



Sustainable management and restoration of the Dry Forest of the Northern Coast of Peru

Part I: Project Information

GEF ID

10541

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Sustainable management and restoration of the Dry Forest of the Northern Coast of Peru

Countries

Peru

Agency(ies)

FAO, IUCN

Other Executing Partner(s)

Ministry of Environment

Executing Partner Type

Government

GEF Focal Area

Multi Focal Area

Taxonomy

Natural Capital Assessment and Accounting, Financial and Accounting, Biodiversity, Focal Areas, Payment for Ecosystem Services, Conservation Finance, Tropical Dry Forests, Biomes, Tourism, Mainstreaming,

Forestry - Including HCVF and REDD+, Agriculture and agrobiodiversity, Protected Areas and Landscapes, Terrestrial Protected Areas, Community Based Natural Resource Mngt, Productive Landscapes, Sustainable Land Management, Land Degradation, Sustainable Agriculture, Income Generating Activities, Sustainable Pasture Management, Sustainable Forest, Sustainable Fire Management, Integrated and Cross-sectoral approach, Sustainable Livelihoods, Restoration and Rehabilitation of Degraded Lands, Improved Soil and Water Management Techniques, Ecosystem Approach, Community-Based Natural Resource Management, Drought Mitigation, Land Degradation Neutrality, Carbon stocks above or below ground, Land Productivity, Land Cover and Land cover change, Forest and Landscape Restoration, Forest, REDD - REDD+, Agriculture, Forestry, and Other Land Use, Climate Change Mitigation, Climate Change, Climate resilience, Climate Change Adaptation, Ecosystem-based Adaptation, Nationally Determined Contribution, United Nations Framework Convention on Climate Change, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Transform policy and regulatory environments, Demonstrate innovative approach, Indigenous Peoples, Stakeholders, Non-Governmental Organization, Civil Society, Academia, Community Based Organization, Type of Engagement, Information Dissemination, Partnership, Consultation, Participation, Local Communities, SMEs, Private Sector, Capital providers, Large corporations, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, Beneficiaries, Awareness Raising, Communications, Behavior change, Public Campaigns, Gender Mainstreaming, Gender Equality, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Gender results areas, Participation and leadership, Capacity Development, Knowledge Generation and Exchange, Access and control over natural resources, Access to benefits and services, Learning, Capacity, Knowledge and Research, Indicators to measure change, Adaptive management, Theory of change, Innovation, Knowledge Generation, Targeted Research

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

3/23/2020

Expected Implementation Start

6/1/2022

Expected Completion Date

6/1/2027

Duration

60In Months

Agency Fee(\$)

714,861.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors	GET	4,000,000.00	30,174,702.00
BD-2-7	Address direct drivers to protect habitats and species and Improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate	GET	3,104,204.00	23,417,108.00
LD-1-1	Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	GET	200,000.00	1,508,735.00
LD-1-2	Maintain or improve flow of ecosystem services, including sustaining livelihoods of forest-dependent people through Sustainable Forest Management (SFM)	GET	362,287.00	2,732,976.00
Total Project Cost(\$)			7,666,491.00	57,833,521.00

B. Project description summary

Project Objective

To restore and sustainably manage the dry forests of the Northern Coast of Peru, facilitating the conservation of biodiversity and ecosystem services, increasing the resilience of communities and their livelihoods and supporting the achievement of the Land Degradation Neutrality (LDN) target.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Promoting governance with multi-sectoral, multi-level and multi-stakeholder approach for the sustainable development of dry forests in Peru.	Technical Assistance	<p>1.1 National, regional and local actors of the public and private sector have improved their coordination and harmonized policies, plans and investments related to sustainable and inclusive dry forest management and LDN priorities.</p> <p><u>GEF Core Indicator 11:</u> Number of women and men direct beneficiaries of project actions that improve their skills for the conservation and sustainable use of dry forests: 8,252 men and 8,548 women. Total: 16,800.</p> <p>1.2 Capacities of institutional and local stakeholders strengthened for decision-making on land-use, territorial planning, and monitoring of deforestation, degradation and biodiversity loss.</p> <p><u>Project Indicator 1:</u></p> <p>- Level of improvement of local stakeholders? capacities for monitoring and surveillance measured (At least 30 % women)</p>	<p>1.1.1 Multi-sectoral and multi-level coordination spaces strengthened with capacities for the conservation and sustainable management of dry forests, under an integrated management approach in different territorial areas of dry forest (with at least 30 % participation of women)</p> <p>1.1.2 Management and planning instruments that mainstream the landscape approach, integrated natural resources management, and LDN priorities in the sustainable management and restoration of the Dry Forest.</p> <p>1.1.3 Protocols to implement the Dry Forest Management guidelines (LFFS, Art. 60, Forest Management Regulations) that mainstream the landscape approach and LDN principles in Ecological-economic zoning (EEZ), Forest Zoning (FZ) and Concerted Development Plans (CDP).</p> <p>1.1.4 Proposal for a macro regional policy to encourage the sustainable management and conservation of the Dry Forest through an ecosystem-based approach[1] including LDN principles and articulated with Water Resources Management Plans (LFFS, Art. 24).</p> <p>1.2.1 Capacity development program for</p>	GET	1,699,040.00	905,508.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
2. Ecological connectivity of dry forests and restoration through effective management and financial sustainability of conservation areas and buffer zones	Technical Assistance	<p>2.1 More effective management of protected areas and OMEC.</p> <p><u>GEF Core Indicator BD 1.2:</u></p> <p>398,013 hectares of PAs with improved management, as measured by an increase in the GEF METT score over the baseline:</p> <p>? National Reserve of Tumbes: Baseline: 65; Target: 71.</p> <p>? Cerros de Amotape National Park: Baseline: 74; Target: 81.</p> <p>? El Angolo Hunting Preserve: Baseline: 73; Target: 80.</p> <p>? Bosque de Pomac Sanctuary: Baseline: 78; Target: 85.</p> <p>? Laquipampa Wildlife Refuge: Baseline: 65; Target: 71.</p> <p>? Illescas Reserved Zone: Baseline: 30; Target: 36.</p> <p>2.2 Connected corridors and functional dry forest areas are preserved using management models based on landscape approach.</p> <p><u>Project Indicator 2:</u></p> <p>Area of corridors preserved with management models based on landscape</p>	<p>2.1.1. PA management plans compatible with local and regional community development plans in order to foster integrated territorial management.</p> <p>2.1.2 Strengthened capacities for integrated territorial management based on PAs and OMEC[1].</p> <p>2.1.3 Financial sustainability models for prioritized landscapes with prioritized innovative instruments, and fundraising strategy with private sector?s participation.</p> <p>2.1.4 Pilots of financial sustainability models implemented for PA and OMEC.</p> <p>2.2.1. New protected areas and/or other effective conservation measures (OMEC) established in priority sites for connectivity between existing PA.</p> <p>2.2.2 Regional Conservation Systems with strengthened management capacities for landscape connectivity and territorial articulation.</p> <p>2.3.1 Financial instruments generated to leverage investments in forest recovery (to be implemented in 2.3.2).</p> <p>2.3.2 Best practices in restoration implemented with communities in</p>	GET	2,913,816.00	30,061,891.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
3. Sustainable production practices for the conservation of the natural heritage of the dry forest on the Northern Coast of Peru	Investment	<p>3.1 Sustainably conserved and managed dry forests of the Peruvian Northern Coast are more resilient to anthropogenic threats, mainly agriculture and livestock, and have a better response capacity to climate change effects.</p> <p><u>GEF Core Indicator BD 4.1:</u></p> <p>Area of landscapes under improved practices: 8,000 hectares.</p> <p><u>GEF Core Indicator 4.3:</u></p> <p>Area of landscapes under sustainable land management in production systems: 2,000 hectares.</p> <p><u>GEF Core Indicator 4.4:</u></p> <p>Area of High Conservation Value Forest loss avoided (through conservation agreements with producers): 67,941 hectares.</p> <p>3.2 Strengthened value chains with the increase of deforestation-free dry forest products and by-products, with higher value and access to markets, fostering collaboration between resource managers and users and the private sector.</p> <p><u>Project Indicator 4</u> Number and type of start-ups with access to the market under schemes of sustainable production</p>	<p>3.1.1 Farmer field schools established in the territories for capacity-building in sustainable biodiversity management, sustainable production practices and Dry Forest restoration (restoration in Output 2.3.2).</p> <p>3.1.2 Territorial Agreements^[1] established with producers and communities in High Conservation Value Forest (HCVF) areas.</p> <p>3.2.1 Diagnoses and marketing strategies to access sustainable markets developed for Dry Forest products and tourism.</p> <p>3.2.2 Timely information on markets and access using new technologies.</p> <p>3.2.3 Partnerships among producers, public and private sector to leverage sustainable investments.</p> <p>3.2.4 Demonstrations to improve local stakeholders' capacities in sustainable production and enhancement of the biodiversity value for implementing deforestation-free value chains (implementation of 3.2.1).</p> <p>3.2.5 Strengthened capacities of small producers for sustainable production and business management.</p>	GET	1,705,481.00	21,462,967.00

[1] The Territorial

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
4. Knowledge Management, Monitoring and Evaluation (M&E) based on adaptive management principles and the delivery of measurable and objectively verifiable outcomes	Technical Assistance	<p>4.1 Project Knowledge Management articulated with national information systems and the GEF, contributing to scaling up and replicating best practices and lessons learned.</p> <p><u>Project Indicator 7:</u></p> <p>A strengthened national system (SINIA[1]) for dry forests, including good practices and lessons learned published and disseminated (including the gender approach).</p> <p>4.2 M&E system supporting project implementation, based on measurable and verifiable results and adaptive management principles</p> <p>[1] National System of Environmental Information.</p>	<p>4.1.1 Mechanism for dissemination and exchange of best practices and lessons for the replication and scaling-up of outcomes.</p> <p>4.1.2 Gender-sensitive communications and information strategy.</p> <p>4.1.3 Exchange of regional experiences in the management of Dry Forests.</p> <p>4.1.4 Lessons learned systematized and disseminated with public and private stakeholders (including gender mainstreaming and successful stories by women).</p> <p>4.1.5 Regional information platforms updated and accessible to all stakeholders[1].</p> <p>4.1.6 National platform with publicly accessible project information.</p> <p>4.2.1 M&E strategy developed with relevant stakeholders, clearly defining expected outcomes, the expected time periods of implementation, and confirmation through objectively verifiable indicators and means of verification.</p> <p>4.2.2 Mid-term Review, Final Evaluation and Impact Assessment to confirm progress, guide Project implementation and measure impact.</p>	GEFT	978,283.00	2,511,479.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
				Sub Total (\$)	7,296,620.00	54,941,845.00
Project Management Cost (PMC)						
		GET	369,871.00		2,891,676.00	
		Sub Total(\$)	369,871.00		2,891,676.00	
		Total Project Cost(\$)	7,666,491.00		57,833,521.00	

Please provide justification

Please note that "Stationery and office" has been now charged to the PMC for USD 4,800, as requested. This inclusion has resulted in a PMC of 5,06% of the subtotal.

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Environment	In-kind	Recurrent expenditures	467,128.00
Recipient Country Government	Ministry of Environment (SERNANP)	Grant	Investment mobilized	3,085,602.00
Recipient Country Government	Ministry of Environment (SERNANP)	In-kind	Recurrent expenditures	162,924.00
Recipient Country Government	Ministry of Agriculture and Irrigation (MIDAGRI)	Grant	Investment mobilized	6,801,406.00
Recipient Country Government	Regional Government of Piura	Grant	Investment mobilized	13,972,768.00
Recipient Country Government	Regional Government of Lambayeque	Grant	Investment mobilized	8,343,302.00
Recipient Country Government	Regional Government of Tumbes	Grant	Investment mobilized	3,870,974.00
Recipient Country Government	Regional Government of La Libertad	Grant	Investment mobilized	18,750,713.00
Private Sector	Arena Verde	Grant	Investment mobilized	50,000.00
Civil Society Organization	Promotion of the Agroindustry of Piura Civil Association ?CITEagro Piura?	In-kind	Recurrent expenditures	32,041.00
Private Sector	ENERG?A E?LICA S.A.	In-kind	Recurrent expenditures	921,053.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Private Sector	Agrarian cooperative NORANDINO	In-kind	Recurrent expenditures	250,000.00
Other	University of Piura	In-kind	Recurrent expenditures	39,250.00
Civil Society Organization	Yunkawasi	In-kind	Recurrent expenditures	125,000.00
Civil Society Organization	Yunkawasi	Grant	Investment mobilized	375,000.00
Private Sector	Original Beans	Grant	Investment mobilized	50,000.00
Private Sector	Original Beans	In-kind	Recurrent expenditures	50,000.00
GEF Agency	FAO	In-kind	Recurrent expenditures	436,360.00
GEF Agency	IUCN	In-kind	Recurrent expenditures	50,000.00
Total Co-Financing(\$)				57,833,521.00

Describe how any "Investment Mobilized" was identified

Investment mobilized of USD 3,248,526 from SERNANP corresponds to participatory mechanisms for conservation programmes as well as a project on the improvement on landscape management in the following protected areas : Cerros de Amotape National Park, Los Manglares de Tumbes national sanctuary, Pomac Forest Historical Sanctuary and Laquipampa Wildlife Refuge. Investment mobilized from "MIDAGRI" corresponds to investment projects aligned to this GEF proposal. The Regional Governments of Piura, Lambayeque, Tumbes and La Libertad are contributing through a series of investment project that will be implemented in the next four years and will complement this GEF proposal's components. Yunkawasi's contribution of USD 375,000 corresponds to activities related to technical assistance, capacity development, strengthening policies, scientific research, communications and environmental education in projects that have been executed in the regions of Piura and Tumbes.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Peru	Biodiversity	BD STAR Allocation	4,614,556	438,383	5,052,939.00
IUCN	GET	Peru	Biodiversity	BD STAR Allocation	2,489,648	224,068	2,713,716.00
FAO	GET	Peru	Land Degradation	LD STAR Allocation	360,787	34,275	395,062.00
IUCN	GET	Peru	Land Degradation	LD STAR Allocation	201,500	18,135	219,635.00
Total Grant Resources(\$)					7,666,491.00	714,861.00	8,381,352.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

200,000

PPG Agency Fee (\$)

18,648

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Peru	Biodiversity	BD STAR Allocation	121,128	11,508	
IUCN	GET	Peru	Biodiversity	BD STAR Allocation	64,872	5,838	
FAO	GET	Peru	Land Degradation	LD STAR Allocation	8,551	812	
IUCN	GET	Peru	Land Degradation	LD STAR Allocation	5,449	490	
Total Project Costs(\$)					200,000.0	18,648.0	218,648.0

Core Indicators

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
250,250.00	398,013.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

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

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
250,250.00	398,013.00	0.00	0.00

Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
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Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park ACP Bosque Natural El Cañoncillo	125689 5555 5562 9	Select		1,311.00					
Akula National Park ACP Bosque Urum	125689	Select Others		706.00					
Akula National Park ACP Bosques Overall y Palo Blanco	125689 5556 2363 6	Select Protected area with sustainable use of natural resources		3,522.00					
Akula National Park ACP BS Amotape	125689 5555 5565 2	Select Protected area with sustainable use of natural resources		123.00					

Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park ACP BS Chililique Alto	125689 555623633	Select Protected area with sustainable use of natural resources		200.00					
Akula National Park ACP BS Colina Juan Velasco Alvarado	125689 555629226	Select Protected area with sustainable use of natural resources		2,413.00					
Akula National Park ACP BS San Juan de Guayaquiles	125689 555629234	Select Protected area with sustainable use of natural resources		305.00					

Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park ACP CC Cesar Vallejo Palo Blanco	125689 5556 23665	SelectProtected area with sustainable use of natural resources		200.00					
Akula National Park ACP Chaparr?	125689 5555 55630	SelectProtected area with sustainable use of natural resources		34,412.00					
Akula National Park ACP Dotor, Hualtacal, Pueblo Libre	125689 5556 23663	SelectProtected area with sustainable use of natural resources		9,099.00					

Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park ACP La Huerta Chaparr?	125689 5555 5567 1	Select Protected area with sustainable use of natural resources		100.00					
Akula National Park ACP Mangamanguilla	125689 5556 2366 2	Select Protected area with sustainable use of natural resources		1,738.00					
Akula National Park ACP Santa Catalina de Moza	125689 5556 2922 7	Select Protected area with sustainable use of natural resources		1,842.00					

Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park ACP Yacila de Zamba	125689 5556 2363 2	Select Protected area with sustainable use of natural resources		1,000.00					
Akula National Park ACR Angostura Faical	125689 5555 5565 6	Select Protected area with sustainable use of natural resources		8,795.00					
Akula National Park ACR Huacrupe - La Calera	125689 5555 5566 1	Select Protected area with sustainable use of natural resources		7,272.00					

Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park ACR Moyan - Palacio	125689 5555 5566 2	Select Protected area with sustainable use of natural resources		8,458.00					
Akula National Park ACR Salitral Huarmaca	125689 5556 2362 9	Select Protected area with sustainable use of natural resources		28,812.00					
Akula National Park Bosque de P?mac	125689 3033 19	Select Others	5,887.00	5,887.00			78.00		
Akula National Park Cerros de Amotape	125689 259	Select National Park	151,767.00	151,767.00			74.00		
Akula National Park El Angolo	125689 3006 1	Select Others	65,000.00	65,000.00			76.00		

Name of the Protected Area	WD PA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park Illescas Reserve	12568955555613	SelectOther		37,453.00			30.00		<input type="checkbox"/>
Akula National Park Laquipampa	12568983286	SelectWildernes Area	8,329.00	8,330.00			65.00		<input type="checkbox"/>
Akula National Park Reserva Nacional de Tumbes	12568998158	SelectStrict Nature Reserve	19,267.00	19,268.00			65.00		<input type="checkbox"/>

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2278.00	2278.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

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

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2,278.00	2,278.00		

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
117383.00	77491.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8,000.00	8,000.00		

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2,000.00	2,000.00		

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
107,383.00	67,491.00		

Documents (Please upload document(s) that justifies the HCVF)

Title

Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	2052667	6000795	0	0
Expected metric tons of CO ₂ e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	2,052,667	6,000,795		
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting	2040	2041		
Duration of accounting	20	20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	8,548	8,548		
Male	8,252	8,252		
Total	16800	16800	0	0

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

The project seeks to generate global environmental benefits aligned with the sustainability and improvement of livelihoods in the Dry Forests of the North Coast of Peru. As such, the following was considered when defining the GEF Core Indicator targets: Indicator 1: The project will improve the management of 398,013 hectares of protected areas at the national level, regional conservation areas (ACR) and private conservation areas (ACP), by supporting the various efforts made at the national level in favor of biodiversity conservation. This includes an increase of up to 10% in the METT score of the 6 PAs prioritized by the project. Indicator 3: The project will restore 2,278 hectares identified within the scope of the intervention corridors, under a landscape approach, which in turn meet the necessary conditions for their restoration to increase agricultural and forestry production, protect remaining forests, and contribute to the conservation of biodiversity. Indicator 4: The project will support improved practices of 77,491 hectares of landscapes which include: 8,000 hectares with improved biodiversity practices; 2,000 hectares of landscapes under sustainable management of productive land; and 67,491 hectares of forests conserved through conservation agreements with producers in OMEC (other effective conservation measures), which include 50,000 hectares of establishment of new OMEC based on a list of 10 ongoing proposals and 17,941 hectares of existing OMEC. Indicator 6: The mitigation potential of the project was calculated using the EX ACT Carbon Balance tool, estimating a total of 6,000,795 CO₂ eq in 20 years, equivalent to 0.6 tons of CO₂ eq mitigated per year and per hectare. Indicator 11: The Project will impact approximately 16,800 direct beneficiaries, disaggregated by gender (Men: 8,252; Women: 8,548). These amounts are based on the most recent National Agricultural Census done in 2012 and the project's area of influence.

Part II. Project Justification

1a. Project Description

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

Environmental context

1. Seasonally Dry Tropical Forests play a crucial role in climate change adaptation and mitigation on the northern coast of Peru because their conservation and biological diversity contribute to resilience, adaptive capacity and ecosystem services that reduce the vulnerability of the population to climate change.[1]¹ Consequently, they are considered ecosystems of global, national and local interest. Furthermore, globally, these forests have a total area comparable to tropical rainforests of 1.079 billion hectares[2]², which represents an important contribution to global carbon stocks, total primary productivity and reservoirs of terrestrial biodiversity. A study carried out in the Department of Lambayeque (Peru) determined that the carbon stored in the forests of the Bosque de Pomac Historic Sanctuary is 438,952.3 tCO₂-e; it also estimated that over a 10-year horizon the protection of these forests would prevent the loss of 1,056.5 ha of forest due to deforestation and thus avoid emissions of 10,973,838.30 tCO₂-e.[3]³

2. Nonetheless, these ecosystems are threatened due to historical processes of fragmentation and degradation, resulting in a small and sparse extension, with less than 10 % of the original land area in many countries. In South America, where more than half of the global dry forests[4]⁴ are found, 60% have already been lost or degraded, including 95 % in Peru.[5]⁵ Furthermore, only 6.6 % of the tropical dry forest area is found within protected areas in South America, thus these ecosystems are the most deforested, most intensively used and least protected in the Americas. This loss and degradation affects their ability to maintain unique biodiversity and provide natural resources to sustain the local populations' livelihoods. Most of the dry forests have been heavily influenced by large-scale human activities such as agriculture, urban centres, mining and oil extraction; however, the remaining dry forest fragments play an important role in the livelihoods of local people, providing firewood, medicinal plants, grazing, shade and connection to nature.[6]⁶

3. The dry forests of the northern coast of Peru, also known as dry equatorial forests, extend over an area of 3,422,904 ha[7]⁷ (3% of Peru's surface) and are mainly located in the departments of Tumbes, Piura, Lambayeque and La Libertad. These forests have a characteristic foliage during the rainy season, which runs from December to April, and then lose it during the dry season (the rest of the year). During the rainy season, rainfall averages between 100 and 500 mm, and is basically the only precipitation throughout the year. However, these conditions change drastically when the El Niño phenomenon occurs, increasing by up to 20 times.

