the Valparaiso Region, a project for conservation of the most significant wetlands in the heart of the township, with a cost of USD 34,000; another for the conservation of a network of wetlands in the region, with a cost of USD 30,500; yet another with the Mantagua Wetlands which are part of the conservation hotspots in the Valparaiso Region. The FPA, has an annual budget for conservation and biodiversity projects of USD 253,000 for the regions in the South-central part of Chile, and in the past 5 years has financed USD 135,833 in environmental projects related to wetlands in that part of the country.

The NGO Audubon International, a co-financing partner of this Project, has been working on the Conservation Strategy for beach fowl on the American Pacific Route, wherein they establish conservation objectives for these beach fowl, identify the main threats and the most efficient actions for restoring and maintaining populations of these birds all along the American Pacific migratory route. Jointly with national NGO's, such as ROC (Network of Observers of Birds and Wildlife in Chile), they drew up the Atlas of Chile's Beach Fowl, identifying significant sites for conservation, and whose on-line site provides data to the EM's Wetlands Platform. Audubon together with the Chilean NGO CODEFF (Corporation for the Defence of Flora and Fauna), are making efforts to obtain funding for assessing the value of the ecosystem services provided by the Rocuant-Andalien wetlands, which will be carried out together with this Project.

The German foundation MHS together with the Neotropical Center for Training in Wetlands, along with several NGO's and representatives of Chile's Academia, are working on the Initiative for the Conservation of Coastal Wetlands and Beach Fowl in the South American Pacific Arid Coast, which will include an Action Plan and a series of specific projects in Peru, Ecuador and Chile. These efforts will generate data and synergies with the GEF Project, providing inputs to the platform and working in the areas of environmental education, publicity and building awareness regarding the importance of these coastal ecosystems.

Initiatives led by the private Sector

Forestal Arauco, the second largest forestry company in Chile, is among the Project's private partners. It has a significant presence in the watersheds of 2 of the Project's pilots, holding over 400,000 hectares of High Conservation Value land, and their experience will contribute to networks and issues of environmental education, with their Arauco Educational Foundation program, together with the Bioforest Research Center, which is monitoring points of water capture and biodiversity as well as carrying out soil studies, complementing the data base the Project has on these watersheds.

Two property development companies have projects in different stages of development in Rocuant-Andalien pilot landscape, and initial conversations took place in the PPG phase with both these companies to develop better construction practices and increasing awareness regarding the wetlands' ecosystem services, which will deepen on implementation stage. In order to increase the impact of these activities to other property development companies, an agreement is in discussion with the Chilean Construction Chamber of the BioBio Region, and they will become part of the stakeholders of the BioBio Local technical Committee

Several small-scale initiatives by local stakeholders are currently taken place in the pilot landscapes in terms of agricultural activities, salt extraction, tourism and fisheries. Throughout the planning stage, and mainly through the Municipal staff, these actors were contacted, invited to the project workshops and meetings, were made aware of the initiatives and became part of the participatory planning process for the implementation stage. Several private sector stakeholders are part of the Local Technical Committees of their respective pilots, See "11. Local Technical Committee Commitment Letter of Araucania Pilot Landscape" in Appendix 17, as an example of the stakeholders involved.

2.6.2 Gap analysis

The above-mentioned initiatives have not been able to halt the loss of soil or biodiversity in the coastal ecosystems, being of particular note the superposition of tasks or regulatory anomalies: on the one hand, the State promotes protection instruments, but on the other, it finances initiatives that fly in the face of those instruments (irrigation and drainage incentives, landscape and ecosystem fragmentation for building highways, riverbed modification for public works, discharging liquid wastes into bodies of water, build-up of sediment because of changes to the ground cover, among others). Regulations have been designed in a singular context, where attributions are assigned in accordance with the

sectorial functions of Public Services, and to date no meaningful coherence has been achieved, in terms of environmental sustainability, in particular with regards to coastal landscapes.

In summary, regarding **legal and regulatory gaps**: at present, gaps persist in terms of the tools necessary for regulating wetlands and their watersheds, so that a situation persists consisting of management shortcomings, and ecological criteria that are non-existent or inadequate for avoiding undesired impacts, in particular when dealing with activities that are not subject to the System of Evaluation of Environmental Impact.

One of the norms that could have direct implications for safeguarding water quality in coastal systems are the so-called Emissions Norms, whose purpose is to establish what the maximum allowed amount of a contaminant is, as measured in the effluent of the emitting source, whose presence in the environment, at certain concentrations, can constitute a risk to people's health, to the population's quality of life, to nature preservation or to conservation of the natural heritage. The decree that ratifies this norm is **DS 90 for the year 2000**, first revised in 2013; one of the main failings of this norm is that it does not take into account sources of emissions in the terminal zones of rivers or lakes, that is, estuaries.

There are **Information Gaps** at the national level, data is dispersed in different or incompatible formats, and inconsistent in terms of information monitoring and the analytical methods applied to its analysis, with few experiences on ecosystem services evaluation. At the local and municipal level, data on biodiversity and environmental information is insufficient and the know-how for processing the information for adequate decision-making is limited.

One of the systematic and immediately available measurements concerning the condition of some wetland watersheds, available through the Environment Ministry, is the monitoring that has been carried out since 2011, and which shows progressive deterioration of the wetlands and a tendency toward eutrophication and hyper-eutrophication (MMA, 2011, 2013). In the BioBío Region, for example (MMA, 2011), of the 11 systems evaluated, 72% are in a bad or very bad state of conservation; regarding the coastal sub-basins between the Andalién and BioBío Rivers, in a total of 12 systems evaluated, 83% were found to be in a bad or very bad state of conservation. This information has only served to underline the problem but has not contributed to any of the necessary corrections to the norms, nor to changes in productive practices, at least not in the GEF Project pilot sites.

In Chile, in terms of **management gaps**, territorial planning instruments are oriented toward organization of urban territories, leaving the natural areas with no limitation to their use, a situation which promotes the establishment of bad practices in land use, counteracting the biodiversity conservation efforts existing in these areas. Intersectoral coordination for management of coastal areas is insufficient, several government services having overlapping mandates, and there is little experience in integrated interventions for diversifying ways of life for coastal communities. In addition, these communities face difficulties in obtaining State funding because of their limited ability to prepare proposals and complete the procedures for competitive funding. In terms of gender issues, not enough importance is given to women's role nor that of other family members in the development of productive initiatives.

There are also **Gaps in Public awareness,** with local interest regarding the importance of biodiversity conservation and coastal ecosystem services being relatively new. People (both the community and the decision-makers) are concerned about the increased water shortage and soil degradation, but they rarely associate the provision of other ecosystem services with coastal landscapes. Without public awareness, effective and long-term conservation cannot be achieved. For this reason, the Project

expects to establish a solid communication and environmental education strategy, to increase awareness and promote best practices for sustainable soil and water resources in the catchment areas.

2.6. Linkages with other GEF and non-GEF interventions

The Environment Ministry, through its Natural Resources Division, will establish communication and coordination mechanisms with other relevant GEF and donor projects under development or implementation with thematic links to this Project's objectives. Among the ongoing GEF projects of relevance for this initiative, are:

GEF NSBPA (implementing agency: UNDP) is currently under implementation at both the national and local (regional) levels. The regional workshops it holds develop regional strategies that contribute to the National Biodiversity Strategy and its Action Plans. These workshops are facilitated by the EM, which can coordinate its results for contributing to the present proposal.

GEF ID 4104 Sustainable Land Management Project (implementing agency: World Bank). The activities that this project is funding would benefit from the mainstreaming of sustainable land management that the Project is bringing to Chile's agricultural and forestry incentive policy. This Project will fund local activity in different areas from the ones in the above-mentioned Project. The EM's Natural Resources Division participates in both Projects and will ensure the adequate flow of information between them.

The GEF ID 2391 UNEP Project "Financial Guidance for Businesses Based on Biodiversity, and Support for Market Development Activities in the Andean Region" which finished in 2014, generated important lessons regarding value chains and the practical application of biocommerce principles and criteria, as well as being a reference in methodology for market studies for sustainable products, among others.

GEF ID 5135 Protecting Biodiversity and Multiple Ecosystem Services in Biological Mountain Corridors in Chile's Mediterranean Ecosystem. Synergies with this project in the evaluation and assessing of ecosystem services will complement the different regions the Projects will be working on, the Andes and coastal areas, adding at the national level to mainstreaming biodiversity and conservation issues. There will also be synergies with this Project in the realms of ecological planning on the level of sub-basins, monitoring biodiversity, and the efforts carried out regarding governance and establishing municipal ordinances with a focus on environmental issues, where the available methodologies can be fully exploited.

GEF ID 5429 Mainstreaming the Conservation, Sustainable Use and Valuation of Critically Threatened Species and Endangered Ecosystems into Development-frontier Production Landscapes of the Arica y Parinacota, and Bio Regions. With the EM's Natural Resources Division participating in both projects, synergies can be developed to highlight the importance of wetlands ecosystems, both in provision of ecosystem services and as the habitat of endangered national species.

GEF ID 4968 Integrated National Monitoring and Assessment System on Forest Ecosystems (SIMEF) in Support of Policies, Regulations and SFM Practices Incorporating REDD+ and Biodiversity Conservation in Forest Ecosystems. This FAO project is also acting as implementing agency for the implementation of this national forest inventory project to collect accurate data and information related to natural forest and plantations, for better planning, management and policy monitoring. It develops an inventory methodology to assess forest cover, use and users of trees and non-timber forest products (NTFP) including biodiversity. The project has recently started with the support of the forest assessment team at FAO HQ, in collaboration with the Institute of Forestry (INFOR).

The GEF ID 4939 *Support to Civil Society and Community Initiatives for Generating Global Environment Benefits through Subsidies and Small-Scale Credit in the Mediterranean Eco-Region.* This UNDP project is working with associations and/or networks of base civil organizations in order to obtain financing, through small-scale credit, for agricultural practices which promote sustainable management on the scale of the landscape, in order to maintain and improve the flow of ecosystem services in productive landscapes in Chile's Mediterranean eco-region extending from Atacama to Aysén, utilizing a variety of financing mechanisms which exist in Chile. This project is implementing actions for improving the capacity of community organizations for integrated management of their territory. During the design phase, synergies and lessons learned between these projects were identified, including (i) Improvement of civil organizations' capacities in the realm of best agricultural practices and integral management of the landscape; (ii) Constructing a vision of a productive landscape and governance on the part of civil society, that is to be carried out in some territory common to both projects, and this will serve as input to consider when drawing up indicative plans and land use Ordinances; (iii) the environmental information and monitoring system to be carried out by this Project will serve as input for the wetlands platform of the EM, and (iv) there will be a common language for identifying and promoting what are to be considered best productive practices in the realm of agriculture in both projects.

The GEF ID 10075 *Strengthening management and governance for the conservation and sustainable use of globally significant biodiversity in coastal marine ecosystems in Chile*. The objective of the project, which is in the PIF stage, is to develop and implement a governance system that integrates, coordinates and links public, private and civil society institutions for the conservation and sustainable use of coastal marine ecosystems. The project will: (i) develop a participatory model of governance and management based on coordination, articulation of public, private and civil society stakeholders in order to conserve and make sustainable use of coastal marine ecosystems; (ii) promote a common vision of the territory with its relevant stakeholders and tools available under a spatial planning and adaptive management approach to improve the conservation and sustainable use of coastal marine ecosystems; and (iii) strengthen management programs for marine protected areas in coastal marine ecosystems with biodiversity of global significance. Though there are strong synergies in terms of governance aims between the two projects, differences exist on the mainstreaming objectives. The GEF ID 100075 project will focus on supporting the introduction of the ecosystem approach to fisheries into Chile's land use planning process and it will support the improvement of production and capture practices currently used by small-scale fishermen and women. The 9766 project will have a stronger focus on mainstreaming biodiversity conservation and sustainable land practices as a requirement for integrated land and water management from source to sea at the landscape level.

SECTION 3: INTERVENTION STRATEGY (ALTERNATIVE)

3.1. Project rationale, policy conformity and expected global environmental benefits

In terms of GEB's in the LD focal area, the Project will promote Sustainable Land Management in coastal areas of the associated districts. It will do so combining two lines of action: a) introducing an innovative integrated land use planning approach that has not been used so far in this densely populated section of the country, and b) on-the-ground application of SLM practices and productive protocols in key sectors such as agriculture, forestry and tourism, but also in regards to infrastructure and construction which have a significant bearing on integrated land use planning and effects on ecosystem health. This will bring together stakeholders at multiple levels, led by the Environment Ministry at the national level, and engage public and private partners from the relevant sectors at the

subnational and local levels. Through this landscape approach, benefits will be achieved in environmental, social and economic aspects. For the environment, long term benefits will be associated with securing goods and services from healthier ecosystems while in the short term, more tangible benefits include soil fertility and overall health and productivity, reduced contamination and degradation of the land-water-vegetation continuum from source to sea, soil and water conservation, improved water supply in quantity and quality for multiple uses, among others. The socio-economic benefits provided by the Project are expected to include increases in the incomes of local stakeholders since their participation in applying sustainable production protocols will translate into improvements in their livelihoods associated with increased productivity of the land on one hand, and on the other, the development of new services associated with sustainable tourism and with the application of incentive schemes for products generated from sustainable practices.

Regarding GEB's in the BD focal area, the Project will address the direct drivers of global biodiversity loss and land degradation in 290,000 ha of coastal wetland landscapes in the Mediterranean eco-region of Chile recognized internationally as one of the 34 priority sites for conservation of biological diversity in the world, having the highest endemism rate of flora and fauna species in the country, while being the least protected in terms of surface area, the most intervened historically, with the highest rate of current construction and development works, and the most populated region of the country, with 85% of the inhabitants in 25% of the surface, by promoting action at the level required to effect real change. Conservation of threatened species will thus be promoted, but also the inclusion of endemic species that have not yet been incorporated in the global level records and therefore require urgent assessment and protection. Most relevant species included in the IUCN Red List are: in Critically Endangered category: *Numenius borealis, Eriosyce chilensis, Rhinoderma rufum, and Telmatobufo bullock*, 3 of them endemic only to Chile; in the Endangered category: *Lontra feline, Liolaemus leopardinus, Eriosyce aspillagae, Chelonia mydas, Echinopsis bolligeriana, Araucaria araucana, Eupsophus contulmoensis, Eupsophus migueli, Eupsophus nahuelbutensis, Lontra provocax, Pelecanoides garnotii, Pitavia punctate* and *Pseudalopex fulvipe*, 6 of them endemic only to Chile; and in the Vulnerable category*: Caudiverbera, Jubaea chilensis, Rhinella atacamensis, Dermochelys coriacea, Leopardus guigna, Lepidochelys olivacea, Alsodes barrioi, Alsodes montanus, Alsodes tumultuosus, Buteo ventralis, Octodon bridgesi, Rallus antarcticus* and *Rhinella rubropunctata*, 6 of which are endemic only to Chile. There are 50 species, all of them endemic only to Chile, which have not been assessed by the IUCN, but have in the Chilean National Classification System the status of Critically Endangered or Endangered. (Refer to "6. Biodiversity report" in Appendix 17 for a comprehensive list of these species.) The Project will address the fact that biodiversity management efforts are not being properly considered in decision-making in other ministries or productive sectors affecting coastal wetlands. Therefore, the Project will work on stimulating the demand for better information about biodiversity at development decision points and within development processes and systems, as well as the successful provision of that information efficiently and cost-effectively over the long-term. The global environmental benefit of the Project is to reduce the development drivers affecting biodiversity loss and land degradation in coastal wetlands of south-central Chile, through demonstrated efforts in five pilots (21,000 ha) but achieving national scale results on this front through a pro-active up-scaling and replication strategy.

The proposed Project will ensure the conservation and protection of ecosystem and species biodiversity of global importance. In addition, the Project will provide important global benefits through the maintenance of vital ecosystem processes and services. For example, many of the internationally significant wetlands are critical migration stop-over sites for water bird species. The sites also provide important food sources for fish, act as spawning grounds and nurseries, provide critical fish migration paths, contribute to water quality improvement, water storage, aquifer maintenance and climate mitigation.

Wetlands and their watersheds provide various livelihood and economic opportunities in fishing, agriculture and tourism and associated employments. They also offer opportunities for public education, awareness and enjoyment, and living laboratories for continued biological exploration and study. Implementation of integrated management plans would provide a more stable environment, in which both communities and business can thrive, including a more balanced local economic development path, with specific focus on ensuring reduction in vulnerabilities and enhancing capacities of the coastal-landscape dependent communities through integrating sustainable livelihood options within implementation plans, with a focus on achieving gender equality. The global benefits of the Project to be achieved through its integrated recovery plans are the maintenance of the range of environmental services and products derived from coastal wetlands, the reduction of soil loss and degradation, and enhanced sustainable livelihoods for local communities.

3.2. Project goal and objective

Because of the current barriers and present conditions in the coastal landscapes in Chile's South-Central area, this Project will adopt an inter-institutional and landscape focus for the conservation and recovery of globally significant biodiversity. An integrated management focus is indispensable to ensure provision of the multiple ecosystem services, and to maintain functional and productive landscapes. Within this integrated focus, sustainable management becomes a strategic element for reducing pollution and for halting the reduction of coastal landscape surface areas, these being important "drivers" in the reduction of species biodiversity and the variables which most affect the provision of multiple products, services and benefits that are characteristic of healthy and functional ecosystems. A key element of the Project is harnessing data and information on results and activities implemented in the pilot ecosystems for evidence-based decision-making and learning at different levels, resulting in enhanced efforts to mobilize investments in measures to protect these ecosystems, and fostering a stronger multi-stakeholder collaboration, particularly with the private sector, for greater efficiency.

The Project's **overall objective** is to conserve and recover coastal landscapes (CL) including wetlands and adjacent watershed territories, integrating them into local development, through their sustainable management and use.

3.3. Project components and expected outcomes

In accordance with the GEF guidelines, the Project's Components will make a contribution to the following programs:

Under BD-4: Mainstreaming biodiversity conservation and sustainable use in production landscapes and seascapes and production sectors, the Project will be aligned with Program 9: Managing the Human-Biodiversity Interface. It will contribute to Outcome 9.1 "Increased area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management" and to Outcome 9.2 "Sector policies and regulatory frameworks incorporate biodiversity considerations" by incorporating coastal area landscapes into sustainable production protocols and mainstreaming biodiversity into policy and programs. It will do so through i) increasing knowledge of the importance of key BD conservation and SLM for ecosystem and socioeconomic services provision, as well as of management practices for sustainable use of natural resources in coastal landscapes, ii) mainstreaming ecosystem services and biodiversity into regulatory frameworks by increasing capacity of national and local stakeholders to manage landscapes sustainably, iii) shaping policy and development projects of relevant institutions to include sustainable management and conservation as well as protocols of best practices, and finally iv) piloting the regulations and

protocols on-the-ground through the use of environmental considerations for sustainable production and conservation in the field, for a number of production and infrastructure sectors, both public and private.

Under LD-3: Integrated Landscapes: Reduce pressures on natural resources from competing land uses in the wider landscape; the Project will be aligned with Program 4: "Scaling-up sustainable land management through the Landscape Approach". It will contribute to Outcome 3.1: Establish support mechanisms for SLM in wider landscapes, and Outcome 3.2: Integrated landscape management practices adopted by local communities based on gender sensitive needs. The LD strategy for GEF 6 lists a number of support activities that are exceptionally well aligned with the landscape level approach that this Project is proposing. The Project's lines of action listed here paraphrase the strategy's support activities and are to some extent copied verbatim: i) develop institutional capacity and promote financial mechanisms for sustainable land management; ii) provide support to enhance current practices and develop new ones for reducing the pressures and competition between land use systems; iii) apply integrated watershed management, including wetlands and mountainous regions where SLM interventions can improve hydrological functions and services for agro-ecosystem productivity; iv) develop multi-stakeholder landscape ecological and restoration planning, involving both public and private sectors to inform decision-making on integrated management of ecosystem services; v) improve agricultural land management near areas that require protection, including through empowerment of local communities.

In Appendixes 4 and 5, the Logical Framework and the Work Plan are presented, with details of the activities, outcomes and indicators for each component. These components are described below, with their expected outcomes and outputs:

Component 1: Information management and outreach for mainstreaming sustainable coastal landscape management

In this component, the GEF's incremental financing will support achievement of Outcome 1.1 Decision-makers and relevant stakeholders are aware of and appreciate the importance of BD conservation and LD problems in coastal landscapes by means of more and better access to information regarding the ecosystem and socio-economic services they provide.

In this Outcome, the focus will be on generating additional key information for improved sustainable land management as well as regarding information gaps of globally relevant biodiversity. This is incremental and complementary to the existing databases regarding the ecosystem services that coastal ecosystems provide at the watershed or landscape level, with inventory, classification and map of land use degradation and ecosystem services evaluation, data on conservation status of little-known endemic species of flora and fauna, the productive use that is currently being given to the coastal wetlands' natural resources, with particular emphasis on those uses which impact the ecosystems' functionality, in addition to the livelihoods of smallholder communities, value chains of the products coming from wetlands landscapes and markets of these products, with proposed optimal economic and environmental land use arrangements for areas of multiple demands between environmental and economic priorities.

This information will be obtained in a participative manner and jointly with the different agencies, institutions and communities involved in the pilot ecosystems, which will serve to inform both society and decision-makers in a regular and systematic manner, through a communications strategy that makes it possible to reach national, sub-national and local levels, in addition to improving the EM's wetlands platform and other information management mechanisms that will constitute inputs to this strategy.

Output 1.1.1 Quantified ecological and socioeconomic assessment of Coastal landscapes including wetlands and adjacent watershed territories, with biodiversity inventory; Ecosystem Services

Evaluation Report; definition of wetlands extension and buffer zones, Proposals for studies and programs on value added for watershed hydrological system

The reason for having five pilots in the project area is because each pilot will play a relevant role in generating the data and evidence necessary for demonstrating the need to apply a focus that considers the whole watershed, with strengthened inter-institutional coordination and with productive sectors applying environmentally sustainable practices for conserving and sustainably managing coastal landscapes. Each one of the pilots will contribute concrete evidence according to their individual realities regarding threats and present circumstances and will therefore make it possible to have a wide range of options that can be replicated in similar situations.

Within this Output, an evaluation of EESS will be done in two pilot sites, Elqui and Rocuant-Andalien. The pressure from housing construction and urban development in these wetlands and their watersheds is the greatest, with a relevant problem of being an ecosystem invisible to the population at large and the decision-makers in particular. A focus of their EESS assessment will be on their buffer effect in the face of natural disasters such as tsunamis and earthquakes, so common in this zone, and the economic losses that could be incurred if this natural infrastructure did not exist as an integral part of territorial planning. The results will be presented as part of the communications strategy, being put forward in different communications media, and via an international seminar organized jointly with the partner institutions, for the purpose of generating awareness among professionals and decision-makers, together with support on the part of the citizenry. During the PPG stage, an analysis of the different environmental services evaluation methodologies available for use during Project implementation was carried out ("7. Ecosystem Services evaluation methodologies" in Appendix 17).

For all the five pilots there will be a consultancy at the onset of project implementation to define the wetlands' limits and buffer zones, saline intrusion, and hydric balance. This became a cross-cutting necessity across the pilots in the participatory workshop conducted in the PPG phase, since it is necessary for the correct development of the integral management plans, restoration activities and planning instruments in each ecosystem.

Because of their historical threats of spills, in the Elqui and Mantagua pilots, a diagnosis of pollution sources and impacts at the watershed level will be conducted for improving management, inspection and law enforcement.

In the Cahuil pilot watershed a hydrodynamic study of terminal bar movement and estuary will be conducted at the initial stage of implementation for the purpose of evaluating the potential effect of the construction of coastal waterworks on the trophic status of the wetlands. This problem became evident during the participatory workshops, where the salt producing sector was at odds with the fisheries and tourism sectors, regarding the level of salt in the water necessary for their respective production activities.

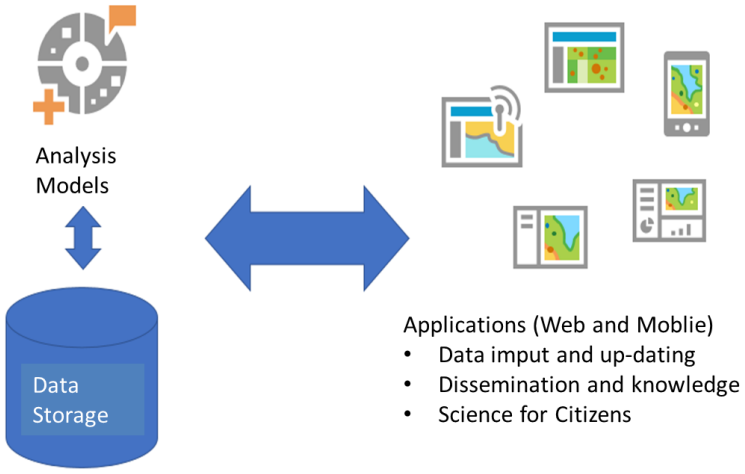
A social, economic and ecological baseline, with data on biodiversity, production sectors and activities, population growth, community organizations, territorial planning assessment, health status of the ecosystem, both in terms of land degradation and water quality of the wetland and their watershed, are available as part of the analysis conducted during the PPG phase (please refer to sections 3, 5, 6, 12, 13 and 14 of Appendix 17 for more information)

Another part of this output is to systematize the methodologies implemented in the different pilots in a manner that they can be replicated.

Output 1.1.2. EM Wetland Platform containing processed and integrated information including inventory, monitoring system, Ecological and socio-economic data, and maps regarding priority zones as a decision-making aid for conservation of private or State coastal landscape

The Project will work on the improvement of the Environment Ministry's Wetlands Platform, which is currently operational (https://humedaleschile.mma.gob.cl/), and is going to be scaled up in efficiency, data availability and accessibility. The aim is to have a centralized information platform for decision makers, technical professionals and civil society. There will be a strong focus on the involvement of civil society through participation in citizen science through: i) the development of Citizen Monitoring Programs in the pilot ecosystems (See output 3,1), which will contribute to the platform data; and through ii) the smartphone applications "Collaborative Wetlands", where through a photographic presentation of the wetlands made by civil society, graphic information can be gleaned regarding Chile's wetlands to support the inventory and information distribution

The basic conceptual model consists of having available a store of data, data analysis and applications for each need. There will be a GIS site and different applications for displaying data.



This Platform will be made inter-operational by conversing with the platforms of State departments that are Project partners, such as the databases of the Ministry of Public Property, Directemar, Agriculture, Public Property, among others. The plan is to create a system with a geospatial database model that is relational, standardized, homologous, and scalable, where all viable existing elements will be incorporated from the databases of the Natural Resources and Biodiversity Division and other GEF projects such as beavers, mountain corridors, MST, and SIMEF.

In the process of improving the system, the project will also address designing the protocols for incorporating new information from other projects and consultancies, generating specific temporal models, for the purpose of facilitating access to information as a way of supporting the development of activities and strengthening the environmental institutionality in the area of Biodiversity. The results anticipated from improvement of the platform include the following: Better and greater efficiency and effectiveness in decision-making, because of the availability of more and more easily accessible information, both for the community and the decision-makers; this improved platform will provide an invaluable tool for drafting Public Policy, making available wetlands inventories along with the activities being carried out in their associated watersheds, with both biological and socio-economic baselines; this will make it possible to draw up policies, plans and programs to be adopted with greater information support; and this platform will constitute a vital virtual bridge between Academia and the Chilean State.

Output 1.1.3. Outreach and dissemination strategy for mainstreamed BD conservation and SLM in coastal landscapes based on the systematization of project tools, methodologies, results and findings

The strategy will carry out communications campaigns at the national level and with a special focus on the pilot landscapes. The campaigns will seek to increase awareness regarding the ecological significance of coastal landscapes and SLM, the importance of provision of ecosystem services and how to create less negative impact from agriculture and other production sectors on the wetlands and their watershed. More details about the communications strategy and its associated gender focus to be found under section 3.10. Public awareness, communications and mainstreaming strategy.

Component 2: Institutional and regulatory frameworks strengthened

Under this component, the GEF's incremental financing will support achievement of Outcomes 2.1 Improvement in institutional and technical capability for Integrated Landscape Approaches for SLM and BD conservation in wetlands landscapes of South-central Chile, and 2.2 Incorporating regulations and criteria regarding BD conservation and SLM in coastal wetland landscapes into the strategies and mandates of the EM, the Ministry of Housing and Urbanization (MINVU), Ministry of Public Property (MBN), Subdere, Ministry of Agriculture and, Ministry of Public Construction (MOP) through DOP and DGA increasing the Project's scope to 290,000 ha.

Given the importance of establishing capabilities to ensure good, sustainable management of coastal wetlands, Outcome 2.1 constitutes the basis for the Project's sustainability and the institutionalization of its results with the key stakeholders and partners. The EM's human and institutional capacities will be strengthened in order to implement the Ministry's "Wetlands Action Plan" effectively, and incorporate into related institutions the protocols, guidelines and considerations for sustainable coastal landscapes management in territorial planning, management plans and evaluation of projects related to productive uses in landscapes that include coastal wetlands. On the institutional level, systematizing efficient use of tools for information management and quantification of wetlands and their watersheds will be carried out. This outcome will also provide the tools to widen the Project impact in geographic scope from the Project demonstrative landscapes to the wider South-central area. The scenario after the Project will find improved capacities for coastal landscape sustainable management and biodiversity conservation through the dissemination of materials and a replication strategy with training of relevant staff and decision-makers in key sectors and institutions at the local and national levels.

Output 2.1.1Training Program developed and implemented for increased capacity of state institutions professionals to incorporate BD and SLM considerations within landscape and mitigation approaches as well as improved management practices for coastal landscapes sustainable management

During the Project's design phase, a KAP (Knowledge, Attitudes and Practices) survey was carried out for the National Wetlands Committee and the Local Technical Committees representatives of the five pilot regions (for result details, please refer to "9. KAP questionnaire report" in Appendix 17). Together with the KAP survey, different training requirements for key stakeholders were also identified ("8. Training requirements report" in Appendix 17), in areas of sustainable management and administration of wetlands and their watersheds. Once Project implementation commences, a training program will be designed with corresponding material requirements, and monitors will be taught about the pertinent national entities. This program will include different types of already identified training, such ecosystem administration, taking into account the different Ramsar guidelines, hydrology, biodiversity conservation, ecological restoration, monitoring, coastal landscapes related legislation, among others. Several workshops will be carried out in specific topics according to need and these will be defined in the course of pilot implementation.

The project will carry out 3 international seminars; the first will be at the end of year 1, on the topic of Sustainable Construction. This Seminar was agreed by the member institutions of the Steering

Committee, and will be co-organized and co-financed by the EM, MOP, MINVU, MBN and SUBDERE, where each institution will contribute with experts on the subject, will bring professionals from the sub-national level and will participate with political authorities. The aim is to share knowledge and experiences on different technologies and technics for sustainable construction in coastal landscapes, lessons learnt from different countries, mayor trends and incentive mechanisms, among other topics to be defined in implementation. In year three, a Seminar on EESS assessment will be organized, to showcase the results from the two pilot landscapes, compare and discuss different methodologies with the different state institutions, academia and NGOs, establish synergies among the different stakeholders involved and share raw and processed data. A third Seminar is planned for the last year of the project, on the results from the protocols, guidelines and environmental criteria developed in the project, and on the on-the-ground implementation in the pilot ecosystems, with lessons learnt and replicability as the main focus.

Output 2.1.2 Systematization of tools for quantifying coastal landscapes ecosystem and socioeconomic services, monitoring, and recovery for the purpose of efficient information management

This Output will produce a long list of deliverables including tools, methodologies and guidelines for determining the structure and EESS provided by the wetlands and their watersheds, a manual on monitoring and ecological integrity of coastal wetlands with guidelines to be included in Wetlands Management Plans, a methodology for prioritizing wetlands as a decision-making and threat reduction tool, criteria for establishment of artificial wetlands for treatment of waste water and clean-up of lakes, field manuals on coastal wetlands biodiversity and training for birdwatching guides and manuals on systematization of recovery and ecological restoration tools (collection, propagation techniques, management, etc.). This material will be drawn up in a format that facilitates circulation to make it available to a wider audience. The inputs to these documents will come from a) experiences from project activities and b) national and international secondary information. The objective is to make a set of tools and systematized documents available in different formats and uploaded to the EM´s Platform and the project web page. The documents will be in a high-quality PDF format to facilitate downloading. For Project finalization, a memorandum will be prepared that in a simple and very graphic manner summarizes the Project's experience, and this will be distributed mainly in PDF via electronic media, although printed copies will be made for those who have limited access to the internet.

Output 2.1.3 Interinstitutional coordination for knowledge management, synergies and cooperation in similar or complementary initiatives

Under this Output, the project will work on the establishment and strengthening of Technical Committees at the central and local levels in order to foster sustainable wetlands management, with a series of capacity development activities on Ramsar convention related issues, knowledge exchange activities, promoting a better coordination among the institutions with mandates over the coastal landscapes, clarifying roles, and make them known to both citizens and institutions. It will work on the creation of an early warning and rapid response coordination model, with protocols to act in events that can negatively impact the wetland and the watershed they are in, such as natural disasters, spilling's, invasive species, among others. The protocols will be validated by the National Committee and will be implemented as a pilot experience in the Mantagua pilot ecosystem, where the headquarters offices of the marine institutions (Sernapesca and Subpesca) can be found. This is also the pilot closest to the capital, Santiago, making it more viable for professionals of the different institutions to be involved.

Synergies and opportunities for cooperation have been found with initiatives that involve countries with Pacific coast, such as Peru, Ecuador and Colombia, all of these countries being key stop-over places for globally important migratory species. The project will work on South-South cooperation

creating projects, alliances and experience sharing with these countries on issues such as citizen monitoring, governance, ecological recovery and best practices protocols for coastal wetlands. Two of the international NGOs who are partners and co-financer´s of this Project, Audubon International and MHS, are currently working on the development of the Chile-Peru-Ecuador Coastal Wetlands Action Plan and in a series of community related activities for sustainable use of coastal landscapes, such as eco-tourism, a network of craftsmen from south American wetlands, citizen monitoring methods, and other synergic activities.

In Outcome 2.2, Output 2.2.1 Criteria and environmental considerations for Integrated sustainable land management and key BD conservation in coastal landscapes to be adopted by MINVU, MBN, MOP, SERNATUR and Minagri.

The output has to do with developing appropriate policies and regulations for adoption by the institutions that have the greatest impacts on coastal landscapes. These include

- Protocols on best practices for developing infrastructure in or near coastal wetlands, such as roads, pathways, trails or tourist infrastructure, adopted by the Ministry of Public Work (MOP);
- Protocols and best practices related to urban development construction associated with wetland landscapes, adopted by the Ministry of Urban Development (MINVU);
- Criteria that focus on sustainable practices and guidelines for prioritizing coastal wetlands of national and international significance, together with best practices guidelines for productive activities, such as sand and gravel extraction, mining and others that affect coastal wetlands, adopted by the Ministry of Public Property (MBN) and the regional Governments and Municipalities (SUBDERE); and
- Sustainable tourism practices in coastal landscapes (SERNATUR) and environmental criteria for sustainable agricultural and forestry practices, adopted by the Ministry of Agriculture (MINAGRI).

These protocols and guidelines will become policy instruments of the associated institutions that incorporate environmental considerations and best practices for productive and development activities. At the onset of the project, Public-Private working groups will be established for each thematic activity (agriculture, housing, infrastructure, tourism) with participants from public services, NGO's, Academia and the Private Sector. In parallel, a consultancy will draw up a proposal of these considerations for each sector, with inputs from national and international experts and a secondary review of information from national and international sources, such as the "Wetland way: Interim guidelines for wetland protection and conservation in British Columbia" with 11 guides for different development activities, and the "Best Practices for Southern California Coastal Wetland Restoration and Management", among several others.

On the ground application of these practices will be demonstrated in the pilot ecosystem, mainly co-financed by the associated institutions, such as coastal infrastructure work in the pilots of Queule and Cahuil, financed by the Ministry of Public Works. Environmental considerations and best practices for housing, will be introduced in the MINVU Standards for Sustainable Construction, to be applied by real estate developers in the Rocuant Andalien watershed. For Agriculture and forestry practices, they will be included in the tendering process of institutions from the Ministry of Agriculture, such as INDAP and CONAF, being demonstrated by medium and small-scale farmers in the Queule watershed. Specifically, for the forestry sector, the requirements from certification entities will be implemented in the Queule and Rocuant-Andalien watershed by Arauco Forest Company. Best practices for the tourism sector will be incorporated in the already functioning Sustainable label, developing a specific one for tourism in coastal landscapes, and being applied in the Pilots of Mantagua and Cahuil, with local sustainable initiatives. All the guidelines and protocols with environmental considerations and best practices will be systematized and circulated at the different technical and political levels, in order to manage the adoption of these criteria in the mandates of the

institutions belonging to the Steering Committee. According to their competencies, these institutions will incorporate them as an additional element in their tendering and competitive processes, resulting in binding requirements for the development of these activities when financed by the Public institutions.

The Private sector will have to comply with these standards when incorporated in the public tendering processes. But initial conversations with forest companies, tourism entrepreneurs, real estate companies and property developers, including the National Chamber of Construction, shows a willingness to voluntarily incorporate these best practices as a means of Corporate Social Responsibility and value added in marketing strategies.

Output 2.2.2 Recommendations and criteria for BD conservation and SLM in coastal landscapes management to include in the EM's Environmental Impact Evaluation System and associated institutions regulations, laws and policy elements

With this output, the Project seeks to improve the complementarity between the policies and mechanisms of the different institutions involved, in order to promote in-situ conservation of coastal wetlands watersheds, with the focus on revising and adapting existing policies and regulations in order to incorporate conservation principles into integrated management at the basin or landscape level.

The aim is to establish criteria for avoiding undesired impacts, in particular when dealing with activities that are not subject to the System of Evaluation of Environmental Impact, or don't have the time frame necessary to postulate for Secondary Emission Norms, due to the need of several years of data gathering, and a lack of institutional capacity and budget of the EM to cover a wide range of watersheds with his Norm. The project will work on the modification, replacement o creation of laws or policy elements that counteract the ones that negatively impact coastal landscape sustainability.

During the project development phase, a preliminary overview of policies and regulations that positively or negatively impact coastal landscape ecosystems was developed. A table showing the legal instruments, both national and international, the type of regulation, the corresponding institution, its main function and how it affects coastal landscapes conservation, can be seen in "10. Legal Instruments of National and International Character" in Appendix 17 At the onset of project implementation, an in-depth analysis will take place, giving guidelines to the type of regulation, decree, law or legislative procedure where the project can work to incorporate or modify to strengthen coastal landscape conservation, or counteract a negative element through supporting the development and implementation of new norms, regulations and policies related to biodiversity conservation and sustainable management of coastal ecosystems.

The project aims at mainstreaming the improved management practices in the Agriculture, Forestry, Housing, Construction and Tourism sectors, by all the related institutions of the National and Local Committees, including public and private actors, together with the mainstreaming of new or modified policies and regulations, which will include principles of sustainable management and conservation of coastal landscapes. The target is to enhance the conservation status of these ecosystems of Chile's south-central region, offering a variety of benefits to local stakeholders, such as recharging deep aquifers which provide groundwater for irrigation and livestock use; Providing base flows or extending duration of flows to downstream agricultural users; Reducing erosion and thus maintaining soil productivity by providing flood protection and flow stabilization; Maintaining water quality thus increasing biodiversity and improving recreational activities; among others.

The total area of influence of the Project, including pilot wetlands and the associated landscapes and watersheds where protocols and best practices will be applied and where the legislation to protect biodiversity will be binding, accrues to some 290,000 hectares.

Component 3: Demonstrative landscapes

Under this component, the GEF incremental financing will support achievement of Outcomes 3.1 Enhanced mechanisms for cross-sector integrated planning of sustainable natural resources management at district level to decrease LD and preserve habitat of BD in coastal wetland landscapes considering the multiple dimensions of livelihood options (agriculture, forestry, pastures, construction, tourism), 3.2 The associated institutions at the sub-national level recognize and incorporate into their territorial planning, zoning and practices that includes conservation, recovery and monitoring of BD conservation and SLM in coastal wetland landscapes, and 3.3 Livelihood and income of coastal wetlands smallholders are more resilient, diversified and strengthened.

The pilot ecosystems will play a relevant role in generating data and evidence that demonstrate the need to have a focus that takes into account the watershed as a whole, with strengthened interinstitutional coordination and with productive sectors applying sustainable practices regarding the environment, in order to conserve and sustainably maintain those coastal landscapes that are not designated as protected areas. Each one of the pilot sites will contribute concrete evidence according to each of their realities in terms of threats and present conditions, and these will make it possible to have a wide range of replicable options in similar situations elsewhere.

Output 3.1.1 Integrated land-use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities and local stakeholders, and being effectively applied,

Under this output, the objective is to prevent further habitat destruction and coastal wetlands deterioration as the main causes of biodiversity loss in Chile's South-central zone. To reduce their effects, the project aims for the implementation of integrated management and restoration plans, with a basin or landscape-level focus, under the leadership of the Environment SEREMI's jointly with the associated institutions and municipal bodies: implementing best practices and activities developed for the productive sectors,

In the integrated management and restoration plans management and recovery plans, the area of land undergoing restoration in terms of ecosystem function and/or ecology, will include activities that reduce the causes of decline and improve basic functions, and ecological restoration that enhances native habitats, sustains ecosystem resilience, and conserves biodiversity. In this context, restoration is defined as the process of repairing and/or assisting the recovery of land and ecosystems that have been degraded, damaged, destroyed, or modified to an extent that the land and/or ecosystem cannot fulfil its ecological functions and/or fully deliver environmental services. The activities will include regulating the use of pesticides and agro-chemicals, river basin and wetland drainage events, control of pollutants of different sources and control and management of eutrophication processes, together with the implementation of recovery and SLM, used for restoration in riverbanks and flooding areas: reforestation and recovery of native vegetation activities, certification of sustainable forest management in forest plantations in the wetland basins, reducing erosion and crop impacts to the soil through the use of live fences, infiltration trenches, crop rotation, composting, among others, together with leaving native forest areas as buffer zones for conservation and mitigation of impacts and other measures by relevant private sectors, such as tourism, forestry and agriculture, through EM compensation grants for BD conservation.

The Project will start with participative workshops and studies for defining vulnerable areas and recovery priorities at the 5 pilot sites. Methodologies such as talking maps and problem trees were recommended by local stakeholders from academia and NGOs as proven and useful tools in the pilot landscapes. This stage will be coordinated with the efforts being made by the EM through its National Recovery Strategy (ENR), drawn up in 2018, where data is being gathered in the pilot regions on Ecological Infrastructure Planning for Biodiversity and Ecosystem Services. The EM has been applying this focus in order to give spatial expression to their policy objectives in biodiversity, as

stated in the National and Regional Biodiversity Strategies. The spatial expression of the ecological priorities of protection, recovery and sustainable use is key in this respect, where the concept of "ecological infrastructure" comes into play, defined as a systemic network of interconnected nuclear areas with connectivity zones and buffer zones, whose identification helps to align the protection and recovery efforts in the most ecologically effective manner. In those regions where the recovery priorities have already been determined through Regional Ecological Planning, the Project is going to progress in developing and implementing recovery plans at the landscape level in previously identified priority areas, carrying out concrete actions and involving stakeholders early in the process. The purpose for applying this methodology in the pilot ecosystems is to obtain the classification as a "Recovery Landscape", a process currently being validated under the ENR and for which there are as yet no demonstration experiences, and for this reason the Project can provide a pilot experience for obtaining the classification and define the process and methodology in a form that is replicable in other initiatives

By the time of its implementation phase, the Project will have available the results of the methodology applied by the Mountain Corridors Project GEF ID 5135, where during 2019 the latter is carrying out local level ecological planning in the Valparaiso municipalities, also one of the pilot regions of this Project. By applying these methodologies at the Municipal level, the integrated management and recovery plan will be part of the Municipal Territorial Planning through the Communal Development Plan (PLADECO), the Land Use Program, and at the Regional Governments (GORE) level, through the Territorial Planning Regulatory Plans (PROT). Mainstreaming of integrated management and restoration plans into these instruments will be a strong focus of the project in its second half.

This planning will be complemented with the design of the Monitoring Program for each pilot. The monitoring program will establish environmental baseline with both satellite images of the pilot wetlands and implementation of citizen and state monitoring with key organizations and institutions involved, that will further support the data availability in the EM Wetlands Platform. The project will work on the training of participating stakeholders for the citizen monitoring program according to the needs and comparative advantages of each pilot. In the Cahuil pilot, the local School is interested in implementing the citizen monitoring program, with kids from 8 to 15 years of age whom are part of the environmental program of the school. In the Quele watershed, fishermen and indigenous communities want to be part of this Program, which will be conducted through the Environmental Department of the Municipality. In the Pilot o Mantagua, the local tourism entrepreneur's will contribute to monitoring, integrating them to their eco-tourism activities to create more awareness. As for the pilots of Rocuant-Andalien and Elqui, local NGOs working for several years on the wetlands and their watershed, will be the main actor participating in Citizen monitoring, escalating these efforts to the stakeholders they have been working as part of their own activities.

Output 3.1.2 On-the-ground implementation of selected SLM and BD conservation measures from guidelines and protocols for sustainable use of landscapes in pilot ecosystems.

The objective is the implementation of protocols and best practices developed in component 2, for the sustainable use and recovery of coastal wetland landscapes in the pilot ecosystems, in order to reduce their environmental deterioration and promote conservation of their ecosystem functions. At initial stages, a portfolio of initiatives will develop with the identification of projects/activities within the territory on which to demonstrate environmental considerations. Afterwards, the inclusion of environmental considerations and best practices in projects within the pilot ecosystems will be implemented for demonstration. In the Elqui, Cahuil and Rocuan-Andalien pilot ecosystems, where urban development as well as road and infrastructure construction are the main drivers of degradation, the Project will work with MOP and MINVU to integrate in their development projects direct measures and protocols for sustainable use of coastal landscapes, such as choosing the correct location

for the infrastructure, the best materials for least impact, construction processes with mitigation activities, among others, reducing therefore fragmentation and impacts of the development projects. Another focus in this area will be the development of infrastructure useful for demonstration of the importance of biodiversity, such as sightseeing trails and low-impact urban construction, to be co-financed with SUBDERE´s regional funds, in accordance with the Municipalities and local stakeholders. In the Pilots of Queule, and Cahuil, agriculture and forestry are the main causes of deterioration at the watershed level. Here the project will work on recovery and application of traditional technologies, while at the same time incorporating new methodologies and introducing innovations through the environmental practices and protocols with the support of the institutions of the Ministry of Agriculture, such as INDAP and CONAF. It will work on best practices for the use of agro-chemicals, avoiding drainage, the construction of forest roads and forest related operations, such as harvest and planting outside buffer zones for water bodies, among others. Sustainable tourism practices could be applied in all the pilot ecosystems, therefore projects will be selected considering a gender and vulnerability approach, to increase positive social externalities.

In all the implementation of environmental considerations and good practices, the project will work on the compilation and systematization of the activities/projects with audio-visual and demonstration material, delivered to the different stakeholders and published on the platform and web page.

Under outcome 3.2, is the Output 3.2.1 Central Government, communities and other district-level stakeholders receive training in the development and implementation of integrated land-use planning and have the knowledge/ experience necessary to continue the application of plans.

Proposed Project activities include working with Municipalities, local communities and private stakeholders to mainstream conservation into the territorial planning process. Currently the main instruments for coastal land use planning in Chile are the Regional Land Management Plan (PROT) and the Coastal Fringe Zoning (ZBC). Unfortunately, the PROT is an indicative plan, and is not normative in nature. Normative plans do exist for the watershed level (Community Development Plans, or PLADECO in Spanish), but the challenge is to integrate SLM and BD conservation in a way that aggregates impacts and achieves optimization of ecosystem services at the landscape level or enhances the resilience of production landscapes overall in the Mediterranean eco-region.

Critical for the sustainability of the Project is the incorporation by the regional governments and other associated institutions at the subnational levels, of the development and implementation of integrated land use planning and practices that include conservation, recovery and monitoring of BD and SLM in coastal wetland landscapes to be incorporated into their territorial planning and zoning. The Project will start with the design and then implementation of training in methodologies/tools for management/land-use planning for rural and urban coastal ecosystems. The training will emphasize attention on the interrelations occurring at the landscape level, the importance of conserving BD and avoiding LD, and on the instruments to be applied to improve territorial planning. If the SBPA proposed legislation is approved during the Project implementation period, the establishment of the plans with the SLM practices could lead the Municipalities to obtain the Conservation Landscape Category of the SBPA, with binding commitments and management plans for medium and long-term periods, adding to the sustainability of the Project.

The project will provide Technical support for the incorporation of BD and LD considerations into territorial planning in municipalities within the pilot ecosystems. As part of the baseline developed in PPG phase, a synthesis of the territorial planning instruments of the five pilots was developed (see "3. Territorial Planning Regulatory Plans for pilot ecosystems report" in Appendix 17 for more detail). The Project will work on the integration of the land management plan into these instruments, incorporating therefore BD and SLM considerations, while working on the development of recent alternatives, such as the RENAMU category (Municipal Natural Reserve), and the Conservation

Landscape and Restoration Landscapes Categories, which are in the process of consolidation by the EM.

Under outcome 3.3, is Output 3.3.1 The diversification of rural livelihoods in coastal landscape communities and value chain development of a selection of sustainable managed products and services from coastal landscapes is supported.

Efforts will be made with local communities who utilize coastal wetlands and their watersheds as part of their way of life, applying methods and practices that will cause minimal damage to the ecosystem services and ensure the standard of habitat quality required for natural resource and biodiversity conservation.

During the PPG stage, a detailed survey was drawn up of the social and productive organizations in each one of the pilot watersheds, and local stakeholders involved in those organizations participated in the project workshops ("5. Human environment report" and "14. Market Conditions report" in Appendix 17). A result of those workshops was the need to diversify livelihoods through value chain development of both current and new services and products coming from the wetland and their watershed. At Project implementation, a study of the local communities' in the pilot ecosystems need for projects and value chains will take place. The project will work on supporting the implementation of sustainable economic activities associated with the wetlands, such as bird watching, tourist routes, and nurseries with native species that will be used for reforestation activities.

These studies will include the identification of barriers and opportunities for incorporating women into activities for adding value to and diversifying production, the training and technical assistance the women require, and proposals for action for supporting the integration of women in Project recovery activities and citizen monitoring, among others. The following actions will be implemented in order to contribute to women's participation and empowerment in the initiatives for adding value and diversification in the prioritized sites:

- Training in organizational strengthening and leadership, in support of the women's organizations participating in the interventions of this component.
- Promotion and facilitation of networks between women's groups that implement initiatives for adding value and production diversification. Use of social networks and other electronic channels.

The progress, achievements and impacts of incorporating women in Project value adding and productive diversification activities and monitoring with citizen participation will be evaluated annually. The last evaluation will take place before the Project's final evaluation and will provide an integral perspective on all that will have been accomplished.

The sustainability of these activities will be developed through the work with SUBDERE, SERNATUR, and the NGOs; creating infrastructure associated with these activities, with regional funds from SUBDERE; adding value to sustainable tourism with the sustainable seals of SERNATUR; creating national and international networks of local scale communities living from wetland´s associated activities and training local actors as bird watching guides, with the support of the NGOs that are partners in this project. The big forest companies located in the watershed will need a constant supply for their reforestation activities that will take place for the next 20 years and are part of compensation mechanisms for historical reduction of native forest and certification requirements. The project is coordinating initiatives for working in synergies with the local communities, to receive training in nursery and reforestation activities from the Forest Companies, and to be employed by both the Companies and the Project necessities for restoration activities.

In the Project's implementation phase, training will be developed for strengthening social capital of community organizations and to establish local leadership. Moreover, support will be given through the Local Coordinators on technical assistance for implementing projects and generating value chains, supporting community projects to obtaining co-financing from national and international funds, and to successfully implement the projects when funds are granted.

In this Output, the project will work with the EM in designing environmental certification of areas (wetlands and coastal landscapes) or sustainable activities associated with wetlands and coastal landscapes with specific green labels. The project will support the creation of trademark and protocols for obtaining this certification, to be used by producers or other stakeholders.

At the onset of Project implementation, methods and procedures will be established for its staff, for systematically documenting their experiences in this regard, and finally systematization documents from the learning experiences will be prepared. Annual meetings will be held for reflection and self-evaluation with the key stakeholders both at the central and regional levels. This process will take into account women's contributions and perspectives. The results of these meetings will be systematized and presented to the Project's Steering Committee and will be included in the annual progress reports.

3.4. Intervention logic and key assumptions

This Project's intervention rationale is based on the generating of global and regional environmental benefits through improving the ecological state of wetlands watersheds, within the Mediterranean eco-region biodiversity hotspot. This rationale includes addressing existing threats and barriers through mainstreaming the importance of coastal ecosystems, including wetlands and their watersheds, as providers of multiple ecosystem services and productive resources; strengthening institutional and regulatory frameworks to improve environmental management capacities and mandates of the Public Services and Municipalities present within the Project area; and implementing different initiatives in the pilot landscapes to reform current practices and to test the implementation of integrated socioeconomic and environmental development, with the permanent participation of public services, local authorities, and representatives of the communities involved. This intervention rationale will make it possible to fulfil the Project's objectives and guarantee their sustainability over time.

This Project will make it possible to fill information gaps regarding the significance of the coastal ecosystems in terms of biodiversity and different ecosystem services, the role they play in mitigating natural disasters and climate change effects, and as highly productive systems that provide a series of socio-economic benefits and as regulators of water quality and other increasingly important elements at both the urban and rural levels. All of this information will be openly available and in a user-friendly format at the different levels in the communications strategy (decision-makers, technical level, civil society, among others), in a systematized and centralized form, through the EM's Wetlands Platform, where Project partner State institutions and NGO's will participate, sharing information and data relevant to establishing a spatial database, with qualitative and quantitative data, with graphic representations of relevant statistics, invaluable in decision-making, as well as in diminishing replication of efforts and generating awareness in Chile about the significance of these ecosystems.

The intervention logic includes establishing public commitments with the institutions of the Project's Steering Committee (MOP, MINVU, MBN, SUBDERE and MINAGRI): since this committee is comprised of Services whose mandate is to promote economic development in productive sectors such as agriculture, construction and housing development, which constitute the greatest threats to these

ecosystems, this is a way of institutionalizing more sustainable practices in these sectors, integrating them into their mandates and requirements for project tendering by these same institutions, thus achieving a wider impact from these practices and protocols, both in space and time. In addition, training and building awareness regarding the importance of a watershed-wide focus taking into account the whole ecosystem, among the members of the Project's Technical Committee, represented by over 15 State services, and their regional counterparts represented by the Local Technical Committees, together with the Municipalities and Regional Governments, establishing a base of know-how and focal points specialized in these issues in each institution, will provide more sustainability, interinstitutional coordination and strengthening of governance of coastal landscapes in South-central Chile. Furthermore, the efforts to draw up the protocols and best practices will be carried out through round-table discussions, where stakeholders from the public and private sector, Academia and civil society will be represented, proposing viable measures and coming to agreements as to how to implement them. Key private stakeholders, such as Forestal Arauco, Chile's National Construction Board and different housing construction companies, were contacted during the PPG phase and demonstrated interest in being partners with the Project, and they will be incorporated as the Project progresses.