4. These forests are also home to four types of formations[8]⁸: (1) **Seasonally dry hill and mountain forest**, which represents 55.4% of the total area, is located at the foothills of the Andean mountain range, and is characterised by its greater diversity of flora species, the most representative being: Hualtaco (*Loxopterygium huasango*), Palo Santo (*Bursera graveolens*), Pasallo (*Eriotheca ruizii*), Frejolillo or Huayrul (*Erythrina velutina*), Fig tree (*Ficus spp.*), among others; (2) **Seasonally dry plains forest**, representing 42.4% of the total area, is a subarid deciduous ecosystem dominated by Mesquites (*Prosopis pallida*) and accompanied by Sapote (*Colicodendron scabridum*) and Porknut (*Vachellia macracantha*), in addition to other tree and shrub species, including the Vichayo (*Capparis avicennifolia*) and the Yellow Geiger (*Cordia lutea*); (3) **Seasonally dry riparian forest**, representing 1.5%, where the main trees are porknut (*Vachellia macracantha*) and cherry tree (*Muntingia calabura*), and shrubs such as sweet acacia (*Vachellia aroma*), among others, its physiognomy corresponds to a forest with a canopy of 8 to 14 metres with shrubs and reeds; and (4) **Tropical Pacific Forest**, which represents 0.6% and is located in the northwest of the country, within the Cerros de Amotape National Park and the Tumbes National Reserve. This type of forest is sub-humid and mostly evergreen, unique in its type on the Peruvian coast and included as part of the dry forest ecoregion.[9]⁹ Its most representative tree species are the Pretino (*Cavanillesia platanifolia*), Huarapo (*Terminalia valverdae*) and Palo balsa (*Ochroma pyramidale*). Table 1 shows the details of the existing formations.

Table 1. Area (ha) of dry forest formations on the northern coast of Peru

Type of dry forest formation	Area (ha)	%
Seasonally dry hill and mountain forest	1,897,483	55.4
Seasonally dry plain forest	1,452,576	42.4
Seasonally dry riparian forest	52,153	1.5
Tropical Pacific Forest	20,692	0.6
TOTAL	3,422,904	100

Source: National Ecosystem Map of Peru approved by RM 440-2018-MINAM.

5. At the international level, equatorial dry forests are ranked 57th on the Global 200[10]¹⁰ list of global ecoregions identified as a priority for conservation, and stand out for their high levels of endemism, both in flora and fauna.

6. In terms of fauna, these forests are characterized by the presence of mammals such as the Guayaquil squirrel (*Sciurus stramineus*), the Sechuran fox (*Lycalopex sechurae*); and many other widely distributed species, such as the White-tailed deer (*Odocoileus virginianus*), the Mountain lion (*Puma concolor*) and also an important and unique population of the Spectacled bear (*Tremarctos ornatus*). Among reptiles are the Macanche or Orton's Boa (*Boa constrictor ortonii*), a coastal subspecies of the well-known mantona that is endemic to these forests, the Sancarranca or Barnett's Lancehead (*Bothrops barnetti*), the Green iguana (*Iguana iguana*), Peru Desert Tegu (*Dicrodon guttulatum*) and the Saltojo or Peters' Leaf-toed Geko (*Phyllodactylus reissi*) stand out. These forests are also known because they are home to the only Peruvian populations of the American crocodile (*Crocodylus acutus*), in the Tumbes and Zarumilla rivers. Likewise, these forests are considered one of the most important regions of bird species endemism in the world: the 'Tumbes Region' covers southwestern Ecuador and northwestern Peru and hosts a total of 55 bird species, of which 52 live in

Peru. The most outstanding are the White-winged guan (*Penelope albipennis*), the Grey-backed hawk (*Pseudastur occidentalis*), the Grey-cheeked parakeet (*Brotogeris pyrrhoptera*), the Peruvian plantcutter (*Phytotoma raimondii*) and the Rufous flycatcher (*Myiarchus semirufus*). They are categorised as 'Endangered' or 'Vulnerable' species, and their main threats are related to the small forest areas and the strong pressures they are subjected to.⁹ The presence of these and other species of conservation interest has led to the identification of 13 globally-recognised Important Bird Areas (IBAs) in the dry forests of northwestern Peru. Among these IBAs, the Cerros de Amotape National Park, El Angolo Game Reserve, Laquipampa and the dry forests of Salitral - Huarmaca and Olmos stand out for their large number of endemic and endangered species.^[11]¹¹

7. It is important to note that two of the endangered fauna species that inhabit the equatorial dry forest have National Conservation Plans approved by SERFOR and MINAM, namely the White-winged guan (*Penelope albipennis*) and the Spectacled bear (*Tremarctos ornatus*). As regards the White-winged guan, its conservation plan is in force through 2021, with a goal of conservation and management mechanisms for 75% of its distribution area. The Spectacled Bear conservation plan is in force until 2026 and has a goal of characterizing at least 3 conservation corridors, including different types of protected areas, other established conservation modalities, or new options.

8. The mesquite (*Prosopis pallida*) is a multipurpose and emblematic native tree that is a major component in the dry forests of Peru. It is considered a strategic biological resource for the productive and environmental development of this region as it can be used for food production, quality timber, fodder in silvopastoral systems and in the restoration of degraded areas in arid and semi-arid zones. In recent years, mesquite populations in the dry forests of Peru have been declining due to the death of the trees. As mesquites are facultative phreatophytes in arid zones^[12]¹², i.e. they have a deep root system that can reach up to 60m to the groundwater table, the availability of this resource is of vital importance. However, recent studies^[13]¹³ report the overexploitation of this source of water resources due to the growth of the agricultural frontier, mainly for agro-export crops, which is aggravating the water stress situation of the 'Mesquite'.¹⁴ On the other hand, a study developed by the National Water Authority (ANA) (2015) concludes that in the valleys of Olmos-Cascajal, Motupe and La Leche, there is an overexploitation of groundwater, which leads to the decline or degradation of the 'Mesquite' in the Lambayeque region, where the impact is higher than in other regions.

Socio-economic context

9. The estimated population within the project intervention area is 2,553,922 inhabitants (8.7% of the total Peruvian population),^[14]¹⁴ 79% of which is urban and 21% rural population (533,000). In terms of age distribution, the population is mainly represented by adults and young people, i.e. a larger population of economically active age (2.5% of the National WAP). The poverty levels in this area are considered relatively low (11.3% - 24.6%), since the monthly average per capita income in the departments of La Libertad and Tumbes is higher than the national income (999 Soles, approx. US\$255),^[15]¹⁵ while in the case of Piura and Lambayeque, it is lower. Likewise, the farming population is 187,965 workers (24% women and 76% men), in the range between 40-59 years of age.^[16]¹⁶ In this sector, men have more access to land than women (both agricultural and non-agricultural - forests, grasslands and others). In Lambayeque and Tumbes, the percentage of workers who belong to some association, committee or cooperative is higher than 45% and provides various benefits such as access to training, supply of agricultural and/or livestock inputs, access to local markets, etc.

10. 114 peasant communities[17]¹⁷ live in and benefit from *usufruct* of dry forests (94 in Piura, 16 in Lambayeque and 4 in La Libertad) with a population of 475,957 inhabitants[18]¹⁸ and occupy a total area of 2,208,970.11 ha.[19]¹⁹ With respect to the organizational structure, these communities have a Communal Board of Directors that is elected every 2 years and holds office as of January 1st of the following year.[20]²⁰ In terms of organization, these communities have limitations regarding leadership, resource management and planning for the adequate use of the communal territory.[21]²¹ Furthermore, only the communities that have hosted projects in their territories have developed capacities for forest management and sustainable livestock farming in the dry forest.

11. Regarding economic activities, the community members diversify their activities to generate income and thus satisfy their family's basic needs. Some focus their production on self-consumption and leave a smaller surplus to be sold, while others do it the other way round, as determined by their social and environmental conditions.[22]²² Additionally, within the intervention area, families combine the supply of temporary labor (hired by agro-exporting companies) with productive activities typical of the dry forest, such as cattle raising, mesquite harvesting and preparation of carob syrup, apiculture (honey production), and other extractive activities such as Palo Santo, charcoal, firewood, etc. They also use the forest for livelihood and supplies such as firewood, construction materials, and medicinal plants, which has allowed the communities and the forests to have the capacity to adapt and be resilient to climatic conditions. In relation to agricultural activity, large-scale commercial agriculture is the main activity (and causes the greatest impacts on forests), while small-scale agriculture (rainfed production)[23]²³ is mainly for self-consumption.[24]²⁴ Meanwhile, livestock farming is characterized by its diversity, with a greater proportion of cattle and pack animals (horses and donkeys) and small livestock, including goats, sheep, pigs and poultry. Small livestock production is extensive in the dry forest, with low levels of inputs and low productivity of meat and milk which, in turn, generates impacts due to overgrazing.

12. With respect to women's roles, they have multiple responsibilities in addition to their household chores and caring for children and sick people. While the most commonly declared occupation for men is that of animal breeder and farmer, women often engage in productive activities that are not always remunerated, which restricts their participation in community positions and their insertion into the labor market, thus limiting the productive contribution of women to the family economy.[25]²⁵ However, there is evidence of women's participation in different dry forest management activities, such as: collection and processing of carob, preparation and monitoring of beehives, production and packaging-labelling of honey, as well as establishment and maintenance of seedlings, management and construction of protective fences for natural regeneration, seed collection, fruit harvesting, production and sales. Meanwhile, the participation of young people prevails when there is a demand for labor for specific activities (e.g. mesquite collection, Palo Santo harvesting, rainfed crops and grazing, among others), as the vast majority of them are students and have other activities not related to the plots.²⁵ For more information, please see the socio-environmental analysis in Annex 7.

Related problems: causes of forest and biodiversity loss and degradation.

13. Dry forests are under great anthropogenic pressure, resulting in loss of biological diversity and land degradation. These pressures are mainly related to: (a) land-use change due to the expansion of the agricultural frontier, (b) poor agricultural practices, (c) overgrazing, (d) unsustainable forestry practices, (e) pressure on fauna as a consequence of habitat loss, connectivity and illegal trafficking of species, and (f) impacts of climate change.

a. **Land-use change due to the expansion of the agricultural frontier:** this is directly related to deforestation to increase areas of agricultural production at various scales, as seen in the lower zone of Piura, where deforestation is mostly mechanized to establish large commercial agriculture projects such as sugar cane for ethanol, fruit trees (mango, grapevine, lemon), peppers, among others; in the middle zone for the production of food crops, grape production (Chapaira, Terela, La Matanza), grasslands, among others; and in the high zone, for sugar cane for the production of panela, coffee and cocoa, in addition to food crops and grasslands.[26]²⁶ In the case of Lambayeque, the development of agro-exports has led to the promotion of large irrigation projects such as the Olmos Project and the growth of technified agriculture in neighboring areas where sugar cane, avocado, blueberries, grapes and asparagus are grown. Annex D provides further analysis on this trend.

With regard to the estimation of the deforestation rate in dry forests, efforts have been made in the Piura region (between 2010 and 2015), reaching averages close to 17,000ha per year. Likewise, in Lambayeque, studies on satellite imaging carried out by JICA determined that the area deforested by land-use change in that period was 8,478ha, which is equivalent to an average annual loss of 4,239 ha/year.[27]²⁷

b. **Poor agricultural practices:** these have an impact on soil degradation processes (erosion and desertification), causing the depletion of natural reserves and a decrease in soil yield and productivity, factors that contribute to unsustainable agriculture by encouraging the producer to look for new lands. These practices are characterized by inefficient irrigation which causes soil salinization generally due to the use of inappropriate crops (75 % of soils in Bajo Piura have salt problems)[28]²⁸, the excessive use of pesticides which contaminate the soil and affect the local fauna, in particular, pollinators such as birds and bees,[29]²⁹ as well as the increase of monocultures such as rice and sugar cane which deplete the soil and require ever greater quantities of agrochemicals. The prevalence of these poor agricultural practices is due to a lack of technical assistance/training and poor infrastructure, among other causes.

c. **Overgrazing of cattle and goats:** the most important economic activity in the dry forest after agriculture is extensive rearing of goats and cattle by smallholders. However, this activity is becoming increasingly precarious as the productivity of the forest no longer sustains the existing populations and there is no culture or money for stabled rearing; hence, extensive rearing is increasingly harmful to the ecosystem. The lack of fresh grasslands in the dry season forces farmers to move their livestock to areas where there is fresh vegetation for livestock, resulting in overgrazing and the introduction of alien species palatable to livestock, thus causing soil compaction and preventing natural regeneration, affecting forest diversity in the long term and leading to desertification.⁹ Furthermore, the main source of income for these smallholders is the sale of meat from young livestock (i.e. kids), as there is no culture of milk production, genetics, or domestic market.

d. **Unsustainable forestry practices:** these include selective and illegal logging, mainly for firewood and charcoal production, which are used for self-consumption and/or sale by the local population. Among the protected forest species[30]³⁰ most commonly used are ?mesquite?, ?porknut?, ?sapote? and ?hualtaco?, for which logging permits are still granted by the competent authority through forest management plans that lack specific logging guidelines for dry forest as set forth in the current

legislation, thus preventing their control.[31]³¹ According to the Forest and Wildlife Law, timber extraction is forbidden unless there is an approved management plan. Mesquite charcoal is highly valued for its high calorific power and is in high demand by restaurants that specialize in grilled chicken and other meats, and are willing to pay high prices for it. Distribution occurs in the cities and in the capital,⁹ often as a result of illegal trafficking. In Lima, approximately 60% of the firewood sold is believed to come from dry forests.[32]³² During 2010-2017, the illegal extraction of roundwood, mainly mesquite, was estimated to be 26,699 m³ in the departments of Lambayeque, Piura and Tumbes.[33]³³

At present, Palo Santo (*Bursera graveolens*) is under a lot of pressure due to its demand as incense and for the extraction of essential oils; likewise, the abundant logging of trees such as Common Lignum Vitae (*Handroanthus chrysanthus*) and Hualtaco (*Loxopterygium huasango*) for parquet flooring in the 1970s and 1980s has turned them into endangered species.²⁷ Other species are under pressure because they are extracted to make fruit crates (single-use products)⁹. Another unsustainable practice is burning crops in order to 'clear the land' and to 'attract' rain. Such uncontrolled burning eventually spreads to forests, causing forest fires. Finally, it is also worth mentioning the introduction of exotic species such as *Tamarix gallica*, which in sandy riverbeds can be a problem as an invasive species, ultimately altering the composition of the forest.

e. **Pressure on fauna:** loss of habitat and connectivity is the main threat to endemic and endangered species in the dry forests of northwestern Peru. Large-scale agriculture is a pressure with significant impact on the biodiversity of the dry plains forests of northwestern Peru. It has been estimated that agricultural megaprojects (Puyango-Tumbes, Alto Piura, Olmos, Chavimochic) have an impact on seven out of ten priority sites for endemic Tumbesian bird species such as the Peruvian Plantcutter (*Phytotoma raimondii*), Rufous Flycatcher (*Myiarchus semirufus*), and Tumbes Tyrant (*Tumbezia salvini*), among others.[34]³⁴ Similarly, the presence of the Grey-backed Hawk (*Pseudastur occidentalis*) in the north of the Noroeste Biosphere Reserve Amotapes ? Manglares has decreased steadily with the increased presence of cattle.[35]³⁵ Furthermore, the density of spectacled bears inhabiting the equatorial dry forest decreases with the presence of roads and cattle.[36]³⁶ Illegal trafficking is also a threat to dry forest fauna, with hookbills suffering the greatest pressure, including: the Red-masked parakeet (*Psittacara erythrogenys*), Pacific parrotlet (*Forpus coelestis*), Bronze-winged parrot (*Pionus chalcopterus*), the Grey-cheeked parakeet (*Brotogeris pyrrhoptera*) and other birds such as the White-edged Oriole (*Icterus graceanae*), the White-tailed Jay (*Cyanocorax mystacalis*) and the Cinereous Finch (*Piezorina cinerea*). Not all of these species are allowed to be traded; however, they are recurrent in the animal markets of Piura, Chiclayo and Lima.⁹

f. **Impacts of climate change:** these are another cause of biodiversity loss and increased land degradation which intensify the deterioration of ecological and socio-cultural dynamics, especially in conjunction with other anthropogenic drivers. Dry forests are vulnerable to the effects of climate change, as they are a semi-arid ecosystem with a monsoon climate. These forests regenerate at a slow growth rate due to extremely arid conditions and are exposed to desertification conditions. The main risks in lowland areas include extreme situations such as droughts and floods during periodic episodes of the El Niño phenomenon, which generate negative impacts on communities, specifically with regards to health, housing, transport and food production. For example, the 2017 coastal El Niño affected 16,954ha of crops in La Libertad, 15,342ha in Piura, 10,842ha in Tumbes and 4,009ha in

Lambayeque,[37]³⁷ thus negatively impacting the income of the population that directly depend on natural resources in those areas.

The impacts of climate change, combined with four current threats (fire, habitat conversion, overgrazing and overexploitation), are detrimental to 50 of the most common tree species in the tropical dry forests of northwestern Peru and southern Ecuador. A study was conducted with a sequential species distribution model approach and trait-based methods, and concluded that the 50 species face considerable threats: 46% of species' distribution ranges show high or very high vulnerability to at least one of the five threats. The results of the study suggest that current levels of habitat conversion, overexploitation and overgrazing pose greater threats to most of the species studied than climate change.[38]³⁸ However, it should be mentioned that the effects of climate change include altered phenology of the species which affects flowering and production of carob and honey; the emergence of new pests and diseases; droughts that reduce flowering and production of carob and honey and favor increased firewood extraction and charcoal for family income-generating activities; and increased overgrazing due to scarce fodder for livestock.[39]³⁹ Therefore, the climatic and biological characteristics of dry forests increase their fragility and vulnerability to climate change and extreme events, which, when added to poor anthropic practices, have generated large-scale forest fires. In 2016 and 2017, the loss of 2,067 ha of dry forests due to forest fires was reported for Lambayeque alone (COER Lambayeque, 2017). Furthermore, in the face of habitat loss, species with extensive habitat requirements, such as the Spectacled bear (*Tremarctos ornatus*), have their population viability threatened by the fragmentation of dry forests in Lambayeque.[40]⁴⁰

Current State: Advance of dry forest degradation and deforestation.

14. Currently, 404,814.06ha of dry forests are degraded,[41]⁴¹ representing 11.8% of the total dry forests area, with the largest degraded area found in the dry plain forests (see Table 2, below).

Table 2: Area of degraded surfaces by type of forests and by region

Region	Type of forest ecosystem	Degraded area (ha)	
Piura	Seasonally dry hill forest	4,507.83	334,089.39
	Seasonally dry plain forest	327,424.24	
	Seasonally dry riparian forest	2,157.32	
Tumbes	Seasonally dry hill forest	6,182.17	6,670.52
	Seasonally dry plain forest	203.93	
	Seasonally dry riparian forest	284.42	

La Libertad	Seasonally dry hill forest	-	1,615.30
	Seasonally dry plain forest	847.90	
	Seasonally dry riparian forest	767.40	
Lambayeque	Seasonally dry hill forest	643.98	62,438.85
	Seasonally dry plain forest	58,719.88	
	Seasonally dry riparian forest	3,074.99	
TOTAL			404,814.06

Source: MINAM. 2017. Degraded areas ? National Gap.

15. A key indicator of degradation under the LDN framework is the dynamics of primary productivity. Based on a time series analysis of the Normalized Difference Vegetation Index (NDVI) over the period 2001 to 2020, it is estimated that 25% of the total project area shows a decline in productivity, 3% shows recent signs of decline and 13% is stable but under stress. In total, these indicate that at least 2,325,200 ha within the project area are in the process of degradation. It should be noted that the dynamics of the El Niño phenomenon suggest that special care should be taken when estimating LDN indicators and sub-indicators, with special importance given to the inclusion of national indicators, field validations and expert knowledge. In this sense, it is worth highlighting the elaboration of regional maps of degraded areas by the Directorate of Monitoring and Evaluation of Natural Resources of the Territory, under the General Directorate of Environmental Land Management of MINAM, which will be made available soon for the project area, providing for better monitoring during Project implementation. Meanwhile, there is a need for further work on the definition of indicators and methodologies to measure more objectively the state of forest degradation, as evidenced in Annex E.

16. In the same vein, following MINAM's assessment of the state of Mesquite forests in northern Peru,[42]⁴² it was concluded that there have been general changes over time in the dry forests of the north; between 1995 and 2018 there was a 13.7% reduction in the surface area of dry forest cover and a 54% decline of the total number of mesquite trees (40% are dead and 14% suffer from phytosanitary damage)[43]⁴³. Furthermore, at the surface level, 95% of the Mesquite forests are affected, ranging from low to moderate and moderate to high,[44]⁴⁴ with young individuals being the most affected[45]⁴⁵. With regard to biological causes, fungi and insects were found, with preliminary results suggesting a virus of the Closteroviridae family, pending verification. Among the insects, the most significant attacks come from ?Jassids?, ?Psyllids? and ?Pegadores de hojas o brotes?, with *Enallodiplosis discordis* being the most frequent and destructive, affecting the foliage, mainly of young plants. Another insect is the tiny fly *Enallodiplosis discordis* (Diptera:Cecidomyiidae).[46]⁴⁶

17. In response to the above, MIDAGRI, through Ministerial Resolution N° 0080-2020-MINAGRI, created the Multisectoral Working Group in charge of evaluating the problem of the declining population of the mesquite tree in the Northern Coast of Peru. The group will: a) carry out a diagnosis of the mesquite population decline in the northern coast of Peru; b) convene and direct decentralized working groups in the four departments; c) hold meetings with the Executive Power, Regional Governments and Local Governments, as well as with academia, trade unions, cooperation organizations, etc.; d) contribute to raising awareness about the decline in mesquite populations and the perspectives of its treatment; e) evaluate the feasibility of strengthening capacities to deal with the decline in mesquite populations, in terms of improving the institutional management and human resources of the institutions involved in this problem; and f) other functions aimed at tackling the problem of the mesquite population reduction in the northern coast of Peru.

18. At the end of 2020, SERFOR, through a participatory process, approved the National Plan and Agenda for Forestry and Wildlife Research 2020-2030.^[47]⁴⁷ This instrument will help to guide research, development, technological innovation and technology transfer activities in order to improve competitiveness in the forestry sector. To date, this has been limited to a few scattered experiences, none of which comprised a long-term program with indicators to monitor its objectives or articulation with academia and NGOs. The lack of interest and resources for the systematization of information results in a loss of ancestral and traditional knowledge of the communities. The implementation of the National Plan and Agenda for Forestry and Wildlife Research 2020-2030 will be an opportunity to achieve the objectives of the project. Within the lines of research, Action Areas 1 and 2 include the management, conservation and sustainable use of forest and wildlife resources; Action Area 3 includes plantations and agroforestry systems, forest ecosystem restoration; Action Area 4 is governance, interculturality; and Action Area 5 is climate change and ecosystem services. Furthermore, SERFOR will promote the Regional Forestry and Wildlife Research Agendas (ARIFFS) as part of these management instruments.