As for the pilot ecosystems, the intervention logic is to demonstrate the different initiatives for sustainable practices and improvements in ecosystems' health, through recovery and ecological planning, according to present characteristics and threats existing in each pilot, where concrete and policy-relevant evidence will be generated regarding the viability of these environmental considerations in the different productive sectors, together with testing the necessary governance methods and the political will of the different stakeholders to integrate socio-economic and environmental aspects in areas where there is no official protection for these ecosystems. The strategy for communications and dissemination of the experiences generated in the pilots is a key issue for Project effectiveness, given in more detail under paragraph **3.10 Public awareness, communications and mainstreaming strategy**, which takes into account among other activities, the strategy for information distribution and awareness-building of different target groups identified during the PPG, workshops for sharing experiences, and seminars on key Project issues, for the purpose of influencing policy and regulatory reforms addressing a wider range of stakeholders over a greater part of the country.

3.5. Risk analysis and risk management measures

Table 2. Risks, Risk appraisal and Mitigation actions

Risks that might affect the project achievements	**Appraisal L=Low, M=Medium, H=High**	**Mitigation actions**
Could be a lack of political will of relevant institutions and stakeholders (MOP, MINVU, MBN, CONAF, MINAGRI, SUBDERE, regional and local governments,	L	Different national and subnational authorities, NGOs and Community organizations were contacted in the design phase in relation to the development of this proposal, and they want to be involved in its initiatives. They were invited to be strategic partners in the Project, and they are part of both National and Local Committees. The approach of the Environment Ministry will be to demonstrate the value of coastal ecosystems, through evaluation of their ecosystem services, and with the inclusion of

Risks that might affect the project achievements	Appraisal L=Low, M=Medium, H=High	Mitigation actions
and civil society organizations) to support, coordinate and participate in the implementation of the Project activities		environmental considerations that substitute current unsustainable practices that jeopardize the medium-term economic potential. Awareness campaigns directed to decision makers, civil society and local communities are part of the Communication Strategy of the Project, and it's directed to change attitudes in relation to coastal ecosystems conservation importance.
Civil society may not use or participate in the collaborative wetlands inventory of the EM platform	L	The Project will work on improving the EM Wetlands Platform, incorporating quality information related to EESS and socio-economic conditions, while developing tools and applications, such as smartphone apps, to facilitate the participation of the civil society. The communication strategy will work in promoting this platform to the public, with Photo contest and other initiatives to increase awareness and captivate a wider audience
Local communities and stakeholders from key sectors do not adopt the proposed best practices and sustainable management measures	L	Different actors have declared an interest in supporting the piloting of best practices and incentive schemes, form local community leaders to big forestry companies and real estate developers. Public-Private working groups will be established for each thematic activity (agriculture, housing, infrastructure, tourism) with participants from public services, NGO's, Academia and the Private Sector. The best practices and protocols will be validated with these groups, assuring a high compliance. Part of the co-finance and participation letters, sign by the different institutions, indicates important amount of time to be dedicated to this public-private working groups. .
Communities are not interested in participating in land management planning and monitoring wetlands and their watersheds for BD conservation and commit to following monitoring and accounting protocols and methods.	L	Local communities have shown a strong interest in participating in land planning and monitoring activities. They are part of the Local Technical Committees and will participate in the planning process of yearly activities and work plan. An objective of this project is to empower local communities to feel ownership and responsibility for their watershed, which will be supported by awareness campaigns, capacity building and promotion and support for the creation of new sustainable practices associated with the wetland and its watershed.
The Subnational Policies for Territorial Planning and Development do not integrate the sustainable	L	In order to minimize this risk since the Project design phase, the Subnational Government and Municipalities have been included as a key partner and stakeholder, and SUBDERE (Under ministry of Regional Development) was integrated in the Project Steering Committee. These are the institution which

Risks that might affect the project achievements	Appraisal L=Low, M=Medium, H=High	Mitigation actions
use and management of the coastal landscape		decides on policies for territorial planning and development in each Region. Description of the current status of the land planning instruments for each region has been developed in the PPG phase, and support to integrate environmental considerations into the planning process is part of the project implementation activities.
The incorporation of sustainable management for the conservation of biodiversity, continues to be utilized by local governments and competent participating public services, after project completion	L	The environmental considerations, best practices and protocols, will be incorporated in the mandates of the different institutions involved, becoming a binding mechanism for the different productive sectors. The objective of involving SUBDERE in the Steering Committee and the Regional Government's and Municipalities in the Local Committees, working with the project to integrate BD conservation and LD measures into territorial planning, adds sustainability to the progresses that will be made in the five-year period.
Local and regional authorities fail to assume their role in ensuring the participatory management of resources at the productive landscape level and the regulatory support required for coastal wetland conservation	L	Project design, development and implementation are based on the premise and commitment of multi-stakeholder participation. As such, structures and mechanisms to ensure the active involvement and feedback of stakeholder groups will either be established or strengthened where they exist. Local Technical Committees are in advance face of establishment in each pilot region, and Mayors and Governors are part of these Committees. The Project Communication strategy has these authorities as one of its Target Audiences, and efforts will be made to increase the involvement of these actors in project activities and awareness campaigns. With the Project supporting community led projects that integrates sustainable development, the authorities will have the opportunity to see on the ground application of good practices and its cost-effectiveness at the local level
Changes in local government authorities and personnel, at the end of 2020, and at the national level in the end 2021 (election dates), may affect the continuity of Project activities initiated under the previous (present) governments.	M	In order to minimize this risk, collaboration agreements have been and will be drawn up, by this Project, with all the Institutions involved in the National and Sub-National Committees, for a period which includes the whole of the execution phase, the five-year project length. Furthermore, activities will be carried out for presenting this initiative to the new authorities, informing them about the activities already carried out and the benefits of their participation

Risks that might affect the project achievements	Appraisal L=Low, M=Medium, H=High	Mitigation actions
Abilities generated by the Project may be lost if the trained personnel rotate or leave	L	The Project has a decentralized focus, with training capacities being created not only at the central level, but in five regions of the country, leaving at least 5 professionals per service with participation in the training program. At the national level, the Technical National Committee, comprised of the Wetlands Committee (of 13 services) plus key stakeholders such as DOP, MINVU, SUBDERE and Tourism, will have two representatives for each Service, diminishing the risk of losing trained capacities if personnel changes.
Climate change may increase the threats to coastal wetlands. Under changing climate conditions, threats to vulnerable ecosystems such as coastal wetlands can increase through new invasions of alien species (IAS) that are more resistant to new climate conditions, through droughts that increase the likelihood of fires, flooding and increased stress of native populations.	M	The design of the Project focuses on enhancing the ecosystem services provided by coastal wetlands and their role in the mitigation of adverse climate change impacts e.g. floods, droughts etc., The removal of threats, pressures and stresses that impact biodiversity and lead to land degradation will also ensure the ecosystems are more resilient to the impacts of climate change and therefore less vulnerable to its effects. Finally, site-level local communities, government officials and private sector individuals will be trained to better understand the impacts of climate change on biodiversity/ecosystems and to adopt conservation and management strategies for mitigating climate change and enhancing resilience.

3.6. Consistency with national priorities or plans

The Project is consistent with Chile's NSBPA Strategic Objectives (SO's) of projecting research and applied information for its use in decision-making, of promoting sustainability in renewable natural resources and of securing the maintenance of the integrity of Chile's representative ecosystems.

More specifically, the Project is in line with NSBPA strategic goal Nº 3.2 for promoting the adoption of voluntary guidelines of best management practices in production activities based on and/or affecting renewable natural resources, and strategic goal Nº 4, promoting capacity building and research that informs management of biological diversity, through public-private cooperation and international financial institutions. Finally, the Project is also coherent with strategic goal Nº 5.3, aiming to incorporate biological diversity into terrestrial and marine territorial planning.

Chile has a Strategy and Action Plan for Wetlands, derived from the NSBPA and the Ramsar Convention. This Project is consistent with SO-2 and associated action lines 1, 2, 5, 7 and 8 of this Action Plan, that refer to maintaining a national wetlands inventory, identifying and prioritizing wetlands for conservation, strengthen research on wetland structure, function and sustainable use, developing wetland monitoring systems, developing a national wetland information system, and

promoting cooperation and exchange with other countries sharing similar goals and interests regarding wetlands. Also, it will contribute to SO-3.3 on reconciling and complementing national regulations promoting wetland conservation and sustainable use. The Project has also been conceived under the premise of SO-4, which promotes cooperation between public and private sectors, as well as NGO's and research institutions, to engage in wetland conservation and sustainable use activities. The Project is in line with SO-5 in contributing to the development and implementation of planning tools for the conservation and sustainable use of wetlands, through prioritization, participation, monitoring, impact assessment, and the promotion of incorporating this information into national and regional territorial planning. Finally, the Project is consistent with SO-6 that aims to encourage Chile's participation in the international agenda, especially regarding research, technical assistance and information-sharing.

The most recent United Nations Development Assistance Framework (UNDAF) programming period in Chile ended in 2018. For the next period 2019-2022 UN Environment participated as well in the planning and development stages. While the official version of this UNDAF has not yet been sanctioned, the project can at this time assess its alignment with the existing draft in a preliminary manner and will assess project outputs and progress in relationship with this framework in more detail during project implementation. The main contributions are foreseen to fall under the following sections:
Strategic Priority 4 - Environmental Development: The State, economic and social actors and the population in general modify their relationship with the environment, adopting lifestyles and patterns of consumption and production that allow progress towards sustainable development.
Direct Effect 7 - By 2022, state institutions at the national, regional and local levels are strengthened, for mitigation and adaptation to climate change, sustainable management and preservation of natural resources, ecosystems and their biodiversity, as well as socio-environmental risk and conflict management.
Direct Effect 8 - By 2022, the productive and social sectors increase their environmental sustainability through innovation and governance mechanisms, in compliance with international environmental norms and standards.

The project is in accordance with the AICHI targets as shown in table 3.

Table 3. Relationship between Aichi Biodiversity Targets and Project Outputs

Aichi Biodiversity Target	**Related Project Outputs**
Target 1. By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably	1.1.3 Outreach and dissemination strategy for mainstreamed BD conservation and SLM in coastal landscapes based on the systematization of project tools, methodologies, results and findings
Target 2. By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	1.1.2 EM Wetland Platform containing processed and integrated information including inventory, monitoring system, Ecological and socio-economic data, and maps regarding priority zones as a decision-making aid for conservation of private or State coastal landscape areas 3.3.1 The diversification of rural livelihoods in coastal landscape communities and value chain development of a selection of sustainable managed products and services from coastal landscapes is supported.
Target 4 By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and	2.2.1 Criteria and environmental considerations for Integrated sustainable land management and key BD conservation in coastal landscapes to be adopted by MINVU, MBN, MOP, SERNATUR and MINAGRI

consumption and have kept the impacts of use of natural resources well within safe ecological limits.	2.2.2 Recommendations and criteria for BD conservation and SLM in coastal landscapes management to include in the EM's Environmental Impact Evaluation System and associated institutions regulations, laws and policy elements 3.1.2 On-the-ground implementation of selected SLM and BD conservation measures from guidelines and protocols for sustainable use of landscapes in pilot ecosystems
Target 5 - By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	3.1.1 Integrated land use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities and local stakeholders, and being effectively applied
Target 7. By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	3.1.1 Integrated land use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities and local stakeholders, and being effectively applied
Target 11 By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	3.1.1 Integrated land use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities and local stakeholders, and being effectively applied 3.2.1 Central Government, communities and other district level stakeholders receive training in the development and implementation of integrated land use planning and have knowledge/ experience necessary to continue the application of plans
Target 14. By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	3.1.1 Integrated land use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities and local stakeholders, and being effectively applied 3.3.1 The diversification of rural livelihoods in coastal landscape communities and value chain development of a selection of sustainable managed products and services from coastal landscapes is supported
Target 19. By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	1.1.1 Quantified ecological and socioeconomic assessment of Coastal landscapes including wetlands and adjacent watershed territories, with biodiversity inventory; Ecosystem Services Evaluation Report; definition of wetlands extension and buffer zones, Proposals for studies and programs on value added for watershed hydrological system

	1.1.3 Outreach and dissemination strategy for mainstreamed BD conservation and SLM in coastal landscapes based on the systematization of project tools, methodologies, results and findings

The Project is consistent with the National Recovery Strategy, whose purpose is to lessen the deterioration of Chile's ecosystems, exacerbated by anthropic pressures and climate change (droughts, floods), very large wildfires that have endangered Chile's species and their habitats as well as large expanses of her landscapes, damaging the provision of ecosystem services, and reducing the local populations' well-being as well as productive activities.

The Project will support the goals of the LDN National Voluntary Target 'Dynamics of land productivity' in the pilot landscapes, in coordination with the focal point institution which is the Agriculture Ministry's National Forestry Corporation (CONAF).

3.7. Incremental cost logic

Current practices in coastal wetland landscapes, from land-use planning to production in the wetlands and surrounding watersheds, are failing to maintain ecosystem functions and cannot facilitate sustainable development. Without the GEF funds, the current unplanned, uncoordinated, unsustainable expansion of urban areas and agriculture, overexploitation of fisheries and forests, and misuse of wetland resources without adequate consideration for sustainability or conservation, will continue to have damaging impact on the state of biodiversity and livelihood conditions. In the face of this, baseline initiatives will not be sufficient to leverage changes towards integrated sustainable management and governance of coastal ecosystems and supporting watersheds that allow their conservation and resilient use on a scale important enough to counteract anthropogenic pressures on the biodiversity of these ecosystems, due to the existing barriers to achieve effective and sustainable management.

Despite important isolated initiatives to address these trends, under the business-as-usual scenario, biodiversity losses and ecosystem degradation can be expected to continue, along with increasing vulnerability to climate change. Local governments, civil society and community-based organizations in the eco-region will not possess the resources to develop their capacities to plan and manage coastal-wetland landscapes for multiple, integrated production, sustainability and global environmental benefits.

The main justification for the use of GEF resources is to build on the baseline to promote a truly cohesive, cross-sectorial management of natural resources, mainstreaming SLM and BD conservation in wetland ecosystems into landscape planning, strengthening stakeholder capacity and removing barriers that hinder the ecological functioning of coastal landscapes and threaten the biodiversity hotspots. The approach will introduce measures to encourage local stakeholders to adopt new sustainable livelihood options and enhance the knowledge base among decision-makers and local populations on SLM and biodiversity conservation, thereby reducing environmental pressures. Support to the continued development of an enabling environment complemented by activities that target critical constraints in land, forest, and production systems will be addressed and complement the baseline project by addressing the interphase between water, agriculture, and forestry through a landscape approach.

The proposed Project will cover the incremental cost associated with redefining how BD protection and SLM practices can be integrated with socioeconomic development strategies of different State

institutions and private stakeholders in an integrated approach. Component 2 of the Project is critical as regards putting in place the requisite framework and policies that are compatible with this approach, while Component 3 will operationalize the approach and Component 1 will mainstream and create awareness of the approach. The GEF financing will support the initiatives and efforts initiated by the Government to promote BD conservation and SLM practices in coastal wetlands landscapes, such as:

Aquatic Systems Environmental Condition Monitoring Network, whose purpose is to set up a network for monitoring the environmental conditions of aquatic systems through acquiring portable equipment to feed data into the wetlands monitoring system; in addition, to organize and catalogue all of this data for the purpose of defining and establishing the present state of Chile's wetlands in the National Wetlands Platform. Through GEF financing, the valuation of ecosystem services in wetland landscapes and the contribution of assessing little-known endemic species will enrich the EM Wetland Platform, filling data gaps related to conservation status, threats and conservation actions recommended and that are under implementation within the Project period for previously little-known species.

With GEF financing, BD and SLM principles, protocols and guidelines for coastal wetland landscapes sustainable management will be integrated in the main threats to coastal landscape sustainability, such as in the construction and urban development sector, forestry industries, agriculture and tourism sectors, covering over 290,000 ha of project area.

Guidelines will be developed for public and private sector partners on how sustainable management of coastal landscapes can be achieved, and key stakeholders such as governments, private sector and civil society will be made aware of and engaged in protecting and sustainably using coastal landscapes. Awareness raising campaigns on the benefits of sustainable management, biodiversity, community action and land use planning will be carried out.

The Project will work with local governments, municipalities, NGO's and local communities, mainstreaming sustainable management practices at all the administrative levels. GEF funds will address incorporation of conservation measures into territorial planning, while working with smallholder communities to receive training for production, transformation, commercialization and value-adding for innovative and sustainable livelihoods, with a value chain approach.

The Project will reverse land degradation trends and promote BD conservation through direct intervention, such as integral and restoration plans in more than 21,000 ha, with a basin or landscape-level focus. Demonstration, upscaling and replication of different instruments, such as Restoration Landscapes categories, Certification of Sustainable Practices and Eco-labelling will be mainstreamed with GEF funding. Once proposed legislation that is in an advanced stage of approval in Congress is approved, such as SBAP Law and Urban Wetland Protection Law, the GEF financing will make it possible for coastal wetland landscapes to have practical demonstrations of these instruments and incentives in the pilot landscapes.

3.8. Sustainability

Efforts to address coastal wetland landscape threats and barriers have not yet targeted underlying problems of environmental degradation in a comprehensive manner. Ad-hoc approaches that do not capture the cross-sectorial nature of water, land and forest degradation cannot systematically address their root causes. In response to this and in order to leverage the scope and impact of existing and planned interventions, the Project will adopt a programmatic landscape approach.

Innovation: Project innovativeness lies in the fact that it will be the first of its kind to take a landscape and integrated approach to coastal wetland management, focusing on both the ecological

and socioeconomic elements. Through Component 3, the Project will introduce on-the-ground application of innovative protocols and environmental considerations in productive sectors and activities such as forestry, agriculture, fisheries and tourism, through certification and eco-labelling to address the very causes of degradation by replacing unsustainable practices with more sustainable ones. The Project combines BD with SLM and Socioeconomic incentives to focus both on coastal wetlands – as cornerstones of a landscape – and the land adjacent to these, which is critical for the wetlands and their biodiversity, and important for people given its economic use.

These innovative approaches, if proved successful, can go a long way in resolving the habitat fragmentation threats and ensuring the long-term stability of the populations of important species. The Project is innovative within the physical and legal frameworks it has to face at present; there have been few attempts at establishing an integrated approach to land-use management in wetland basins, incorporating conservation priorities, zoning, sustainable use of resources at the landscape level and clean/sustainable production agreements with the private sector. There has also been limited vertical integration and linking of planning processes from the national level down to the regional, provincial, and community levels. This Project will be innovative in its support for mainstreaming of sustainable management of coastal landscapes through all levels of governance, (see Coastal landscape governance in II 1.1), simultaneously carrying out local pilot activities and knowledge and information management actions which provide bottom-up inputs for discussion of national environmental policies related to wetlands, improving these in ways which generate a regulatory framework adapted to local conditions. Finally, innovation is also comprised in the contribution of assessing little-known endemic species that need to be protected but have not been included in the international listings such as IUCN.

The Project design in itself aims at ensuring that unprotected coastal systems with globally important biodiversity benefit from mechanisms that last for the long term. The operational and financial sustainability strategy is based on ensuring participation and commitment of local communities and stakeholders, strengthening the capacity to better plan and monitor within an integrated landscape approach, successfully employing sustainable management practices within the targeted ecosystems, and by the Government committing to allocate core financing from baseline projects sufficient for the optimal management of ecosystems after this Project ends.

The sustainability of the Project action will also derive from:

-The political will of the Ministries that have a mandate regarding coastal ecosystems and their watersheds, to participate in the Project Steering Committee, providing technical capabilities, co-financing and the decision to incorporate best environmental practices in their public tendering, programs and incentives to promote productive activities associated with their mandates.

-Project contributions in the realm of environmental institutions, legislation and norms are sanctioned by the national environmental authority within the scope of its competency.

-The information is incorporated into the EM's information management infrastructure. Actions for strengthening capacities target permanent staff members of public institutions (Ministries and Regional and Municipal Governments).

-Each pilot project will be coherent and sustainable at the local level, carried out in all its phases with the participation of the stakeholders relevant to each level. Systematizing, monitoring and evaluation actions will be carried out in conjunction with all pilot activities, to ensure identification and dissemination of best practices.

-The socio-economic impact of the Project will be substantial since it will enhance income and resilience of beneficiaries and assist to diversify agricultural output.

3.9. Replication

The potential for scaling up the project´s approach and impact will be encouraged through the dissemination of tested models for planning at the ecosystem level, lessons learned and experiences in implementing dynamic conservation in coastal wetlands landscapes, together with raising awareness to ensure that local communities and stakeholders understand and adopt incentives and tools for biodiversity conservation and SLM practices in these ecosystems. A multiplying effect will be encouraged through strategic policy support, from the Ministries forming part of the Steering Committee (EM, MINVU, SUBDERE, MINAGRI, MBN and MOP), regulatory frameworks in place and capacity building at State and regional levels to consolidate effects within the Project period. The heterogeneous nature of pilots within the Project, covering from semi-desert to temperate areas, with different landscape mosaics of land uses and different productive sectors involved, provides many ways to achieve multiplier effects, replication and upscaling. Project implementation will be integrated in existing regional institutions and will conduct workshops across areas with highest replication potential to demonstrate the experience and help other users and stakeholders to implement the same practices, thereby providing the systemic capacity needed for scaling up the initiative to other regions. The Project will support the development of an exit strategy, which will cover all aspects handled by the Project.

The GEF resources have been strategically allocated for activities with a high potential for catalysing learning experiences. With this intent, the experiences and lessons learned will be systematically documented and distributed by means of the Project's web site, the portals and channels of the Project's partners and the Environment Ministry's Wetlands platform.

Some of the elements with a high replication potential emanate from the experience of coming to agreement on protocols to be incorporated into environmental criteria for productive activities associated with the wetlands and their respective watersheds, forming working groups with key stakeholders from each productive sector, integrating public services, private stakeholders, NGO's and Academia, these criteria to be a part of future tendering for projects and programs associated with these productive sectors.

The Project will ensure that an appropriate knowledge management platform is developed and shared with all relevant stakeholders. The platform developed in component 1 will bring together both existing knowledge and that which will be generated throughout the Project activities. Existing information generated from development institutions and public and private sector institutions will be systematized to ensure consistency and compatibility. This information, together with the outputs generated by the Project, will be made available to relevant stakeholders including decision-makers at local, regional and national levels.

3.10. Public awareness, communications and mainstreaming strategy

The problem of conservation and recovery of the Coastal Wetlands has a communicational aspect which it is important to address. The challenge of communications is directly related to how to promote a culture of care, protection and recovery not only of species but also of a complex ecosystem that provides a series of intangible services that are often not perceived by people as a direct "benefit". This challenge requires efforts not only toward information distribution or mainstreaming, but also the generation of educational opportunities that promote knowledge, appreciation and action on the part of people regarding the environment. In other words, it is necessary to support activities that help the people who interact with these endangered areas to become aware of how their actions affect the ecosystem. The lines designed for implementation of the present strategy are based on the document "Strategies of Communication and Education for Sustainable Development", published by UNESCO's

Regional Education Office for Latin America and the Caribbean. In drawing this up, the information from field work carried out during the PPG phase was gathered, which consisted of interviews with a series of professionals and technical personnel with capabilities in the area of wetlands conservation and management, as well as with figures from the political realm involved in decision-making in this area.

For the purpose of establishing a base line for the Project's Component 1, entitled "Information management and mainstreaming for awareness of the importance of biodiversity and the sustainable use of wetlands", an analysis was carried out identifying the main areas the Project will support in training, as well as those that will be supported by the communications and information management strategy. A list of stakeholders to be interviewed was drawn up, seeking the professionals most competent and closest to the issues at hand, and who to date had participated directly or indirectly in the Project, both in the regions and at the central level. The KAP (knowledge, attitudes and practices) questionnaire was applied to these stakeholders to measure their level of awareness and understanding of the issues related to biodiversity conservation and management of coastal wetlands on the part of the identified key stakeholders. (For more details regarding the methodology and results for each of the pilot regions, refer to "9. KAP questionnaire results" in Appendix 17)

In general, the main training needs, evaluated transversally in all regions and at the national level, have to do with the following:

- Institutional verification and legal attributions in the realm of coastal wetland conservation/protection.
- Guidelines and/or protocols to be officially followed in order to safeguard endangered wetlands and their watersheds. Institutions are not familiar with each other's' attributions so that they do not know where to seek solutions when questions arise. It is urgent that a coordinated and integrated mechanism be established, at least for addressing doubts and consultations.

Some of the results of the surveys that are contributing to drafting the communications strategy are a perception of the types of wetlands: although there is not clarity regarding official or more generally recognized topography, so that everyone could be speaking the same language on these issues, the relevant Public Services sense that society in general does not understand why coastal ecosystems are important and that for a lot of people wetlands are unproductive or abandoned sites, trash depositories, or simply a problem for their own land. In this way, the ecological and productive significance of wetlands must be emphasized in order to maximize their care.

It is vital that communications also support the current institutionality, indicating what capabilities exist regarding wetland care and protection and where they are located (public services, role of the municipalities, etc.). For example, interviews have revealed that people lack knowledge regarding the National Wetlands Committee's work, and we have observed a lack of communications between centrally located services and those in each region, with no efficient information transfer occurring.

In order to draw up this strategy, work was carried out on a model whose structure is based on target audiences that we seek to fulfil, and the design of outcomes and targets for each of these target audiences. Notwithstanding the above, the general framework objectives that will serve to guide implementation of Project activities are the following:

- Inform, sensitize and improve motivation and decision-making regarding management, protection and conservation of the coastal ecosystems.
- Train national and regional decision-makers in wetlands management and conservation.

The following transversal tools have been designed, to be developed at the beginning of the Project inception phase and will be used throughout:

1. Content analysis: Communications media reflect perceptions of the diverse sectors of Society (business, economics, politics, etc.), each from his/her particular point of view. For this reason, it is necessary to understand what their focus on the issues at hand is and what their editorial priorities are; in this manner it will be possible to develop adequate and attractive products for publication.

2. Work with the communications media also includes a series of meetings with editors/journalists related to the Project's area of interest, for the purpose of discovering their impressions about the focus required when drawing up the communications products, and this activity is called the plan for relating with the media.

3. The Narrative (key messages): In accordance with the review of secondary information and the results of the preparatory interviews, the key messages proposed for this Project are the following:
   - The coastal wetlands watersheds represent one of the most productive of all ecosystems because they provide more ecosystem services than any other environment, especially in the coastal areas.
   - The most "noteworthy" of all ecosystem services provided by these watersheds associated with coastal wetlands are water supply and purification, flood control, aquiculture resources, among others.
- Wetlands are part of a hydrological watershed, and for this reason pressures from human activity on the latter affect the wetlands; in other words, the wetlands are an alarm bell regarding what is happening in the watershed.
- Despite their significance for biodiversity conservation, Wetlands are in danger of disappearing, due fundamentally to the development of infrastructure, changes in land use, irrational water extraction, the accumulation of organic waste and contamination, among others.

The key messages will serve to structure the communications products, forming the core of the strategy's narrative. The products listed below will serve to give coherency to that narrative and will be drawn up on the basis of implementation needs, that is to say, for a conference, interview, seminar, etc.:

4. Media Plan: A Media Plan exists for the purpose of determining what communications product will be used for each particular medium, depending on its format, editorial line and focus. Thus, the Plan calls for selecting the communications media most appropriate for delivering the message to the widest possible previously defined target population. The products of the Media Plan, which will be redefined constantly, are as follows:
   - Press releases
   - Articles for magazines or specialized media
   - Interviews
   - Opinion columns
   - Press Files
   - Press spots

5. Spokespeople's Workshop: The Media Plan includes carrying out a Workshop for the purpose of improving the communications abilities of the Project's main spokespeople, who will be

facing the communications media and the priority target audiences, regulating best practices and corporate messages that promote the common narrative in a timely and effective manner.