Representativeness in conservation areas and dry forest vulnerability

19. To preserve dry forest biodiversity and endemism, six natural protected areas (PAs) of the SINANPE have been established at the national level: the Tumbes National Reserve, the Cerro de Amotape National Park, the Angolo Hunting Reserve, the Bosque de Pomac Historical Sanctuary, the Laquipampa Wildlife Refuge and the Illescas Reserved Zone. In addition, there are 4 regional conservation areas (RCA) and 16 private conservation areas (PCA), 9 of which are in peasant communities, as well as 3 areas under other effective conservation modalities (OMEC), totaling around 415,953 ha of equatorial dry forest ecosystems under a category or modality of conservation, an area that represents 12% of its total extension (see Annex 1).

20. National efforts to preserve the biodiversity of the dry forest ecosystem have resulted in the dry hill and mountain forest having the greatest coverage under some category of conservation, representing 88.3% of the total surface under protected areas, while the Pacific tropical forest, dry plain forest and dry riparian forest (mesquite) represent 5.7, 4.7 and 1.3% respectively (the conservation areas in these last two types of dry forest have a higher level of isolation). The low representativeness in the conservation of these forest types evidences a significant gap and the need to promote greater conservation figures in these ecosystems.

21. Based on the analysis of the PA vulnerability to climate change^[48]⁴⁸, most of the natural protected areas at the national level within the scope of the project are highly vulnerable to climate change (Table 3), while the adaptive capacity is lower in the protected areas that are more isolated (especially the Bosque de Pomac Historic Sanctuary). In protected areas, the need to ensure habitat connectivity with neighbouring areas with a higher gradient of dry forest becomes more evident, so that biodiversity can adapt to the change in thermal niches that will occur as a consequence of climate change.

Table 3: Analysis of protected areas' vulnerability to climate change within the scope of the GEF Dry Forest project.

PAs	Adaptive Capacity	CC Vulnerability 2030	CC Vulnerability 2050
Cerros de Amotape NP	Regular	High	High
Tumbes NR	Good	High	High
El Angolo HR	Very good	High	High
Laquipampa NCR	Poor	Medium	Medium
Bosque de Pomac HS	Poor	Medium	Medium
Illescas RZ	Very good	High	Very High

Source: SERNANP 2014

Legal and Institutional Framework

22. Peru has made substantial progress in its legal and public policy framework for sustainable development, as illustrated by the creation of the Ministry of the Environment and with it the incorporation of environmental management in all State sectors and levels. With the creation of the National Forest and Wildlife Service (SERFOR), as well as the transfer of functions in forestry matters to the Regional Governments (Tumbes and La Libertad), competences were distributed vertically and horizontally in order to promote decentralization and sustainable forest management.

23. At the regional level, there are instruments for territorial planning such as: the Concerted Regional Development Plans (PDRC), the Concerted Local Development Plans (PDLA), and Ecological-economic zoning (EEZ), which is only approved^[49]⁴⁹ in Piura and Lambayeque. With regard to the Forest Zoning instruments, the four regional governments are in the preparatory stage of formalizing the alternatives for the use of forest resources in a binding manner and articulated with the EEZ through thematic maps. Likewise, at the regional level, there are Regional Climate Change and Biodiversity Strategies, which are not being implemented in an integrated manner and the information regarding their implementation is insufficient. It is worth mentioning that among the regional management instruments, the Regional Forestry Development Plan 2013-2032^[50]⁵⁰ has only been prepared and approved in Piura and has, to date, promoted two Public Investment Projects (PIP)^[51]⁵¹ for reforestation in the highlands of this department. In addition, Tumbes, Piura and Lambayeque have Regional Conservation Systems and studies of Priority Conservation Sites, which have been the basis for the establishment of conservation modalities in recent years.

24. Territorial management instruments linked to the basin area include the three Watershed Management Plans for the Management of Water Resources of Chira-Piura, Chancay-Lambayeque and Tumbes, which are promoted by the National Water Authority (ANA), and the nine Integrated Plans for the Control of Floods and Mass Movements by watershed under the responsibility of the MIDAGRI.

25. On the other hand, in order to coordinate and articulate actions among the various actors involved in land management at the macro-regional level, the Northeastern Macro-regional

Commonwealth of Peru comprises eight regional governments[52]⁵². In order to evaluate the problem of population reduction of Mesquite (*Prosopis genus*) in the Northern Coast of Peru, the abovementioned Multisectoral Working Group (under the auspices of MINAGRI)[53]⁵³ and the Northern Macro Regional Forest Platform were established, but the platform is limited to the natural resources management of the macro region's departments.[54]⁵⁴

26. At the regional level, the most active platforms operating in the four regions in relation to environmental and rural issues are the Regional Agricultural Management Committees (CGRA) which, although permanent, are sectoral in nature; and the Regional Environmental Commission (CAR) which, due to the extent of its functions, hardly coordinates actions in dry forests. Furthermore, there are other coordination spaces that are not currently established in the four regions, such as: NORBOSQUE and the Regional Committee to Combat Indiscriminate Logging, Trade and Illegal Transport of Forest and Wildlife Species which are only found in Piura; the Regional Forestry and Wildlife Control and Surveillance Board which is only found in Lambayeque; and the Water Resources Councils which are only formed in the Tumbes, Chira-Piura and Chancay-Lambayeque river basins.

27. At the national level, MINAM, as national focal point to the UNCCD and governing body of the Peruvian Environment Sector, recognizes the concept of Land Degradation Neutrality (LDN) as part of the environmental approach and as an opportunity to mainstream planning and sustainable land-use in public policies, as well as to improve coherence and integration between the actions promoted by the National Strategies to Combat Desertification and Drought, Climate Change and Biological Diversity. In this sense, the country has a national voluntary target to 'Achieve the LDN by 2030, with respect to the 2015 baseline?', meaning Peru should report no net loss of natural capital of land resources by 2030 with reference to 2015, following the methodological framework of indicator 15.3.1 of the Sustainable Development Goals (SDGs) and LDN. These voluntary national LDN targets and sub-targets were recently established through participatory mechanisms. The LDN aims to maintain and increase the amount of healthy and productive land resources, in accordance with national development priorities. The LDN response hierarchy is **Avoid**> **Reduce**> **Revert**. The achievement of these three cross-cutting LDN sub-targets in Peru requires the promotion of governance with a multi-sectoral, multi-level and multi-stakeholder approach for the sustainable development of dry forests in Peru that strengthens responsible and inclusive land governance and the sustainable distribution of ecosystem services, thus improving food security and the resilience of land and the people who depend on it.

28. With the objective of redressing the low level of access to and use of financial services, the National Competitiveness and Formalization Council has approved the National Competitiveness and Productivity Policy,[55]⁵⁵ which aims to promote and facilitate the process of financial inclusion through the implementation of coordinated actions between the public and private sector to reduce poverty, increase incomes and the welfare of all Peruvians. It is composed of 9 Priority Objectives (PO) and 36 Policy Guidelines linked to these objectives, the most relevant being: PO 4 'Promote local and external financing mechanisms?' and PO 9 'Promote environmental sustainability in economic activities?'. Furthermore, the Multisectoral Strategic Plan of the National Financial Inclusion Policy[56]⁵⁶ was approved in 2021 and contains the measures to meet each of these PO and implement the policy guidelines.

1.2 Area of Intervention

29. The scope of the project was originally determined in the PIF on the basis of the intersection of three variables: (i) the area of dry forests according to the Ecosystems Map prepared by

MINAM; (ii) the inclusion of protected areas, those of national hierarchy as well as other conservation modalities in dry forest; and, (iii) the delimitation from the watershed boundaries established by ANA.[57]⁵⁷ Following this delimitation, the scope of the project was extended to five regions: Tumbes, Piura, Lambayeque, La Libertad and Cajamarca,[58]⁵⁸ which concentrate more than 97 % of the dry forest area of the northern coast of Peru.

30. The delimitation of the current GEF Project area includes dry forest areas not considered in the original PIF proposal. These new areas are: Bajo Piura and part of the province of Sechura in Piura, the districts of Morrope, Sa?a and Lagunas in Lambayeque, as well as the districts of Pueblo Nuevo in the province of Chepen, Jequetepeque and Pacasmayo in the province of Pacasmayo in the department of La Libertad. In total, these areas add approximately 380,000 ha to the initial intervention area; the total area of the GEF Project area of influence amounts to 5,826,922.71 ha (see Map 1). The justification for these areas can be found in a technical report in Annex 2.

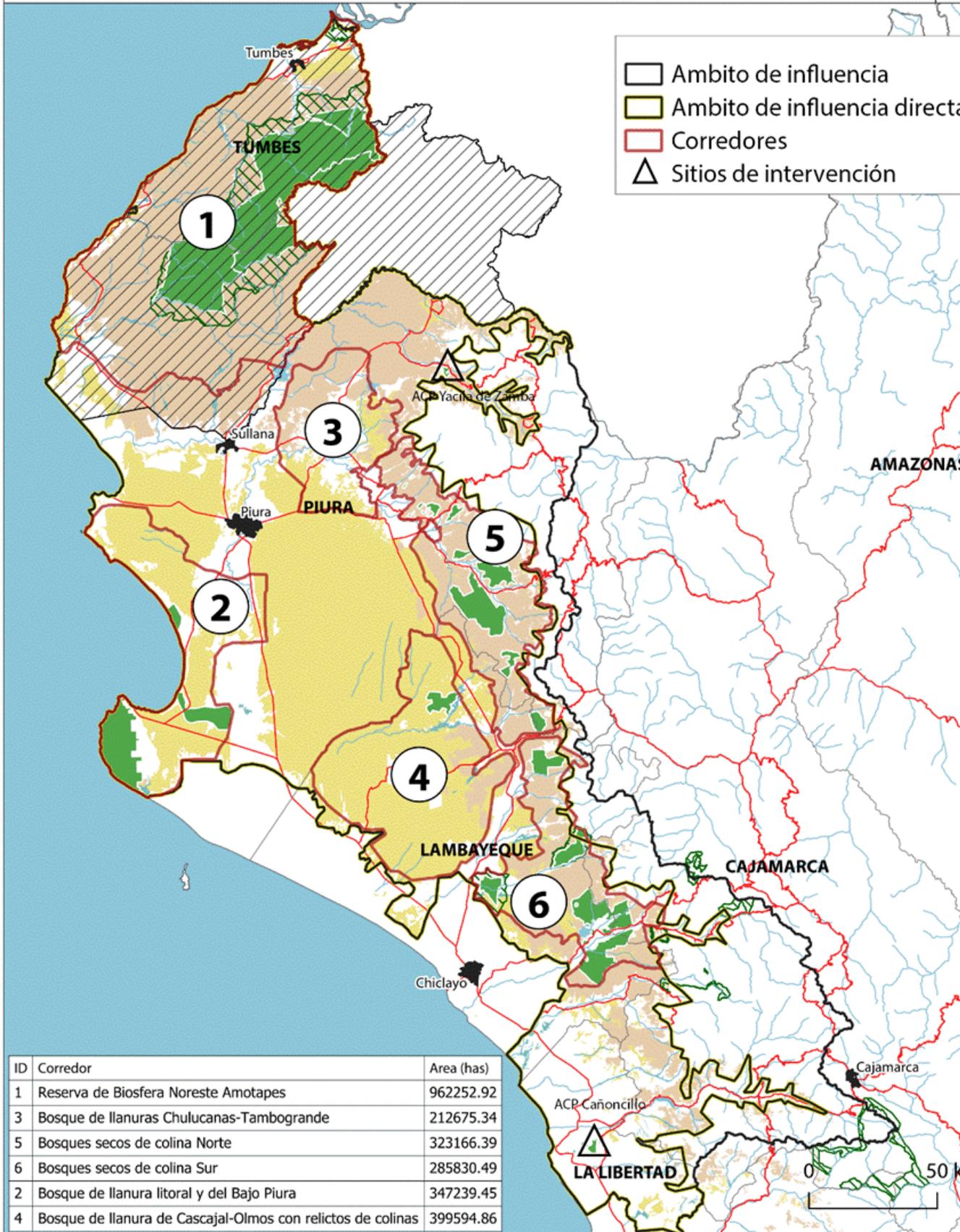
31. Priority has been given to the dry forest area, setting the limit at 1600 meters above sea level (m.a.s.l.) to the east, the altitudinal reference limit of the dry forests. Likewise, six large corridors and three specific intervention sites have been identified, which are detailed below and for which descriptive technical sheets are provided in Annex 11. These areas were prioritized according to the following criteria: (a) presence of natural protected areas, other effective conservation modalities and priority sites for conservation identified in dry forest; (b) distribution ranges of endangered and/or endemic species relevant to dry forest: Peruvian Plantcutter (*Phytotoma raimondii*), White-winged guan (*Penelope albipennis*), Rufous Flycatcher (*Myiarchus semirufus*), Tumbes Tyrant (*Tumbezia salvini*), and Spectacled bear (*Tremactos ornatus*); c) presence of populations and productive activities linked to the dry forest; and d) complementary criteria such as watershed divides or anthropic elements that allowed a more precise delineation of boundaries (see Annex D, Map 2).

32. Accordingly, the scope of the project includes areas that are not dry forest above 1600 m.a.s.l. and up to the basin headwaters (see Annex D, Map 6). These areas are justified due to their importance for the governance of these spaces, which is part of component 1 of the project. The project interventions in components 2 and 3 will focus on the six corridors and intervention sites identified in the area of direct intervention, those that contribute to the restoration of connectivity, management of dry forests and development of output value chains related to dry forests. Figure 2 shows the boundaries of the project's area of influence, including the prioritized area of direct intervention and the corridors. Likewise, the types of dry forest ecosystems and conservation areas, whether they are PAs and/or priority conservation sites.

33. The analysis of the project area comprises information from peasant communities, the list and reference map of these communities can be found in Annex D, Map 5. The protected areas, priority conservation sites and OMEC are provided in Annex D, Map 3, while the threats to the conservation of dry forests are provided in Map 4.

Map 1. Map of the proposed area of influence and area of intervention including project corridors.

AMBITO DE INFLUENCIA Y CORREDORES DEL PROYECTO



Leyenda

■ Ciudades importantes

Espacios protegidos

■ Areas protegidas

Bosque seco

■ Bes-cm

Proyecto "Manejo sostenible y restauración del Bosque Seco en la Costa Norte del Perú"

Concepción y elaboración: José Mamani

Escuela de Ingeniería Ambiental - UNMSM

Note: The forest types indicated in the legend correspond to: i) Dry riparian forest (Besr), ii) Dry plain forest (bes-ll), and iii) Dry hill and mountain forest (bes-cm).

Description of the corridors⁵⁹:

34. The **Northwest Biosphere Reserve Corridor (1)** has an area of 962,252.92 ha. It is located between Tumbes and the northwestern part of Piura and stands out for hosting the largest portion of natural protected areas (PA) in the entire Equatorial dry forest: the Tumbes National Reserve (19268 ha), the Cerros de Amotape National Park (151,767 ha) and the El Angolo Hunting Reserve (65,000 ha). It is also part of the Bosques de Paz Trans-border Biosphere Reserve shared with Ecuador. This corridor has 25.5% of its surface under protected areas; it also has identified priority sites for conservation such as the Hualtaco de Plateritos, Quebrada Fernandez and the dry forests of Talara. Among its most representative endangered flora and fauna are the Gray-backed Hawk (*Pseudastur occidentalis*), Grey-cheeked Parakeet (*Brotogeris pyrrhoptera*), Blackish-headed Spinetail (*Synallaxis tithys*), Slaty Becard (*Pachyramphus spodiurus*), Rufous-headed Chachalaca (*Ortalis erythroptera*), Mantled Howler (*Alouatta palliata*), American Crocodile (*Crocodylus acutus*), Hualtaco (*Loxopterigium huasango*), Palo Santo (*Bursera graveolens*), Sapote (*Colicodendron scabridum*), Balsamo (*Myroxylon peruiferum*), Polo (*Cochlospermum vitifolium*), Mesquite (*Prosopis pallida*). The watersheds involved in this corridor are Tumbes River, Quebradas Pari?as, Quebrada Fern?ndez, Quebrada Seca, Bocapan, and the right bank of the Chira River. The estimated population in this corridor is 410,701 people (50.4%, 49.6% female) and the estimated agricultural population is 21,624 people. The main productive activities associated with the forest are ecotourism, sport hunting, apiculture, meliponiculture and bee products, carob syrup and livestock.

35. The **Plain Forest Corridor in Coastal and Lower Piura (2)** covers an area of 347,239.45 ha, with sparse dry forest along the desert and wetlands of Sechura in the Sechura province in the Piura region. Wetlands expand considerably during El Ni?o events, which generally invigorate the vegetation and thus the productivity of the wetlands themselves and the surrounding dry forest. This corridor has around 19% of its surface area under conservation modalities, and there are also priority conservation sites such as the ?apique lagoon and its mesquite trees. Its most representative endangered fauna and flora species are the Peruvian Plantcutter (*Phytotoma raimondii*), Peruvian Tern (*Sternula lorata*), Rufous Flycatcher (*Myiarchus semirufus*), Andean Condor (*Vultur gryphus*), Sapote (*Colicodendron scabridum*), Turtleweed (*Batis maritima*) and Kiawe (*Prosopis pallida*). The basins involved in this corridor are the Piura River and Interbasin 13779. The estimated population in this corridor is 507,761 people (49.5% male, 50.5% female) and the estimated agricultural population is 29,979 people. The main productive forest-related activities are apiculture and by-products, carob syrup, stock farming and ecotourism.

36. The **Plain Forest Corridor in Chulucanas Tambogrande (3)** covers an area of 212,675.34 ha, located between the Chulucanas and Tambogrande districts in the Piura region. It stands out for the conservation of plain forests, the area that has progressed most in adding value to dry forest products in Piura (mainly carob). In spite of having communities experienced in mesquite conservation and management, there is no established conservation modality yet. The endangered species are similar to those recorded in the Cascajal-Olmos corridor. The watershed involved in this corridor is that of the Piura River. The estimated population in this corridor is 324,200 people (49.5% men, 50.5% women) and the estimated agricultural population is 15,079 people. The main productive activities related to forests are the production of carob syrup and related by-products, apiculture and related by-products and sheep and cattle farming.

37. The **Plain Forest Corridor in Cascajal-Olmos (4)** covers an area of 399,594.86 ha and is located in the north of the Lambayeque region on the border with Piura. It covers the extension of the dry plain forest where deforestation and forest degradation for charcoal production have advanced the most. The area under conservation is minimal. One of the most important irrigation projects in the north of the country is being developed in the area (Olmos Tinajones Special Project), which poses a

serious threat, but also an opportunity to engage the private sector in the management and conservation of the dry plain forest. Only 2.3% of this corridor is covered by protected areas, and also includes other priority sites for conservation such as the Olmos River meadow and the Cascajal meadow. Its most representative endangered fauna and flora species are the Peruvian Plantcutter (*Phytotoma raimondii*), Rufous Flycatcher (*Myiarchus semirufus*), Andean Condor (*Vultur gryphus*), Sapote (*Colicodendron scabridum*), Kiawe (*Prosopis pallida*), Palo Santo (*Bursera graveolens*), Hualtaco (*Loxopterygium huasango*). The watersheds involved in this corridor are the Cascajal and Olmos rivers. The estimated population in this corridor is 141,733 people (50.2% men, 49.8% women) and the estimated agricultural population is 15,379 people. The main productive activities related to the forest are apiculture and related by-products, carob syrup, sheep and goat farming, charcoal, tourism.

38. The **Northern Dry Hill Forest Corridor (5)** comprises 323,166.39 ha in a strip on the western slope of the Andes Mountain range, between the provinces of Morropon and Huancabamba, in the region of Piura. It houses up to 70% of the habitat of an emblematic species for conservation in the dry forest, the White-winged guan (*Penelope albipennis*). It is the corridor with the highest number of private conservation areas in the dry forest that belong to peasant communities. This corridor has 16% of its surface in protected areas and has other priority sites such as Naupe Racal?. Other representative endangered flora and fauna are the Blackish-headed Spinetail (*Synallaxis tithys*), Slaty Becard (*Pachyramphus spodiurus*), Rufous Flycatcher (*Myiarchus semirufus*) and the Frog (*Hyloxalus elachyhistus*), Hualtaco (*Loxopterygium huasango*), Palo Santo (*Bursera graveolens*), Sapote (*Colicodendron scabridum*), Margarito (*Capparis eucalyptifolia*), Polo (*Cochlospermum vitifolium*), Cactus (*Melocactus peruvianus*), Spanish Cedar (*Cedrela odorata*). The watersheds in this corridor are Piura and Cascajal rivers. The estimated population in this corridor is 232,724 people (50.1% men, 49.9% women) and the estimated agricultural population is 39,968 people. The main productive forest-related activities are ecotourism, apiculture and related by-products, carob syrup and stock farming.

39. The **Southern Dry Hill Forest Corridor (6)** comprises a strip on the western slope of Cordillera de los Andes between the provinces of Lambayeque and Chiclayo, in the Lambayeque region of 285,830.49 ha. It stands out for being the habitat of the only population of spectacled bear (*Tremarctos ornatus*) that inhabits the equatorial dry forest. In addition, the lower part of La Leche river basin houses the Bosque de Pomac Historical Sanctuary, an area of significant historical value because it is the cradle of the Sican Culture. This corridor has 21% of its surface in protected areas and also includes priority sites for conservation, such as Salas, Batangrande, and Pan de Azucar-Macuaco forests. Its most characteristic endangered fauna and flora species are the White-winged Guan (*Penelope albipennis*), Spectacled Bear (*Tremarctos ornatus*), Peruvian Plantcutter (*Phytotoma raimondii*), Rufous Flycatcher (*Myiarchus semirufus*), Frog (*Hyloxalus elachyhistus*), Hualtaco (*Loxopterygium huasango*), Palo Santo (*Bursera graveolens*), Sapote (*Colicodendron scabridum*), Polo (*Cochlospermum vitifolium*), Cactus (*Melocactus peruvianus*), Spanish Cedar (*Cedrela odorata*). The watersheds in this corridor are: Motupe and Chancay-Lambayeque. The estimated population in this corridor is 159,389 people (49.6% men, 50.4% women) and the estimated agricultural population is 13,039 people. The main productive activities associated with the forest are tourism, apiculture and related by-products, carob syrup, goat and cattle farming and native cotton handicrafts.