6. Strategy for the Target Audience

Target Audience (TA)	Objectives	Expected Results	Activities
1- Inhabitants who are members of social organizations and educational centers in the townships	To inform about the importance of protecting, taking care of and giving good use to the coastal ecosystems. Raise awareness of people regarding the ecosystem services that wetlands provide.	Inhabitants of the indicated townships are informed about wetlands protection. Inhabitants of the indicated townships have gained awareness of the services provided by the wetlands and their respective benefits.	Press interface on the local level, digital bulletin, Project web site, social networks plan, radio campaign for local communications media; development of a video for social network and platforms and WhatsApp for presenting wetlands and their watersheds; development of educational products for education centers; production of information panels within the wetlands, drafting educational guidelines for citizens, guided visits to the pilot ecosystems, activity for "cleaning up your wetlands".
2- Professionals from regional public services with capabilities in coastal	To inform the TA about coastal ecosystem conservation	Public service professionals are informed in the areas indicated.	Press interface, digital bulletin, Project web site, social networks plan.

ecosystem management; regional government	and protection. To train professionals from public services and regional governments on coastal ecosystem management. Raise awareness on the importance of the role of public services, regional councils and interinstitutional coordination for the correct management, protection and conservation of the wetlands.	Public service and regional government professionals have been trained in coastal ecosystem management. The TA has gained awareness of the importance of the role of public services, regional governments and interinstitutional coordination for correct wetlands management.	Guidelines on "oversight and legal attributions of the different institutions", Seminar on "Sustainable Construction in Coastal Ecosystems", Experience Sharing Workshop Self-learning courses through e-learning: (i) wetlands management for protected areas and Ramsar administrators; (ii) biodiversity in wetlands Advanced degree in wetlands management
3- *Local government (municipalities)*	To inform the TA about coastal ecosystem management and conservation. To raise awareness of and train the TA in coastal ecosystem management and conservation.	The TA is knowledgeable about conservation and management of coastal ecosystems. The TA has increased awareness and training in coastal ecosystem conservation and management.	Press interface, digital bulletin, Project web site, social networks plan. Cycle of presentations: "Coastal Ecosystems: beyond species conservation", awareness campaign for Municipal personnel.
4- *Private stakeholders associated with the watersheds*	To inform and raise awareness among managers and directorships of the private sector	Business managers and directorships have information available regarding sustainable management of these ecosystems.	Press interface, digital bulletin, Project web site, social networks plan. Informative material

	associated with the watershed, in management and best practices for coastal ecosystems.		associated with the Project and conservation of coastal landscapes, working breakfast with influential stakeholders.
5- *Civil Society: institutions that work with the Project's areas of intervention; NGO's; universities, foundations, others.*	To inform about management and conservation of the wetlands and their watersheds.	The TA is aware and informed, regarding management and conservation of wetlands and their watersheds.	Press interface, digital bulletin, Project web site, social networks plan.
6- *Ministerial personnel with capabilities in Natural Resource Management and productive activities associated with wetland watersheds and the National Wetlands Committee*	To inform about the environmental, social and economic benefits associated with integrated management of the coastal ecosystems. To train the members of the National Wetlands Committee and local technical committees.	Personnel have information available about the issues outlined in the outcomes. Members of the CNH and local technical committees have been trained.	Press interface, digital bulletin, Project web site, social networks plan. Ramsar course targeting CNH. Forum or online platform for sharing experiences between regions and the central level.

Regarding the **gender focus,** the World Gender Gap Indicator from the World Economic Forum (WEF, 2017), which measures the magnitude of the gap between men and women in 144 countries, ranks Chile in position number 63, and despite the fact that there are women in leadership positions in Project partner entities, as well as in research activities, women's participation in the pilot sites for Project intervention can still be reinforced and strengthened.

Within the framework of this Project's implementation, equal opportunity and development actions for both men and women are being proposed, as well as contributing to women's empowerment, for the purpose of increasing their participation and decision-making, while increasing their access to the Project's socio-economic services and benefits. The measures that will be implemented by this Project include the following:

- Taking into account the characteristics of each of the pilot sites, women's participation in the activities developed by the Project will be encouraged, mainly in activities of decision-making regarding recovery, monitoring, and development of new productive activities.
- A gender-sensitive focus will be continuously promoted in order to ensure that women and men have the same opportunities to participate in and benefit from Project interventions, and measures will be taken to address inequalities and promote women's empowerment.
- In the working groups, administrative committees and related meetings, as well as throughout the participative processes, the inclusion of women and men will be promoted and facilitated, as well as mutual respect and collective decision-making among all, with specific measures for assuring that woman's priorities and suggestions be included in the decision-making process.
- The inclusion of both women and men in the Project staff will be encouraged. Inclusive language will be used in all respective contractual procedures and documents.
- Women will be included in the technical committees and working groups operating in each of the Project Components, and throughout implementation; likewise, in experience-sharing activities.
- Training courses will be inclusive and sensitive to gender and local culture in terms of participation, instructional design and language use.
- All Project actions will be culturally sensitive and will take into account, when necessary, the requirements of special-needs individuals.
- The diagnosis of people's information needs and interests, as well as the Project's communications strategy, will recognize the concerns and limitations that both women and men face, as well as their respective motivations and perceptions, addressing the concept of gender-based needs.
- All communications materials, Project documents and publications will use culturally inclusive, pertinent and gender-sensitive language. In the process of documenting Project lessons, special care will be given to record and make known women's contribution and role in the activities implemented.
- Participation in meetings, training courses and other events will be documented using gender-specific data. When pertinent, this will also apply in information gathering in consultancies and studies.
- Activities for presenting the Project will be oriented toward motivating and promoting participation in general, and that of women in particular.
- The Project will assure that appropriate operating conditions exist for women's participation in the implementation of its activities.

3.11. Environmental and social safeguards

1. (See appendix attached)

SECTION 4: INSTITUTIONAL FRAMEWORK AND IMPLEMENTATION ARRANGEMENTS

Implementing Agency

UN Environment, as an implementing Agency of the GEF, will be responsible for overall Project supervision to ensure consistency with GEF and UN Environment policies and procedures and will provide guidance on links with related UN Environment and GEF-funded activities. The UN Environment will be in charge of monitoring and evaluation, including supervision of the midterm and final evaluations, and revising and approving quarterly, semester and annual reports (both financial and technical). It will as well offer guidance regarding global environmental benefits (GEB), analysis and technical support in pertinent fields, and other liaison and coordinating actions necessary for correct Project implementation.

National Competent Authority (EM)

This Project is directed by the Environment Ministry (EM), which will act as national competent authority, in alliance with the implementing agency (UN Environment) and the funds management agency, which will provide administrative support to the Project through the implementing agency.

The Environment Ministry will be in charge of guaranteeing correct Project execution, coordination, monitoring and evaluation of Project objectives' fulfilment. For this purpose, The Head of the Natural Resources Division will be the Project Director (PD), and he/she will designate one of their staff professionals from the Aquatic Ecosystem Department of the Natural Resources Division, as the Project Operational Coordinator (POC), who will be the Environment Ministry's representative and will provide technical guidance for the different Project components, coordinate with the National Project Coordinator (NPC), the Regional Representatives (RR) of the EM, and select executing staff as well as every consultancy which is necessary for fulfilling the Project's goals. On the local level, the CTL's will be headed by the EM SEREMI's of each region, and will designate a Regional Representative (RR) for the Project, who will supervise the fulfilment of activities, targets and outcomes in each region's pilot implementation, as well as supervising and coordinating activities with the Local Coordinator (CL) from the Project Management Unit (PMU) and of the activities to be carried out with the CTL's in each region.

The funds management agency designated by the Environment Ministry, in its administration support role, will be in charge of accounting and administrating the Project's funds, hiring of the executing team and consultants defined by the Ministry (see internal structure in "10. Legal Instruments of National and International Character" in Appendix 17). In addition, this institution will be in charge of the acquisition of all goods and services necessary for accomplishing the Project's objectives. This institution will act under coordination by the implementing agency, and all contracts and acquisitions will be approved by both the Ministry and the implementation agency.

Project Management Unit (PMU)

The Project Management Unit (PMU) will be responsible for operational planning, managing the budget and the execution of all Project activities according to the ProDoc, as well as drafting terms of reference and selecting the necessary consultancies and consultants. It will prepare the coordination meetings with the different partners and the PSC, National Technical Committee (NTC) and the Local Coordinators, as well as the Project's annual plans, evaluation and monitoring reports and others as needed. The PMU will consist of the National Project Coordinator (PC), who will work in coordination with the EM's OC, the 5 Local Coordinators (LC's), one for each of the 5 pilot regions,

and these will work in coordination with the Regional Representatives (RR) of the EM (SEREMI's) in each region, together with an administrative assistant.

The main function of the National Project Coordinator (PC) will be to execute all the activities necessary for full Project execution and implementation. The PC will coordinate with the implementing and executing agencies and will be in charge of the Project's technical and administrative direction, coordination and operational planning, together with supervising the Local Coordinators (LC´s), the administrative assistant, and both national and regional consultancies.

The Administrative Assistant will provide support to the PC and division coordinators in all administrative matters associated with Project execution. He/she will be in charge of organizing meetings or other activities, hiring services by PMU mandate, keeping the PC agenda, keeping meeting minutes, coordinating PMU activities at the local level, calling meetings and confirmations, receiving and distributing mail, among other functions.

The Project Local Coordinators (LC's) will be in charge of executing and monitoring all activities in the pilot landscapes, coordinating with the ER, the Local Technical Committees (LTC's) as well as the pertinent external consultants, providing technical assistance, supervising fulfilment of the targets for each area and liaising with the PC. The LC's will act under the supervision and coordination of the PC and the OC, and his/her selection will be carried out by an evaluation team comprised of representatives of the PC, OC, PD and the implementation agency.

Project Committees

From the PIF phase, a directing board was created, incorporating different governmental institutions, in order to include the main stakeholders involved in the management of coastal ecosystems, incorporating their opinions and agreements. In the same manner, for the execution stage, a **Project Steering Committee (PSC)** will be established, presided by the EM's Project Director and coordinated by the NPC and POC. The PSC will consist of representatives of the Environment Ministry and UN Environment, of the Ministries of Agriculture (MINAGRI), Public Property (MBN), Housing and Urbanization (MINVU), the State Under-Secretariat (Subdere), and Port Works Department (DOP) and General Waters Department (DGA) from the Ministry of Public Works (MOP) and the Operational Focal Point (OFP) as observer (see details of the external structure in Appendix 10), and they will meet at least once a year. The PSC's main functions will be to assure compliance with the Project's objectives, provide political support for the implementation of new or revised policies, offer strategic guidance, collaborate in interinstitutional coordination, and guarantee the active participation and compliance with the commitments acquired by the institutions they represent, together with the approval of the annual work plans and budget.

A **National Technical Committee (NTC)** will be established, made up of the members of the National Wetlands Committee (CNH), in itself established by CONAF, SAG, MINREL, Mining Ministry, Public Property Ministry, Maritime Sub-Secretariat, Fisheries Sub-Secretariat, SERNAPESCA, DGA, DIRECTEMAR, CNR, as well as the Housing and Urbanization Ministry, Subdere, Tourism and the DOP, that although not a part of the CNH, have a role and mandate regarding coastal ecosystems making their participation in the NTC vital. This NTC will provide technical support to the Project's Management Unit in the implementation of its activities, its main role being Project advisor on technical matters. The NTC will meet at least 4 times a year and will be presided by the OC and the PC, the OFP attending as observer.

In each pilot region, **Local Technical Committees (LTC's) will be established,** to be headed by the respective EM SEREMI's, coordinated by the RR and supported by the LC's, and with the additional

participation of both the PC and the OC as necessary. These will be constituted by the regional counterparts of the NTC Public Services, representatives of the Municipalities involved, Regional Governments, NGO's, Academia, community representatives and the private sector. The LTC's can invite others to participate by mutual agreement when necessary. The LTC's will have an advisory role in Project implementation at the level of the pilot ecosystems, will meet at least 4 times a year, and the participants will be able to take part in the working sub-committees depending on what specific material the Project may deal with, in its different stages.

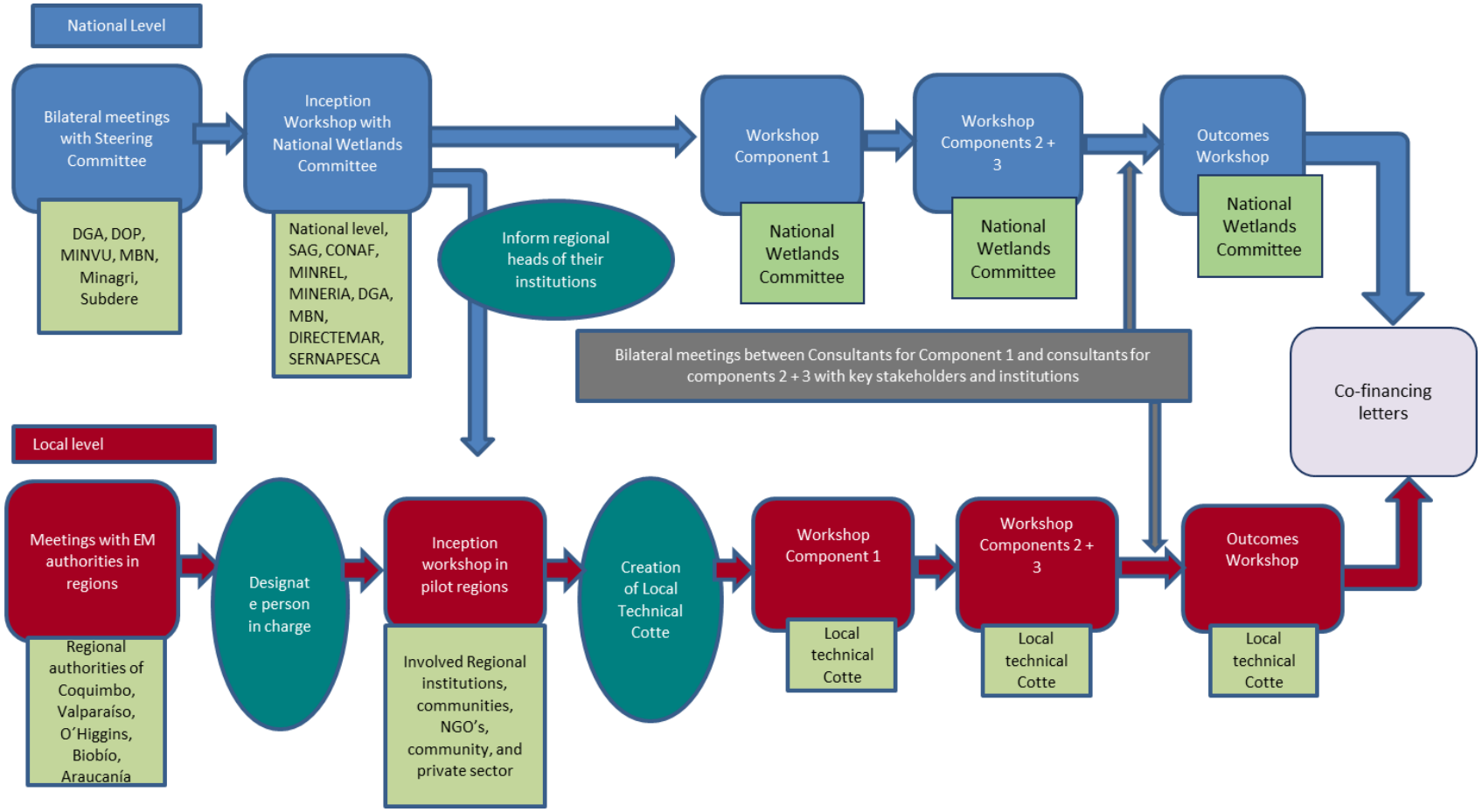
Overall, the Project partners, members of the PSC, NTC and LTC's, will contribute to implementation of the different activities included in the Project, co-financing initiatives in all three components, as well as providing information, technical and institutional support, and assistance in implementing pilot projects. Their collaboration will be formalized through agreements whose duration will extend through the five years of Project execution (2019-2024).

SECTION 5: STAKEHOLDER PARTICIPATION

During the Project design phase, a series of technical meetings and consultations were held with different key stakeholders representing public services, the local communities, private stakeholders, the academic world, and both national and international NGO's, in order to incorporate their views into the Project regarding the design of each component's products, activities, the logical framework, identification of synergies with other initiatives, coherence with policies, plans and/or programs, identification of shortcomings and needs, diagnosis of threats, activities already being carried out or to be carried out within Project realms, compiling information gathered within the area, collaboration and participation agreements, among others. An analysis of the most relevant stakeholders, their potential impact on the Project, synergies and contributions are detailed in Section 2.5 and synergies with other GEF and non-GEF initiatives in Section 2.7.

The stakeholder participation strategy developed in the Project design phase, at both national and regional levels, is systematized and presented in figure 2. At these meetings, the initiative was made known, synergies were identified with other existing actions, information gathered within the Project area was obtained, and work was carried out on design and methodology for the outputs of each component.

Figure 2. Stakeholder participation strategy



Based on the results of the initial workshops, the work sites were visited in order to make contact with the local stakeholders and analyse the viability of the proposed interventions. In addition, key stakeholders were interviewed in order to analyse their level of interest in associating with the Project and to gather proposals and recommendations. A detailed draft of activities and roles was drawn up and reviewed and adjusted by the Project partners. The adjusted draft was analysed by the key stakeholders in validation workshops that were carried out in each of the pilot sites, together with the GANTT charter programming for the different Project activities during the 5 years of implementation. In total, 15 workshops in the different regions were carried out, plus 4 at the central level with the National Technical Committee (National Wetlands Committee plus MINVU, DOP, SUBDERE and Tourism). Over 500 people participated in these workshops, of which 44% were women.

The GEF Project includes among its outcomes that of strengthening this National Technical Committee, which will act as a transversal entity for the LTC's and the Steering Committee, providing technical support for correct Project execution. In the Project Design Phase, the National Technical Committee gave support in carrying out the meetings at the local level, informing their regional leaders of the importance of participating in the Project, in addition to validating the results obtained from the main consultancies; and later, of the Project's logical framework, its activities and expected outcomes. In the second meeting with the Committee, it was decided to invite MINVU, DOP, SERNATUR and SUBDERE, which are not officially members of the Committee, but because of their relevance to the GEF Project, their participation in Project meetings and activities was considered important. In the third and fourth meetings, the main results of this phase were presented and validated, with the associated diagnoses for each pilot ecosystem, together with the activities to be carried out under each of the Project's three Components.

Concerning the stakeholders whose participation is vital for fulfilling the Project's objectives, and who are part of the Steering Committee, this was formalized through collaboration agreements to extend throughout the Project's execution phase, in addition to co-financing commitments, the texts of which appear below in Appendix 12.

On the subnational level, in the first instance a meeting was held with the local environment authorities (SEREMI's) of the 5 pilot regions, which will lead in Project implementation, and the local Technical Committee established in each region. In each region, four workshops were carried out, organized by the SEREMI of each region, who invited representatives of the different Public Services, Municipalities, Regional Governments, local communities, NGO's, Academia and private stakeholders present in the wetland watersheds. The first was an initiation workshop, for the purpose of presenting the Project, involving the different stakeholders and inviting them to participate, together with defining the principle threats that are negatively impacting the wetlands. In the second workshop, the Local Committee was established for each region, with their respective commitments for participation in and support for Project execution, in the preliminary diagnosis carried out in the pilot wetlands and identifying priorities for the Project implementation stage. In the third workshop, surveys were carried out as input for the Project's communications strategy, revealing the training requirements of the different stakeholders and the most efficient means for establishing a communications strategy and for mainstreaming the knowledge obtained in each pilot ecosystem. In the outcomes workshop, the main activities to be carried out throughout the Project's 5-year execution were validated with the Local Technical Committee, in accordance with the participative diagnosis carried out with the stakeholders.

Also, during the Project design phase, both physical and virtual meetings were held, with representatives of different NGO's with whom synergies will be established. Among these are Audubon International, with whom a Project participation commitment was established for monitoring, creation of sustainable productive activities associated with the wetlands, together with

analysis of the ecological integrity and ecosystem services in these territories; and in addition to this, an agreement with the EM was also reached. Possibilities for synergies and participation were also explored with other NGO's, such as the ROC (Chile's Bird Watchers' Network), with whom awareness-building activities were considered through visits to the wetlands by authorities and civil society; the Kennedy Foundation, who have worked on the baselines of different wetlands and have experience in involving private stakeholders in wetlands management; the Terra Austral Foundation, who through an agreement with The Chilean California Council and the California Land Trust Council, are considering different opportunities for collaboration and for obtaining financing through yet other foundations with experience in conservation of Californian coastal wetlands that could be replicated in Chile, and visits from experts in the realms of construction and sustainable development in coastal ecosystems. The Project's coordination unit was invited to participate in the Second Annual Chile California Conservation Exchange Conference 2018 in Santa Cruz, California, in order to view these issues in detail and establish an alliance for the Project's execution phase. We are currently working with the German NGO MHS (Manfred-Hermsen-Stiftung) in drafting the "Action Plan for the Conservation of Coastal Wetlands and Beach Fowl in the South American Pacific Arid Coast", with representatives of Perú, Colombia and Ecuador, with whom several opportunities were explored for integration, replication and South-South cooperation during the Project implementation phase.

Table 2: Stakeholder participation

Date	Pilot Region	Meeting	Participants	
			Women	Men
27-04-2018	Santiago	Inception workshop	8	9
22-05-2018	Coquimbo	Inception workshop	11	15
29-05-2018	Valparaiso	Inception workshop	16	20
08-05-2018	O´Higgins	Inception workshop	33	27
09-05-2018	BioBio	Inception workshop	13	20
08-06-2018	La Araucania	Inception workshop	24	28
14-09-2018	Coquimbo	Second workshop	6	10
09-10-2018	Valparaiso	Second workshop	3	19
02-10-2018	O´Higgins	Second workshop	19	25
12-09-2018	BioBio	Second workshop	9	12
25-09-2018	La Araucania	Second workshop	13	10
04-07-2018	Santiago	Second workshop	7	7
03-11-2018	Coquimbo	Outcome validation workshop	7	10
20-11-2018	Valparaiso	Outcome validation workshop	11	18
11-12-2018	O´Higgins	Outcome validation workshop	20	17
13-11-2018	BioBio	Outcome validation workshop	7	14
13-12-2018	La Araucania	Outcome validation workshop	8	14
14-12-2018	Santiago	Outcome validation workshop	6	7
Total			**221**	**282**
			503	

For Project execution phase, the communications team 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. The formal involvement of key stakeholders will begin with the inception workshop, in whose organization the Steering Committee and the National Technical Committee will be co-organizing. Next, workshops will be organized at the level of the pilot ecosystems, with the participation of the Local Technical Committees, where the key actors of each region are involved. These will be extended meetings in which they will be presented

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

The project management structure will ensure participation of key stakeholders during project implementation and monitoring and evaluation (M&E). The National Steering Committee is made up of the political and technical representatives of the executing and implementing agencies and will provide overall guidance for project implementation. Other stakeholders may be invited to participate in the Steering Committee meetings where deliberation, negotiation, elaboration of strategic guidelines and approval of work plans will take place. At local level, the Local Technical Committees will comprise the main stakeholders in each intervention area (government institutions, academia, private actors and non-governmental organizations). The Local teams of the PMU will ensure adequate planning and implementation of activities in line with the project objectives, local environmental and socioeconomic specificities and stakeholder priorities, as well as complementarity with ongoing and planned programs and projects

Throughout implementation, the project will seek to establish adequate channels for information, communication and consultation, based on a dynamic interaction between the formal spaces established through the project, including the National Steering Committee, Project Management Unit and Regional Offices.

The project will implement several approaches to engage stakeholders in project implementation:

• The national and local teams will provide the opportunity for discussing project strategic directions and advances, and at the same time will act as forums where stakeholders can provide inputs, express concerns, interests and suggestions.

• The project´s training and communication strategy programs will make use of both bottom-up and top-down approaches, integrating the different points of view of the local stakeholders and beneficiaries as well as those of the institutions, authorities and decision makers.

On the ground interventions will serve the purpose of demonstrating that the alternative sustainable land and water management practices to be promoted are feasible, cost-effective, and provide a greater benefit compared to the current practices

Project M&E will promote participation through several mechanisms, such as (i) annual project reviews; (ii) Steering Committee reviews; (iii) workshops for verification of indicators; and (iv) mid-term and final evaluations. These mechanisms will make use of participatory tools to obtain inputs from stakeholders to verify project progress and adjust the project implementation strategy, whenever necessary.

SECTION 6: MONITORING AND EVALUATION PLAN

The Project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Substantive and financial Project reporting requirements are summarized in Appendix 8. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed by the executing agency and UNEP.

The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Appendix 4, includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks included in Appendix 6, will be the main tools for assessing Project implementation progress and whether Project outcomes are being achieved. The means of verification and the costs associated with obtaining the information to track the indicators are summarized in Appendix 7. Other M&E related costs are also presented in the Costed M&E Plan and are fully integrated in the overall Project budget.

The M&E plan will be reviewed and revised as necessary during the Project inception workshop to ensure that Project stakeholders understand their roles and responsibilities vis-à-vis Project monitoring and evaluation. Indicators and their means of verification may also be fine-tuned at the inception workshop. Day-to-day Project monitoring is the responsibility of the Project management unit, but other Project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Coordinator to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

The Project Steering Committee will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Outcomes Framework or the M&E plan. Project oversight to ensure that the Project meets UNEP and GEF policies and procedures is the responsibility of the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft Project outputs, provide feedback to the Project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

Project supervision will follow an adaptive management approach. The Project Coordinator with the Administrative Assistant will develop a Project supervision plan at the inception of the Project, and this will be communicated to the Project partners during the inception workshop. The emphasis of supervision will be on outcome and implementation monitoring and Project financial management. Progress vis-à-vis delivering the agreed Project global environmental benefits will be assessed with the Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by Project partners and UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

In-line with UNEP Evaluation Policy and the GEF's Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation and, additionally, a Mid-Term Review will be commissioned and launched by the Project Manager before the project reaches its mid-point. The possibility of a Mid-Term Evaluation will be discussed with the Evaluation Office.

The Evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with the Task Manager and Executing Agency(ies) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF, executing partners and other stakeholders. The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the operational

completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. Terminal Evaluations must be initiated no later than six months after operational completion.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalised and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

SECTION 7: PROJECT FINANCING AND BUDGET

7.1. Overall project budget

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
UNEP	GEFTF	Chile	Biodiversity		3,505,151	332,989	3,838,140
UNEP	GEFTF	Chile	Land Degradation		1,641,653	155,957	1,797,610
Total GEF Resources					5,146,804	488,946	5,635,750

7.2. Project co-financing

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount ($)
Recipient Government	EM (Ministry of Environment)	In-kind	848,900
Recipient Government	EM (Ministry of Environment)	Grants	6,654,000
Recipient Government	MINVU (Ministry of Housing and Urbanization)	Grants	583,333
Recipient Government	MOP –DGA (General Water Department)	In-kind	12,500
Recipient Government	MOP –DGA (General Water Department)	Grants	48,333
Recipient Government	MOP – DOP (Port Works Department)	In-kind	40,000
Recipient Government	MOP – DOP (Port Works Department)	Grants	9,016,667
Recipient Government	MBN (Ministry of Public Property)	In-kind	512,567
Recipient Government	MBN (Ministry of Public Property)	Grants	99,289
Recipient Government	MINAGRI (Ministry of Agriculture)	In-kind	45,833

Recipient Government	MINAGRI (Ministry of Agriculture)	Grants	880,416
Recipient Government	Under ministry for regional development	In-kind	116,667
Recipient Government	Under ministry for regional development	Grants	102,667
Private actors	Arauco Forest Company	In-kind	11,667
Private actors	Arauco Forest Company	Grants	63,333
NGOs	Audubon International	In-kind	295,000
NGOs	Audubon International	Grants	205,000
NGOs	Centro Neotropical de Entrenamiento en Humedales	In-kind	143,136
NGOs	Centro Neotropical de Entrenamiento en Humedales	Grants	312,682
Total Co-financing			**19,991,990**

7.3. Project cost-effectiveness

The cost-effectiveness of this Project is based on maximizing the impact of the present investments by the Chilean Government on coastal landscape management, by incorporating biodiversity conservation and sustainable land management practices in productive sectors and activities at the landscape level. The Project will build upon the baseline activities, existing capacities and infrastructure at national and local levels to contribute to advance toward the sustainable development objectives expressed in the national plans and programs. Furthermore, the Project´s three components will collectively address the threats to global environmental benefits provided by coastal ecosystems in Chile by removing the identified barriers that currently hinder the solution of threats to global environmental benefits.