40. In addition to the 6 corridors described above, a project intervention is proposed (within components 2 and 3) in specific sites that do not correspond to any corridor, because they are relicts of dry forests of singular biological value where needs (at the request of regional and local actors) and opportunities (initiatives underway for possible coordination and cofinancing) have been identified. These sites are the Ca?oncillo Forest PCA in the province of Pacasmayo, department of La Libertad; the Za?a forests in Lambayeque; and the Yacila de Zamba PCA in the province of Ayabaca, department of Piura. It is important to note that in the case of the La Libertad region, the project will develop a smaller-scale analysis of the state of conservation, land tenure and feasibility of establishing conservation modalities for its dry forest relicts in order to determine other complementary intervention opportunities.

1.3 Main Barriers

41. Ecosystem restoration and sustainable management of dry forest landscapes are limited by barriers with regards to planning, management and sustainable use. These barriers are grouped into categories of (i) governance, (ii) protected areas and biological corridors, (iii) value chains, and (iv) information and knowledge management.

Barrier 1: Weaknesses in the governance framework for adequate collaboration, coordination and harmonization of policies, plans, actions and investments for the sustainable development of dry forests in northern Peru:

42. While important progress has been made in strengthening the governance framework, there are still significant barriers in terms of planning policies and tools:

? The Regional Concerted Development Plans and the Regional Climate Change and Biodiversity Strategies of La Libertad and Piura require updating or renewal, hindering strategic planning in these regions. In Tumbes, MINAM is developing a process of mainstreaming Climate Change, Biodiversity and Desertification Strategies through, for example, the recent issuance of the Regional Ordinance No 002-2021/GOB.REG.TUMBES-CR-CD that declares of regional interest the elaboration of the departmental planning instrument called: ?Integrated Strategy of Biological Diversity, Climate Change, Desertification and Drought of the Tumbes Region?.

? The EEZ processes have not been concluded in the four departments: the department of Tumbes shows 50% progress, projecting to conclude in 2021, while La Libertad is at an initial stage. In the case of Forest Zoning, the processes have been halted in the four departments since 2019, which is a barrier to inter-institutional and inter-sectoral articulation in terms of territorial management. This is evidenced in the change of forest cover into agricultural cover without proper planning and without considering the importance of keeping connectivity networks in the framework of adaptation to climate change. For example, in Lambayeque, the JICA Probosque Project estimates the loss of forest due to land-use change at 4,239 ha[60]⁶⁰ per year and there are currently two authorizations granted for change of use, while the Regional Government of Piura estimates that the annual rate of deforestation is 17,589 ha per year due to land-use change, yet no application has been submitted to SERFOR.[61]⁶¹

? There is weak articulation between tools and mechanisms with environmental components in the field of dry forests, such articulation is necessary in order to ensure the provision of ecosystem services.

? There are no specific guidelines from SERFOR for managing dry forests[62]⁶², there is a lack of Regional Forest Fire Prevention and Risk Reduction Plans in the four departments[63]⁶³, and lack of Regional Forest Development Plans that include restoration (with the exception of Piura, which will have to evaluate and update its tool that was approved in 2014).

? The integration between watershed management and dry forest conservation is poor. The focus on watershed plans does not consider the environmental services that dry forests provide in the context of climate change; for example, this ecosystem of mesquites improves the marginal saline soil, is highly adaptable to adverse conditions, minimizes the advance of saline concentrations, transports nutrients and regulates the water level of the subsoil.[64]⁶⁴

? The inclusion of a gender approach in the regions? environmental management tools is very limited; while the regions have Regional Gender Equality Plans, they are not mainstreamed in the environmental management tools.

? Citizen participation is one of the cross-cutting areas of public management for social development and environmental sustainability. Although various State and environmental sector policies and management tools establish the need to include intercultural, gender and intergenerational approaches to promote inclusion and equity, the continuous and transparent dialogue and respect for cultural diversity and its articulation represent a challenge at both the methodological and operational levels. In this sense, it will be important that actors, especially those in charge of mainstreaming, recognize that when these dimensions intersect, they are enriched and contribute to social and environmental development. On the other hand, those responsible for mainstreaming must have the necessary tools and capacities to understand the multiple realities and thus be able to intervene from complex and multidimensional logics.

43. In addition to the political and planning instrument barriers, there is a lack of adequate and effective spaces for dialogue, platforms for articulation and coordination among the actors involved.

? There are few macro-regional coordination spaces for dry forest management, where the representation of peasant communities, the business sector and even local governments is low.

? There are spaces for inter and intra-sectoral dialogue and coordination at the sub-national level, but these are not found in the four regions, e.g. the Regional Forestry and Wildlife Control and Surveillance Board has not yet been implemented in Tumbes, Piura and La Libertad, and there are no Water Resources Councils in 60% of the watersheds within the scope of the project, particularly Olmos, Motupe and La Leche watersheds in Lambayeque, which are home to important dry forest areas. Special attention should be paid to NORBOSQUE, which was established in the regions of Tumbes, Piura and Lambayeque with specific objectives in dry forest management. It was operational until 2009, when it was deactivated in Tumbes and Lambayeque due to weak institutional management.

44. The availability and exchange of information on land-use and natural resources is still very limited, the management of forest and wildlife registries for forest production statistics is still inadequate, and information on deforestation and restoration is limited and varies according to institutions.

45. In recent years, with the development of information technology (IT) and the use of satellite imaging, several forest management platforms have emerged at the national level (with an emphasis on the Amazon), such as MINAM's Geobosque platform, which contains information related to the monitoring of forest cover, forest loss, early warning of hot spots, among others, contributing to generate information for better decision-making. However, the information available for dry forests is limited to forest cover, thereby highlighting the need to fill information gaps related to forest loss, hotspots, etc. in order to reassess and demonstrate that the ecosystem services they provide have a global impact similar to other ecosystems. Likewise, there is no unified platform where the various national forest monitoring indicators are integrated with those of forest degradation, including the three LDN status change indicators.

Barrier 2: Insufficient institutional planning, monitoring and financial frameworks for the management of protected areas in the north coast of Peru and for forest restoration to promote ecological connectivity as a climate change mitigation and adaptation measure:

46. In Tumbes, Piura and Lambayeque departments, the identification of '*priority areas for conservation and their connectivity networks*' was considered strategic in the last decade for the establishment of the Regional Conservation Systems (RCS)[65]⁶⁵. Furthermore, in Piura, nine PCA[66]⁶⁶ and two ECA[67]⁶⁷ were created in dry forest with public investment.[68]⁶⁸ In Lambayeque, the RCS was an important input in the EEZ, which is currently promoting innovative territorial

management mechanisms for the conservation of dry forests, such as the one initiated by Arena Verde SAC in Morrope, Lambayeque.[69]⁶⁹ At present, the RCS are very weak in the implementation of their operational and multi-annual plans, due to insufficient staff and budget for their operations. This means that RCA[70]⁷⁰ and PCA management has been very limited, as detailed below. The Climate Change and Biodiversity Strategies of Piura and Lambayeque put forward the strengthening of the RCS to ensure integrated management under a landscape approach at the regional level. However, only 1.2% of the entire dry plain forest (mesquite, sapotales, among others) are protected, which reveals an important gap and the need to promote alternative conservation modalities for this type of ecosystem. There are new initiatives to fill this gap (e.g. proposal of critical habitat for the spectacled bear in the middle basin of the La Leche River),[71]⁷¹ however, greater coordination is required among SERNANP, GOREs, SERFOR and other actors in order to implement new conservation[72]⁷² modalities within the framework of the RCS.

47. According to current legislation[73]⁷³, each PA must have a Master Plan (MP) approved by SERNANP. At present, only three PAs (of the nine categorized) under national and regional administration have this management tool updated and approved. The PCAs, are created and approved with a Technical Sheet equivalent to the Master Plan, which they all have. Of the Other Effective Area-based Conservation Measures (OMECS) that are recognized within the scope of the project, only the San Pedro mangrove RAMSAR site has a management tool, while the ECAs do not have approved management tools. However, the ECA's governance mechanisms have not yet been developed. The reports on the implementation of the PA master plans suggest that one of the main weaknesses in their implementation is the insufficient compliance with commitments by public actors, which shows, among other things, the lack of coordination between the actions foreseen in the PA management instruments and the instruments that guide the management and implementation of the public budget (e.g. local concerted development plan).

48. Another important weakness affecting decision-making and the engagement of more stakeholders in the management of PAs and their buffer zones is incomplete or limited information on the conservation state of the species in PAs, the state of the resources under exploitation, and the value of the ecosystem services provided by biodiversity to local populations and their economic activities. There are environmental services provided by the dry forest PAs that have not yet been studied, such as their contribution to pollination and aquifer recharge.

49. SERNANP has made progress in implementing mechanisms and tools to measure the effectiveness of PA management under its administration,[74]⁷⁴ such as the Participatory Management Radar[75]⁷⁵ that evaluates the articulation, coordination and transparency of the PAs of SINANPE, and the GEF's Management Effectiveness Tracking Tool (METT)[76]⁷⁶ that evaluates the integrated management of PAs and is applied to those that have international technical cooperation projects (see Table 4). The other PAs and OMEC do not implement tracking and evaluation mechanisms.

Table 4. Evaluation scores of the monitoring tools for the management of SINANPE's PAs in dry forest.

ANP	Participatory Management Radar (2020)	GEF - METT (2020)
Cerros de Amotape National Park	32 / 63	74 (Important progress)
Tumbes National Reserve	32 / 63	71 (Important progress)
El Angolo Hunting Reserve	48 / 63**	73 (Important progress)
Laquipampa Wildlife Refuge	39 / 63	65 (Important progress)
Bosque de Pomac Historic Sanctuary	56 / 63	93 (Optimal progress)
Illescas Reserved Zone	34 / 54**	18 (Minimum progress)*

* Not all METT evaluation criteria qualify Reserved Zones for being transitory, therefore their low value is justified.

** The Radar values for these PAs correspond to the second semester of 2019.

50. At present, the main funding source for the PAs located in the dry forests and managed by SERNANP are the resources allocated by the State. The RCAs have a limited budget allocated by the Regional Governments; occasionally they have PIPs that temporarily improve their budget. Only 4 out of 13 PCA have regular direct funds, which allows them to fulfil a small part of the administrative tasks. The Chaparri PCA, the Chaparri La Huerta del Chaparri, El Cañoncillo Forest and Amotape dry forest have income from tourism, while the Manga Manguilla PCA receives income from the commercialization of Palo Santo (*Bursera graveolens*) stakes. Of the OMECs, only the Estuario de Virrila ECA and San Pedro mangroves RAMSAR Site receive limited and temporary support from a cooperation project.

51. In terms of financial sustainability, progress has been made with carbon stock analysis and the possibility of selling carbon credits from some of the dry forest PAs (e.g. Salitral Huarmaca RCA)[77]⁷⁷. However, the sale and use of these resources is still not possible due to the lack of a clear legal and institutional framework in the regional governments for the administration of funds resulting from this type of project.

52. Within the scope of the Project, the only formally recognised connectivity network is the Noroeste Biosphere Reserve Amotapes y Manglares (RBNOAM) which is also now transboundary (Bosques de Paz Biosphere Reserve) and therefore opens opportunities to protect important and continuous dry forests.

53. In addition to conservation, it is important to restore dry forest ecosystems degraded by anthropic intervention. In 1998, efforts were made by the regional governments, MINAGRI (now MIDAGRI) and the Algarrobo Project[78]⁷⁸ to take advantage of the heavy rainfall of the 'El Niño' phenomenon to carry out a massive dispersion of native forest seeds on 220,000 ha with the support of more than 1000 peasant. While mass restoration initiatives in dry forests are limited, significant efforts have been made by civil society and academia such as the NGO AIDER, University of Piura, ProNaturaleza and businesses such as Arena Verde SAC, Agroexportadora Plantaciones del Sol SAC and Huarango Nature, who have established a seed bank and nursery of native species.

54. Training programmes in small-scale agriculture, restoration and forest management are provided by public institutions linked to MIDAGRI (SENASA, INIA and SERFOR) and local and international NGOs, but they are isolated and not permanent. Similarly, environmental education programs on dry forests for schools are very scarce, except for a few examples led by the PA, the NGO ANIA and the association Huarango Nature in the Eco-museum of Tucume-Lambayeque.

55. With regard to the information available on restoration and sustainable management in dry forests, it is very scarce, however, Bioersity International has made efforts to systematize experiences and make them available to specialists and the general public through publications and the digital tool: ?Catalogue of restoration and conservation experiences in the Dry Forests of Northern Peru.?

56. With regard to funding for restoration, in 2021, Budget Programme 057 includes plans to finance restoration in PAs at the national level through SERNANP - MINAM, equivalent to approximately US\$194,101 (770,000 soles).[79]⁷⁹ Likewise, US\$665,183 (2,638,780 soles) of the Budget Programme 0144 will be invested through SERFOR: 96% in activities of elaboration, dissemination and training of tools and mechanisms of ecosystem recovery and 4% in the implementation and operation of a system of identification, categorization and prioritization of degraded areas for ecosystem recovery. Specifically at the regional level, in Piura alone, US\$882,279 (3,500,000 soles) will be invested in the project for the recovery of the water regulation service in the upper sub-watershed of San Pedro Arenales in the districts of Frias, Sapillica, Lagunas and Pacaipampa, province of Ayabaca, department of Piura.

57. While important achievements have been made, the limitations in the management of natural heritage in dry forests are still worrying, especially considering that this is a fragile ecosystem with strong anthropic pressure. The PAs are the conservation hubs in the corridors, and seven Master Plans of the categorized PAs under national and regional administration have not been updated. Furthermore, with regard to their articulation with the Regional Concerted Development Plans (RCDP) of Tumbes, Piura, Lambayeque and La Libertad, although they are referenced in the diagnosis, they are not part of the strategic component; the same occurs at local government level (PDLC), which causes difficulty in integrating the various management instruments of the PAs with regional and local instruments in the framework of a landscape and connectivity approach for forest conservation.

58. The tools for measuring PA management show that management capacities are insufficient, and the variables related to inter-institutional coordination and commitment with the PA, especially by local and regional government, need to be strengthened. It should be noted that since the RCA, PCA and OMEC have not yet implemented tools to measure the efficacy of their management, these areas are vulnerable to land-use change and illegal logging. Likewise, the limited information on the financial gap of the PAs and OMECs hampers decision-making and thus the elaboration of innovative instruments for financial sustainability.

59. While there are RCS and progress has been made in proposals for priority areas, connectivity networks and corridors, these have not been implemented. Furthermore, there is a lack of management instruments that integrate the country's 26 PAs and the community territories with which they coexist within the fragmented landscape. This is of particular concern where intervention is needed to restore the degraded dry forests and allow for adequate biodiversity conservation, and where ecosystem services are greatly diminished, and information, technical and financial limitations hamper implementation.

Barrier 3: Limited access to technologies and financial instruments restrict the possibilities for sustainable dry forest management and the improvement of livelihoods of farming communities and local people

60. At present, the unregulated growth of a flourishing agro-export activity has transformed the dynamics in the dry forests; the rural community is now mainly engaged in agriculture, where their main income comes from, either as formal or informal workers for large farms and/or through small plots of land averaging 2 ha.

61. Other economic activities dependent on the dry forest such as extensive goat farming and apiculture have been affected by the overexploitation of the forest, low investment and lack of partnership. There are no adequate mechanisms or commercial strategies to ensure the equitable

distribution of benefits among the different actors involved in the value chains, guaranteeing better income for forest users and allowing them to invest in the maintenance and sustainability of the forest landscape.

62. In this context, the capacities of dry forest producers in sustainable practices are limited, despite the forestry legislation on dry forest management that recognizes *the effects of climate change and the high anthropic pressure on dry forests, and prioritizes the restoration, enrichment and multipurpose sustainable use of these ecosystems.* At present, there is no comprehensive training program that enables the producer to make sustainable use of dry forests.

63. This is evidenced by the fact that timber harvesting is mainly focused on two forest products: mesquite charcoal (94.3%) and Palo Santo dry timber (4.3%), which are authorized via *Enabling Titles* for periods of no less than 10 years, with no monitoring.^{[80]⁸⁰} Indeed, OSINFOR reports that in the period 2010-2017, an average of 1 million kilograms of illegally harvested timber for charcoal per year was mobilized, increasing the depredation of the forest, and exacerbated by the scarce participation of the local population in forest control and surveillance.

64. In the last 7 years, there has been a decrease in the number of *Enabling Titles* granted, since Forest Management Plans^{[81]⁸¹} are only allowed in high density forests and in lower density forests only through pruning. Consequently, high-density forests are becoming increasingly scarce and the high demand for charcoal in the cities tends to be met with charcoal from illegal logging.

65. Although there are interesting references, such as the Assisted Natural Regeneration Project (ANR) and the Laquipampa Wildlife Refuge Conservation Agreement, incentives to formalize sustainable management are scarce, as is the capacity to develop products and access markets. This results in products with low added-value, which are marketed as raw materials, as in the case of carob syrup, which are produced traditionally and marketed without health registration. The limited access to technologies and the lack of partnerships between actors throughout the value chain result in low profitability. In the localities of Locuto and Chulucanas in Piura and *Ilimo* in Lambayeque, producers have managed to group together and overcome some barriers, achieving profitability in their production chains, but in all of them there is a lack of technology to change the energy matrix away from firewood to more efficient means.

66. It should be noted that in the carob syrup and bee product chains (honey and pollen) there is a high degree of adulteration of the products:^{[82]⁸²} in the case of carob syrup by adding sugar without stating it on the label, in the illegal manufacture of honey from commercial sucrose, and in the manufacture of pollen from industrial flour with tartrazine coloring. It has been estimated that the marketing of these adulterated products accounts for 60-80% of the national market.^{[83]⁸³}

67. Meanwhile, the markets for sustainable products or bio-businesses are poorly developed in the country and have little connection with the external market for organic products. The articulation with markets is a shortcoming that is present in the value chains, as currently most producers only have access to the closest direct markets, which does not ensure them a margin to make profit and therefore grow economically. There is no direct connection with the markets for organic products, nor is there a positioning of the product as such, thus creating a barrier to the development of organic value chains.

68. The limited articulation between actors in the chain is another important barrier and even extends to initiatives with the State and international cooperation. This is due to producers being generally disorganized and the few producer organizations that do exist are weak and lack bargaining power.

69. Producers (women and men) and their organizations have limited capacities in financial management, negotiation, hygiene aspects of value chains, timely access to market information and

promotion of strategic alliances. There is a lack of management skills, which does not allow them, for example, to price their products properly, as they often do not include or value their work in the cost structure. There are only a few successful experiences of corporate production and marketing, such as Ecobosque and Santa Mar?a de Locuto. The implementation of Best Practices for Manufacturing is essential in the current context of COVID 19, but is currently scarce.

70. In general, there is insufficient financing for productive activities in the dry forest and a few are not being harnessed. For example, from 2010 to 2020, AGROIDEAS has only financed one business plan for the adoption of technology in the project's area of intervention, the beneficiary organization of which was ASPROBOS. In 2018-2019, PNIA approved an apiculture project (queen bee breeding) in Piura. There are other options such as INNOVATE PERU, which supports innovation, development and technology transfer but, to date, has not approved projects related to the dry forest.

Barrier 4: Limited generation and systematization of knowledge and technologies that respond to the priority needs of dry forests:

71. To date, dry forest knowledge has not always been visible and readily available, and, thus, has not been sufficiently exploited in planning and decision-making. The knowledge about dry forests is segmented, not easily accessed or applicable, and does not consistently meet the priority needs and demands of stakeholders for the sustainable management and conservation of dry forests. In some cases, there is no indication on where to find the knowledge, who is doing research and what is missing to identify gaps, duplication and information that would contribute to a communication strategy. Likewise, information and successful management experiences are not adequately shared and disseminated, so they cannot be replicated, leading to duplication of efforts in repeating processes already carried out and obtaining results already achieved.

72. Within the Project's area of intervention, some experiences have been shared, but these are occasional and limited, despite the fact that these processes of sharing knowledge, lessons learned, successes and mistakes in PA management, restoration and production chains are of great importance.

73. While the National Environmental Information System (SINIA) provides general information at the international convention level on 13 issues (water, atmosphere, socio-environmental, biodiversity and ecosystems, among others), information on other issues such as Combating Desertification is not visible. Similarly, at the national level, there is little visibility regarding the LDN indicators (change in land-use, soil organic carbon and trends in land productivity). Meanwhile, at the regional level, information on dry forests is not yet integrated; the platform is articulated with the Geo servers (ANA, SENAMHI, MINAM, SERNANP, MINCUL, OSINFOR, OSINERGMIN, SERFOR) but the information related to the dry forest ecosystem has not yet been developed or updated.

74. Other digital channels for finding information on research and innovation on environmental issues are being developed but they are not being used efficiently and sufficiently in the dissemination and generation of information on dry forests; databases and digital repositories include: ALICIA (National Digital Repository of Science, Technology and Innovation), RENATI (National Network of Open Access Digital Repositories of Science, Technology and Innovation), the Digital Library of SERNANP, Digital Repository of INIA, National Forest and Wildlife Repository, university repositories, etc. The interoperability of these and other platforms is currently being developed through the #PeruCris Project and provides an important opportunity to ensure the inclusion of pertinent information related to dry forests.[84]⁸⁴

75. The Regional Environmental Information Systems (SIAR) and the Local Environmental Information Systems (SIAL) are outdated, even inoperable, considering that in 2014 the SIAR of Tumbes, Piura and La Libertad were implemented. As for the SIAL, it was only implemented in Trujillo (La Libertad). As of 2018, these systems had appointed managers for more than 3 or 4 years, thus ensuring that these systems remained operational, as in the case of SIAR Piura and SIAR Trujillo,

[84]⁸⁴

which maintain updated documents, regulations and maps. However, at present, the SIAR and SIAL systems do not receive the priority they need, mainly due to budgetary constraints. Consequently, due to a lack of regular resources, the contracts of these managers, which were initially funded with resources from Public Investment Projects (PIP), were not renewed. The management is, therefore, currently carried out by non-specialized staff.

76. In relation to LDN indicators, although there is information on the three LDN sub-indicators (land-use change, productivity and soil organic carbon) based on global satellite products, to date there is no national or sub-national data on these indicators that would allow for adequate monitoring and decision-making for land-use planning aimed at land degradation neutrality. Furthermore, the estimated LDN baseline (degraded area in Peru in 2015), per the methodological framework of the UNCCD, indicator 15.3.1 of the SDGs and with data from global sources, is equivalent to 22,248,100 hectares, comprising 17.47% of the Peruvian territory.[85]⁸⁵

77. There is a need to build capacities in an articulated and synergistic manner between different actors (e.g., academia, government and producers/private sector), in order to effectively promote sustainable productivity and competitiveness. In the same vein, universities and their innovation institutes will play a crucial role in the production and dissemination of knowledge. As far as dry forests are concerned, this process has occurred in isolation and requires networking and creating a community of knowledge.

78. In general, the issues raised in the previous barriers also identify gaps in knowledge and information, as well as lessons learned that have not yet been systematized, shared or transferred. Consequently, there is no formalized and reliable documentary basis for the different projects developed in relation to dry forests. Despite the Macroregional platform for forests in Northern Peru, it is still necessary to encourage the exchange of information and to position it as a repository linked to MINAM's SINIA.

2) The baseline scenario and any associated baseline projects.

79. On 12 July 1992, Peru signed the Convention on Biological Diversity (CBD) and ratified it on 23 April 1993. In compliance with this convention, Peru developed the National Strategy on Biological Diversity to 2021, which is mandatory and guides future actions to generate ecological, economic and social benefits for present and future generations.[86]⁸⁶ In 1993, Peru ratified the United Nations Framework Convention on Climate Change (UNFCCC) and, in 2020, set up the High-Level Commission on Climate Change, approved the 2030 Nationally Determined Contributions (NDC) Update Report, and began to update the National Climate Change Strategy 2050. The United Nations Convention to Combat Desertification (UNCCD) was adopted in June 1994 and entered into force on 26 December 1996. In line with the principles and scope of this convention, Peru has a National Strategy to Combat Desertification and Drought 2016-2030. Likewise, and within the context of the Sustainable Development Goals (SDGs), the country has carried out a process to estimate, define and elaborate the voluntary national target to achieve Land Degradation Neutrality (LDN) (SDG 15.3) and the associated measures, in a participatory manner with the sectors involved and subnational and civil society actors. As a result of this process, the national voluntary target and the LDN measures were defined and organized into 14 sub-targets, 3 of which are cross-cutting and relate to land management governance, institutional strengthening and monitoring and evaluation, while the other 11 correspond to interventions to prevent, reduce and revert land degradation.

80. With regards to natural resources management, there are several experiences on the articulation of natural resources, and therefore, it is necessary to implement management structures that can be applied to multiple resources according to the characteristics of the actors. In this framework, MINAM is developing pilots for the implementation of Integrated Natural Resources Management, a

process of articulation of actors with common interests related to the conservation and use of natural resources in the territory.

81. At the national level, the existing policy framework is geared towards the conservation and sustainable use of biodiversity, ecosystems and their services, enterprise development, promotion of technology and innovation, integrated water management, reduction of land degradation, support for trade and tourism, among others. The country has (i) the Forestry and Wildlife Law (2015) (Law No. 29763) and its regulations for forest management, wildlife management, forest plantation management, agroforestry systems and for forest and wildlife management in native communities and peasant communities; (ii) the Framework Law on Climate Change (2018) (Law No. 30754) and its Regulations (2019); (iii) the Law on Natural Protected Areas (1997) (Law No. 26834) and its Regulations (2001); (iv) the Law on Water Resources (2009) (Law No. 29338); and (v) the National Water Resources Plan (2014), among others, such as the General Guidelines to Identify and Promote Eco- and Bio-businesses (RM 046-2020-MINAM). These actions and commitments are supported by 12 budgetary programs administered mainly by MINAM and MIDAGRI and public investment projects that are implemented in the target regions and provinces. An investment of US\$3,034,956 (12 million soles) per year is estimated for the departments of Tumbes, Piura, Lambayeque and La Libertad (see Annex 3) and, at the public investment level, 5 PIPs linked directly to the Project's objective have been identified totaling approximately US\$9,074,868 (36 million soles) in the Project's area of intervention (see Table 5).

Table 5: List of public investment projects in the Project area.

Public Investment Project	Promoter/ Executer	Estimated amount USD	Status
Recovery of the forest ecosystem of the Huacrupe La Calera RCA, Olmos District, Province and Department of Lambayeque	Regional Government of Lambayeque	5,113,305	Project profile approved. Requires the preparation of a technical file.
Recovery of the environmental service in the regional conservation area 'Bosque Moyan Palacio', district of Motupe and Salas, province of Lambayeque, Lambayeque region	Regional Government of Lambayeque	1,830,799	Technical file approved. Starts 2021.
Improvement of the protection and sustainable management services of the dry forests of Salitral - Huarmaca RCA, in the districts of Salitral and Huarmaca in the provinces of Morrop?n and Huancabamba, department of Piura	Regional Government of Piura	1,791,384	Under implementation, ends 2021.
Recovery of the populations of the White-winged guan (Penelope albipennis) in the province of Chota in the department of Cajamarca; the provinces of Ferre?afe, Lambayeque and Chiclayo in the department of Lambayeque and the provinces of Morrop?n and Huancabamba in the department of Piura.	Ministry of the Environment	856,556	Expected to start in 2021.
Improvement of forest and wildlife control and surveillance in the Angostura Faical RCA	Regional Government of Tumbes	No detailed information available.	No detailed information available.

82. The Authority for Reconstruction with Changes (ARCC) has promoted the development of Integrated Flood Management and Mass Movements Plans for flood control and management of 19 rivers, 5 ravines and rainwater drain in 7 cities along the country's coast. The aim of these initiatives is to enhance the value of the recovered areas through agricultural and tourism development in the basins. Implementation will last three to four years and component C of the Plan is focused on: (i) gully treatment; (ii) afforestation and reforestation; (iii) land-use planning; (iv) early warning systems; (v) relocation of populations and activities located in hazardous areas; (vi) training and capacity building programs for community leaders supporting them to face extreme events; and (vii) construction of terraces, platforms and the like. This represents a total investment of approximately US\$1,372,826 (5,446,000 Soles).

83. Additionally, there are 7 important technical cooperation initiatives and projects that are related to the conservation and valuation of forests, which are described in the following paragraphs:

? **National Forest Conservation Programme for Climate Change Mitigation (PNCBMCC):** implements actions around four components: (i) Forest mapping and monitoring of forest conservation, (ii) Promotion of sustainable forest-based productive systems, (iii) Capacity strengthening for forest conservation, and (iv) Monitoring and Evaluation of the National Programme.

? **Patrimonio del Peru (PdP) initiative:** implemented by MINAM and SERNANP, is intended to create enabling conditions for the effective management of protected areas over a period of 11 years, ensuring sustainability in perpetuity. The first phase is focused on the Amazon and includes 38 Natural Protected Areas. The next phase aims to include the Forests of the northern coast of Peru.

? **ProBosque project:** strengthens the capacities of SERFOR staff through a methodology for monitoring the dry forest cover and loss in the country, as well as the incorporation of new technologies, such as the use of radar images for the detection of deforestation in the case of the Amazon rainforests. It also includes the transfer of this methodology and training to the technical teams of the regional governments of Lambayeque, Piura and Tumbes. Protocols for control and surveillance, and applications for alerts on land-use change in dry forests are currently being developed.

? **Mapping and Analysis of degraded areas:** carried out by the General Directorate of Land Management (DGOTA) of MINAM, the Degradation Analysis (national) and Mapping of Regional Degradation (2022) aims at the identification, categorization and prioritization of degraded areas and the calculation of the ecosystem gap indicator and sustainable use of biodiversity. It maps ecosystems that are: (i) conserved to ensure sustainable provision of ecosystem services, (ii) recovered to improve the provision of ecosystem services, and (iii) requiring recovery (deforested forests, fragmented forests, with loss of cover, etc). The project area has not yet been evaluated and, in 2022, will continue with the northern coast of Peru, in coordination with this project's activities.

? **FORASAN Piura:** a mechanism of payment for ecosystem services (PES), created by Regional Ordinance No. 324-2015/GRP-CR, which is an alternative to conserve and improve water management in the Chira Piura basin, through the voluntary contribution of institutions, companies, individuals, as well as international cooperation agencies, for the implementation of strategic projects identified in the Water Resources Management Plan of the Chira Piura basin in conservation and recovery of natural ecosystems and the development of a new water culture. Alternatives are currently being sought to promote the collection and fulfilment of the project's objectives.

? **Mechanism of payment for water ecosystem services (PWS) for the conservation of the headwaters of the Jetepeque Za?á river basin in La Libertad, Cajamarca and Lambayeque:** established in 2019, it remains under implementation, and is being executed with GEF funds.

? **United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation (REDD+) in Developing Countries ? ONU REDD Programme:** the focus of the 2016-2020 strategic phase was the provision of technical assistance to countries that are making headway in the implementation of REDD+ policies, including Peru, as well as global knowledge management related to REDD implementation.

84. In addition, private initiatives that contribute to regional, national and global efforts for the conservation of the dry forest have been identified in the project's direct intervention area, among them:

? **Arena Verde Agricultural Company:** through this initiative and within the framework of the authorization for the change of use issued by SERFOR Lambayeque, about 3,000 hectares of natural ecosystems are being conserved by carrying out restoration, control and monitoring activities with an annual investment of about US\$126,040 (50,000 soles). This initiative is articulated with the connectivity network proposed by the Regional Government of Lambayeque.

85. The baseline scenario includes a number of important elements on which to build and contribute to the achievement of climate change mitigation and adaptation, biodiversity conservation and land degradation neutrality targets. However, in the business-as-usual scenario, the Dry Forests of the North Coast of Peru will continue to be poorly managed, with weak governance frameworks and institutional gaps that prevent adequate collaboration and coordination of policies and efficient investment of resources. Furthermore, insufficient technologies and financial instruments do not allow for sustainable management of the resources in dry forests, which will lead to increased land degradation, reduced provision of ecosystem services by dry forests, and loss of economic and biodiversity benefits. With GEF funding, the following intervention strategy will support Peru in its efforts to implement and meet its voluntary national targets and measures to achieve the SDGs, particularly SDG 15 and the LDN target in a timely, coherent and consistent manner.

3) The proposed alternative scenario with a brief description of expected outcomes and components of the project and the project's Theory of Change.

86. *Intervention Strategy:* The Project aims to develop and strengthen an enabling environment for the adequate participatory and inclusive management of dry forests in the North Coast of Peru, and thus to change the current processes of biodiversity loss and land degradation, while generating global environmental benefits, as well as food security and improved livelihoods for local populations. The project adopts a landscape approach associated with the variety of land uses and the importance of watersheds for the connectivity and resilience of dry forests.

87. As such, the Project aims to restore and sustainably manage the dry forests of the North Coast of Peru, facilitating the conservation of biodiversity and ecosystem services, increasing the resilience of communities and their livelihoods, and supporting the achievement of the LDN target. The complexity of socio-ecological systems and coastal landscapes in political, socio-cultural and economic dimensions is recognized with reference to local livelihoods and considering the underlying causes of degradation and deforestation.

88. In order to achieve its objectives, the Project proposes the following strategic lines: (1) strengthen collaborative, coherent and synergetic governance among the different actors that converge in the sustainable management of dry forests, relying on dynamic and efficient articulation spaces, and articulated management and budget tools at regional and macro-regional levels; (2) strengthen sustainable landscape management, guaranteeing connectivity and restoration, especially in the sphere of influence of natural protected areas; (3) promote sustainable dry forest production practices that lead to their conservation, as well as value chains linked to preferential markets, for the benefit of the local population; and (4) manage knowledge for decision-making and project efficacy.

89. All of the project's interventions will mainstream adaptive and gender equality approaches, and will operate in the context of the country's aims and commitments to climate change mitigation and adaptation, biodiversity conservation and land degradation neutrality, looking for financial sustainability of the interventions. These cross-cutting approaches will have dedicated strategies and will be part of the Project's monitoring and evaluation processes.

90. The four barriers identified, the causal pathways (CP) and their key underlying assumptions are as follows:

Barrier 1: Weaknesses in the governance framework for adequate collaboration, coordination and harmonization of policies, plans, actions and investments for the sustainable development of dry forests in northern Peru:

Causal pathway 1: Strengthened inter-institutional and inter-sectoral coordination and articulation of planning instruments + Improved coordination capacity of different organisations, sectors and state levels (especially regional and local governments) to implement policies and regulatory compliance ? Closure of information gaps for decision-making and implementation of effective and sustainable policies.

Key assumptions:

- ? Functional coordination spaces
- ? Availability of information for decision-making

Barrier 2: Insufficient institutional planning, monitoring and financial frameworks for the management of protected areas in the north coast of Peru and for forest restoration to promote ecological connectivity as a climate change mitigation and adaptation measure:

Key assumptions:

- ? Updated and functional control and surveillance systems/tools and PA/OMEC with strengthened capacities and funding can enhance community-based control and surveillance.
 - ? Effective community-based control and surveillance leads to greater ecosystem connectivity and sustainable land management.

Causal pathway 2: PAs with dry forest ecosystem are better integrated in their areas of influence and buffer zones + Improved financial and management frameworks + Updated / completed management frameworks (PA master plans + OMEC have tools to measure their management effectiveness) ? Increased control and surveillance activities at PA/OMEC level ? Informed planning and management of PA/OMEC ? Restoration of degraded areas ? Ecosystem connectivity across the dry forest landscape + Biodiversity is conserved and land is managed in a sustainable way.

Barrier 3: Limited access to technologies and financial instruments restrict the possibilities for sustainable dry forest management and the improvement of livelihoods of farming communities and local people:

Causal pathway 3: Resources extracted from dry forests are sustainably exploited and traded with added value (i.e. mesquite) + Improved commercial paradigm assigns appropriate prices to forest products (no longer confusing them with agricultural products) + Improved capacities of producers (women and men) and their organizations + Adequate mechanisms to ensure the equitable benefit sharing among the different stakeholders involved in the value chains ? Production respects ecological volumes / carrying capacity thresholds and added value ? Sustainable value chains and improved livelihoods.

Key assumptions:

? Updated and functional technologies/tools and strengthened capacities can enhance sustainable production and livelihoods

? Effective production capacities lead to increased ecosystem connectivity and sustainable value chains

Barrier 4: Limited generation and systematization of knowledge and technologies that respond to the priority needs of dry forests:

Causal pathway 4: Knowledge management + Improved monitoring tools, systematization of lessons on sustainable use and restoration of dry forest ecosystems and feedback ? Informed decision making + Sustainable production ? Dry forest ecosystem conservation + Restoration ? Increased connectivity + Less degradation ? More efficiently monitored and participatory KM on dry forest management .

Key assumptions:

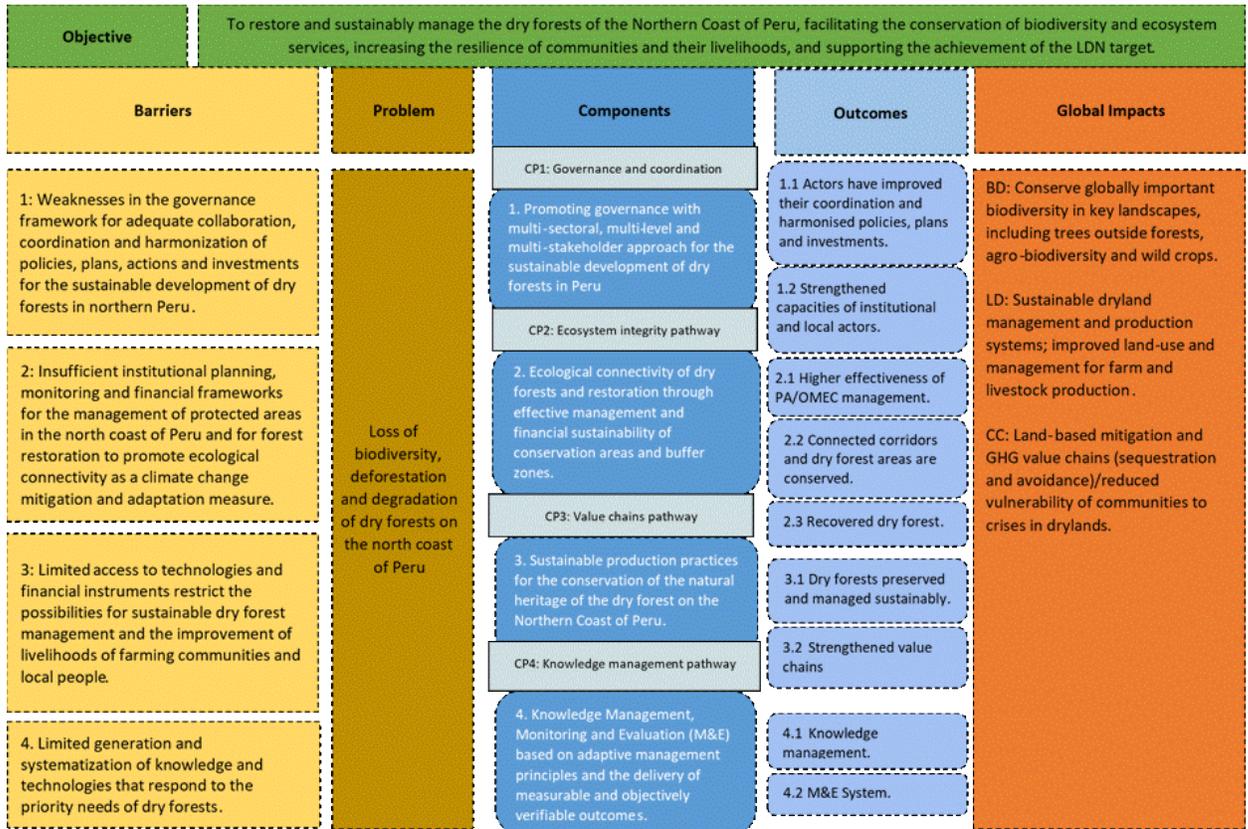
? A comprehensive data management platform that integrates data from all four components can support the systematization of lessons sharing and knowledge management, and public access to this platform ensures standards of transparency.

? Knowledge management and informed decisions can contribute to mitigate the impact of anthropogenic activities on biodiversity loss and land degradation and generate additional environmental benefits.

91. The proposed pathways are based on the analysis of structural/root causes and barriers. The supporting outputs and outcomes for each pathway are depicted in Figure 1. These pathways, and the assumptions on which they are based, are explicit and properly address the problems and barriers, as previously described.

92. Figure 3, below, illustrates the Theory of Change for this project. It has been constructed following the recommendations of the Theory of Change Primer (STAP document 2019). This intervention aims to generate multiple biodiversity benefits by developing commercial strategies with a multidisciplinary approach, capturing value throughout market chains, and ensuring improved livelihoods among local communities while conserving globally significant biodiversity in dry forest ecosystems. The pathways to achieve the project's impacts are based on identifying barriers and linking to the structural/root causes of biodiversity loss. The above-indicated assumptions underpin the proposed pathways to enable increased connectivity, restoration and strengthened productive systems, which, in turn, give rise to the project outcomes and impacts (GEF Core Indicators).

Figure 1: Theory of Change



COMPONENT 1. Promoting governance with multi-sectoral, multi-level and multi-stakeholder approach for the sustainable development of dry forests in Peru.

93. The purpose of Component 1 is to contribute to reducing institutional, legal and investment barriers in order to strengthen governance in dry forests, based on three core aspects: (i) improving the policy framework, planning and investment instruments, through multilevel mechanisms for the articulation of territorial spaces; (ii) strengthening information exchange and dialogue spaces and platforms; and (iii) strengthening the capacities of key actors in planning and coordinated landscape management, and the tools, instruments and platforms to do so. This component has two Outcomes and activities will be carried out according to the health policies related to the COVID-19 pandemic (virtually and/or face-to-face, depending on the constraints at the time of implementation).

94. **OUTCOME 1.1.** National, regional and local actors of the public and private sector have improved their coordination and harmonized policies, plans and investments related to sustainable and inclusive dry forest management and LDN priorities. It will in turn include the following outputs:

? **OUTPUT 1.1.1.** Multi-sectoral and multi-level coordination spaces strengthened with capacities for the conservation and sustainable management of dry forests, under an integrated management approach in different territorial areas of dry forest (with at least 30 % participation of women).

? **OUTPUT 1.1.2.** Management and planning instruments that mainstream the integrated management approach to natural resources and the landscape, as well as LDN priorities in the sustainable management and restoration of the Dry Forest.

? **OUTPUT 1.1.3.** Protocols to implement the Dry Forest Management guidelines (LFFS, Art. 60, Forest Management Regulations) that mainstream the landscape approach and LDN principles in Ecological-economic zoning (EEZ), Forest Zoning (FZ) and Concerted Development Plans (CDP).

? **OUTPUT 1.1.4.** Proposal for a macro regional policy to encourage the sustainable management and conservation of the Dry Forest through an ecosystem-based approach, including LDN principles and articulated with Water Resources Management Plans (LFFS, Art. 24).

95. Through **Output 1.1.1**, the project will strengthen at least 26 existing spaces for dialogue and concerted action for better decision-making, governance and consensus for dry forest conservation and sustainable management. This will promote synergies, alignment with multi-level planning and management in the four regions, ultimately strengthening articulation and coordination at national and subnational levels for integrated natural resources management. This will be done through capacity strengthening for the updating and modernization of their planning and institutional management instruments; promoting the full and equal participation of women in all areas of dry forest management (with at least 30 % participation of women). The coordination spaces that will benefit from the Project include the Macro Regional Platform Bosques del Norte, the Regional Environmental Commission (CAR), the Regional Forest and Wildlife Control and Surveillance Board, Norbosque, the Regional Technical Restoration Board, the Steering Councils and Coordination Councils of the Regional Conservation Systems, the PA and RCA Management Committees and the RBNO Coordination/Management Committees, Technical Boards of different productive activities (beekeeping, livestock), and Regional Tourism Advisory Committees, among others. These coordination spaces currently operate but need to be strengthened; they have significant management experience upon which the project will build in order to strengthen sustainable interventions in the dry forests of northwestern Peru. As such, the project will promote the strengthening of the structures or organizations present in the territory on issues related to the integrated management and sustainable use of natural resources and ecosystem services, in coordination with the competent authorities, users and local organizations of the dry forest. The strengthening of these coordination/dialogue spaces will have an impact on the sustainability of the Outputs promoted in Components 2 and 3. This output contributes to the second cross-cutting national LDN sub-target: ?By 2030, intersectoral coordination and governance for sustainable land management and restoration of degraded lands under the leadership of MINAM is improved.?