Cost-effectiveness is considered in the design of Component 1 through harmonizing the existing data models and databases on coastal landscapes, through the EM's Wetlands Platform, establishing in this manner a single information management system comprising user-friendly tools and products (e.g. thematic maps, smartphone apps) that will provide coherence to the national information, facilitate access to and utilization of the information, and strengthen the biophysical and information management system as per the interests and needs of the users to enable land use decision-making by the different user groups.

Component 2 will promote cost-effectiveness through the strengthening of national policy and regulatory frameworks, improved institutional competency and by building on and improving the already existent institutional coordination and collaboration framework, such as the National Wetlands Committee. Cost effectiveness is achieved by incorporating sustainable and conservation practices into the mandates, regulations and tendering processes of the institution working with infrastructure, and the promotion of productive activities in coastal landscapes, increasing replicability and the scope of the Project area. Through capacity development, institutions and individuals may implement SLM and

biodiversity conservation practices with emphasis on the wetland catchment areas. The project will develop institutional arrangements that will promote the enhanced coordination, collaboration, support and participation of the multiple stakeholders involved in coastal landscape management, with a strong focus on the private sector.

The proposed actions under Component 3 will also contribute to cost-effectiveness by implementation of new or revised policies and adoption of new practices in pilot ecosystems. The Project will provide specific technical assistance to the main stakeholders on both the municipal and regional levels, with tools for territorial environment management and training in the issues of biodiversity and ecosystem services conservation; and for the community and landowners, for implementing best practices for land management and coastal wetlands conservation. Furthermore, the efficiency of the Project will also benefit from lessons learned in the demonstration activities thanks to the integration of good practices, knowledge management and capacity building, as well as monitoring and evaluation.

The selected community-based projects also represent a cost-effective contribution locally. They will foster the development and dissemination of specific management practices that integrate biodiversity conservation and sustainable land management, and adopt new production activities and services (ecotourism, birdwatching, among others) with a focus on the sustainable use of the coastal landscape, creating the double benefit of generating improved livelihoods and simultaneously conserving significant biodiversity.

In considering Project cost-effectiveness, it is important to keep in mind that one key Project focus is communication and replicability of the lessons learned beyond just the intervention areas, by working in close collaboration with local, regional and national authorities in such a way as to maximize the impact of the expected outcomes within the Project areas and throughout Chile. The Project will prove itself to be profitable, conducting the required changes, not only within the direct intervention sites, but also laying the foundation for replication in sectors outside the Project areas with similar characteristics, within Chile's Mediterranean zone, utilizing strategic investments combined with national incentives plans and programs.

A GEF investment of US$ 5.1 million catalysing co-financing by Chilean institutions of close to US$ 20 million, for protecting biodiversity and ecosystem services in coastal landscapes of the eco-mediterranean region, has to be considered a profitable investment. Through this incremental contribution and the Project's potential for replicability, the available funds will contribute to conserving biodiversity habitats unique in the world.

Appendix 1: Budget by project components and UN Environment budget lines

See separate Excel file

Appendix 2: Co-financing by source and UN Environment budget lines

See separate Excel file

Appendix 3: Incremental cost analysis

Baseline	Alternative	Increment
(A)	**(B)**	**(B) – (A)**
Component 1: Information management and outreach for mainstreaming sustainable coastal landscape management		
Without the GEF intervention, ecological and socio-economical information on coastal ecosystems will be limited, with low access for civil society and decision makers on the importance that coastal ecosystem have for provision of ecosystem services. Data on monitoring and inventory of coastal ecosystems will be dispersed, in different state and private institutions, in different or incompatible formats and inconsistent in terms of information for monitoring and the analytical methods applied to its analysis for policy formulation and planning	With GEF funding, it will be possible to improve the EM wetlands platform, to have a centralized access to useful information regarding the importance of coastal ecosystems for GEBs, including information on ecosystem services and their economic significance in the pilot areas, with access to methodologies and guidelines for replication activities. GEF resources will be used to coordinate and make possible the data interoperability of the different state and private institution working with monitoring and restoration projects, and create technological applications to promote civil society involvement in coastal and watershed conservation and awareness	An increase in awareness on the importance of coastal landscapes for biodiversity conservation and sustainable production from both civil society and decision makers is accomplished
Component 2: Institutional and regulatory frameworks strengthened		
At the institutional level, without the GEF, a lack of understanding regarding how these ecosystems function at the landscape level and a lack of know-how for addressing threats specific to coastal	With GEF Funding, a training program will be developed, providing the necessary technical and scientific knowledge for an adequate understanding of the	Increased capacity of national and local stakeholders to manage landscapes sustainably for the conservation and recovery of

landscapes will continue. The institutions strictly sectorial focus and inconsistent coordination will continue to prevent a coherent integration of resource utilization. With the BAU scenario, regulatory framework for conservation of coastal ecosystems will continue to be weak, scattered in different institutions and ambiguous, Although the State promotes instruments of protection, there are more than 20 legal bodies with some degree of impact on the management or conservation of wetlands, it also finance incentives that are often at odds with these instruments, such as the incentive to irrigation and drainage, fragmentation of landscapes and ecosystems by roads, modification of channels for development of civil works, discharge of liquid waste on bodies of water, loading of sediments by modification of vegetation cover, among others. Without GEF funding, productive sectors associated to coastal landscapes, such as infrastructure and construction, agriculture and forestry, will continue with the absence of necessary guidelines on environmental criteria and best practices or protocols for their sectors, which constitute the major threats to coastal landscape conservation	interdependence between wetlands and the associated landscapes and watersheds in which they are inserted, and the causal relationship of the ecosystem components and their interactions. In the alternative with GEF support, it will be possible to have an in-depth analysis of what new or modified policies and regulations are needed and for which institutions. The GEF will work on the development and implementation of modified or replaced policy elements that negatively impact coastal ecosystems, and in improving the complementarity between the different policies, and the mechanisms of the different institutions involved to implement them. The GEF contribution will make it possible to generate protocols and guidelines that will be drawn up through interinstitutional and interdisciplinary working groups, formed with participants from public services, NGO's, Academia and the Private Sector, for implementation on the national and sub-national levels and will constitute binding instruments at all institutional and governmental bodies. By becoming part of the mandates, biding and tendering processes of the institutions involved, the private actors working in these sectors (housing development, infrastructure, forestry, agriculture and tourism) will have to comply with the requirements imposed by the institutions.	global biodiversity significance Policies and regulations governing sectoral and production activities in coastal landscapes include environmental considerations that conserves and sustain ES and BD. Policy elements and regulations that negatively impact coastal conservation are modified, eliminated or counteracted. Pressures and threats from productive activities on coastal ecosystems with globally relevant biodiversity are reduced

Component 3: Demonstrative landscapes		
There is a lack of coordination among the different institutions with mandates over coastal land use, without integrated management of the coastlines being applied. Moreover, no robust experiences have been carried out in continuous management or recovery of coastal landscapes and lack of technical capacities are more exacerbated at the local level Useful information and data are both scarce and dispersed among the institutions, and there is a lack of conservation objectives and practices being integrated into the planning instruments, such as PROT, PRI, PLADECO, ZBC and PRC of Local Governments and Municipalities There is a low level of support to communities for including biodiversity and soil recovery to their current productive activities, or to diversifying production and services to other´s which are more sustainable with the environment. There is also a lack of capabilities for drawing up and acquiring available regional funding for projects that include ecosystem services considerations.	With the GEF intervention, it will be possible to generate knowledge to develop multi-stakeholder landscape planning, integrating biodiversity and Land Degradation considerations in territorial planning instruments such as PROT, RENAMU, PRI, PLADECO, ZBC, ZOIT, PRC, involving both public and private sectors and it will make possible implementation of on the ground sustainable practices for their replicability With the GEF contribution, the project will work on diversifying livelihoods through value chain development of both current and new services and products coming from the wetland and their watershed. Supporting the implementation of sustainable economic activities associated, such as bird watching, tourist routes, and nurseries with native species that will be used for reforestation activities. The support will include the identification of barriers and opportunities for incorporating new services; adding value to and diversifying production; the training and technical assistance require for development and implementation of proposals; and the acquiring of resources from available national and international funding.	Pressure on natural resources from competing land uses in the landscape is reduced, with an increased area of production landscapes that integrate conservation and sustainable use of biodiversity into management ensuring provision of multiple ecosystem services, Livelihoods of local communities improved by productive activities and services that includes and are compatible with conserving ecosystem services.
BASELINE COST **TOTAL: $ 10,795,230**	**ALTERNATIVE COST** **TOTAL: $ 41,355,431**	**GEF: $ 5,146,804** **Co-financing: $ 19,991,990** **TOTAL: $ 25,138,794**

Appendix 4: Results Framework

Intervention Logic	Indicators	Baseline	Targets	Source of Verification	Assumptions
Strategic Objective: Enhanced conservation status of coastal landscapes of global environmental value, through improved management for their sustainable use and recovery, reduced threats and reduced pressure on natural resources that support human activities of local importance					
Project Objective: Conserve and recover coastal landscapes (CL) including wetlands and adjacent watershed territories integrating them into local development, through their sustainable management and use	I) *Area of landscapes under sustainable land management in production systems* *II) Number of policies and regulations governing sectorial activities in the coastal landscapes and watersheds that include measures to conserve and sustainably use biodiversity demonstrate results strengthening cross-sector integration* *III)Number of projects in development sectors, such as agriculture, forestry, infrastructure, housing, of coastal*	I) 290,000 ha of coastal landscapes, do not include conservation and sustainable land management practices in their planning process and development activities II) Sector policies and regulatory frameworks do not incorporate BD and SLM considerations for coastal landscapes in development sectors III)There is an increasing level of production and development activities without proper planning and environmental considerations, with negative consequences on the wider landscape due to inappropriate land use change or inadequate protocols and practices for development activities, such as	I) 290,000 ha of Coastal wetland pilot landscapes integrate biodiversity conservation and sustainable land management practices into their planning process and development activities II)At least 4 Sector policies and regulatory frameworks incorporate BD and SLM considerations for coastal landscapes in development sectors III) At least 5 demonstrative experiences at the landscape level integrate SLM and BD considerations in production/development activities IV)At least 21,000 ha in pilot landscapes with restoration plans being implemented	I)demonstration activities and territorial planning with environmental considerations mapped II)Documents on the procedural status of the new or modified normative or policy body III)Audio-visual material with the projects or activities incorporating criteria and best practices, within the Project area of action IV) Target areas obtain "Restoration Landscape" Category from the EM	-The productive sectors and competent services compliance level is high with the protocols proposed and incorporate regulations into their mandates for promoting sustainable wetlands management and conservation -The associated public institutions and authorities are willing to incorporate these protocols and guidelines into their mandates and instruments which they foster. - Positive conditions are in place to work in a coordinated manner, harmonizing procedures and methodologies and sharing information within the framework of an integrated landscape approach, with both national and international

	landscapes that include measures to conserve and sustainably use biodiversity *IV)Area of pilot landscapes with application of restoration plans under "Restoration Landscape" Category*	infrastructure, housing, agriculture and forestry -IV) Significant tendency toward soil degradation and land-use changes with no restoration plans being developed by competent authorities, private actors or community initiatives			institutions

Component 1 Information management and outreach for mainstreaming biodiversity and sustainable land management (SLM) with an integrated landscape approach						
Expected Result (outcome):	**Indicators**	**Baseline**	**Mid-Term Target**	**Target upon Project Finalization**	**Source of Verification**	**Assumptions**
1.1 Decision makers and relevant stakeholders are aware and appreciate the importance of BD conservation and LD problems in coastal landscapes through more and better access	*i) Increase in information and availability of data on the importance of coastal landscapes and the ecosystem services they provide*	There is insufficient information and knowledge that is key for decision-making and drawing up policies that insure sustainable natural resource and biodiversity management	-At least one pilot basin with ecosystem services evaluation completed -5 pilot wetlands with demarcated limits - at least one pilot with diagnosis of pollution sources	- At least two pilot basins with ecosystem services evaluation completed -5 pilot wetlands with demarcated limits - at least one pilot with diagnosis of pollution sources -at least one pilot with hydrodynamic or bar	-Ecosystem services evaluation report per pilot -Limitation mapping -Consultancy reports on diagnosis of polluting sources	There is good quality data in the relevant Public Services and support from landowners for access in order to gather data

<table>
<tr><td rowspan="2">to information regarding globally relevant biodiversity and the ecosystem and socio-economic services they provide (attitude change on issues)</td><td></td><td></td><td>- at least one pilot with hydrodynamic or bar movement study</td><td>movement study</td><td>-Consultancy report on hydrodynamic study</td><td></td></tr>
<tr><td>ii) Increase in awareness of the importance of key BD conservation and SLM in coastal landscapes for ecosystem and socioeconomic services provision measured by KAP surveys on selected stakeholders (decision makers)</td><td>There is limited awareness by decision makers of the importance of coastal landscapes for biodiversity conservation and provision of different ecosystem services. KAP (Knowledge, Attitudes and Practices) survey results for baseline:
<table><tr><th colspan="2">KAP Survey</th></tr><tr><td></td><td>Score</td></tr><tr><td>K</td><td>3,0</td></tr><tr><td>A</td><td>3,97</td></tr><tr><td>P</td><td>1,69</td></tr><tr><td>Mean</td><td>2,89</td></tr></table></td><td>At least 50% of the identified stakeholders have improved on KAP survey results by least 30% from baseline</td><td>At least 80% of the identified stakeholders have improved on KAP survey results by least 50% from baseline</td><td>Annual and final communications strategy and knowledge management reports

Kap survey results</td><td>The abilities generated are not lost if the trained personnel rotate or leave</td></tr>
</table>

	iii) Increase in the use of the EM's wetlands platform, measured by an increase in downloads of information available on the platform and the degree of involvement of civil society in the collaborative wetlands inventory	Currently, 40 persons from the civil society are involved in the use of the EM wetland Platform, uploading photographs to help with national inventory, there are no information on EESS or socio-economic data of the watersheds in the platform.	The wetlands platform with integrated information on Ecosystem Services and Biodiversity, importance of coastal landscapes (of at least 1 pilot) and with an increase of at least 300% of citizens participation in the collaborative wetlands inventory (120 persons)	The wetlands platform with integrated information on Ecosystem Services and Biodiversity, importance of coastal landscapes (of at least 2 pilots) and with an increase of at least 500% of citizens participation in the collaborative wetlands inventory (200 persons)	Inventory of platform users, number of reports with information associated with coastal landscapes, and number of photographs uploaded in the citizen wetlands inventory	Civil society is interested in the importance of wetlands and utilizes the EM platform's applications and tools effectively
	iv) Increase in civil society's knowledge of the importance of key BD conservation and provision of ecosystem and socioeconomic services of coastal landscapes, measured by the number of educational and awareness programs, and	Most of the population is not aware of the importance of coastal landscapes for biodiversity conservation of different plant and animal species, nor of the ecosystem services provided and the threats that these ecosystems face	- At least 2 education and awareness programs (1 per year for each pilot) on coastal wetlands ecosystems services, biodiversity and sustainable practices implemented in pilot Project areas. -At least 400 people have participated in the	-At least 5 education and awareness programs (1 per year for each pilot) on coastal wetlands ecosystems services, biodiversity and sustainable practices implemented in strategic Project areas. -At least 700 people have participated in the awareness programs, at least 40% being women	-Document on the extension-training program - schedule of activities -Invitations - guest list - presentations -Web Page Installed - Report of annual information flow on the part	-A high level of interest and participation on the part of each target audience in the environmental education programs

	persons participating in the programs (separated by gender)		programs, of which at least 40% are women		of the web page administrator -Education Materials drawn up -Photographic record of activities – Attendance lists.	
	v) Number of communications activities on lessons learned from pilot project implementation carried out.	There is no effective translation of relevant information into effective public policies and adequate management decisions, especially on the sub-national levels	-At least 2 extension activities of lessons learned implemented	-At least 5 extension activities of lessons learned implemented	Document on the extension-training program - schedule of activities - Invitations-guest list-presentations photographs of activities.	Key stakeholders show interest in participating in the extension activities, and the pilot experiences have been successful and worthy of replication.
Outputs:						
1.1.1 Quantified ecological and socioeconomic assessment of Coastal landscapes including wetlands and adjacent watershed territories, with biodiversity inventory; Ecosystem Services Evaluation Report; definition of wetlands extension and buffer zones, Proposals for studies and programs on value added for watershed hydrological system						
1.1.2 EM Wetland Platform containing processed and integrated information including inventory, monitoring system, Ecological and socioeconomic data, and maps regarding priority zones as a decision-making aid for conservation of private or State coastal landscape areas						
1.1.3 Outreach and dissemination strategy for mainstreamed BD conservation and SLM in coastal landscapes based on the systematization of Project tools, methodologies, outcomes and findings						

<table>
<tr><th colspan="7">Component 2 Institutional and regulatory frameworks strengthened</th></tr>
<tr><th>Expected Result (outcome):</th><th>Indicators</th><th>Baseline</th><th>Mid-Term Target</th><th>Target upon Project Finalization</th><th>Source of Verification</th><th>Assumptions</th></tr>
<tr>
<td>2.1 Improvement in institutional and technical capability for Integrated Landscapes Approaches for SLM and BD conservation in coastal landscapes of South-central Chile (improved institutional competency)</td>
<td>vi) Increase in capacity of professionals, staff members of the Technical National Committee and Local Technical Committees to manage coastal landscapes measured by KAP survey</td>
<td>Knowledge is limited at the technical level on how these ecosystems function at the landscape level, in terms of the causal relationship of their components and their interactions. KAP survey results:
<table>
<tr><th colspan="2">KAP Survey Elqui pilot</th></tr>
<tr><td></td><td>Score</td></tr>
<tr><td>K</td><td>3,2</td></tr>
<tr><td>A</td><td>3,7</td></tr>
<tr><td>P</td><td>1,5</td></tr>
<tr><td>Mean</td><td>2,82</td></tr>
<tr><th colspan="2">Mantagua pilot</th></tr>
<tr><td></td><td>Score</td></tr>
<tr><td>K</td><td>3,1</td></tr>
<tr><td>A</td><td>3,7</td></tr>
<tr><td>P</td><td>1,3</td></tr>
<tr><td>Mean</td><td>2,7</td></tr>
<tr><th colspan="2">Cahuil pilot</th></tr>
<tr><td></td><td>Score</td></tr>
<tr><td>K</td><td>2,5</td></tr>
<tr><td>A</td><td>3,7</td></tr>
<tr><td>P</td><td>0,8</td></tr>
<tr><td>Mean</td><td>2,3</td></tr>
<tr><th colspan="2">Rocuant-Andalien</th></tr>
</table>
</td>
<td>- KAP survey results increases in 40% from baseline through Training program for public services on landscape approaches, ecosystem services, territorial planning and sustainable practices</td>
<td>- KAP survey results increases in 60% from baseline through Training program for public services on landscape approaches, ecosystem services, territorial planning and sustainable practices</td>
<td>Results of KAP surveys</td>
<td>The abilities generated are not lost if the trained personnel rotate or leave</td>
</tr>
</table>

		pilot Score K 3,5 A 3,1 P 1,4 **Mean 2,7** **Queule pilot** Score K 2,3 A 3,2 P 0.3 **Mean 1,96**				
	vii) Increase in engagement of the relevant institutions measured by the number of inter-institutional seminars for knowledge exchanged on coastal landscape sustainable management and ecosystem services approaches	Several national institutions are involved in coastal ecosystems, some related to production and development activities in these ecosystems (MOP, MINVU, SUBDERE, MINAGRI) and others in their conservation and administration (EM, CONAF, MBN). But up to now, no knowledge exchange opportunities, such as seminars, have integrated conservation practices into developing	-At least one international/national seminar on coastal landscape sustainable management and ecosystem services approaches	-At least three international/national seminars on coastal landscape sustainable management and ecosystem services approaches	Annual Reports of activity implementation - Seminars attendance lists	There is political will of relevant institutions and stakeholders (MOP, MINVU, MBN, CONAF, MINAGRI, SUBDERE) to support, coordinate and participate in the implementation of the seminars. Positive conditions are in place to share information and experiences with international

		activities with all these actors involved.				institutions or organizations
	vii) Participatory mechanisms developed, measured by the conformation on national and local committees	There is limited and/or inconsistent coordination of national institutions for the sustainable management and conservation priorities of productive landscapes and coastal wetlands, with no mechanisms for integration of participants from the Public services, private actors, academia and civil society.	-Steering Committee, National Technical Committee and 5 Local technical Committees formed	- Steering Committee, National Technical Committee and 5 Local technical Committees formed	Co-finance letter from Steering Committee Participation compromise letters from National and Local Technical Committees	Political will of relevant institutions and stakeholders (MOP, MINVU, MBN, CONAF, MINAGRI, SUBDERE, regional and local governments, and civil society organizations) to support, coordinate and participate in the implementation of the Project activities
2.2 Incorporating regulations and criteria regarding BD conservation and SLM in coastal landscapes into the strategies and mandates of the EM, the Ministry of	ix*) Inclusion of environmental considerations and best practices for coastal landscape conservation in the policy instruments of*	Non-existent policy instruments in the associated institutions that specifically indicates environmental considerations and best practices for developing activities when these occurs in	At least 1 institution incorporates into their policy instruments environmental considerations and best practices for productive and development	At least 4 institutions incorporate into their policy instruments environmental considerations and best practices for productive and development activities in coastal landscapes	Reports in legal texts from institutions belonging to the Steering or Technical Committee that indicate inclusion of environmental	Authorities from the Involved Ministries have the political will to incorporate these protocols and environmental considerations

Housing and Urbanization (MINVU), Ministry of Public Property (MBN), Ministry of Public Construction (MOP), National Tourism Service (SERNATUR) and the Ministry of Agriculture (MINAGRI) increasing the Project's scope (implementation of new or revised policies)	*the Ministry of Housing and Urbanization (MINVU), Ministry of Public Property (MBN), Ministry of Public Construction (MOP), National Tourism Service (SERNATUR) and the Ministry of Agriculture (MINAGRI)*	coastal landscapes. Agriculture has best practices guidelines but needs to consider more specific criteria when activities are in wetlands and their watershed. Housing has standards for sustainable construction, but with energy efficiency and waste disposal as the main focus.	activities in coastal landscapes		considerations and criteria in their mandates and tendering processes.	into their mandates and tendering processes before the Project is finalized. The Public Services and other relevant stakeholders show a willingness to incorporate environmental considerations and best practices in their productive activities, scaling the project scope
	x) Number of policy elements that negatively impact coastal ecosystems modified, replaced or counteracted	There are a number of policy elements that negatively impact coastal ecosystems, such as irrigation subsidies, penalties for not using water rights, agriculture conversion subsidies, among others. Exhaustive political analysis at	Modification proposal for at least 3 policy elements that negatively impact coastal ecosystems	At least 3 modified or replaced policy elements that negatively impact coastal ecosystems	document on the procedural status of the new or modified normative body	Authorities from the Involved Ministries have the political will to incorporate these modifications before the Project is finalized.

		project onset will define final baseline.				
2.1.1 Training Program developed and implemented for increased capacity of State institutions (EM, MINVU, MOP, MBN, Agriculture, Subdere, among others) professionals to incorporate BD and SLM considerations within landscape and mitigation approaches as well as improved management practices for coastal landscapes sustainable management						
2.1.2 Systematization of tools for quantifying coastal landscapes ecosystem and socioeconomic services, monitoring, and recovery for the purpose of efficient information management						
2.1.3 Interinstitutional coordination for knowledge management, synergies and cooperation in similar or complementary initiatives						
2.2.1 Criteria and environmental considerations for Integrated sustainable land management and key BD conservation in coastal landscapes to be adopted by MINVU, MBN, MOP, SERNATUR and MINAGRI						
2.2.2 Recommendations and criteria for BD conservation and SLM in coastal landscapes management to be included in the EM's Environmental Impact Evaluation System and associated institutions regulations, laws and policy elements						

Component 3 Demonstrative landscapes						
Expected Result (outcome):	**Indicators**	**Baseline**	**Mid-Term Target**	**Target upon Project Finalization**	**Source of Verification**	**Assumptions**
3.1 Enhanced mechanisms for cross-sector integrated planning and implementation of sustainable natural resources management at district level to decrease LD and preserve habitat of BD in coastal	*xi) Area under Integrated land-use and restoration plans for conservation and sustainable use in the pilot watersheds*	There are only three restoration initiatives in the project area, two from the GEF Project *Support to Civil Society and Community Initiatives for Generating Global Environment Benefits*, and one from a Regional	- Vulnerable zones with degraded areas identified for recovery prioritization At least 21,000 ha of pilot ecosystems with integrated management and restoration plans, formulated, revised and adapted to local conditions	At least 21,000 ha of pilot ecosystems with integrated land-use and restoration plans, are under implementation for maintaining, restoring and improving resilience of coastal landscapes and wetlands watersheds	National Restoration Strategy "Restoration Landscape" category obtained Documents on integrated landscape programs and Implementation reports for	The Municipalities, productive sectors and competent services are receptive regarding the usefulness of the tools proposed and are strengthened by the Project for

landscapes considering the multiple dimensions of livelihood options (agriculture, forestry, livestock, construction, tourism, infrastructure) and monitoring programs		Development Project. These initiatives give us demonstrative examples and methodologies for community base initiatives, but they are not integrated in the Land use planning of the region, and have limited coordination with local authorities, since their objectives are different from this project.			public and private landholdings within the Project area. LDN *Target and compliance review with National Focal Point (CONAF)*	promoting Conservation of biodiversity and anti-land degradation measures.
	xii) Number of sites applying programs for monitoring components of wetland basin health and biodiversity, with participation of public institutions,	The DGA, EM, and DIRECTEMAR have monitoring programs for wetlands with different indicators, but there is a lack of citizen participation and private sector	5 integrated programs for monitoring components of wetland basin health and biodiversity, formulated, and adapted to local conditions	5 pilot sites stablish a program for monitoring components of wetland basin health and biodiversity, with participation of public institutions, local communities and the private sector.	Methodological Document of Monitoring - Reports of Monitoring Results	Communities and local stakeholders are interested in participating in land management planning and monitoring wetlands and their watersheds for BD

	local communities and the private sector.	and local government´s involvement. Resulting in a lack of ownership from the community and even stolen instruments from the measurement points.				conservation and commit to following monitoring and accounting protocols and methods.
	xiii) Number of demonstrative applications of best practices in the following sectors: *-housing development* *- infrastructure* *-agriculture* *- forestry* *-Tourism*	Productive and development practices are void of environmental criteria or best practices protocols and mitigation actions, when related to wetlands and their watershed. Forestry and agricultural activities have best practice guidelines, but no with a direct focus on conserving wetlands and coastal	At least one demonstration activity in each productive/development sector (5 in total) being planned with adoption of best environmental practices and criteria as expressed in component 2	At least one demonstrative activity in each productive/development sector (5 in total) being implemented in a pilot site, with adoption of best practices as expressed in component 2	-Satellite images for forestry, agriculture, livestock projects -MOP, MINVU, MBN or SUBDERE tendering incorporate best environmental practices and criteria -Sustainable tourism projects obtaining Sustainability label of the National Tourism	Environmental considerations and good practices in productive sectors provide sufficient support for the conservation of coastal landscapes

		landscapes			Service	
3.2 The associated institutions at the sub-national level recognize and incorporate into their territorial planning, zoning and practices, issues of conservation, recovery and monitoring of BD conservation and SLM in coastal landscapes (adoption of new practices)	*xiv) Number of Municipalities applying territorial planning instruments that integrates coastal ecosystem conservation*	There is a lack of biodiversity conservation objectives and practices integrated in the planning instruments used at the local level, where an integrated vision of the territory and its ecosystem services within activities that support ordering and planning of the coastal fringe is needed	At least 2 municipalities with municipal ordinances, or other territorial planning instrument (PROT, RENAMU, PRI, PLADECO, ZBC, ZOIT, PRC), with coastal landscape BD and LD considerations integrated and being applied	At least 4 municipalities with municipal ordinances, or other territorial planning instrument (PROT, RENAMU, PRI, PLADECO, ZBC, ZOIT, PRC), with coastal landscape BD and LD considerations integrated and being applied	Municipal ordinances or other territorial planning instruments	The regional political leaders commit to prioritizing issues of coastal ecosystem conservation. There is interest on the part of local authorities and communities in conserving the biodiversity of their coastal ecosystems
3.3 Livelihood of coastal landscape smallholders are more resilient, diversified and strengthened	xv) Number of projects for diversification of sustainable economic activities	Alternatives for diversified production activities are not being made available efficiently	At least 3 projects with diversified productive activities or services implemented	At least 6 projects with diversified productive activities or services implemented	Documents of projects with description of diversified activities	The relevant authorities provide long-term support to groups interested in diversifying their productive activities.