96. **Output 1.1.2** will foster the formulation and updating of 20 management tools that include the integrated natural resource management approach, landscape approach and LDN priorities, promoting the implementation of the hierarchy of responses: avoid>reduce>reverse land degradation, with an ecosystem approach geared towards conservation, sustainable management and restoration. The Integrated Strategies for Climate Change, Biological Diversity and Desertification will be developed in a participatory manner at the regional level. Additionally, 8 environmental-forestry plans that contribute to the sustainable management of dry forests will be formulated and 12 environmental-forestry-production plans that contribute to the sustainable management of dry forests will be updated. The project will promote the appropriate integration of socio-economic, gender, intercultural and intergenerational aspects within these management tools. This output strengthens the first national cross-cutting LDN sub-target: "By 2022, land-use planning regulations including a LDN approach have been approved, favoring the consolidation of the existing institutional framework and instruments for land-use planning in Peru." These management instruments will be developed/updated in a participatory manner and will guide the actions of: Outputs 2.3.1, 2.3.2 and 2.3.3 in Component 2 and Output 3.2.4 of Component 3.

97. The project will support the development of 4 Local Strategic Tourism Plans. These will complement the Regional Strategic Tourism Plans (PERTUR) that were updated in 2019. The objective of the Local Tourism Development Plans is to articulate the innovative tourism offer of products based on the uniqueness of the natural resources in PAs and the Biobusiness maps (produced by DGOTAMINAM for local development) under a comprehensive management approach that enables governments to promote investments. In this way, the participatory management of the PAs is leveraged as conservation hubs for ecological connectivity of the dry forest in coordination with Component 2, Outcome 2.1, promoting local and regional tourism, and Component 3, Outcome 3.2, as follows:

? the Northwest Biosphere Reserve, which covers part of the provinces of Contralmirante Villar, Zarumilla and Tumbes in the department of Tumbes, as well as part of Sullana and Talara provinces in the department of Piura;

? the Province of Morropón has 6 Private Conservation Areas and part of the RCA Salitral - Huarmaca;

? the Province of Ferreñafe which hosts two natural protected areas and the Province of Chiclayo which currently has 3 PCAs; and

? the province of Chepen where the Cañoncillo PCA is located, an area that can be linked to tourism circuits related to historical and cultural events.

98. This output also includes the elaboration of Watershed Management Plans with a robust analysis of the natural capital and ecosystem services provided by the dry forest in the watershed. This will promote the mainstreaming of Integrated Natural Resources Management (INRM) and its principles and approaches in the formulation of watershed management plans, to create synergies between the actors of the Water Resources Council of the watershed. The purpose of this output is to include interventions in dry forests in the Water Resources Management Plans, to guarantee the articulation with national LDN targets and the consolidation of the dry forest connectivity, harmonizing interventions for agricultural development with conservation and restoration proposals, in coordination with Component 2, thus contributing to the water balance of the watershed (conservation of the aquifer, etc.).

99. The project will ensure the mainstreaming of socio-economic, gender, intercultural and intergenerational aspects within all of these instruments.

100. Through **Output 1.1.3**, protocols will be developed to implement the dry forest management guidelines. (LFFS, Art. 60, Forest Management Regulations) and mainstream the landscape approach and LDN principles in Ecological-economic zoning (EEZ), Forest Zoning (FZ) and Concerted Development Plans (CDP). The output includes **5 Guides/Handbooks on Best Practices** for the sustainable harvesting of timber products, non-timber products, wildlife, as well as the development of ecotourism and conservation activities. The Guidelines also seek to raise awareness on the sustainable management of water and land resources and the conservation of biodiversity,

promoting good practices for the management of ecosystems, eco-efficiency and adaptive management, to reduce negative impacts at the different stages of the production chain. These guidelines will be available in printed form, as well as in a simple virtual application, and will contribute to the implementation of the "Guidelines on forest management of dry forests" in accordance with the LFFS, Article 60, Forest Management Regulations^[87]⁸⁷, prepared by SERFOR (National Forestry and Wildlife Service), which are in the process of being submitted for public consultation^[88]⁸⁸. This Output will guide and implement the dry forest harvesting activities regulated by the guidelines, for which a PIP will be developed to strengthen the capacities of officials, Forest Managers and specialists responsible for such implementation. This Output will be coordinated with the value chains promoted in Component 3, Outcome 3.2 so as to make its implementation sustainable. In addition, **Output 1.1.3** will pursue the participatory elaboration of 3 **protocols to improve the zoning and management of the territory with a landscape approach**. These protocols consider balancing the losses and gains of natural capital, which will be used in the zoning and planning processes of regional and local development. These activities will be carried out in close coordination with the DGOTA-MINAM:

? 1 protocol to strengthen EEZ (Ecological Economic Zoning) processes, based on an adequate diagnosis of their status at macro, meso and micro levels, in the regions covered by the project^[89]⁸⁹ to ensure the use of sustainable land alternatives, considering the dry forest's potential and limitations.

? 1 protocol to strengthen the FZ (Forest Zoning) processes, to define alternatives for direct and indirect use of forest resources and wildlife in dry forests, as well as the capacity to provide ecosystem goods and services.

? 1 protocol to strengthen the processes of PDRC (Concerted Regional Development Plans) and PDLC (Concerted Local Development Plans), guaranteeing the mainstreaming of environmental issues.

101. **Output 1.1.4** will support the elaboration of a proposal for a regulatory framework for sustainable management and conservation of dry forest. It consists of developing a macro-regional policy proposal pursuant to Article 24 of the Forestry and Wildlife Law^[90]⁹⁰, which states that "each regional government either alone or integrated with one or more other regional governments approves regional forestry and wildlife policies in accordance with each socio-economic and environmental reality." An analysis will be done to identify the strengths and weaknesses of the legal and institutional framework of LDN, BD and CC, as well as opportunities for harmonization with other land use regulations (Land Classification by Major Use Capacity, etc.) and management instruments (Water Resources Management Plans, Environmental Certifications, etc.). This will include the articulation of administrative procedures for land and forest use change, as well as promote the corridors proposed in the Project as a strategic framework for territorial intervention that transcends departmental boundaries. It will also include an analysis of the dry forest loss and degradation as a public problem and alternative solutions at the macro-regional level with a gender and intercultural approach, strengthening the capacities of decision makers through the elaboration of 4 regional PIPs.

102. **OUTCOME 1.2.** Capacities of institutional and local stakeholders strengthened for decision-making on land-use, territorial planning, and monitoring of deforestation, degradation and biodiversity loss. These include the following outputs:

? **OUTPUT 1.2.1.** Capacity development program for the sustainable management of dry forests, with a landscape and gender-sensitive approach.

? **OUTPUT 1.2.2.** Regional Spatial Data Infrastructure (IDER) strengthened for informed decision making to improve land management, with effective and innovative dry forest monitoring systems (SIAR, SIAL, Open Foris, Collect Earth, EX ACT) and LDN indicators.

? OUTPUT 1.2.3. Strengthening information systems for decision-making on land use, land management and monitoring of deforestation, degradation and biodiversity loss.

103. Through **Output 1.2.1**, a capacity development program for the integrated and sustainable management of dry forests and their natural resources, with a landscape and gender-sensitive approach, will strengthen the capacities of (i) 212 national, regional and local officials; and (ii) 90 stakeholders' representatives, including members of producers' organizations, as well as peasant communities and their organizations (participatory monitoring). The Output includes the design of the training program, which will focus on integrated land-use planning to compensate for anticipated losses of natural capital with measures to achieve equivalent gains, as well as integrated natural resources management in a context of climate change, community monitoring and use of tools (GIS, Google earth), instruments (GPS) and information platforms (Geobosques, Geoserfor, Georural, etc.). Likewise, training will be carried out through face-to-face courses and self-instructional virtual courses (MOOC or others) on MINAM platforms^[91]⁹¹.

104. In turn, through **Output 1.2.2** the Regional Spatial Data Infrastructure (IDER)^[92]⁹² will be strengthened in the 4 regions, adding institutional nodes that share and provide access to geospatial information in the national framework, through interoperable services that allow users to take advantage of this information and improve their competitiveness and generate value in its use. To this end, Regional Technical Committees and their regulations (Ordinance for their creation and Functioning Directive) will be established and made operational. The project will also support the diagnosis and classification of geospatial information from different sources and formats at the regional level, with technical assistance, basic equipment and operational platforms. The IDER will be further strengthened through process, stress reduction and change of state indicators to monitor progress towards LDN. The interoperability of the IDER includes procedures to support, share data and enable the exchange of information and knowledge between them and with the SIAR of Output 4.1.5 and SINIA of Output 4.1.6.

105. Through **Output 1.2.3**, the project will support the strengthening of information systems for decision-making on land use, land-use planning and monitoring of deforestation, degradation and biodiversity loss in the dry forests of northern Peru. It will strengthen the National Forestry and Wildlife Information System (SNIFFS) and the National Environmental Information System (SINIA) by monitoring forest cover change in the pre-existing GEOBOSQUE^[93]⁹³ platform, which currently only incorporates the baseline for monitoring dry forests. It is foreseen that through periodic reports on annual dry forest loss and early warning reports on deforestation, this platform will contribute to the generation of updated information for decision-making by regional and local stakeholders to achieve LDN. The interoperability of Geobosques includes procedures to support, share data and enable the exchange of information and knowledge between them and with the SIAR of Output 4.1.5 and SINIA of Output 4.1.6. This output will directly contribute to meeting the third national cross-cutting LDN sub-target: ?By 2022, monitoring and evaluation of land degradation aligned to SDG indicator 15.3.1 'the proportion of land that is degraded over total land area' is operational and articulated with other national and sub-national efforts to monitor terrestrial ecosystems.?

COMPONENT 2: Ecological connectivity of dry forests and restoration through effective management and financial sustainability of conservation areas^[94]⁹⁴ and buffer zones.

106. This component is intended to reduce barriers related to the sustainable use of the landscape and is structured in 3 main areas of action: (i) improve management effectiveness and financial sustainability of the PA and OMEC established in the project's direct intervention area; (ii) create conservation corridors and dry forest management connected with a landscape approach (Annex

D); and (iii) restore dry forest areas of special relevance for connectivity and/or supply of environmental services for the local population. Activities under this component will be carried out in accordance with health policies related to the COVID-19 pandemic (in virtual and/or face-to-face modality, depending on constraints at the time of implementation).

107. In particular, this component pursues three outcomes:

OUTCOME 2.1 More effective management of protected areas and OMEC.

108. The project will contribute to improving the management of existing PA and OMEC through four outputs:

OUTPUT 2.1.1. PA and OMEC Updated and / or prepared management plans that incorporate the landscape connectivity approach and are articulated with management instruments at the communal, local and regional levels.

OUTPUT 2.1.2 Strengthened capacities of national, regional and local interest groups for the integrated management of natural resources and territory on the basis of the PAs and OMEC
OUTPUT 2.1.3 Financial sustainability models for prioritized landscapes with prioritized innovative instruments, and fundraising strategy with private sector's participation.

OUTPUT 2.1.4 Pilots of financial sustainability models implemented for PA and OMEC.

109. This outcome will contribute to the achievement of two voluntary national LDN sub-targets, in particular sub-target 3: "By 2030, 30% of forest areas conserved and recovered, with adequate forest and wildlife management, reduce risks from the effects of climate change and ensure ecosystem services of forest ecosystems and other wild vegetation ecosystems"; and sub-target 9: "By 2030, the management effectiveness score for SINANPE's PA with forest is 25%, as assessed using the METT tool."

110. Through **Output 2.1.1**, the project will produce, or update PA management instruments such as regional and national PA master plans, OMEC management plans, management plans related to production chains that are currently underway or proposed under Component 3 (in communities with PCAs)^{[95]⁹⁵} and site plans ^{[96]⁹⁶} for effective integrated territorial management. The development and/or updating of these management tools will include the baseline evaluation of the conservation targets (in master plans) or resources under exploitation (in management plans) and the design of their monitoring systems and protocols, which will be developed and implemented in a participatory manner with the responsible field staff (park rangers and/or community members). In addition, the updating and/or elaboration of these management instruments will have special emphasis on their articulation with the strategic actions and indicators of the concerted development plans at the local and regional levels, which form part of the capacity strengthening in Component 1, Outcome 1.2. Support will be provided for the initial implementation of the management plans in the PAs through the establishment or updating of the exploitation agreements with the users, and market studies and capacity strengthening will be developed for the PCAs, articulated with Component 3 and in particular with the products Palo Santo, beekeeping by-products and tourism. Regarding the PCAs, support for the updating of the communal statutes, including commitments for PA management, will also be considered in this outcome. All management instruments will be articulated with territorial and sectoral planning at regional and national levels (e.g. tourism development plans, concerted development plans) addressed in Component 1, Outcome 1.1. These efforts are estimated to have an impact on 398,013 ha at the national, regional (RCA) and private-communal (PCA) levels and on 17,941 ha of OMEC.

111. Through **Output 2.1.2**, the project will implement a capacity development program aimed at government institutions and other stakeholders linked to PA management on topics prioritized with stakeholders in the territory in collaboration with the heads of national and regional PA^{[97]⁹⁷} (e.g. conflict management, communication for development, monitoring and management of natural

resources, integrated management) in order to promote strategic partnerships with communities and stakeholders in PA buffer zones and areas of influence. It is expected to reach all personnel of the PAs of SINANPE (47 park rangers, specialists, chiefs) and personnel related to RCA management (approximately 12). Likewise, the capacities of PCA and OMEC managers will be strengthened in terms of leadership, organization, identification of strategic partnerships and financing, as well as control and surveillance. Approximately 50 managers will be trained. The volunteer park ranger programs of the PAs and RCAs and the community groups responsible for the PCA and OMEC management will be supported with training and basic equipment (e.g., clothing, GPS, cameras and/or drones, depending on the priority) to bolster control and surveillance actions. It is worth highlighting the importance of control and surveillance to mitigate the risk of zoonoses such as rabies or SARS/COVID, among others. The estimated number of beneficiaries of these actions is around 200 people.

112. To strengthen the PA status reporting mechanisms, there will be training on and implementation of the METT as well as the monitoring and evaluation of the effects of activities in RCAs, PCAs and OMECs in the project area. In addition, information from GEOBOSQUE (Output 1.2.3) will be available to supplement these monitoring tools. Finally, in order to verify the improvement of PA management practices, a technical process will be put in place to include a dry forest PA in the IUCN Green List of Protected and Conserved Areas. To date, Peru only has two PA included in this list, which certifies compliance with criteria related to governance, design and planning of the PA, management effectiveness and conservation outcomes.

113. Through **Output 2.1.3**, the project will develop a strategy for the implementation of the Peruvian Natural Heritage Initiative (PdP)[98]⁹⁸ in the dry forests of Peru as a model of financial sustainability to ensure the availability of funds for these areas in the medium and long term. This initiative is already being implemented for the PAs of the Amazon biome and will be replicated through this Output in the dry forest PAs. This strategy will include updated information on the financing gap analysis for the PAs of the SINANPE, the estimation of these gaps for RCA, PCA and OMEC, the development of the Financial Strategy for PAs according to the corridors identified in the project and its fundraising strategy.

114. Under **Output 2.1.4**, the project will support the establishment of financial sustainability mechanisms for the PA and OMEC in the project's direct area of intervention by leveraging public and private financing. The mechanisms to be developed consist of: 1) the preparation of profiles and/or technical files to strengthen the RCA management (e.g. Huacrupe - La Calera) and regional conservation systems (La Libertad); 2) the design, verification and sale of carbon credits (e.g. consolidate the sale of carbon for the RCA Salitral - Huarmaca); 3) analyses and pilot projects for the implementation of entrance fees for PA to enhance their value for tourism (e.g. Illescas, Laquipamaca, La Calera); and 4) positioning of the 'Biosphere Reserve' brand for forest products, to be promoted in the Biosphere Reserve Corridor in Component 3. This brand is part of the Action Plan of the Noroeste Biosphere Reserve Amotapes ? Manglares that intends to give a differential value to the initiatives undertaken by communities and the private sector for the sustainable use of biodiversity in this area (e.g., tourism, honey, carob), as well as to promote their purchase and responsible consumption (initiatives that will be linked to Output 1.1.3 Local Strategic Tourism Plans).

OUTCOME 2.2 *Connected corridors and functional dry forest areas are preserved using management models based on landscape approach.*

115. This outcome encompasses 2 outputs:

? OUTPUT 2.2.1. New protected areas and/or other effective conservation measures (OMEC) established in priority sites for connectivity between existing PA.

? OUTPUT 2.2.2 Regional Conservation Systems with strengthened management capacities for landscape connectivity and territorial articulation.

116. This outcome will contribute to avoiding degradation and land-use change of priority sites by contributing directly to the achievement of the national LDN sub-target number 4: 'By 2030, reduce land-use change for the reduction of 30% of GHG emissions in Peru.'

117. Under **Output 2.2.1**, the project will promote and support the establishment of approximately 50,000 hectares of new areas under some form of conservation modality (see Annex D: Map of conservation area initiatives currently underway). This will include both PA status and other forms of conservation (OMECE). The new areas may be those that have already been identified by MINAM^[99] or others that are identified during the project approval or start-up period. In each case, the most appropriate conservation modality for the environmental and social characteristics of the area will be analyzed. The selection process considers: (i) prior identification as a priority conservation site in the framework of the Regional Conservation Systems; (ii) their environmental value in terms of ecosystem services offered, with emphasis on biodiversity; (iii) their social value, including the number of direct and indirect beneficiaries and the presence of communities; (iv) their contribution to the creation of ecological corridors, i.e. their connectivity with existing protected areas; and (v) initiatives or institutional commitments already underway.^[100] Mapping, boundary definition, zoning, conservation commitments and management for new conservation areas will be developed in a participatory manner with local populations and gender mainstreaming. Another option to be considered during the project is to implement OMECE in the area managed by companies^[101], so that private dry forest management models can be developed.

118. Furthermore, in the 'Southern hill dry forests corridor'^[102], the project will consolidate the process for the incorporation of the 'Bosques y Pirámides de Lambayeque' in the UNESCO Natural and Cultural Heritage List. This process would consider the extension of the initially proposed scope.

119. Under **Output 2.2.2**, the operation of the Regional Conservation Systems (RCS) of Tumbes, Piura, Lambayeque and La Libertad will be strengthened. The project will update (or elaborate, as the case may be) and support the implementation of the Multiannual Plans of the RCS. For La Libertad, the project will facilitate the implementation of the RCS and will complete the validation of its study of Priority Sites for conservation, including a study on the state of conservation, land tenure and feasibility of establishing conservation measures on its dry forest relic. This study will allow the definition of at least one area that can be subsequently designated as a PA or OMECE (per Output 2.2.1).

120. To ensure the implementation of the multi-annual plans of the RCS, the project will support each Natural Resources Management team of the Regional Governments with a specialist in charge of planning and implementing these management tools and will guide and coordinate actions so that the corridors become the management models with the landscape approach required by the project. To ensure sustainability, a commitment will be made such that, upon project closure, this professional will be hired by the Regional Government's team and paid with its budget. The project will also provide training to those responsible for the design of management strategies for landscapes and corridors in the Regional Systems. Indicators, baselines and monitoring of PA connectivity, OMECE and integrated land management in the corridors will be developed. Likewise, virtual repositories will be implemented for all the information generated in each Regional Conservation System, which will be integrated into the Regional Environmental Information Systems (SIAR) and will be maintained in the long term by a local university and/or the Data Centre for Conservation (DCC) of the Universidad Nacional Agraria La Molina. Additionally, support will be given to the implementation of the Communication Strategies of the regional conservation systems through communication and positioning actions, especially to decision-makers and coordination spaces that will be strengthened in Component 1.

121. The project will also support the implementation of the Action Plan of the Noroeste Biosphere Reserve Amotapes ? Manglares (to 2033), especially in the actions related to the identification and valuation of ecosystem services, communication strategy, and identification of sustainable enterprises, which will be linked to the implementation of Component 3.

OUTCOME 2.3 Dry forests recovered through landscape restoration mechanisms.

122. In this outcome, the project aims to generate investments for forest restoration, develop restoration practices to be implemented by the communities with equal participation of women and men, and elaborate a guide of best practices for restoration in dry forests to strengthen the capacities of the actors involved in forest restoration; products and actions that will form part of the diagnosis and proposals promoted by the regional groups driving restoration efforts, as well as the management instruments developed by them, as provided for in Component 1 in articulation with this outcome and through the following outputs:

? OUTPUT 2.3.1 Financial instruments designed to leverage investments in forest restoration (to be implemented in 2.3.2).

? OUTPUT 2.3.2 Restoration practices in priority areas for dry forest connectivity, implemented with the communities.

? OUTPUT 2.3.3 Instrument to guide, promote and give effectiveness to restoration actions to recover dry forest resilience.

123. These outputs will reverse dry forest degradation and contribute to the achievement of the national voluntary LDN sub-target number 1: ?Recovery of 7.5 % of desertified, degraded and drought-affected land, and an annual recovery of at least 0.5 % of land affected by desertification.?

124. Through **Output 2.3.1**, financing to leverage investments in restoration will be obtained from:

(i) 3 Public Investment Projects (PIP) and Optimization, Marginal Expansion, Rehabilitation and Replacement Investments (IOARR)

(ii) 3 Public Works Tax (PWT)

(iii) 3 FONDECYT (CONCYTEC) research projects

125. The first two funds[103]¹⁰³ require the regional governments (GORE) and municipalities to commit to the SDGs, national and international commitments on restoration and build a portfolio of projects in Restoration, Nature Based Solutions, Natural Infrastructure and Recovery of Ecosystem Services. The capacities to do this will be strengthened in the technical teams and decision makers considered in Output 1.2.1 of Component 1.

126. The 3-year Public Investment Projects (PIP) go through 3 phases before approval: (i) idea, (ii) profile (technical file) and (iii) technical dossier before implementation. All three phases will be developed in the first two years and implementation will take place in the last three years of the project.

127. The Public Works Tax (PWT) should attract the private sector so that with their support in planning, management and financing, they can progress and leave the benefit of their taxes in local communities and create opportunities in the agricultural export sector. At present, there are no PWT in restoration, so the project will consider the first experiences in Cusco and Ancash regions, which are at the *profile* phase. The project will support the *technical dossier* phase of each through the identification of opportunities and the elaboration of the dossiers to raise funds.

128. Research projects related to dry forests will be developed and the beneficiaries will be universities and local organizations. Projects will be developed for financing by the National Council for Science and Technology (CONCYTEC), which makes available two financing alternatives every

year through FONDECYT for (i) basic research projects or (ii) applied research and technological development for seed and multidisciplinary projects, up to 80 % of which is non-refundable.

129. In **Output 2.3.2**, the demonstration of effective and sustainable restoration interventions will be carried out in the 6 identified corridors (see Annex 12) that provide ecosystem services, such as agroforestry that results in food, materials, biological controllers, pollination, among other services to the community. These demonstrations comprise the following 4 steps:

1: Apply ROAM methodology in 6 corridors to prioritize areas and restoration practices to be implemented. A combination of technical expertise, engagement of community participants and other data sources will produce an optimal result in site selection.