	xvi) Number of women and men from communities associated with wetlands engaged in diversified productive activities, exclusively or in addition to their usual activities	Most of the communities' work on traditional production activities, there is a lack of capabilities for drawing up, and acquiring available regional funding for projects that include ecosystem services considerations	At least 10 men and 10 women from local communities are beneficiaries for diversification of economic activities	At least 20 men and 20 women from local communities are beneficiaries for diversification of economic activities	Documents of projects with financing given to the communities	Stakeholders from local communities are willing to explore alternative productive activities.
	xvii) Level of adoption of instruments promoted and strengthened for certifying best productive practices in coastal landscapes (EM green seal for coastal landscapes)	Local producers do not have access to green seals for services produced d in a manner that is environmentally compatible with the coastal landscapes.	At least 2 projects with EM green seal for coastal landscapes obtained	At least 6 projects with EM green seal for coastal landscapes obtained	Obtaining certification seal	There is interest on the part of local stakeholders for improving their productive systems and implementing best practices compatible with the Project's objectives.
3.1.1 Integrated land use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities and local stakeholders, and being effectively applied						

3.1.2 On-the-ground implementation of selected SLM and BD conservation measures from guidelines and protocols for sustainable use of landscapes in pilot ecosystems
3.2.1 Central Government, communities and other district level stakeholders receive training in the development and implementation of integrated land-use planning and have knowledge/experience necessary to continue the application of plans.
3.3.1 The diversification of rural livelihoods in coastal landscape communities and value chain development of a selection of sustainable managed products and services from coastal landscapes is supported

Appendix 5: Work plan and Timetable

Component 1. Information management and outreach for mainstreaming sustainable coastal landscape management																						
Expected Result 1.1: Decision makers and relevant stakeholders aware and appreciate the importance of BD conservation and LD problems in coastal landscapes by means of more and better access to information regarding biodiversity of global relevance and the ecosystem and socio-economic services they provide (change attitude on issues)																						
Outputs	**Activities**	**Year 1**				**Year 2**				**Year 3**				**Year 4**				**Year 5**				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1.1.1 Quantified ecological and socioeconomic assessment of Coastal landscapes including wetlands and adjacent watershed territories, with biodiversity inventory; Ecosystem Services Evaluation Report; definition of wetlands extension and buffer zones, Proposals for studies and programs on value added for watershed hydrological system	1.1.1.1 Identification and assessment of EESS for wetlands enhancement																					
	1.1.1.2 Define wetlands limits, saline intrusion, buffer zone and hydric balance, for improving management and inspection																					
	1.1.1.3 Diagnosis of pollution sources and impacts at the watershed level, for improving management and inspection																					
	1.1.1.4 Hydrodynamic study of terminal bar movement and estuary, for purpose of evaluating the potential effect of the construction of coastal waterworks for maintaining the bar open, on the trophic status of the wetlands																					
	1.1.1.5 Characterization and enhancement of the hydric system of one pilot region, with strategic study for reassessment of the wetlands network																					
1.1.2 EM Wetland Platform containing processed and integrated information including inventory, monitoring system, Ecological and	1.1.2.1 Program for technological and human resources improvement, for improving the wetlands platform toward developing an on-line system that makes it possible to integrate information into a single search and reporting system																					
	1.1.2.2 Integrate EM monitoring data, as well as data																					

socioeconomical data, and maps regarding priority zones as a decision-making aid for conservation of private or State coastal landscape areas	from other platforms that are monitoring wetlands, in order to make available a centralized information system																					
1.1.3 Outreach and dissemination strategy for mainstreamed BD conservation and SLM in coastal landscapes based on the systematization of project tools, methodologies, results and findings	1.1.3.1 Design and implementation of a communications and dissemination program for emphasizing the value of wetlands, designed for different target groups (decision-makers, citizens, private stakeholders)																					
	1.1.3.2 Two e-learning courses (for PA and BD administrators on coastal ecosystems)																					
	1.1.3.3 Extension activities on lessons learned and systematization of Project outcomes in format available for dissemination																					

Component 2 Institutional and regulatory frameworks strengthened

Expected Result 2.1: Improvement in institutional and technical capability for Integrated Landscapes Approaches for SLM and BD conservation in coastal landscapes of South-central Chile (improved institutional competency)

Outputs	**Activities**	**Year 1**				**Year 2**				**Year 3**				**Year 4**				**Year 5**			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
2.1.1Training Program developed and implemented for increased capacity of state institutions professionals to incorporate BD and SLM considerations	2.1.1.1 Draw up and implement a training program designed to strengthen the technical profile of the professionals of the institutions with responsibilities and competencies in wetlands management (Public Services, both on the central and local levels)																				
	2.1.1.2 Carry out 3 international seminars, in Sustainable construction in coastal ecosystems; EESS assessment; Environmental criteria																				

within landscape and mitigation approaches as well as improved management practices for coastal landscapes sustainable management																						
2.1.2 Systematization of tools for quantifying coastal landscapes ecosystem and socioeconomic services, monitoring, and recovery for the purpose of efficient information management	2.1.2.1 Drawing up a manual with guidelines for determining the structure and EESS provided by the wetlands, and their quantification																					
	2.1.2.2 Drawing up a manual on monitoring and ecological integrity of coastal wetlands with guidelines to be included in the Wetlands Management Plan																					
	2.1.2.3 Support drawing up methodology for prioritizing wetlands as a decision-making and threat reduction tool																					
	2.1.2.4 Manual of criteria for establishment of artificial wetlands for treatment of wastewater and clean-up of lakes																					
	2.1.2.5 Field manuals on coastal wetlands biodiversity and training for birdwatching guides																					
	2.1.2.6 Manuals on systematization of recovery tools (collection, propagation techniques, management, etc.)																					
2.1.3 Interinstitutional coordination for knowledge management, synergies and cooperation in similar or complementary initiatives	2.1.3.1 Design an early warning and rapid response coordination model																					
	2.1.3.2 South-south cooperation (create projects, alliances and experience sharing with other countries of the region) on issues such as citizen monitoring, governance, ecological recovery and best practices protocols for coastal wetlands																					
	2.1.3.3 Establishment and strengthening of Technical Committees on the central and local levels in order to foster sustainable wetlands management																					

Expected Result 2.2: Incorporating regulations and criteria regarding BD conservation and SLM in coastal landscapes into the strategies and mandates of the EM, the Ministry of Housing and Urbanization (MINVU), Ministry of Public Property (MBN), , Ministry of Public Construction (MOP) and the Ministry of Agriculture (MINAGRI) increasing the Project's scope (implementation of new or revised policies)																						
2.2.1 Criteria and environmental considerations for Integrated sustainable land management and key BD conservation in coastal landscapes to be adopted by MINVU, MBN, MOP, SERNATUR and Minagri	2.2.1.1 Establish environmental considerations and criteria to be included in processes of establishing infrastructure and construction in coastal ecosystems (location, materials, processes, monitoring, mitigation)																					
	2.2.1.2 Establish environmental considerations and criteria to be included for productive activities such as aggregate and mineral extraction, etc.																					
	2.2.1.3 Establish environmental considerations and criteria to be included for forestry, agricultural and livestock activities																					
	2.2.1.4 Establish environmental considerations and criteria to be included in tourism activities in coastal wetlands																					
	2.2.1.5 Manage the adoption of established environmental considerations and criteria, in the mandates of the institutions belonging to the Steering Committee according to their competencies																					
2.2.2 Recommendations and criteria for BD conservation and SLM in coastal landscapes management to include in the EM's Environmental Impact Evaluation System and associated institutions regulations, laws and policy elements	2.2.2.1 Exhaustive review of sectorial legislation that negatively impacts conservation of coastal ecosystems, and evaluation of the effectiveness of the different sectorial regulations having direct or indirect incidence on wetlands																					
	2.2.2.2 Support for development and implementation of norms, regulations and policies related to biodiversity conservation and sustainable management of coastal ecosystems																					
	2.2.2.3 Draw up manual for establishing baselines within the SEIA framework for coastal wetlands																					

Component 3 Demonstrative landscapes																							
Expected Result 3.1: Enhanced mechanisms for cross-sector integrated planning and implementation of sustainable natural resources management at district level to decrease LD and preserve habitat of BD in coastal landscapes considering the multiple dimensions of livelihood																							
Outputs	**Activities**	**Year 1**				**Year 2**				**Year 3**				**Year 4**				**Year 5**					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
3.1.1 Integrated land use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities and local stakeholders, and being effectively applied	3.1.1.1 Survey of vulnerable zones with degraded areas for recovery prioritization																						
	3.1.1.2 Draw up and implement participative management and recovery plans for the watershed																						
	3.1.1.3 Design of the Monitoring Program for each pilot, for establishing the Environmental Baseline, with Monitoring System including satellite images of the pilot wetlands and implementation of Citizen and State Monitoring with key organizations and institutions involved																						
3.1.2 On-the-ground implementation of selected SLM and BD conservation measures from guidelines and protocols for sustainable use of landscapes in pilot ecosystems	3.1.2.1 Implementation of best practice actions/measures and environmental considerations in productive activities in the pilot ecosystems																						
	3.1.2.2 Establishing infrastructure with environmental considerations and best practices in coastal ecosystems (coastal fringe, green areas, footbridges, bird-watching zones, etc), for enhancing wetlands																						
Expected Result 3.2: The associated institutions at the sub-national level recognize and incorporate into their territorial planning, zoning and practices that includes conservation, recovery and monitoring of BD conservation and SLM in coastal landscapes (adoption of new practices)																							
3.2.1 Central Government, communities and other district level stakeholders receive	3.2.1.1 Design and Implementation of training in methodologies/tools for management/land-use planning for rural and urban coastal ecosystems																						
	3.2.1.2 Support for developing management and territorial planning instruments which incorporate BD																						

training in the development and implementation of integrated land use planning and have knowledge/ experience necessary to continue the application of plans	conservation, recovery and monitoring considerations																					
Expected Result 3.3: Livelihood of coastal landscape smallholders are more resilient, diversified and strengthened																						
3.3.1 The diversification of rural livelihoods in coastal landscape communities and value chain development of a selection of sustainable managed products and services from coastal landscapes is supported	3.3.1.1 Diagnosis of the local communities' need for projects and value chains, in order to ensure sustainable development associated with the local wetlands																					
	3.3.1.2 Support for implementation of sustainable economic activities associated with the wetlands, incorporating value chains, market studies, and strengthening of human capital (bird watching, nurseries, tourist routes)																					
	3.3.1.3 Design of environmental certification of areas (wetlands and coastal landscapes) or sustainable activities associated with wetlands and coastal landscapes with specific green seals																					

Appendix 6: Key deliverables and benchmarks

***Pilot I: Elqui; Pilot II: Mantagua; Pilot III: Cahuil; Pilot IV: Rocuant-Andalien; Pilot V: Queule**

Component 1. Information management and outreach for mainstreaming sustainable coastal landscape management			
Expected Outcome 1.1: Decision makers and relevant stakeholders are aware and appreciate the importance of BD conservation and LD problems in coastal landscapes through more and better access to information regarding globally relevant biodiversity and the ecosystem and socio-economic services they provide (change attitude on issues)			
Outputs	**Activities**	**Deliverables**	**Benchmark**
1.1.1 Quantified ecological and socioeconomic assessment of Coastal landscapes including wetlands and adjacent watershed territories, with biodiversity inventory; Ecosystem Services Evaluation Report; definition of wetlands extension and buffer zones, Proposals for studies and programs on value added for watershed hydrological system	1.1.1.1 Identification and assessment of EESS for wetlands enhancement	PY3: Report about EESS results and methodologies for pilots I and IV	PY1: Baseline data collected pilot I PY2: Final results for pilot I PY2: Baseline data collected pilot IV PY3: Final results for pilot IV
	1.1.1.2 Define wetlands limits, saline intrusion, buffer zone and hydric balance, for improving management and inspection	PY2: Documents and cartography available and published on the Project web site and EM platform	PY1-PY2: GIS, environment and cartographic data for the whole Project area for the 5 pilots
	1.1.1.3 Diagnosis of pollution sources and impacts at the watershed level, for improving management and inspection	PY2: Document and data available and published on Project web site and EM Platform	PY2: Diagnosis carried out for pilots I and II
	1.1.1.4 Hydrodynamic study of terminal bar movement and estuary, for purpose of evaluating the potential effect of the construction of coastal waterworks for maintaining the bar open, on the trophic status of the wetlands	PY2: Document and data available and published on Project web site and EM Platform	PY1-PY2: Study drawn up for pilots I and III
	1.1.1.5 Characterization and enhancement of the hydric system of one pilot region, with strategic study for reassessment of the wetlands network	PY2: Document and data available and published on Project web site and EM Platform	PY1 and PY2: Study drawn up for pilot IV
1.1.2 EM Wetlands Platform containing processed and	1.1.2.1 Program for technological and human resources improvement, for improving the wetlands platform toward	PY2: Platform operational	PY1: Platform architecture drawn up PY2: Training of EM personnel

integrated information including inventory, monitoring system, ecological and socioeconomical data, and maps regarding priority zones as a decision-making aid for conservation of private or State coastal landscape areas	developing an on-line system that makes it possible to integrate information into a single search and reporting system		
	1.1.2.2 Integrate EM monitoring data, as well as data from other platforms that are monitoring wetlands, in order to make available a centralized information system	PY3: Platform with citizen monitoring operational PY4: Platform with data from studies, baselines, associated services and applications functioning	PY2: Apps drawn up for citizen monitoring and in the pilots PY2-PY3: Data integration onto the platform PY3: Interoperability of the platform with data from other associated services and stakeholders
1.1.3 Outreach and dissemination strategy for mainstreamed BD conservation and SLM in coastal landscapes based on the systematization of Project tools, methodologies, outcomes and findings	1.1.3.1 Design and implementation of a communications and dissemination program for emphasizing the value of wetlands, designed for different target groups (decision-makers, citizens, private stakeholders)	PY1: Web page and social media operational, trimester newsletters. PY3: Manual for out-of-doors classes PY5: Systematization of activities with schools PY5: Systematization of activities and stakeholders associated with wetlands clean-up PY5: Report with systematization of experience sharing, talks and workshops, with lessons learned and recommendations for the future	PY1: Design communications program, launching web page and social media PY2-PY5: participative school activities associated with the coastal ecosystem PY2-PY5: Clean-up activities “your wetlands” and “plastic-free wetlands” PY2-PY5: Cycle of talks on wetlands beyond species conservation and talks with influential stakeholders PY4-PY5: Experience sharing workshops between the pilots
	1.1.3.2 Two e-learning courses (for PA and BD administrators on coastal ecosystems)	PY2: Self-teaching course on the importance of the biodiversity of wetlands and their watersheds, available on the EM’s Environmental Education platform PY4: Self-teaching course on administration and sustainable management of coastal ecosystems,	PY2: Design and implementation of self-teaching course on the importance of the biodiversity of wetlands and their watersheds PY4: Design and implementation of self-teaching course on administration and sustainable management of coastal ecosystems

		available on the EM's Environmental Education platform	
	1.1.3.3 Extension activities on lessons learned and systematization of Project outcomes in format available for dissemination	PY5: Report and guidelines on lessons learned and recommendations for integrating ES and BD considerations into economic development and sector policies and regulations and for improving institutional coordination	PY5: Systematization of pilot experiences in sustainable production practices and restoration activities, identifying lessons learned and best practices PY5: Development of specific recommendations for integrating SLM and BD considerations into mainstream economic development and sector policies and regulations and for improving institutional coordination PY5: Communication of lessons learned, best practices and policy recommendations derived from above-mentioned pilot activities to key government, non-government and public-private agencies
Component 2: Institutional and regulatory frameworks strengthened			
Expected Outcome 2.1: Improvement in institutional and technical capability for Integrated Landscape Approaches for SLM and BD conservation in coastal landscapes of South-central Chile (improved institutional competency)			
Outputs	Activities	Deliverables	Benchmark
2.1.1 Training Program developed and implemented for increased capacity of state institutions professionals to incorporate BD and	2.1.1.1 Draw up and implement a training program designed to strengthen the technical profile of the professionals of the institutions with responsibilities and competencies in wetlands management (Public Services, both on the central and local levels)	PY5: Systematization of the workshops PY5: Program implemented with participation certificates and application of the Capacity Development Scorecard	PY1: Design of training program PY2-PY4: Implementation of training at the central level and in the regions, with at least one per pilot

SLM considerations within landscape and mitigation approaches as well as improved management practices for sustainable management of coastal landscapes	2.1.1.2 Carry out 3 international seminars, in Sustainable construction in coastal ecosystems; EESS assessment; Environmental criteria	PY2: Documents, presentations and results of the Seminar on sustainable construction published on the Project's web page PY4: Documents, presentations and results of the Seminar on EESS published on the Project's web page PY5: Documents, presentations and results of the Seminar on Best practices in productive sectors published on the Project's web page	PY1: Seminar on sustainable construction carried out jointly with the EM, MOP, MINVU and private stakeholders, and NGO's PY3: Seminar on EESS in coastal ecosystems PY5: Seminar on best practices and environmental considerations in coastal ecosystems
2.1.2 Systematization of tools for quantifying coastal landscape ecosystems and socioeconomic services, monitoring, and recovery for the purpose of efficient information management	2.1.2.1 Drawing up a manual with guidelines for determining the structure and EESS provided by the wetlands, and their quantification	PY4: Manual on EESS of wetlands and their watersheds, published and distributed to key stakeholders	PY3-PY4: Drawing up a manual on EESS of wetlands and their watersheds
	2.1.2.2 Drawing up a manual on monitoring and ecological integrity of coastal wetlands with guidelines to be included in the Wetlands Management Plan	PY4: Manual published, distributed and integrated into the management plans in the pilot projects	PY3: Drawing up a manual on monitoring and ecological integrity of wetlands and their watersheds
	2.1.2.3 Support drawing up methodology for prioritizing wetlands as a decision-making and threat reduction tool	PY2: Prioritized wetlands visible on the EM's wetlands platform and on the Project's web page	PY1: Support consultancy and workshops carried out for defining prioritization methodology
	2.1.2.4 Manual of criteria for establishment of artificial wetlands for treatment of wastewater and clean-up of lakes	PY2: Manual available and distributed through the web page and platform	PY1-PY2: Manual of criteria for establishment of artificial wetlands for treatment of wastewater and clean-up of lakes drawn up
	2.1.2.5 Field manuals on coastal wetlands biodiversity and training for birdwatching guides	PY3: Manuals available on the platform and distributed to local stakeholders, including Municipalities	PY2-PY3: Drawing up of manuals for at least 3 pilots
	2.1.2.6 Manuals on systematization of	PY3: Manuals available on platform	PY2: Drawing up of manuals on

	recovery tools (collection, propagation techniques, management, etc.)	and distributed to local stakeholders participating in Administration and Management Plans	recovery tools
2.1.3 Interinstitutional coordination for knowledge management, synergies and cooperation in similar or complementary initiatives	2.1.3.1 Design an early warning and rapid response coordination model	PY5: Systematization of experiences with the early warning coordination model, published and available on the platform and Project web page	PY3: Design of early warning coordination model PY3: Model validated by Project Committees PY4-PY5: Model implemented in one pilot
	2.1.3.2 South-south cooperation (create projects, alliances and experience sharing with other countries of the region) on issues such as citizen monitoring, governance, ecological recovery and best practices protocols for coastal wetlands	PY2: At least 1 activity from the Chile-Perú-Ecuador Action Plan functioning within the Project's area of action PY4: Systematization of Chile-Colombia Workshop on the platform and web page	PY1-PY2: Participation in Chile-Perú-Ecuador coastal wetlands action plan PY4: Chile-Colombia Workshop on monitoring and the EM's wetlands platform
	2.1.3.3 Establishment and strengthening of Technical Committees on the central and local levels in order to foster sustainable wetlands management	PY1: Commitment letters signed, and Committee established PY1-PY5: Committee meeting minutes PY5: Results of the Development Score Card applied to Committee participants	PY1: Formal establishment of local and national Technical Committees PY1-PY5: 2 annual meetings of each Committee for monitoring and evaluation PY2-PY5: Talks, workshops and training carried out with the Committee participants
Expected Outcome 2.2: Incorporating regulations and criteria regarding BD conservation and SLM in coastal landscapes into the strategies and mandates of the EM, the Ministry of Housing and Urbanization (MINVU), Ministry of Public Property (MBN), Ministry of Public Construction (MOP) and the Ministry of Agriculture (MINAGRI) increasing the Project's scope (implementation of new or revised policies)			
2.2.1 Criteria and environmental considerations for Integrated sustainable land management and	2.2.1.1 Establish environmental considerations and criteria to be included in processes of establishing infrastructure and construction in coastal ecosystems (location, materials,	PY3: Manual with environmental criteria and protocols for sustainable construction in coastal ecosystems PY5: Criteria and protocols included	PY1: Development of ToRs and Consultancy Contracts PY1: Public-Private Work Committee established PY2: Proposal of Environmental

key BD conservation in coastal landscapes to be adopted by MINVU, MBN, MOP, SERNATUR and Minagri	processes, monitoring, mitigation)	in MOP and MINVU mandates and tenderings	considerations and protocols selected, validated by the Work Committee
	2.2.1.2 Establish environmental considerations and criteria to be included for productive activities such as aggregate and mineral extraction, etc.	PY3: Manual with environmental criteria and protocols for aggregate and mineral extraction in coastal ecosystems PY5: Criteria and protocols included in MBN mandates and tenderings	PY1: Development of ToRs and Consultancy Contracts PY1: Public-Private Work Committee established PY2: Proposal of Environmental considerations and protocols selected, validated by the Work Committee
	2.2.1.3 Establish environmental considerations and criteria to be included for forestry, agricultural and livestock activities	PY3: Manual with environmental criteria and protocols for sustainable forestry, agricultural and livestock activities in coastal ecosystems PY5: Criteria and protocols included in mandates and tenderings of Minagri, and associated institutions	PY1: Development of ToRs and Consultancy Contracts PY1: Public-Private Work Committee established PY2: Proposal of Environmental Considerations and Protocols selected, validated by the Work Committee
	2.2.1.4 Establish environmental considerations and criteria to be included in tourism activities in coastal wetlands	PY3: Manual with environmental criteria and protocols for sustainable tourism activities in the coastal ecosystems PY5: Criteria and protocols included in mandates and tenderings of Sernatur and associated institutions	PY1: Development of ToRs and Consultancy Contracts PY1: Public-Private Work Committee established PY2: Proposal of Environmental Considerations and Protocols selected, validated by the Work Committee
	2.2.1.5 Manage the adoption of established environmental considerations and criteria, in the mandates of the institutions belonging to the Steering Committee according to their competencies	PY5: Considerations and best practices integrated into the mandate and/or tenderings of competent public institution	PY3-PY5: Protocol meetings between highest authorities of competent public institutions for incorporating validated criteria
2.2.2 Policies and	2.2.2.1 Exhaustive review of sectorial	PY2: Report on analysis and	PY1: Review of legislation impacting

regulations incorporate criteria for BD conservation and SLM in coastal landscape management to include in the EM's Environmental Impact Evaluation System and associated institutions regulations, laws and policy elements	legislation that negatively impacts conservation of coastal ecosystems, and evaluation of the effectiveness of the different sectorial regulations having direct or indirect incidence on wetlands	proposals for sectorial regulations and legislation on coastal ecosystems PY4: Systematization of workshops and outcomes	coastal ecosystems PY2: Proposal of improved legislation that includes conservation and SM criteria PY2: Establishing Work Committees for organizing Workshops with partner institutions for incorporating legislative improvements PY4: Support Consultancy for incorporating improvements into regulations/legislation
	2.2.2.2 Support for development and implementation of norms, regulations and policies related to biodiversity conservation and sustainable management of coastal ecosystems	PY5: Improvements in regulations/legislation approved by the institutions PY5: Systematization of new laws, policies and implementation experiences, including their associated costs	PY1-PY3: Consultancies for support in developing and implementing new regulations and laws
	2.2.2.3 Draw up manual for establishing baselines within the SEIA framework for coastal wetlands	PY4: Manual available in the EM's SEIA platform	PY2-PY3: Draw up baseline's manual for coastal wetlands in SEIA
Component 3: Demonstrative landscapes			
Expected Outcome 3.1: Enhanced mechanisms for cross-sector integrated planning and implementation of sustainable natural resources management at district level to decrease LD and preserve habitat of BD in coastal landscapes considering the multiple dimensions of livelihood			
Outputs	**Activities**	**Deliverables**	**Benchmark**
3.1.1 Integrated land-use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities,	3.1.1.1 Survey of vulnerable zones with degraded areas for recovery prioritization	PY2: Documents and cartography indicating vulnerable areas, published on the platform	PY1-PY2: Participative workshops and studies for defining vulnerable areas and recovery interest
	3.1.1.2 Draw up and implement participative management and recovery plans for the watershed	PY2: Management Plan validated by the LTC PY5: Systematization of outcomes, dissemination and publication	PY1-PY2: Socio-ecological recovery study on the landscape level PY3-PY5: Implementation of activities of the Monitoring and

communities and local stakeholders, and being effectively applied			Evaluation Plan
	3.1.1.3 Design of the Monitoring Program for each pilot, for establishing the Environmental Baseline, with Monitoring System including satellite images of the pilot wetlands and implementation of Citizen and State Monitoring with key organizations and institutions involved	PY3: Monitoring system with citizen participation functioning PY3-PY5: Monitoring results available on the EM's platform	PY1: Design of the Monitoring Program PY1-PY2: Training of participating stakeholders PY2-PY5: Implementation of monitoring with involvement of key stakeholders
3.1.2 On-the-ground implementation of selected SLM and BD conservation measures from guidelines and protocols for sustainable use of landscapes in pilot ecosystems	3.1.2.1 Implementation of best practice actions/measures and environmental considerations in productive activities in the pilot ecosystems	PY3: Portfolio of activities and projects associated with best practices to be carried out in each pilot PY5: Compilation and systematization of the activities/projects with audio-visual and demonstration material, delivered to the different stakeholders and published on the platform and web page	PY2: Identification of projects/activities within the territory on which to demonstrate environmental considerations PY3-PY5: Implementation of environmental considerations and best practices in projects within the pilot ecosystems PY5: Monitoring and evaluation
	3.1.2.2 Establishing infrastructure with environmental considerations and best practices in coastal ecosystems (coastal fringe, green areas, footbridges, bird-watching zones, etc), for enhancing wetlands	PY2: Portfolio of infrastructure projects PY5: Systematization of sustainable construction experiences with audio-visual material and dissemination to key stakeholders	PY2: Identification, selection and planning of infrastructure projects with environmental considerations PY3-PY5: Tendering and implementation of projects in pilot ecosystems
Expected Outcome 3.2: The associated institutions at the sub-national level recognize and incorporate into their territorial planning, zoning and practices that include conservation, recovery and monitoring of BD conservation and SLM in coastal landscapes (adoption of new practices)			
3.2.1 Central Government, communities and other	3.2.1.1 Design and Implementation of training in methodologies/tools for management/land-use planning for rural	PY2: Training program document validated PY5: Results of Development	PY1: Design of Training Program PY2-PY4: Training Implementation

district-level stakeholders receive training in the development and implementation of integrated land-use planning and have the knowledge/ experience necessary to continue the application of plans	and urban coastal ecosystems	scorecards	
	3.2.1.2 Support for developing management and territorial planning instruments which incorporate BD conservation, recovery and monitoring considerations	PY5: Management and territorial planning instruments include integrated environmental considerations related to coastal ecosystems (Prot, ordinances, RENAMU, etc.)	PY2-PY4: Technical support for territorial planning in municipalities within the pilot ecosystems
Expected Outcome 3.3: Livelihood of coastal landscape smallholders are more resilient, diversified and strengthened			
3.3.1 The diversification of rural livelihoods in coastal landscape communities and value chain development of a selection of sustainable managed products and services from coastal landscapes is supported	3.3.1.1 Diagnosis of the local communities' need for projects and value chains, in order to ensure sustainable development associated with the local wetlands	PY2: Document published on the Project's web page	PY2: Draw up diagnosis of needs PY2: Project identification, selection and planning
	3.3.1.2 Support for implementation of sustainable economic activities associated with the wetlands, incorporating value chains, market studies, and strengthening of human capital (bird watching, nurseries, tourist routes)	PY3: Systematization, training PY4: Portfolio of financed projects PY5: Systematization of successful experiences and lessons learned, publication of audio-visual material	PY2-PY3: Training for strengthening social capital of community organizations and to establish local leadership PY2-PY3: Support to local leaders in obtaining co-financing PY3-PY5: Technical assistance for implementing projects and generating value chains
	3.3.1.3 Design of environmental certification of areas (wetlands and coastal landscapes) or sustainable activities associated with wetlands and coastal landscapes with specific green seals	PY5: Trademark and certification system available on the Project web page	PY4: Design of trademark and protocols for obtaining certification to be used by producers or other stakeholders