2: As part of the ROAM Methodology, the team in charge will also develop the social-ecological baseline of the polygons to be intervened, including aspects of household economy, knowledge of sustainable use of the forest and presence of plants and animals (mainly birds) as restoration indicators. The project also includes the development of baseline indicators at the Component and Outcome levels (see Output 4.2.1.).

3: Implement restoration interventions. The following types of intervention are proposed, which will be defined in greater detail and in a participatory manner with the communities based on the prioritization of sites (Annex 4), using the ROAM methodology for the ecosystems of (A) seasonal dry hill and mountain forest, (B) seasonal dry lowland forest where special consideration will be given to the control of *Enallodiplosis discordis*, and (C) seasonal dry riparian forest.

(i) Seed centres and nurseries: Stock or mother plants of species of interest such as mesquite and sapote are found in dry lowland forests, among others. Stock collections are carried out to preserve their genetic value (following established international seed collection protocols). Seeds are processed, dried and kept in cold storage for use in plant production and/or during extraordinary rainfall events such as El Niño Phenomenon. Dry forest families, children and their parents are educated in conservation and restoration for forest sustainability and rural wellbeing at schools and existing nurseries. This will be implemented in ecosystems (A) and (B), but species can also be collected and propagated for restoration and agroforestry purposes in (C).

(ii) Nature-based solutions (NBS)^[104] and Agroforestry. Space will be created for native trees and shrubs in crops or animal husbandry areas, e.g., the use of mesquite trees in small farms, orchards and big farms to benefit from their fruits, materials, pollination services and biological control (agrobiodiversity). Solutions will be promoted through the use of treated wastewater or excess water from channels or rivers to nurture forestry and agroforestry systems, the use of natural infrastructure and the establishment of native species habitat hubs or islands. Natural regeneration and holistic management of livestock, apiculture and multipurpose forest use will be promoted. This will be implemented in ecosystems (B) with agro-industry and (C) with family farming.

(iii) Invasive species control. Tamarix or salt cedar (*Tamarix aphylla*), a highly invasive species of African origin that thrives in dry riverbank areas, will be controlled by felling large trees and removing the roots of small trees; control of this species will be carried out through the regeneration of natural riverbank species. Control of creepers such as *Luffa* sp. that climb trees, competing for light and choking them, will be done through early grazing at the beginning of the rainy season to reduce density and free mother trees that invaded during the rainy season. Control will be focused on Tamarix mainly in ecosystems (C) and creepers (B).

(iv) Assisted Natural Regeneration (ANR). Plots with native trees and plants will be protected with fences to prevent the entry of animals and support will be provided for weeding. Mulching and fertilization with guano or plant residues (compost, agro-industrial waste) will enrich the sites of direct planting of seeds or nursery plants, taking advantage of rainfall prior to soil preparation. This will be implemented in ecosystems (A) and (B).

(v) Restoration of the forest landscape by climatic association. Seed pellets will be prepared, for example, by forming clay pellets mixed with humus and seeds of mesquite, cun-cun, vichayo, sapote and overo for the dry lowland forest, and massively distributed in areas where there is better infiltration and water storage in the soil. These include areas of dry huaycos and/or areas with pits or previous preparation, such as 'ZA?',^[105] the technique of preparing counter-slope crescent-shaped beds to favor water retention and increase the possibility for the seeds or plants to develop. This model will also explore the use of 'Keylines design-Yeomans'^[106] based on ecosystem (B) taking advantage of the summer rains, as well as in (A), but without 'ZAI' because it leaves too much soil exposed to erosion.

4: Design and implement adaptive monitoring to build the science of dry forest restoration in northwestern Peru, in practice, making changes to planned actions (based on learning) to obtain the best results.

130. A field Guide of best practices will be developed in **Output 2.3.3**, which will be produced, applied and corrected from the beginning of the project interventions. The objective of the Guide is to promote and make effective restoration based on the experiences of the project (Output 2.3.2), following the model of the tropical montane forest guide, with 5 modules: (i) Module 1: planning for the implementation of restoration practices at local scale; (ii) Module 2: selection of potential species for restoration; (iii) Module 3: selection and implementation of restoration strategies and practices; (iv) Module 4: extension, monitoring and maintenance of areas under restoration and (v) Module 5: the landscape approach in meso-scale restoration planning.^[107] Additionally, the guide will include information on procedures for accessing investment with technology and credit packages.

COMPONENT 3. Sustainable production practices for the conservation of the natural heritage of the dry forest on the Northern Coast of Peru.

131. This component focuses on sustainable production and management of dry forests, strengthening value chains, and fostering collaboration between resource managers, users and the private sector. Activities under this component will be carried out in accordance with health policies related to the COVID-19 pandemic (virtual and/or face-to-face, depending on the constraints at the time of implementation).

132. This component will contribute to the achievement of national LDN sub-targets 5, 7 and 10 (by 2030): 'optimize agricultural, land-use and forestry practices,' 'farmers implement good agricultural practices considering the effects of climate change,' and 'natural forest and plantations users implement integrated pest management actions to reduce risks to extreme climate events.'

133. The component comprises the following two outcomes:

OUTCOME 3.1 Sustainably conserved and managed dry forests of the Peruvian Northern Coast are more resilient to anthropogenic threats, mainly agriculture and livestock, and have a better response capacity to climate change effects.

134. In this outcome the project aims to improve capacities in sustainable production practices and dry forest restoration, conserving natural habitats and strengthening conservation corridors through established Farmer Field Schools and Territorial Agreements for sustainable use and conservation with communities. It includes two outputs:

' OUTPUT 3.1.1 Farmer field schools established in the territories for capacity-building in sustainable biodiversity management, sustainable production practices and Dry Forest restoration.

? OUTPUT 3.1.2 Territorial Agreements[108]¹⁰⁸ established with producers and communities in High Conservation Value Forest (HCVF) areas.

93. Through **Output 3.1.1**, Farmer Field Schools (FFS) will engage groups of people with a common interest with equal participation of women and men to meet on a regular basis to study the 'how and why' of dry forest restoration and sustainable use. These FFS will address issues of: (i) sustainable dry forest management and restoration (including financing mechanisms); (ii) sustainable harvesting, species and uses; (iii) sustainable soil management, organic manures and mulching; (iv) organic solid waste management (composting, humus); (v) selection of seed sources, collection, processing and storage of forest seeds; (vi) production of native plants (nurseries); (vii) Good Livestock Practices (GLP); (viii) Good Agricultural Practices (GAP); (ix) Good Apiculture Practices (GApP); (x) dry forest monitoring; (xi) forest fire prevention and control; (xii) product harvesting and processing; (xiii) experiential tourism; and (xiv) partnership and eco-business management. The themes will be articulated according to the training needs of productive restoration chains (outputs 3.2.4 and 2.3.4.).

135. The FFS will provide the opportunity to test the alternatives and improve them by introducing new elements using field plots shared by the community. The main outcome of this training is that the villagers (approx. 10,000 with 40% women) will adopt good practices related to biodiversity management, sustainable production and dry forest restoration, and commit themselves to implement them in their farms where they will continue to be monitored by the FFS facilitators. Sustainable dry forest management practices will be improved in 8000 ha, preferably in PA buffer zones (in coordination and support from SERNANP-MINAM). The sustainable management of production systems will be promoted in 2000 ha, preferably in areas of small-scale agriculture with agroforestry practices, organic waste management and soil management (in coordination and support from INIA-SENASA and SERFOR-MIDAGRI). Trainers will benefit from local knowledge and feedback, improving future research and training plans and actions. At the same time, the most successful technologies and/or practices will be extended to other areas.

136. Through **Output 3.1.2**, Territorial Agreements will be established for the conservation and sustainable use of areas of High Conservation Value Forest (HCVF), and will contribute to the GEF Core Indicator 4.4 through Agreements covering 67,941 ha. These Agreements will be carried out within the framework of integrated natural resource management models and/or territorial management, between public, private and peasant communities or local organizations that benefit from *usufruct* of forests. These agreements are expected to contribute to the sustainable management and conservation of dry forests (value chains) and include the organizations involved in restoration.

OUTCOME 3.2 Strengthened value chains with the increase of deforestation-free dry forest products and by-products, with higher value and access to markets, fostering collaboration between resource managers and users and the private sector.

137. Based on the District Prioritization Matrix (see Annex 13) and a diagnosis with participatory processes led by the Technical Committees (Output 1.1.1) in the project intervention landscapes, deforestation-free value chain initiatives will be strengthened in the PAs and OMECs to ensure the sustainability of dry forest resources (thereby contributing to the GEF Core Indicator 4.3 target of 2,000 ha). Activities will be carried out to improve production processes and business management capacities of organizations along the chains, through strategic partnerships with various public and private actors.

138. These value chains will contribute to generating connectivity in the landscapes managed by the different conservation actors. The implementation of good practices, eco-efficient technologies, sustainable low-carbon businesses and circular economy will be promoted to foster the sustainable use of the value chain. To this end, circular economy principles will be applied to eco-businesses and bio-

businesses, in order to minimize negative impacts and environmental externalities, but above all to recapture added value and its economic benefits, for the benefit of communities and producers' organizations. Furthermore, part of the added value will be reinvested in ecosystem conservation, as defined in the Territorial Agreements of Output 3.1.2.

139. The development of gender-sensitive value chains will give visibility to the work and participation of women in value chains associated with dry forests. In addition, strengthening the organizational and productive capacities of peasant communities in conditions of equality will allow women, as well as men, to empower themselves to make informed and beneficial decisions on the sustainable use of resources, their transformation and commercialization.

140. This Outcome will produce the following Outputs:

? OUTPUT 3.2.1 Diagnoses and marketing strategies to access sustainable markets developed for Dry Forest products and tourism.

? OUTPUT 3.2.2. Timely information on markets and access using new technologies

? OUTPUT 3.2.3. Partnerships among producers, public and private sector to leverage sustainable investments.

? OUTPUT 3.2.4. Demonstrations to improve local stakeholders' capacities in sustainable production and enhancement of the biodiversity value for implementing deforestation-free value chains

? OUTPUT 3.2.5. Strengthened capacities of small producers for sustainable production and business management.

141. The value chains prioritized in Outcome 3.2 will be strategically located to provide sustainability to the corridors proposed in the Project and will be implemented based on the Good Practice Guidelines for Sustainable Dry Forest Management (Output 1.1.5). These five value chains are:

1. Value chain of carob and by-products.

- The main products of this chain are carob in pods, carob flour and carob toffees, which are in high and growing demand in the national market. These products will come from a sustainable management of certified mesquite forests (Organic, Forests for All Forever - FSC, Small Producers - PP, etc.).

- The economic value of carob has increased in the national market (from 5 to 10 soles per quintal in 2000 and from 80 to 140 soles in the scarcity season in 2020).[109]¹⁰⁹ While this is, in part, due to the low fruit production caused by pest problems, the marketing management has not improved the quality of the product. Carob is a highly demanded product for cattle and equine feed, but its carbohydrate, iron and calcium content have led to it being 'positioned' by consumers as a nutraceutical.[110]¹¹⁰

- Another product that is in high demand is carob syrup (in 2010 the demand was calculated at 191.6 tons/year[111]¹¹¹ and in 2019 13.9 tons[112]¹¹² were exported). However, one of the great challenges is to make this chain 'deforestation-free'[113]¹¹³ by eliminating the use of mesquite wood, also called 'de tapa', as fuel in the production of carob syrup, replacing it with pruning wood, or changing the energy matrix in the cooking of carob syrup. Another challenge is the adulteration of the product by bad producers who add sugar in the process to reduce costs.

- The consumption of carob toffees has increased significantly in recent years due to their exquisite taste and their current positioning as 'healthy',[114]¹¹⁴ along with a very competitive price compared to other products.
- The production of carob flour has increased but has not yet reached the commercialization levels of carob syrup. Carob flour has potential for various uses, from adding it to juices to spreading it on grilled meat. The flour is hygroscopic, which facilitates the proliferation of micro-organisms, affecting its safety. The pods for flour production shall be sourced from sustainably managed forests.

2. Apiculture value chain and its by-products.

- This chain includes products such as honey, pollen, propolis and pollination services. The latter does not manage to cover the high demand of agro-industrial companies in the north of the country that require these services.[115]¹¹⁵
- Bee products as well as pollination services will be guaranteed by the beekeeping sustainability of the forests in order to ensure the sustainability of the activity. It will focus on the organic certification of honey.
- Bee honey from the dry forest is highly valued by consumers due to its multiple benefits, such as the improvement of the immune system, which is why its consumption is increasing; however, the high levels of adulteration in the production of the product increase the mistrust of consumers who buy the product.
- Pollen and propolis help to improve the health of people with bronchial or respiratory problems, which is why there is a high demand at the national level. As for propolis, there is a high demand, especially from the European and Asian markets, [116]¹¹⁶ so the relevance of serving one of these markets will be evaluated.
- In the beekeeping value chain, the priority will be to make this chain 'deforestation-free' by replacing the use of mesquite wood, also known as 'tapa wood', with sustainable alternatives for the processes of heating honey in a boiling water bath and/or pasteurization.

3. Livestock value chain.

- This value chain aims to achieve sustainable and deforestation-free livestock farming by introducing environmentally friendly and sustainable practices, promoting the resilience of dry forest agro-food systems to the effects of climate change and climate variability.
- Goat and sheep farming is an ancestral activity in the north of the country and is considered the 'bank' of the livestock farming families who increase their livestock according to the availability of the resources provided by the dry forest. Livestock activity will be based on the carrying capacity of the forests.
- Goats and sheep are managed freely in the field, with minimal health management; a targeted health program is needed in the areas with the largest number of head of livestock to protect the animals, the ecosystem they engage with (flora and fauna alike), shepherds, as well as maintain consistency in the quantity and quality of products derived from them.
- The largest populations of goats and sheep are found in the buffer zones of the protected areas, in the population centers of the Lancones district, on the border with Ecuador, and in the dry forest areas of Sechura. A number of Associations have improved their production of goat cheese and other derivatives like yoghurt, such as in Lancones. However, there remain several challenges related to the sustainable management of livestock, trying to incorporate stabling and pasture varieties, as well as the implementation of Good Manufacturing Practices in the production of dairy products to ensure the safety of the products as well as their presentation.

4. Ecotourism value chain.

- This chain will evaluate and implement tourism routes linked to the dry forest, based on a growing interest of tourists in making this activity sustainable. The aim is to combine the tourism potential of bird watching, research, historical, religious, cultural, gastronomic and productive activities, such as the production of honey, carob by-products and livestock.
- Experiences exist in Chaparri, El Limon in Salitral Huarmaca RCA and Laquipampa RVS in the corridor of the white-winged guan, with tourist demand for bird watching. There is also potential in the Illescas Reserved Zone in Sechura, Piura for marine-coastal bird watching. In protected areas with historical-cultural sites, such as the Bosque de Pomac Historical Sanctuary, the Nature-Culture binomial has been a solid ground for the development of the tourist destination. Similarly, initiatives such as the Piura route (honey-ceramics-cacao-gastronomy) can be consolidated, or in the Biosphere Reserve of the Guayacan.

5. Palo Santo value chain.

- Palo Santo is currently harvested both legally and illegally, and is not sustainable in the long term since it is an endangered species. The aim is to promote the sustainable use of the value chain with FSC (Forests for All Forever) and Deforestation-Free certification.
- The project aims to promote activities that ensure the sustainability of the resource, using lessons learned from the experience in the canton of Zapotillo in Ecuador for the management of the resource through a strategic partnership among communities, private enterprise, cooperation and academia, with the production and marketing of Palo Santo oil from the fruit, thereby generating economic resources for forest management.
- In terms of wood harvesting, there is a limited market for handicrafts and personal and household accessories.

142. Five diagnoses of the prioritized value chains will be developed through **Output 3.2.1** which, in turn, will be strengthened in the pilots to be implemented as part of the project. Commercial strategies will be implemented to access sustainable markets developed for deforestation-free dry forest products and tourism, such as: access to health registration, improved product presentation, business networking, access of producers to the quality assurance seal for dry forest products (granted by the CITE Agroindustrial Piura) based on the evaluation of their processes and products, implementation of an umbrella brand to position products as 'Friends of the Dry Forest'[117]¹¹⁷ or enhancement of the brand 'Allies for Conservation' of SERNANP[118]¹¹⁸, web pages, etc.

143. Technical Standards of Good Manufacturing Practices will be developed in order to mitigate the adulteration of products such as carob syrup, honey and pollen and to improve the quality of carob by-products (carob, carob toffees and carob flour). Events will be carried out to educate on quality issues and avoid the purchase of adulterated products, as well as gastronomic events to promote the consumption of dry forest products. In addition, fairs and business networking will be organized to connect producers with buyers. All of these activities will build upon the management and coordination spaces promoted in Output 1.1.1 of Component 1. Capacity building activities will be carried out to facilitate access to specialized market niches in order to guide and promote the commercialization of Dry Forest products (honey, carob syrup, goat cheese or meat) and ecotourism to consumers that are interested and willing to pay for products that ensure sustainable use and conservation of natural resources.

144. **Output 3.2.2** focuses on ensuring the availability of timely market information and access through new technologies. To achieve this, a virtual application will be developed to provide technological and market information to producers to foster the optimization of their crop production, such as the weather and market information application designed by the company AGROS, among others. Challenge events [119]¹¹⁹ will be held in coordination with the business incubators of the

universities of Piura and Lambayeque in order to promote business ideas related to the articulation of dry forest products with special markets for products related to conservation, certification (organic certification, FSC, small producers), and others, as part of the package of business ideas that will be developed in the Output 3.2.5 (Diploma Courses on Ecobusiness).

145. Support will be provided to the WISE Programme (*Women in STEM Entrepreneurship*) of the HUB Incubator of the Universidad de Piura, which strengthens the entrepreneurial ecosystem for a greater integration of women as creators of innovative and impactful projects in STEM (Science, Technology, Engineering and Mathematics) areas. This will play an important role in the implementation of the project's pilots in Output 3.2.4.

146. Producers will also connect through E-commerce platforms to market their products, focusing on consumers of 'nature-friendly products'. A study will also be carried out to explore the Asian market for propolis exports, highlighting the unique characteristics of the product that can be obtained in the dry forest.

147. Through **Output 3.2.3**, the project will partner with producers, the public and private sectors to establish collaboration agreements between local actors and the financial sector to leverage sustainable investments. Through the coordination spaces promoted in Output 1.1.2 of Component 1, the following agreements will be promoted:

? Inter-institutional partnerships for the development of two diploma courses for the formulation of Business Plans, with the participation of local universities, the AGROIDEAS Programme, the INNOVATEPERU Programme, and the National Programme for Agrarian Innovation (PNIA), to ensure the approval and financing of these business plans, within the framework of the calls for proposals put out by these entities. Also, a partnership with the CITE Agroindustrial Piura has designed and built a version of a *marmita* (stove), but still needs to optimize the use of fuel because it maintains a higher cost compared to a wood stove (1.8 times the cost of firewood); however, the cost of firewood is increasing due to the interventions carried out by SERFOR to counteract deforestation. The Project will help finance the CITE Agroindustrial Piura's efforts to improve the energy efficiency of the *marmita*, its construction and delivery to organized groups, to start the change of the energy matrix in the production of carob syrup, reducing the use of firewood in that production process. It should be noted that this last activity is provided for in Output 3.2.4. In addition, the agreement will include the access to the Quality Seal by producers, after the evaluation of their processes and outputs. This seal is registered by CITE with INDECOPI.

? Cooperation agreements for the initial inspection, monitoring, impact assessment and recognition of the areas committed by the organizations that will support the Production Chains as 'Deforestation-Free'. The project will pursue agreements with institutions such as SERFOR and the Regional Management of Natural Resources to achieve this.

? In the Palo Santo Production Chain, a tripartite agreement among Producers' Association, Academia (University or CITE) and a company interested in buying Palo Santo oil and interested in sustainable resource management is anticipated.

148. This output will contribute to the GEF Core target Indicator 4.3: 2000ha with sustainable production systems management.

149. Through **Output 3.2.4**, the project will implement pilot models that mainstream sustainable ecosystem management practices into the following activities: agroforestry and sustainable apiculture, production of carob and by-products, and grasslands management for livestock. The project will also support ecotourism activities that improve tourist routes related to bird watching, research, historical, religious, cultural, gastronomic and productive activities of the Dry Forest Value Chains, within the identified biological corridors, in coordination with Output 3.1.1.

150. The implementation of the pilot models will focus on 'Green organizations'^[120]¹²⁰ with which territorial agreements have been signed in Output 3.1.2; the restoration or reforestation of surrounding areas (either owned by the Green organizations or by local communities); and the

implementation of traceability procedures, among others, under a tripartite arrangement with the project and a government entity such as the Regional Directorate of Agriculture and/or the Regional Directorate of Natural Resources Management.

151. The Agreement with producer organizations shall include: the drafting of a management plan for the area to be conserved, which must be approved by the competent body; the drafting of an *Ad Hoc* Business Plan for the Deforestation-Free Value Chain; and the implementation of the activities agreed or provided for in the agreement.

152. With regards to the carob syrup chain, an analysis of the energy efficiency of the stove developed by the CITE Agroindustrial Piura will be performed to make it 'competitive' in terms of costs compared to the use of firewood, or the use of pruning firewood. Once the stove model has been optimised to an average production capacity, the models will be manufactured and delivered to the organizations within the framework of the agreement entered into with the project.

153. A project profile for Palo Santo oil from seed and wood will be drawn up in order to ensure sustainable management of the resource, taking advantage of the experience of the Mangamanguilla Association in Piura and the experience of ASPROBOS, which had planned to reforest 30ha of Palo Santo in partnership with Italian investors. While the reforestation project did not happen, there is a technical dossier that can be updated and implemented in partnership with the Regional Government of Lambayeque.

154. The implementation of the Palo Santo Pilot will replicate parts of the Ecuadorian experience in the extraction of Palo Santo essential oil from the seed, in partnership with the Producers' Association (possibly Mangamanguilla), Academia (University or CITE) and a company that buys the product. To this end, oil extraction tests will be carried out and the process will be standardized with raw material originating from sustainable management by the Association. In the medium term, the transfer of extraction technology to the Producers' Association will be examined. Furthermore, the sustainable forest management activities for Palo Santo, training and technical assistance to the organization will be provided as part of the project agreement.

155. The agrosilvopastoral pilots are complementary to the carob, apiculture and livestock chains, which will be implemented with organized producers related to cocoa crops within the biological corridors of the dry forest identified to diversify production and improve the quality of the products. The project's interventions will complement ongoing interventions in order to facilitate access to sustainable forest management certification (e.g. Amigos de los Bosques Secos, Bird Friendly, UTZ).