Appendix 7: Costed M&E plan

The estimated costs of the activities proposed for the Project M&E Plan are presented below. Details are given of activities throughout the five years of Project implementation:
(PMU: Project Management Unit; NPC: National Project Coordinator)

M&E activities	Responsible	Budget (USD)	Timeframe
Annual Planning Workshop	PMU	26,000	Within the first Month, every year
Drawing up Annual Planning Proposal	PMU	No cost from Project budget	Within the first Month, every year
Inception Workshop	PMU	20,000	2 months from Project initiation
Inception Workshop report	NPC	No cost from Project budget	2 weeks after inception workshop
Workshop for measuring progress and Project performance indicators	PMU	20,000	Third trimester, every year
GEF Project Implementation Report (PIR)	NPC	No cost from Project budget	Every year
Monitoring of social and environmental threats and corresponding action plans	NPC	No cost from Project budget	Every year
Learning missions / visits to GEF Secretariat sites	PMU, UNEP	10,000	3 months before MTR and 3 months before Terminal Evaluation
Mid-term review (MTR)	External Consultancy, UNEP responsibility	45,000	Second trimester of 3rd year
Workshop on Mid-Term Evaluation Results	PMU	5,000	Within 1 month after MTR
Independent terminal evaluation (TE)	External Consultancy, UNEP responsibility	45,000	Within the last trimester of final year
Workshop for Results of Final Evaluation of the Project with the PSC	PMU	5,000	Within 1 month after Terminal Evaluation
Final Project Report	NPC	No cost from Project budget	Last trimester of final year
MTR y TE reports translation	NPC	5,000	1 month after approval by PMU
Financial auditing	External Consultancy, UNEP responsibility	25,000	Every year
Progress Report of Annual Plan implementation for Steering Committee	PMU	No cost from Project budget	1 month before Annual SC meeting
Annual Steering Committee meeting and adjustments to the Project (PSC)	PMU	5,000	Within the last trimester of every year
Total cost		**211,000**	

Appendix 8: Summary of reporting requirements and responsibilities

Requirements for submitting reports	Deadline	Format for report	Responsible Parties
Annual Planning Proposal	Up to 3 weeks after the 1st Annual Planning Workshop.	N/A	PMU with approval of the PSC President and UNEP
Acquisitions Plan (goods and services)	Together with Annual Planning Proposal	N/A	PMU with approval of the PSC President and UNEP
Report of Expenditures	Quarterly, every year	N/A	PMU
Request for advance in funds and the details of the planned expenditures	Quarterly or when required	N/A	NPC with approval of PD
Project Progress Reports	Last month of each operational year	N/A	PMU with approval by the PSC President and UNEP
Audit Report of expenditures for the year ending	Annually. Submitted for the Annual Steering Committee meeting	N/A	PMU with approval by the PSC President and UNEP
Inventory of non-consumable goods	Last month of each operational year	N/A	PMU
Co-financing Report	Last month of each operational year	N/A	PMU
Annual Project Implementation Reports	Annually on, before 31 August	N/A	PMU
PSC Meeting Minutes	Annually (or as relevant)	N/A	NPC
Final Project Report	At least one month before Project finalization	N/A	NPC
Final Inventory of non-consumable goods	At least one month before Project finalization	N/A	NPC
Letter of Equipment Transfer	At least one month before Project finalization	N/A	NPC
Project Mid-Term Evaluation	Within the third trimester of 3rd year.	Appendix 9	External Consultancy, under UNEP responsibility
Project Final Evaluation	End of third trimester of 5th year of Project execution	Appendix 9	External Consultancy, under UNEP responsibility
Audits	Annually	UNEP Format	External Consultancy, under UNEP responsibility

Appendix 9: Standard Terminal Evaluation TOR

In-line with UNEP Evaluation Policy and the GEF's Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation and, additionally, a Mid-Term Review will be commissioned and launched by the Project Manager before the project reaches its mid-point. The possibility of a Mid-Term Evaluation will be discussed with the Evaluation Office.

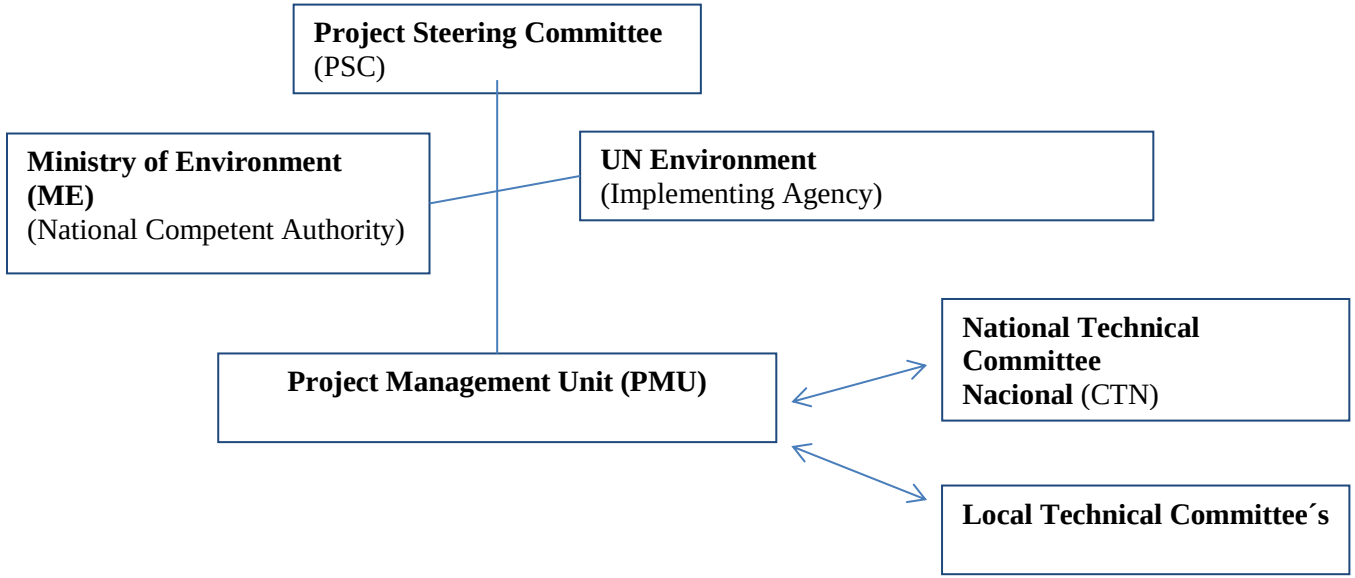
The Evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with the Task Manager and Executing Agency(ies) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF, executing partners and other stakeholders. The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. Terminal Evaluations must be initiated no later than six months after operational completion.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalised and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

Appendix 10: Decision-making flowchart and organizational chart

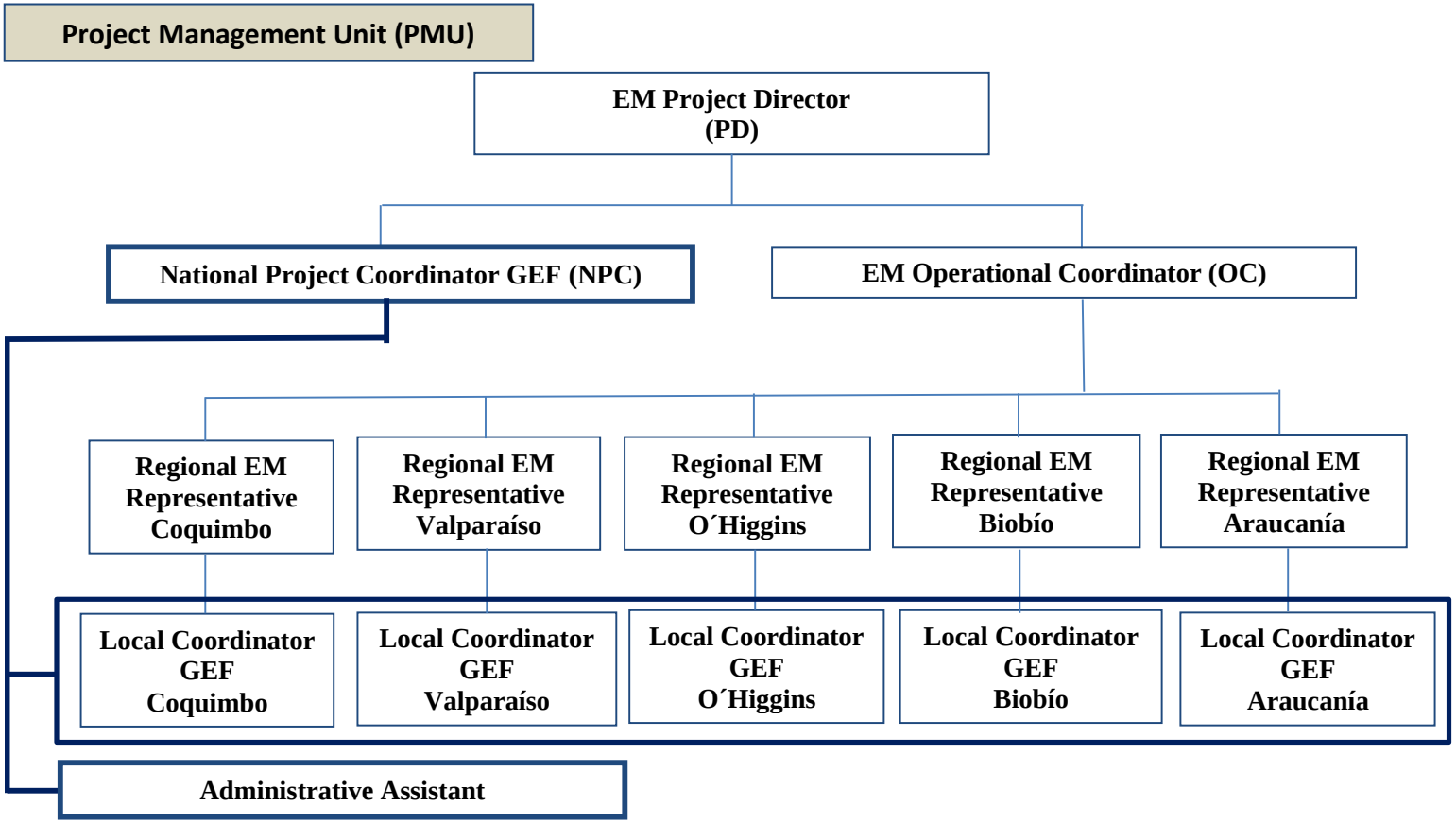
Division of responsibilities

This Project will operate under the supervision and conduction of Chile's Environment Ministry, who will act as National Competent Authority, and UNEP as the Implementing Agency. The ME will preside over the Project Steering Committee (PSC) through a Ministry director-level staff member. The PSC will be made up of representatives of UNEP, the Port Works Department and the General Water Department of the Ministry of Public Construction, the Ministry of Housing and Urbanization, the Ministry of Public Property, the Ministry of Agriculture and the Under Ministry for Regional Development.


Project Steering Committee
(PSC)
Ministry of Environment
(ME)
(National Competent Authority)
UN Environment
(Implementing Agency)
National Technical
Committee
Nacional (CTN)
Project Management Unit (PMU)
Local Technical Committee´s

Internal Structure Flowchart

The Project Management Unit will be led by the Project Director of the MMA (The Chief of the Natural Resources Division), a National Coordinator hired to manage the project, who will supervise the five local Project Coordinators and the administrative assistant, and will work in coordination with the Operational Coordinator of the MMA project (The Professional in charge of Wetlands of the natural Resources Division). At the level of the pilot´s (Coquimbo, Valparaiso, O'Higgins, BioBio and Araucania), the project staff (Local Coordinators) will work in coordination with the Regional Managers of the EM Regional Secretariats in each region.



Appendix 11: Terms of Reference

POSITION: National Project Coordinator

Objective: Assume the supervision, implementation and execution of the project, ensuring that it produces the results specified in the Project Document with the required quality standard and with the time and cost restrictions.

Description of Functions: The National Project Coordinator must ensure the execution of the activities of the Project, the evaluation and monitoring of the project logical framework, and the strategy and coordination of the project for its general compliance. This includes those activities developed by other entities that collaborate with the project. It must also ensure that the work plans and associated budgets are executed within the parameters and schedule described within the Project Document.

The NPC must develop the operational management of the project in accordance with the Project Document, including:

- Support in the general coordination, management and supervision of project implementation;
- Management of project procurement and budget under the supervision of UN Environment to ensure the timely participation of national and international experts and consultants, organization of training activities, purchase of required equipment, etc.
- Formulate the annual work plans of the project and present them for approval by the Ministry of Environment and the Steering Committee
- Organize coordination and planning meetings, with all the institutional actors involved in the implementation of the project, to guarantee the work and the correct and timely execution of the activities foreseen in the work plans;
- Development and revisions of Project Implementation Reports and required progress reports;
- Ensure the effective dissemination of access to information on project activities and results;
- Supervision and coordination of the contracts of experts working for the project;
- Ensure the successful completion of the project in accordance with the established results and the performance indicators summarized in the project's result framework and within the planned program and budget.
- Develop annual work plans, detailing the activities and progress indicators that will guide the implementation of the project.
- Supervise the necessary personnel to guarantee the rapid implementation of the project from its approval until the beginning of its implementation,
- Monitor Project implementation at the national and local level.

Contract Duration: Contract Duration: This contract, with fee-type remuneration, will extend for 60 months, full-time, starting at month one of the Project implementation stage.
Profile:
Academic Qualifications: Master's degree in relevant natural sciences, social sciences, preferably in sustainable management of natural resources;

Experience:

- Minimum 7 years of demonstrable experience in managing and preparing high quality project documents, in particular for GEF projects;
- Experience with management and implementation of international cooperation projects and in particular with those targeted at policy-influence and decision-making;
- Specialist knowledge of and experience working in or with the private sector is considered an asset. Experience on public private partnerships is also considered an asset;
- Experience with projects in Latin America and in particular in Chile is highly desirable;
- Excellent communication skills;
- Demonstrable analytical skills;

Language: Fluency in oral and written Spanish and English is required.
Administrative and Employment Dependency: The NPC will answer to the Project Director and the Task Manager of the Implementing Agency (UN Environment)

POSITION: Local Coordinator (the Project will hire 5 Local Coordinators, one for each pilot region of the Project)

Objective: Facilitate implementation processes and provide technical and administrative assistance to project initiatives in the pilot region

Description of Functions:

- Support Regional EM authority and team at the central level, for the correct implementation of the project activities in each pilot and compliance with the established deadlines according to annual planning
- Technical elaboration of terms of reference (TOR), request or bids and other instruments necessary for the hiring of local consultants and sub-contracts required in the framework of the work plans of the project, in collaboration with the Regional Representative and central team
- Accompaniment, technical assistance and supervision of the correct implementation of the different consultancies and external contracts; monitor the fulfilment of the work plan and the correct execution of the participatory processes, coordinate the delivery and review of the technical quality of reports and products
- Support the coordination of the Local Technical Committee
- Accompaniment and technical assistance in the implementation of the communication and dissemination program of the project in the region
- Support in the implementation of the project's training program in the region
- Support in the implementation of the project monitoring program in the region
- Support to the national administrative assistant in the report of expenses, and correct administration and execution of project funds in the region, as well as the correct maintenance and inventory of equipment acquired by the project in the region.
- Support in the organization and coordination of workshops, seminars, meetings and other activities with the community or other key actors, necessary for the execution of the project

- Apply monitoring tools for the GEF project, in the technical-productive and socio-environmental areas, generating the reports and means of verification as appropriate
- Support the systematization of results of the pilot region
- Prepare minutes, reports, audio-visual record of workshops, seminars, meetings and other activities with the community or other key actors, necessary for the execution of the project
- Facilitate the identification and management of co-financing opportunities for sustainable productive practices and community projects, with environmental management instruments and productive development instruments available at the territorial level, preparing project profiles for application to different financing funds
- Participation in coordination workshops with the team, field activities, meetings with key actors and other activities according to annual planning
- Provide technical assistance to local community projects when necessary

Contract Duration: 1-year renewable according to performance evaluation

Profile:

Academic Training and Professional Experience

• Professional degree in the area of biology, ecology, natural resource management, territorial management
• Experience in management and monitoring of aquatic ecosystems
• Experience in citizen participation
• Previous work experience in the Region, on issues related to natural resource management
• Experience in project management or in the application of productive development tools for the management of natural resources

Skills

• Ability to work in teams and plan activities, according to annual programming
• Capabilities for work under pressure in defined periods and emerging priorities
• Proven ability to work with technical and managerial staff of governmental and non-governmental institutions.
• Knowledge of productive development instruments for the management of natural resources.
• Knowledge of the socio-cultural, economic and environmental context of the Region
• Excellent oral and written skills

Other requirements:

At the time of application, a copy of the current driver's license must be included (Class B) Health compatible with field work
Reside in the region of the pilot site to which you apply
Support of professional experience

Administrative and Employment Dependency:

Seremi of Environment of the Region, according to respective pilot ecosystem

POSITION: Administrative Assistant

Objective: Support the NPC and POC in all areas related to correct Project operation, meeting the Project's administrative, logistic and activities coordination needs. In addition, he/she will take part in the Project Management Unit (PMU).

Description of Functions:

- Supporting the NPC and POC in administrative and logistics areas.
- Supervise financial administration of project funds
- Receiving documents, messages, mail and phone calls.
- Coordinating PMU and PSC meetings, keeping attendance records and preparing meeting minutes
- Making budget and quotation requests.
- Hiring catering services, renting meeting rooms, vehicles or other services needed for Project implementation
- Lending support for organizing workshops or other events (seminars, courses, training sessions, etc.)
- Sending invitations and receiving attendance confirmations
- Keeping a detailed record of Project expenditures, requesting fund advancements from the Executing Agency, making petty cash acquisitions and keeping an accounting of implementation staff expenditures.
- Keeping a record of non-consumable goods, writing equipment transfer documents, and lending support for annual and final expenditure reporting to the Executing Agency.
- Writing up contracts and validating them with the Executing Agency

Contract Duration: This contract, with fee-type remuneration, will extend for 58 months, full-time, starting at the month two of the Project implementation stage.

Profile: Candidate must be a technician or professional with experience in the field of project administration, management and/or coordination.

Administrative and Employment Dependency: The AS will answer administratively to the Executing Agency and will be guided in his/her functions by the NPC

Appendix 12: Co-financing commitment letters from project partners

See in attached PDF file

Appendix 13: Endorsement letters of GEF National Focal Points

On file at GEF Secretariat and UN Environment

Appendix 14: Draft procurement plan

*Pilot I: Elqui; Pilot II: Mantagua; Pilot III: Cahuil; Pilot IV: Rocuant-Andalien; Pilot V: Queule

Project title: Mainstreaming biodiversity conservation and sustainable management of coastal wetland´s watersheds territories, within Chile's South Center Biodiversity Hotspot, through improved coastal management and planning frameworks **Project number:** 9766					
UNEP Budget Line		**List of Goods and Services required**	**Budget (USD)**	**Year**	**Brief description of anticipated procurement process**
1100	Personnel Component				
1101	Project personnel	Project National Coordinator	297,460	1-5	CVs of 2-3 candidates will be reviewed by a Project Director, UNEP representative and 2 EM Professionals. Depending upon qualification, experience, etc., the candidate will be selected
1102	Project staff	Local coordinator Elqui pilot	161,663	1-5	CVs of 2-3 candidates will be reviewed by a Project Director, UNEP representative, an EM Professionals and the National Project Coordinator. Depending upon qualification, experience, etc., the candidate will be selected
1102	Project staff	Local coordinator Mantagua pilot	161,663	1-5	CVs of 2-3 candidates will be reviewed by a Project Director, UNEP representative, an EM Professionals and the National Project Coordinator. Depending upon qualification, experience, etc., the candidate will be selected

1102	Project staff	Local coordinator Cahuil pilot	161,663	1-5	CVs of 2-3 candidates will be reviewed by a Project Director, UNEP representative, an EM Professionals and the National Project Coordinator. Depending upon qualification, experience, etc., the candidate will be selected
1102	Project staff	Local coordinator Rocuant pilot	161,663	1-5	CVs of 2-3 candidates will be reviewed by a Project Director, UNEP representative, an EM Professionals and the National Project Coordinator. Depending upon qualification, experience, etc., the candidate will be selected
1102	Project staff	Local coordinator Queule pilot	161,663	1-5	CVs of 2-3 candidates will be reviewed by a Project Director, UNEP representative, an EM Professionals and the National Project Coordinator. Depending upon qualification, experience, etc., the candidate will be selected
1120	Administrative staff	1 full time project administrative assistant of Project operation, meetings, logistic and activities coordination and management Cost	161,663	1-5	CVs of 2-3 candidates will be reviewed by a Project Director, UNEP representative, an EM Professionals and the National Project Coordinator. Depending upon qualification, experience, etc., the candidate will be selected
1200	Consultants				
	Consultancy 1	Program for technological and human resources improvement, for the purpose of improving the wetlands platform for developing an on-line system that makes it possible to integrate information into a single search and reporting system	241,369	1-5	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 2	Define the limits of the wetlands, saline intrusion, buffer zone and hydric balance, for the purpose of improving management and inspection	182,000	1-2	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 3	Identification and Appraisal of		1-3	CVs of 2 or 3 to experts or team will be reviewed

		Ecosystem Services for enhancing wetlands	220,000		by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 4	Hydrodynamic study of movement of the terminal bar and estuary, in order to evaluate the potential effect of the construction of coastal waterworks for maintaining the bar open, considering the trophic state of the wetlands and the definition of thresholds for early-warning critical indicators	80,000	1-2	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 5	Diagnosis of sources of pollution and impacts at the watershed level for the purpose of improving management and inspection	40,000	2	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 6	Design and implementation of a communications and mainstreaming program for emphasizing the value of wetlands, designed for different target groups (decision-makers, citizens, private stakeholders)	167,000	1-5	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 7	Draw up manuals with guidelines for determining structure and the environmental services wetlands provide, monitoring, early warning, productive activities, best practices, management plans	46,000	2-4	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 8	Exhaustive review of the sectorial legislation which negatively impacts wetlands conservation, and evaluation of the effectiveness of the different sectorial regulations that have direct or indirect incidence on wetlands, for the	38,415	2-4	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.

		purpose of proposing legislative changes			
	Consultancy 9	Establish environmental considerations and criteria to be included in processes of infrastructure and construction generation, productive activities such as mining of aggregates, minerals, etc, forestry, agricultural and livestock activities and tourism, in wetland-related zones	100,000	1-5	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 10	Draw up manuals for establishing baselines within the SEIA framework for coastal wetlands	7,000	2-4	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 11	Draw up participative plans for integrated management and recovery of the wetlands and their watersheds, incorporating Ramsar Convention guidelines	100,000	2-4	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 12	Design of Citizen Participation Environmental Monitoring Program	12,000	1-2	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 13	Survey of vulnerable zones with deteriorated areas for prioritizing recovery	85,000	1-2	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 14	Diagnosis of the needs for projects and value chains for sustainable development associated with the wetlands	30,000	2-3	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 15	Design of environmental certification of areas (wetlands and coastal		4-5	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification,

		landscapes) or sustainable activities associated with wetlands and specific green seals	7,000		experience, geographical distribution, etc., the consultant/team will be selected.
	Consultancy 16	Support consultancies, as necessary throughout the project	30,000	1-5	CVs of 2 or 3 to experts or team will be reviewed by PMU. Depending upon qualification, experience, geographical distribution, etc., the consultant/team will be selected.
1600	Travel				
1601	Staff Travel & Transport	Expenses for concept of transportation, accommodation and meals of project staff at several meetings, visits to pilot sites and partners, plus accompaniment in national and international internships of stakeholders.	195,000	1-5	Expenses for concept of transportation, accommodation, booking, and meals will be done by the project staff looking for the best prices and quality options
2300	Sub Contract for commercial purposes				
2301	Pilots I, II, III, IV and V	Implementation of the Monitoring Program, with establishment of Environmental Baseline	240,000	1-5	Based on terms of reference, the costs associated in the implementation of the pilot sites include staffing, materials or other operational expenses. These costs will be controlled by the PMU, choosing the best options between price and quality, or the best proposal will be selected by the panel
2301	Pilots I, II, III, IV and V	Implementation of recovery and threat control actions/measures in the 5 pilot ecosystems, including application of best practices in the different productive sectors	462,875	3-5	Based on terms of reference, the costs associated in the implementation of the pilot sites include staffing, materials or other operational expenses. These costs will be controlled by the PMU, choosing the best options between price and quality, or the best proposal will be selected by the panel
2301	Pilots II and V	Application of best practices for sustainable tourism in 2 pilots, supporting S-seal certification	60,000	3-4	Based on terms of reference, the costs associated in the implementation of the pilot sites include staffing, materials or other operational expenses.

					These costs will be controlled by the PMU, choosing the best options between price and quality, or the best proposal will be selected by the panel
2301	Pilots I, III and V	Establishment of green areas and sustainable physical spaces/infrastructure (foot bridges, viewpoints, signposts, etc) for enhancing the wetlands	130,000	2-5	Based on terms of reference, the costs associated in the implementation of the pilot sites include staffing, materials or other operational expenses. These costs will be controlled by the PMU, choosing the best options between price and quality, or the best proposal will be selected by the panel
2301	Pilots III and V	Support for implementation of sustainable economic activities associated with wetlands (diagnostic consultancy 12), incorporating value chains, market studies and strengthening social capital	180,121	2-5	Based on terms of reference, the costs associated in the implementation of the pilot sites include staffing, materials or other operational expenses. These costs will be controlled by the PMU, choosing the best options between price and quality, or the best proposal will be selected by the panel
2301	Pilots I, II, III, IV and V	Implementation of communicational strategy activities (participative activities in schools, clean your wetlands and plastic-free wetlands)	110,000	1-5	Based on terms of reference, the costs associated in the implementation of the pilot sites include staffing, materials or other operational expenses. These costs will be controlled by the PMU, choosing the best options between price and quality, or the best proposal will be selected by the panel
3200	Group training				
3201	Training	Design and Implementation of training program for municipal personnel and key stakeholders on methodologies/tools for management/planning of rural and urban wetlands	61,000	2-5	Several workshops will be held which include meals and transport for participants. It may include accommodation in some cases. Local quotations of the best option will be selected
3201	Training	Design and implementation of training		2-5	Several workshops will be held which include

		for strengthening social capital of community organizations and local leaders	61,000		meals and transport for participants. It may include accommodation in some cases. Local quotations of the best option will be selected
3201	Training	Design and implementation of training for State services professionals in conservation and wetlands EESS	70,000	1-4	Several workshops will be held which include meals and transport for participants. It may include accommodation in some cases. Local quotations of the best option will be selected
3201	Training	E-learning Courses	14,000	2-4	Based on terms of reference, the costs associated in the implementation of the include staffing, materials or other operational expenses. These costs will be controlled by the PMU, choosing the best options between price and quality, or the best proposal will be selected by the panel
3201	Training	Workshops and Talks	58,000	1-5	Several workshops will be held which include meals and transport for participants. It may include accommodation in some cases. Local quotations of the best option will be selected
3300	Meetings/Conference				
3301	Meetings	Local and National Technical Committee Meetings	40,000	1-5	Several meetings will be held which includes meals, materials, rent conference rooms and others for participants
3301	Meetings	Inception Workshops	20,000	1	Several meetings will be held which includes meals, materials, rent conference rooms and others for participants
3301	Conference	Sustainable Construction Seminar	20,000	1	Include materials, rent conference Rooms, meals, and others for participants. It may include accommodation in some cases. Local quotations of the best option will be selected
3301	Conference	Ecosystem Services Seminar	20,000	3	Include materials, rent conference Rooms, meals, and others for participants. It may

					include accommodation in some cases. Local quotations of the best option will be selected
3301	Conference	Experience Sharing Seminar	20,000	4	Include materials, rent conference Rooms, meals, and others for participants. It may include accommodation in some cases. Local quotations of the best option will be selected
3301	Meetings	Coordination Workshops	46,000	1-5	Several meetings will be held which includes meals, materials, rent conference rooms and others for participants
3301	Conference	Final Workshops	20,000	5	Several meetings will be held which includes meals, materials, rent conference rooms and others for participants
4100	Expendable equipment				
4101	Office supplies and consumables	Office running cost	6,000	1-5	Costs of office articles for staff project
4200	Non-expendable equipment				
4201	Non laboratory purchase	7 laptop computers, 1 printer-scanner, 7 tablets, 2 photographic camera, different software, GPS, Drone, Binoculars, 2 projectors, among other equipment as necessary	50,000	1-4	According with Funds Executing Agency procedures, 2 quotations from vendors must be obtained in order to select the best one
5100	Operation and maintenance of equipment				
5101	Equipment maintenance	Maintenance computers, Drone, Cameras, etc	8,000	2-4	According with Funds Executing Agency procedures, 2 quotations from vendors must be obtained in order to select the best one
5200	Reporting costs				
5201	Publications, translation, dissemination and reporting costs	Extension materials, Educative materials of training programs, Best Practices guidelines, Protocols and environmental considerations manuals, etc	106,000	1-5	According with Funds Executing Agency procedures, 2 quotations from vendors must be obtained in order to select the best one
5202	Audit reports	Annual Reports (M&E)	25,000	1-5	2-3 Proposals will be reviewed by a project coordinator. Depending upon qualification,

					experience, etc., the candidate will be selected.
5300	Sundry				
5301	Communications	telephones, packaging transport, etc	11,779	1-5	According with Funds Executing Agency procedures
5302	Others		60,000	1-5	
5303	Technical support	Midterm evaluation	45,000	2,5	CVs of 2 or 3 to experts will be reviewed by PMU. Depending upon qualification, experience, etc., the consultants will be selected.
5303	Technical support	Terminal evaluation	45,000	5	CVs of 2 or 3 to experts will be reviewed by PMU. Depending upon qualification, experience, etc., the consultants will be selected.
5375	Funds Executing Agency charges	Executing agency expenses for project management cost	308,806	1-5	Expenses for Project management (executing agency) previously agreed with the Ministry of Environment
		GRAND TOTAL	**5,146,804**		

Appendix 15: Objectives Tree (Theory of Change)

A thorough problem analysis and Theory of Change exercise was performed for this project. The resulting flowchart with all its elements was so extensive that it was impossible to survey in the format of the present project document pages. It was therefore split in two parts presented in this appendix 15, the descriptive table containing the text and a condensed flowchart with abbreviations referring to the elements of the table.

ToC Descriptive Table (Flowchart below)

Outputs	**Outcomes**	**Drivers (D) & Assumptions (A)**	**Intermediate states (IS)**	**Impacts**
Component 1: Information management and outreach for mainstreaming sustainable coastal landscape management				
Quantified ecological and socioeconomic assessment of Coastal landscapes including wetlands and adjacent watershed territories, with biodiversity inventory; Ecosystem Services Evaluation Report; definition of wetlands extension and buffer zones, Proposals for studies and programs on value added for watershed hydrological system;	1.1 Decision makers and relevant stakeholders are aware and appreciate the importance of BD conservation and LD problems in coastal landscapes through more and better access to information regarding globally relevant biodiversity and the ecosystem and socio-economic services they provide (attitude change on issues)	D-1.1.1: Lessons learned on implementation of Project initiatives and application of new protocols and regulations are widely and appropriately disseminated through different communications media for replication on the national level D-1.1.2: The Wetlands Platform has up-dated information that is available to all stakeholders D-1.1.3: Monitoring and evaluation system established including ecosystem and biodiversity indicators that make it possible for this to persist beyond Project limits	IS-1.1.1: Decision-makers and relevant stakeholders use more and better information on coastal wetlands in planning and decision-making IS-1.1.2: The demand for information on wetlands by public services increases, and there is more press coverage on wetlands IS-1.1.3: Monitoring system is being managed effectively to reduce threats and keep updated on coastal wetland priority conservation	****Enhanced conservation status of coastal landscapes of global environmental value of South-central Chile** * Improved management of highly diverse coastal wetland watersheds for their
EM Wetlands Platform containing processed and integrated information including inventory, monitoring system, ecological and socioeconomic data, and maps regarding priority zones as a decision-making aid for conservation of private or State coastal landscape areas				

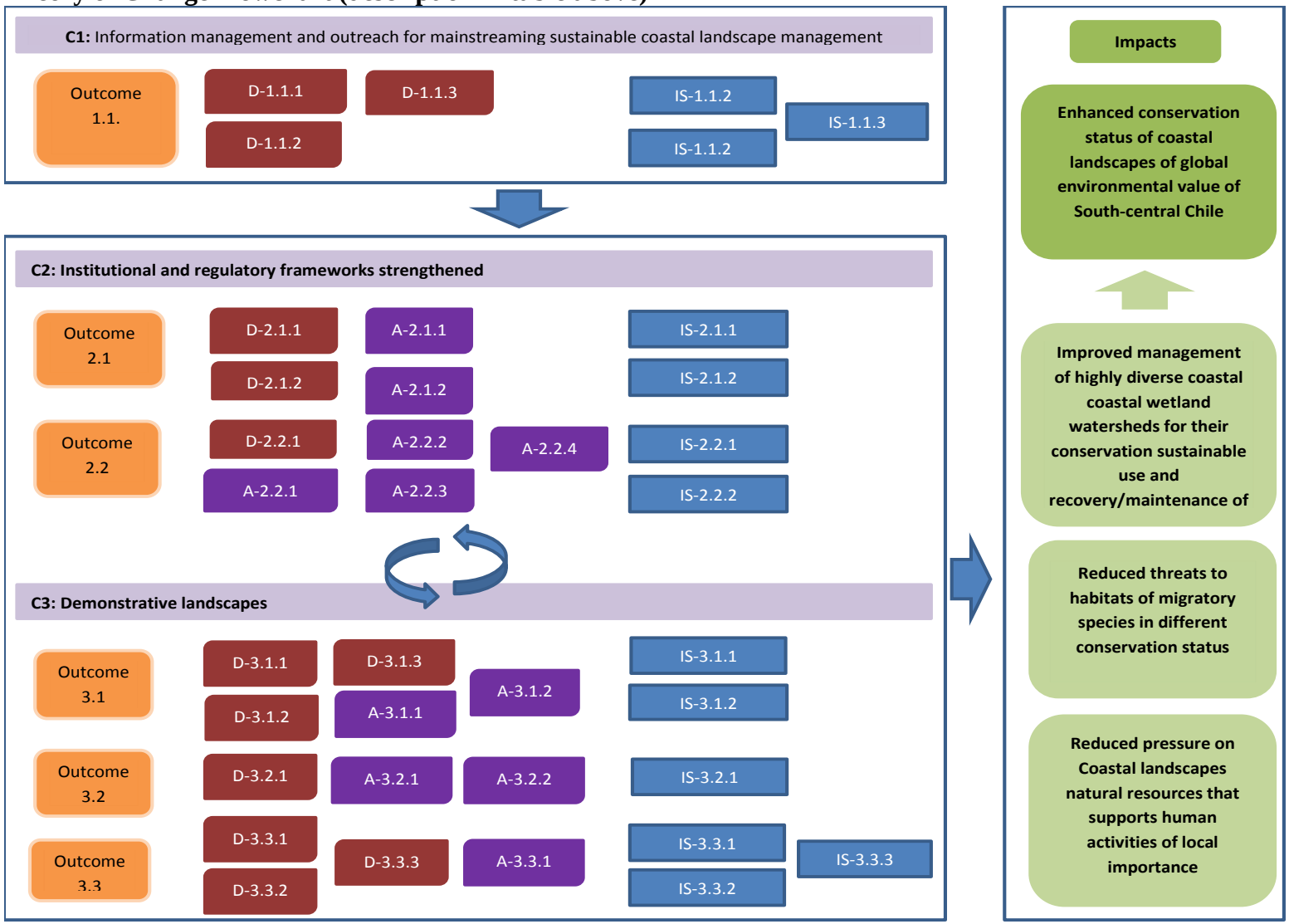
Outreach and dissemination strategy for mainstreamed BD conservation and SLM in coastal landscapes based on the systematization of Project tools, methodologies, outcomes and findings			areas	conservation, sustainable use and recovery/maintenance of their ecosystem services
Component 2: Institutional and regulatory frameworks strengthened				
Training Program developed and implemented for increased capacity of state institutions (EM, MINVU, MOP, MBN, Agriculture, Subdere, etc) professionals to incorporate BD and SLM considerations within landscape and mitigation approaches as well as improved management practices for coastal landscape sustainable management	2.1 Improvement in institutional and technical capability for Integrated Landscape Approaches for SLM and BD conservation in coastal landscapes of South-central Chile (improved institutional competency)	D-2.1.1: Exit strategies are developed to allow for continued training of professionals D-2.1.2: Long-term strategies are developed for sharing information and experiences between institutions A-2.1.1: Government institutions and their staff are willing to receive training on CW sustainable management A-2.1.2: Positive conditions are in place to share information and experiences with international institutions or organizations	IS-2.1.1: Institutional capacity on the national level is established for the effective implementation of programs and projects of SM and Conservation of coastal ecosystems, guaranteeing interinstitutional coordination IS-2.1.2: Tools and protocols managed effectively to address coastal wetlands priority conservation and development goals	*Reduced threats to habitats of migratory species in different conservation status *Reduced pressure on Coastal landscapes natural resources that supports human activities of local importance
Systematization of tools for quantifying coastal landscape ecosystem and socioeconomic services, monitoring, and recovery for the purpose of efficient information management				
Interinstitutional coordination for knowledge management, synergies and cooperation in similar or complementary initiatives				

Criteria and environmental considerations for integrated sustainable land management and key BD conservation in coastal landscapes to be adopted by MINVU, MBN, MOP and Minagri Recommendations and criteria for BD conservation and SLM in coastal landscape management to be included in the EM's Environmental Impact Evaluation System and associated institutions	2.2 Incorporating regulations and criteria regarding BD conservation and SLM in coastal landscapes into the strategies and mandates of the EM, the Ministry of Housing and Urbanization (MINVU), Ministry of Public Property (MBN), Ministry of Public Construction (MOP) and the Ministry of Agriculture (MINAGRI) increasing the Project's scope (implementation of new or revised policies)	D-2.2.1: The support of the partner institutions and stakeholders is achieved for adopting and including in national mandates and policies, those environmental protocols and regulations developed by the Project A-2.2.1: The compliance level of institutions and stakeholders involved is high A-2.2.2: National institutions and authorities are interested in learning from the demonstrative landscapes and general results of the Project A-2.2.3: The political and regulatory framework is strengthened with the approval of the SBPA law A-2.2.4: There are continuous policy priorities favourable to wetlands	IS-2.2.1: Coastal wetland sustainable management principles and regulatory framework are replicated and mainstreamed by associated institutions to other parts of Chile IS-2.2.2: Progress on the National Wetlands Action Plan, Committee participating actively in training
Component 3: Demonstrative landscapes			
Integrated land-use and restoration plans in participating districts with high biodiversity and LD problems, developed by district authorities, communities	3.1 Enhanced mechanisms for cross-sector integrated planning and implementation of sustainable natural	D-3.1.1: Collaboration mechanisms are established between governmental institutions and the local communities for implementing	IS-3.1.1: Degradation of the soil and of the coastal wetlands is reduced/prevented/avoided thanks to

and local stakeholders, and being effectively applied	resources management at district level to decrease LD and preserve habitat of BD in coastal landscapes considering the multiple dimensions of livelihood options (agriculture, forestry, livestock, construction, tourism, infrastructure) and monitoring programs	conservation and SM programs A-3.1.1: Local communities, government institutions and local authorities get involved in participatory CW conservation and recovery projects D-3.1.2: There is a solid baseline in the demonstrative landscapes to elaborate participatory projects D-3.1.3: Investments and secured funds are sufficient for continuing and replicating the activities and programs carried out A-3.1.2: The private sector is receptive and willing to use CW protocols and sustainable management guidelines in their operations	sustainable management of productive practices and monitoring in the pilots, resulting in effective replication models IS-3.1.2: The plans and programs implemented effectively address the threats and barriers that affect coastal ecosystems
On-the-ground implementation of selected SLM and BD conservation measures from guidelines and protocols for sustainable use of landscapes in pilot ecosystems			
Central Government, communities and other district-level stakeholders receive training in the development and implementation of integrated land-use planning and have the knowledge/experience necessary to continue the application of plans	3.2 The associated institutions at the sub-national level recognize and incorporate into their territorial planning, zoning and practices that include conservation, recovery and monitoring of BD conservation and SLM in coastal landscapes	D-3.2.1: Willingness is established in regional governments for utilizing conservation indicators and CW prioritization in their territorial planning A-3.2.1: Regional political leaders are committed to prioritizing CW conservation	IS-3.2.1: Biodiversity and ecosystem services considerations are integrated and are implemented in the territorial planning instruments and regional development programs

	(adoption of new practices)	issues A-3.2.2: There is interest on the part of local authorities and the community in conserving the biodiversity in their CW		
The diversification of rural livelihoods in coastal landscape communities and value chain development of a selection of sustainable managed products and services from coastal landscapes is supported	3.3 Livelihood of coastal landscape smallholders are more resilient, diversified and strengthened	D-3.3.1: Mechanisms are established to insure a favourable relationship between socioeconomic and conservation initiatives D-3.3.2: Interesting markets are identified for products from sustainable practices in coastal ecosystems D-3.3.3: Local stakeholders are sufficiently involved in and informed about the Project and committed to promote its initiatives to insure their future expansion and replication A-3.3.1: Environmentally friendly productive practices introduced by the Project are sufficiently competitive compared with other more destructive practices	IS-3.3.1: Improvement in access to markets for ecologically friendly products motivates local stakeholders to apply best practices IS-3.3.2: The ecosystem services provided by coastal wetlands are protected, improving the resilience of the ecosystems and of life support IS-3.3.3: Financial mechanisms and instruments are replicated in other coastal ecosystems	

Theory of Change Flowchart (description in table above)



Appendix 16: UNEP/GEF Environmental and Social Safeguards Checklist

UNEP Environmental, Social and Economic Review Note (ESERN)

I. Project Overview

Identification	*Project ID# 01389 (ADDIS)* *GEF ID 9766*
Project Title	*Project preparation proposal for "*Mainstreaming biodiversity conservation and sustainable landscape management of watersheds containing wetlands within Chile's South Center Biodiversity Hotspot through reformed coastal planning frameworks*"*
Managing Division	*Ecosystems*
Type/Location	*National*
Region	*Latin America Caribbean*
List Countries	*Chile*
Project Description	*The project proposes to conserve and recover coastal wetlands (CW) integrating them into local development, through their sustainable management and use. To this end it will promote information management and outreach for mainstreaming sustainable wetland management, strengthen the associated relevant institutional and regulatory frameworks and carry out fieldwork in key coastal wetlands to demonstrate the desired landscape approach including territorial planning, zoning, conservation, recovery and monitoring involving private and public partners and stakeholders.*
Estimated duration of project:	*60 months estimated from project kickoff to completion*
Estimated cost of the project :	*GEF: 5,800,000* *Co-finance: 20,000,000*

II. Environmental Social and Economic Screening Determination

A. Summary of the Safeguard Risks Triggered

Safeguard Standard Triggered by the Project	Impact of Risk[3] (1-5)	Probability of Risk (1-5)	Significance of Risk (L, M, H)
SS 1: Biodiversity, natural habitat and Sustainable Management of Living Resources	3	1	L
SS 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes	1	1	L
SS 3: Safety of Dams	N/A	N/A	N/A
SS 4: Involuntary resettlement	N/A	N/A	N/A
SS 5: Indigenous peoples	3	1	L
SS 6: Labor and working conditions	1	1	L
SS 7: Cultural Heritage	1	1	L
SS 8: Gender equity	1	1	L
SS 9: Economic Sustainability	2	1	L
Additional Safeguard questions for projects seeking GCF-funding (Section IV)			

B. ESE Screening Decision[4] (Refer to the UNEP ESES Framework (Chapter 2) and the UNEP's ESES Guidelines.)

Low risk X Moderate risk ☐ High risk ☐ Additional information required ☐

C. Development of ESE Review Note and Screening Decision:

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Safeguard Advisor: Name: Yunae Yi Date: 01.03.2017

Project Manager: Name: Robert Erath Date: 22.04.2019

[3] Refer to UNEP Environment, Social and Economic Sustainability (ESES): Implementation Guidance Note to assign values to the Impact of Risk and the Probability of Risk to determine the overall significance of Risk (Low, Moderate or High). 1

[4] **Low risk**: Negative impacts negligible: no further study or impact management required.
Moderate risk: Potential negative impacts, but less significant; few if any impacts irreversible; impact amenable to management using standard mitigation measures; limited environmental or social analysis may be required to develop a ESEMP. Straightforward application of good practice may be sufficient without additional study.
High risk: Potential for significant negative impacts, possibly irreversible, ESEA including a full impact assessment may be required, followed by an effective safeguard management plan.

III. ESES Principle and Safeguard checklist

(Section III and IV should be retained in UNEP)

Precautionary Approach
The project will take precautionary measures even if some cause and effect relationships are not fully established scientifically and there is risk of causing harm to the people or to the environment.
Human Rights Principle
The project will make an effort to include any potentially affected stakeholders, in particular vulnerable and marginalized groups; from the decision-making process that may affect them.
The project will respond to any significant concerns or disputes raised during the stakeholder engagement process.
The project will make an effort to avoid inequitable or discriminatory negative impacts on the quality of and access to resources or basic services, on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups.[5]

Screening checklist	Y/N/ Maybe	Comment
Safeguard Standard 1: Biodiversity, natural habitat and Sustainable Management of Living Resources		
Will the proposed project support directly or indirectly any activities that significantly convert or degrade biodiversity and habitat including modified habitat, natural habitat and critical natural habitat?	N	The project is about conservation of biodiversity and maintenance of ecosystem services in globally important wetland areas of the central south of Chile.
Will the proposed project likely convert or degrade habitats that are legally protected?	N	
Will the proposed project likely convert or degrade habitats that are officially proposed for protection? (e.g.; National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA); etc.)	N	On the contrary this project will help restore the degraded and fragile

[5] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

		ecosystems as well as their ecosystem functions
Will the proposed project likely convert or degrade habitats that are identified by authoritative sources for their high conservation and biodiversity value?	N	The purpose of this project is to mainstream the importance of achieving biodiversity conservation and ecosystem services maintenance of fragile wetland ecosystems
Will the proposed project likely convert or degrade habitats that are recognized- including by authoritative sources and /or the national and local government entity, as protected and conserved by traditional local communities?	N	
Will the proposed project approach possibly not be legally permitted or inconsistent with any officially recognized management plans for the area?	N	
Will the proposed project activities result in soils deterioration and land degradation?	N	
Will the proposed project interventions cause any changes to the quality or quantity of water in rivers, ponds, lakes or other wetlands?	N	
Will the proposed project possibly introduce or utilize any invasive alien species of flora and fauna, whether accidental or intentional?	N	
Safeguard Standard 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes		
Will the proposed project likely result in the significant release of pollutants to air, water or soil?	N	On the contrary this project will help restore the degraded and fragile ecosystems as well as their ecosystem functions
Will the proposed project likely consume or cause significant consumption of water, energy or other resources through its own footprint or through the boundary of influence of the activity?	N	
Will the proposed project likely cause significant generation of Green House Gas (GHG) emissions during and/or after the project?	N	Not a focus of the project but more efficient NRM should result in reduced GHG emissions.
Will the proposed project likely generate wastes, including hazardous waste that cannot be reused, recycled or disposed in an environmentally sound and safe manner?	N	
Will the proposed project use, cause the use of, or manage the use of, storage and disposal of hazardous chemicals, including pesticides?	N	
Will the proposed project involve the manufacturing, trade, release and/or use of hazardous materials subject to international action bans or phase-outs, such as DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Convention on Persistent Organic Pollutants or the Montreal Protocol?	N	

Will the proposed project require the procurement of chemical pesticides that is not a component of integrated pest management (IPM)[6] or integrated vector management (IVM)[7] approaches?	N	An ecosystem approach to include productive lands adjacent to wetlands and the promotion
Will the proposed project require inclusion of chemical pesticides that are included in IPM or IVM but high in human toxicity?	N	
Will the proposed project have difficulty in abiding to FAO's International Code of Conduct[8] in terms of handling, storage, application and disposal of pesticides?	N	
Will the proposed project potentially expose the public to hazardous materials and substances and pose potentially serious risk to human health and the environment?	N	
Safeguard Standard 3: Safety of Dams		
Will the proposed project involve constructing a new dam(s)?	N	
Will the proposed project involve rehabilitating an existing dam(s)?	N	
Will the proposed project activities involve dam safety operations?	N	
Safeguard Standard 4: Involuntary resettlement		
Will the proposed project likely involve full or partial physical displacement or relocation of people?	N	
Will the proposed project involve involuntary restrictions on land use that deny a community the use of resources to which they have traditional or recognizable use rights?	N	
Will the proposed project likely cause restrictions on access to land or use of resources that are sources of livelihood?	N	
Will the proposed project likely cause or involve temporary/permanent loss of land?	N	
Will the proposed project likely cause or involve economic displacements affecting their crops, businesses, income generation sources and assets?	N	
Will the proposed project likely cause or involve forced eviction?	N	

[6] "Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/ipm/en/

[7] "IVM is a rational decision-making process for the optimal use of resources for vector control. The approach seeks to improve the efficacy, cost-effectiveness, ecological soundness and sustainability of disease-vector control. The ultimate goal is to prevent the transmission of vector-borne diseases such as malaria, dengue, Japanese encephalitis, leishmaniasis, schistosomiasis and Chagas disease." (http://www.who.int/neglected_diseases/vector_ecology/ivm_concept/en/)

[8] Find more information from http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/CODE_2014Sep_ENG.pdf

Will the proposed project likely affect land tenure arrangements, including communal and/or customary/traditional land tenure patterns negatively?	N	Land tenure and access rights to resources will be respected and strengthened.
Safeguard Standard 5: Indigenous peoples[9]		
Will indigenous peoples be present in the proposed project area or area of influence?	Y	One of the pilots includes indigenous communities and they are being integrated in project planning and implementation processes.
Will the proposed project be located on lands and territories claimed by indigenous peoples?	N	
Will the proposed project likely affect livelihoods of indigenous peoples negatively through affecting the rights, lands and territories claimed by them?	N	
Will the proposed project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	N	The project will build capacity of local communities in indigenous areas to conserve biodiversity and benefit from their natural resources
Will the project negatively affect the development priorities of indigenous peoples defined by them?	N	
Will the project potentially affect the traditional livelihoods, physical and cultural survival of indigenous peoples?	N	
Will the project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	N	
Safeguard Standard 6: Labor and working conditions		
Will the proposed project involve the use of forced labor and child labor?	N	The project will follow national and international regulations in this matter
Will the proposed project cause the increase of local or regional un-employment?	N	Clean production agreements will be developed with the private sectors involved
Safeguard Standard 7: Cultural Heritage		
Will the proposed project potentially have negative impact on objects with historical, cultural, artistic, traditional or religious values and archeological sites that are internationally recognized or legally protected?	N	
Will the proposed project rely on or profit from tangible cultural heritage (e.g., tourism)?	N	

[9] Refer to the Toolkit for the application of the UNEP Indigenous Peoples Policy Guidance for further information.

Will the proposed project involve land clearing or excavation with the possibility of encountering previously undetected tangible cultural heritage?	N	
Will the proposed project involve in land clearing or excavation?	N	
Safeguard Standard 8: Gender equity		
Will the proposed project likely have inequitable negative impacts on gender equality and/or the situation of women and girls?	N	
Will the proposed project potentially discriminate against women or other groups based on gender, especially regarding participation in the design and implementation or access to opportunities and benefits?	N	In the pilot landscapes, a participatory approach will be held with the communities involved.
Will the proposed project have impacts that could negatively affect women's and men's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	N	The project includes gender disaggregated stakeholder analysis and considerations for equality and inclusiveness.
Safeguard Standard 9: Economic Sustainability		
Will the proposed project likely bring immediate or short-term net gain to the local communities or countries at the risk of generating long-term economic burden (e.g., agriculture for food vs. biofuel; mangrove vs. commercial shrimp farm in terms of fishing, forest products and protection, etc.)?	N	The project is about improved biodiversity conservation in coastal wetlands of global significance through participatory restauration projects and community participation. The project will monitor the achievements on these targets and objectives. This cumulatively will have long lasting and positive impacts on biodiversity conservation and maintenance of ecosystem services
Will the proposed project likely bring unequal economic benefits to a limited subset of the target group?	N	

IV. Additional Safeguard Questions for Projects seeking GCF-funding

Community Health, Safety, and Security			
Will there be potential risks and negative impacts to the health and safety of the Affected Communities during the project life-cycle?			
Will the proposed project involve design, construction, operation and decommissioning of the structural elements such as new buildings or structures?			
Will the proposed project involve constructing new buildings or structures that will be accessed by public?			
Will the proposed project possibly cause direct or indirect health-related risks and impacts to the Affected Communities due to the diminution or degradation of natural resources, and ecosystem services?			
Will the proposed project activities potentially cause community exposure to health issues such as water-born, water-based, water-related, vector-borne diseases, and communicable diseases?			
In case of an emergency event, will the project team, including partners, have the capacity to respond together with relevant local and national authorities?			
Will the proposed project need to retain workers to provide security to safeguard its personnel and property?			
Labor and Supply Chain			
Will UNEP or the implementing/executing partner(s) involve suppliers of goods and services who may have high risk of significant safety issues related to their own workers?			

Appendix 17: PPG Outputs (in separate pdf document due to size)

1. Distribution of protected areas on the national level

2. Distribution of Demonstrative Ecosystems

3. Territorial Planning Regulatory Plans for pilot ecosystems report

4. National and international legal instruments relevant to management and administration of coastal landscapes

5. Human environment report

6. Biodiversity report

7. Ecosystem Services evaluation methodologies

8. Training requirements report

9. KAP questionnaire results

10. Legal Instruments of National and International Character

11. Local Technical Committee Commitment Letter of Araucania Pilot Landscape

12 Land Degradation report

13. Water Quality report

14. Market Conditions report

15. Communication Strategy