156. The sustainable apiculture pilots will be based on the sustainability of the areas (number of hives that can be installed per given forest area), i.e., the installation of apiaries will be promoted according to the nectar offered by the forest and the production processes will be optimized with the aim of accessing organic certification of honey.

157. In the livestock pilots, livestock management models such as Regenerative Stock Farming[121]¹²¹ will be implemented to improve the production of dairy products such as goat cheese and, in the case of sheep, the sale of meat.

158. Through **Output 3.2.5**, in addition to the participation of beneficiaries in FFS where they will strengthen their capacities for restoration and sustainable production, activities will also be implemented for the establishment and/or formalization of 'forest-friendly' organizations. Capacity building will also include technical-productive and administrative management issues, financial education and business skills in the prioritized chains. This output will emphasize the Value Chain approach in relation to market demand and needs, as well as the implementation of the BioTrade Principles and Criteria and the guidelines for the promotion and development of eco- and bio-businesses.

159. This output will also include training in the implementation of product traceability procedures, conditioned from other chains, in order to provide an immediate response in the event of food contamination in the consumption of products and to support a "Deforestation-Free Chain." The design of this output takes into consideration the implementation (by the Universities) of Diploma courses on Bio-business and Eco-business Plans, which will be financed by competent institutions, and which include project bids in their operational plans.

160. Experiences will be shared so that producers can recognize sustainable management experiences either at the regional or national level, in articulation with Output 4.1.3 of Component 4.

COMPONENT 4: Knowledge management, monitoring and evaluation (M&E) based on adaptive management principles and the delivery of measurable and objectively verifiable outcomes.

OUTCOME 4.1. Project Knowledge Management articulated with national information systems and the GEF, contributing to scaling up and replicating best practices and lessons learned.

161. This outcome contains the following outputs, and its activities will be carried out in accordance with the health policies related to the COVID-19 pandemic (virtual and/or face-to-face, depending on the constraints at the time of implementation):

? OUTPUT 4.1.1 Mechanism for dissemination and exchange of best practices and lessons for the replication and scaling-up of outcomes.

? OUTPUT 4.1.2 Gender-sensitive communications and information strategy.

? OUTPUT 4.1.3 Exchange of regional experiences in the management of Dry Forests.

? OUTPUT 4.1.4 Lessons learned systematized and disseminated with public and private stakeholders (including gender mainstreaming and successful stories by women).

? OUTPUT 4.1.5 Regional information platforms updated and accessible to all stakeholders.

? OUTPUT 4.1.6 National platform with publicly accessible project information.

162. The objective of this outcome is to share information with stakeholders to ensure that the project's interventions and the outcomes achieved can be replicated in other conservation initiatives as well as contribute to the improvement of public policies for dry forest management. As such, **Output 4.1.1** of the project will develop dissemination and exchange mechanisms for best practices and lessons learned, starting with a "Knowledge audit" to determine what is the existing knowledge, who owns it, how it is created, where it is stored, and how it flows between dry forest actors. This output will also support the development of "Policy Briefs" for each region with the intent to communicate research outcomes and propose measures to be implemented by decision-makers to address dry forest issues supported by scientific evidence.

163. Under **Output 4.1.2** the project will develop a gender-sensitive communication and information strategy and plan, targeting stakeholders (regional and local governments, producers, communities and the education sector). This will include dissemination activities and activations with health safety protocols in relation to COVID-19 and other potential zoonotic risks.

164. The exchanges of regional experiences in the management of dry forests that form part of **Output 4.1.3**. will engage the stakeholders involved throughout the project's components, namely: technical staff of MINAM, regional and local governments, academia, private and producer partners. The project will promote the participation in "Knowledge Encounters" with other GEF projects as well as the participation in global BD, CC and/or LD events in order to ensure the exchange of experiences and the creation of a Community of Practice. Academia and specialists involved in the project will play an important role in this space in order to give continuity and coherence to the prioritization of research and application/replication of best practices generated by the project.

165. **Output 4.1.4**. will promote the systematization and dissemination of lessons learned through the development of a methodology for the systematization of experiences in dry forests, such as the scientific state of the art, which will guide the regional Forestry and Wildlife Research Plans that

feed into the National Plan. Scientific production will be analyzed and spaces for discussion and analysis will be promoted with scientists and specialists from dry forest partner organizations and other cooperation partners, meetings will be held to draw lessons learned, and publications will be produced. This will be linked to Output 4.1.1 regarding systematization of dissemination and exchange of best practices and lessons learned (knowledge audit and policy brief), as well as systematization of the experiences to produce the instruments of Component 1.

166. The project also includes the strengthening of Regional Information Platforms[122]¹²² through **Output 4.1.5**, which covers the design of protocols to keep information on dry forests updated and accessible to the public, technical assistance to strengthen institutional capacities in environmental information management on dry forests (generation, processing and dissemination) and LDN, and the formulation and implementation of a capacity strengthening programme for the generation of information on dry forests for information providers. The SIAR may provide the opportunity to exchange information and knowledge through the interoperability capacity of the IDER in Output 1.2.2. In addition, the project will be supported by the global platform WOCAT[123]¹²³, which will provide information, tools and a network of experts to address sustainable land management (SLM) in a better way.

167. **Output 4.1.6** will strengthen the National Information Platform[124]¹²⁴ with Project information accessible to the public. It also includes the design of mechanisms to coordinate and update Project information on national platforms and the creation of specialized repositories on dry forests articulated with the SIAR of Tumbes, Piura, Lambayeque and La Libertad. The SINIA will disseminate information and promote the exchange of knowledge through the interoperability capacity of the IDER in Output 1.2.2.

OUTCOME 4.2. M&E system supporting project implementation, based on measurable and verifiable results and adaptive management principles.

168. **This** outcome contains the following outputs:

? **OUTPUT 4.2.1** M&E strategy developed with relevant stakeholders, clearly defining expected outcomes, the expected time periods of implementation, and confirmation through objectively verifiable indicators and means of verification.

? **OUTPUT 4.2.2** Mid-term Review, Final Evaluation and Impact Assessment to confirm progress, guide project implementation and measure impact.

169. **Output 4.2.1** comprises an M&E strategy based on objectively verifiable outcomes and implementation periods, indicators and means of verification. It includes the preparation of baseline indicators at component and outcome level for an Impact Assessment, the development of a Monitoring and Evaluation Manual and the elaboration of tracking reports.

170. **Output 4.2.2** consists of the mid-term and final evaluations of the Project to confirm progress and guide Project implementation. It includes mid-term reports, assessments of the performance of the M&E Plan, progress on key results, and the final evaluation on impacts and lessons learned.

171. The project will also conduct an impact assessment to measure the impact of the project. Unlike a process evaluation, an impact assessment will allow the project to measure and delve deeper into the effects and impacts that can be causally attributed to project activities and/or outputs. The impact assessment methodology intends to provide evidence of the impact of the project on both biophysical and socio-economic aspects according to the project's theory of change. In this regard, FAO will support the development of appropriate methodologies, depending on the project context and resources (and others to be mobilized).

172. The assessment process will gather information at the community and household levels that will participate in the project, as well as from a control group to generate a counterfactual. This will allow comparison of the changes produced by the project over time. The methodology will also make use of spatial data to not only compare changes at the biophysical level, but also to link observed changes to household behavior through econometric techniques.

173. The assessment's design, data collection instruments and supervision will be carried out by FAO, through the Agrifood Economics Division (ESA) and Inclusive Rural Transformation and Gender Equality Division (ESP), as well as the GEF Unit in Rome under a joint effort to produce robust evidence from the GEF projects portfolio. The cost of data collection (survey at household and community level) and the collection of higher resolution spatial data (if needed) will be covered by the project.

174. Finally, pilots will be conducted to evaluate alternative approaches to household behavior, their incentives to adopt sustainable practices, as well as to break down barriers to project sustainability and future effects. Some alternatives have been identified within the design of FFS and the generation of inclusive value chains.

175. The assessment is expected to demonstrate with practical examples and effective instruments that the Project's dry forest management, conservation and restoration proposals produce tangible and positive results for families, peasant communities, small producers and decision-makers with a gender, intercultural and intergenerational approach.

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

176. Anthropogenic activities exert pressure on the dry forests of the Northern Coast of Peru mainly through land-use change and unsustainable forestry, agricultural and livestock production practices that result in degradation, desertification and loss of globally important biodiversity. Important baseline investments are directed towards conservation and restoration efforts, as described in subsection 1.4 above. These baseline actions will also enable some level of institutional strengthening to address the identified threats. However, the scale and pace of action under the baseline scenario is not expected to lead to the kind of systemic changes that are required to significantly strengthen the sustainable management of dry forest landscapes, nor have substantial impacts to reduce the ongoing negative impacts on biodiversity and forests, ecosystem services, soil and water quality.

177. Without the GEF project, the dry forest ecosystem will continue to degrade. Efforts to address the identified problems will remain ineffective, as government agencies will continue to lack sufficient tools and approaches to mainstream conservation and sustainable use in the productive sectors and to effectively manage protected areas, as well as technical capacities and resources, regulatory and planning frameworks, coordination mechanisms between different government agencies and between government and civil society at national, regional and local levels to sustainably manage the dry forests. Producers and local communities will continue to have limited knowledge and access to information and tools to enable them to adopt sustainable and environmentally friendly production practices and value chains, participate in the sustainable management of dry forests and improve their livelihoods.

178. Under the alternative scenario, the project will lead to significant strengthening of the planning and regulatory framework, including financial instruments that can increase the resources available for sustainable land management and forest restoration. To achieve this, the project is fully aligned with the GEF Focal Areas in the following manner:

? Component 1 is aligned with the Biodiversity focal area and its objective and entry point: a) Objective 1: Mainstream biodiversity in all sectors as well as landscapes and seascapes; BD-1-1 Mainstream biodiversity in all sectors as well as landscapes and seascapes mainstreaming biodiversity in priority sectors. This Component is also aligned with the Land Degradation focal area and its Objective 1: Support the implementation of SLM on the ground to achieve LDN and entry point; LD-1-1 Maintain or enhance the flow of agro-ecosystem services to sustain food production and livelihoods

through Sustainable Land Management (SLM), and LD-1-2 Maintain or enhance the flow of ecosystem services, including the livelihoods of forest-dependent people through Sustainable Forest Management (SFM).

? Component 2 is aligned with the Biodiversity focal area, Objective 2: Address direct drivers to protect habitats and species, BD-2-7 Address direct drivers to protect habitats and species and Improve financial sustainability, effective management and ecosystem coverage of the global protected area; and with the Land Degradation focal area, Objective 1, LD-1-1 and LD-1-2.

? Component 3 is aligned with Objective 1 of the Biodiversity focal area and its entry point BD-1-1, as well as with Objective 1 of the Land Degradation focal area and its entry points LD-1-1 and LD-1-2.

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

179. In the baseline scenario without GEF support, the impacts generated by anthropogenic activities, land-use change, agriculture, livestock farming and pressures on forest areas will continue to exert pressure on natural resources, increasing their degradation, desertification and loss of biological diversity. Likewise, at the institutional level, insufficient instruments and approaches prevent adequate integrated territorial management, which does not allow for the integration of conservation and sustainable use in the productive sectors, as well as for the establishment of synergies and agreements between authorities at all levels. Therefore, the intervention of the GEF is essential to revert this situation that affects the Dry Forests of Peru. Resources from the GEF will be used to address the barriers discussed in sub-section 1.3 and promote the sustainable dry forest landscape management that address the increasing loss of ecosystem functionality and the services they provide in territories with high rates of land degradation, deforestation, endemism and poverty. The project is a comprehensive and multi-focal initiative aiming at generating multiple social and environmental benefits for biodiversity conservation and land degradation neutrality.

180. Under Component 1, GEF resources (USD 1,700,000) will contribute to remove the barriers to supporting the governance framework for the sustainable dry forest development. This will include technical assistance to strengthen the capacity of national, regional and local stakeholders for inter-institutional and inter-sectoral collaboration and cooperation, including the strengthening of multi-level and multi-stakeholder platforms. Harmonization of territorial planning instruments and the development of information systems for effective forest monitoring and for the generation and availability of information for decision-making by all stakeholders.

181. The co-financing of Component 1 (USD 953,166.25) consists of resources aimed at the development of plans and protocols for the management of the forest ecosystem, the training of specialists, as well as the strengthening of governance and integrated management of resources, as in the case of water resources, which serve as a basis for the project in the implementation of governance with a multisectoral, multinational and multi-actor approach.

182. In Component 2, GEF resources (USD 2,915,256) address barriers 2 and 4 by improving capacities for more effective management of protected areas that conserve representative samples of the dry forests on the northern coast and for forest restoration for ecological connectivity. This will be done through technical assistance to support protected areas management through strategic planning tools, governance and regional prioritization of needs for conservation, as well as their articulation with wider territorial dynamics based on conservation corridors and productive and ecological restoration actions.

183. The co-financing of Component 2 (USD 21,014,516.49) consists of resources directed to the conservation and restoration of dry forests that serve as the basis for the implementation of the

corridors within the scope of the Project. To this end, activities have been programmed to strengthen regional conservation areas, such as control and surveillance, research on the mortality of carob trees, restoration for the recovery of plant cover and ecosystem services, as well as monitoring of flora and fauna of protected areas.

184. In Component 3, GEF resources (USD 22,592,596.95) address barriers 3 and 4 by reducing anthropogenic pressures on dry forests and improving the livelihoods of rural people dependent on agricultural production and the use of biodiversity. The project's technical assistance will support the dissemination and adoption of BD-friendly and SLMf-friendly practices for sustainable agricultural production, the strengthening of deforestation-free value chains for dry forest products and by-products, increased market access for sustainable products and improved household incomes through sustainable use of natural resources. Sustainable production practices to be disseminated will also contribute to adaptation to the impacts of climate change.

185. The co-financing of Component 3 (USD 17,974,126) consists of resources aimed at strengthening agricultural activities linked to forest resources, which serve as the basis for the project in the implementation of sustainable agricultural and biodiversity productive activities. Activities, such as the strengthening of the organizational and business capacities of producers, the promotion of sustainable productive activities and the development of products of high commercial value, also include the training of promoters and the implementation of demonstration plots as a means of capacity development.

186. In Component 4, the GEF increment (USD 979,723) will support knowledge management as well as monitoring and evaluation. The financing of monitoring activities will be used to monitor project progress and compliance with indicators, external mid-term and final evaluations, and a study that will make it possible to analyze and measure the impact assessment of the project's interventions in relation to the core indicators of the GEF. Likewise, it is considered the knowledge management for replication and scaling-up through the systematization of experiences and lessons learned, the preparation of communication and information materials, and the dissemination of partial and final project outcomes and outputs.

187. The co-financing of Component 4 (USD 2,643,662.50) consists of resources aimed at the design and implementation of procedures for the articulation and exchange of information between entities, as well as the design of a computer application on environmental management aimed at citizens, authorities and officials. It will support the improvement of the SIAR web portal of Tumbes and La Libertad, training for public and private actors in environmental information management and related issues, and the exchange of experiences related to dry forest management. Finally, it will ensure the gathering and updating of regional environmental information, which serves as the basis for the project in the implementation of knowledge management.

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

188. The project will generate global environmental benefits (GEB) consistent with national development priorities and sustained over the long term by the local and regional benefits it will generate in terms of environmental sustainability and improved livelihoods. Institutional capacity building will ensure better inter-institutional and inter-sectoral coordination, strengthened integrated PA and buffer zone management and ecological corridors, as well as improved capacities of institutions and local stakeholders and producers for sustainable use. This strengthened capacity and governance, combined with BD-friendly and SLM-friendly practices, and other project actions will generate the following GEBs:

? Increased management effectiveness of five PAs totaling 398,013 hectares, with a 10% increase in GEF/METT scores over the baseline (GEF Core Indicator 2.2).

? 2,278 hectares of forest and forest land restored (GEF Core Indicator 3.2).

? 8,000 hectares with improved BD practices (GEF Core Indicator 4.1).

- ? 2,000 hectares under sustainable land management in production systems (GEF Core Indicator 4.3).
- ? 67,941 hectares of forest conserved through conservation agreements with producers (GEF Core Indicator 4.4).
- ? Improved connectivity of 508,200 hectares of corridors, incorporating the landscape approach into the Regional Conservation System.
- ? 6 MTCO2 avoided.
- ? 16,000 people (8,252 men and 8,548 women) directly benefited by project activities aimed at conservation and sustainable use of dry forests (GEF Core Indicator 11).

189. These benefits will translate into direct benefits for species of dry forest biodiversity, such as Mesquite (*Prosopis pallida*), Palo Santo (*Bursera graveolens*) and Sapote (*Colicodendron scabridum*). A variety of endemic species will also benefit, such as the Guayaquil squirrel (*Sciurus stramineus*), White-winged guan (*Penelope albipennis*), White hawk (*Pseudastur albicollis*) and Grey-cheeked parakeet (*Brotogeris pyrrhoptera*), Peruvian plantcutter (*Phytotoma raimondii*), Rufous flycatcher (*Myiarchus semirufus*), American crocodile (*Crocodylus acutus*) and others that have been classified in different endangered states.

190. Reduced deforestation, forest conservation, land and forest restoration and sustainable land management practices will generate additional benefits to climate change mitigation and adaptation, increasing the resilience of ecosystems and communities and reducing their climate and social vulnerability. According to the results of the FAO ExAct tool applied during the PPG, the mitigation of emissions is estimated to be in the order of 6.001 MtCO₂e (approximately 6 million tons of CO₂ eq in 20 years, equivalent to 0.6 tons of CO₂ eq mitigated per year and per hectare). The avoided deforestation process allows a mitigation potential of 5 million tons of CO₂ eq in the same time horizon (i.e. 86% mitigation potential, while the other activities allow a mitigation of about 1 million tons of CO₂ eq in 20 years. The hypotheses on energy, inputs, fertilizers and fuels are realistic and correspond to 0.2 million tons of CO₂ eq emitted. Negative CO₂ fluxes (biomass and soil) involve a significant ecosystem restoration potential. Please see Annex 5 for further details.

191. At local, regional and national levels, the project will provide the following benefits (i) maintenance of ecosystem services, including, for example, defense during increased summer flooding; water availability; hydrological regulation services and supporting services such as organic matter formation and storage, improved nutrient cycling, soil formation and erosion prevention; (ii) cultural, aesthetic and spiritual benefits associated with the beauty of the landscape and places of cultural importance to local communities, as well as improved acceptance of PAs and their management by people in buffer zones; (iii) benefits to the local economy by improving and diversifying incomes, livelihoods and food security as a result of the sustainable use of biodiversity, improved agricultural practices and the promotion of additional activities such as tourism, organic businesses and green jobs; and (iv) social benefits that contribute to establishing local communities and stakeholders, improving nutrition and food security and beneficiaries' living conditions.

192. By generating global, national and local benefits, the project will contribute to the following Aichi Targets and Goals: Strategic Objective A, Target 2; Strategic Objective B, Targets 7 and 14; and Strategic Objective E, Target 18. The project will also contribute to the following Sustainable Development Goals (SDGs): Goal 1, Target 1.4; Goal 2, Target 2.4; Goal 5, Targets 5.5 and 5.a; Goal 13, Target 13.1; Goal 15 and its Targets 15.1, 15.2, 15.3, 15.5: and 15.9.

7) Innovativeness, sustainability, potential for scaling up and capacity development [125]¹²⁵ . ?

193. *Innovation*: The project will be innovative in terms of the use of technologies and applications for production, market access and monitoring of natural resources. Access to communication technologies and relevant applications, the use of the Open Foris Tools / Collect Earth application for degradation analysis will contribute to greater access and dissemination of information. In addition, the project will be supported by the global WOCAT platform, which will help provide information, tools and a network of experts to improve approaches to sustainable land management. Moreover, by 2021, the GEOBOSQUES platform, under the coordination of MINAM, will cover dry forest areas through early warning. The project aims to integrate national, regional and local stakeholders for the conservation and sustainable use of dry forests, and to empower local stakeholders for the mainstreaming of BD and SLM in territorial planning processes. The project will strengthen capacities for the effective and appropriate use of planning and decision support methodologies that contribute to the targeting of interventions, the identification and understanding of the main causes / drivers of degradation, the selection and design of instruments that optimize net social and environmental outcomes and/or the understanding of the circumstances under which the maintenance of ecosystems and their services can bring greater economic benefit than the promotion of economic processes that degrade and deplete ecosystems. The promotion of alliances to catalyze innovations in technology, policy, financing and business models for the more sustainable development of productive activities is another innovative aspect of the project.

194. Furthermore, the Project will promote the integrated management of natural resources, through territorial models that serve as an innovative structure to foster the articulation of actors that are in the territory and use natural resources, whose common interest is the conservation of the ecosystem and the maintenance of its ecosystem services through a holistic approach.

195. *Sustainability*: The project is in line with national development objectives regarding biodiversity conservation and the reduction of land degradation. The proposed measures are based on a baseline of actions that the Government has been implementing for the conservation and sustainable use of dry forests. The project will build on the interventions prioritized by the ?Macroregional Platform of the Forests of Northern Peru? created in 2015 as part of the efforts generated by the authorities of the four regions targeted by the project. The purpose of the Platform is to unite the capacities of the regions, the public sector, cooperation and academia to build policies and projects for the sustainable development of dry forests.

196. The project will promote capacity building at national, regional and local levels to create an enabling environment for the long-term sustainable development of dry forests. Participatory mechanisms for inter-institutional and inter-sectoral coordination and integrated decision-making will contribute to project ownership. The use of proven dissemination and transfer methodologies, such as farmer field schools, will contribute to the adoption of sustainable production practices. Partnerships with the private sector to develop sustainable, deforestation-free value chains will contribute to market access for biodiversity products and by-products, improved incomes and livelihoods for communities. The project will create the structure and experiences to facilitate the design and implementation of effective investment initiatives to continue or replicate the activities developed by the project, which will have a baseline to project their impacts and benefits. The development of financial instruments for forest restoration and sustainable value chains will ensure long-term financing for the continuity of activities undertaken by the project.

197. *Potential for replication*: The complementarity of the project with national policies and plans determines a high potential for replication. The communication and information strategy will help demonstrate the effectiveness of project interventions (e.g. conservation and sustainable use of biodiversity, reduction of anthropogenic pressures, improved agricultural production, access to markets, income and livelihoods), facilitating the replication of experiences and lessons learned. Alliances with the private sector will enable replication of experiences with sustainable value chains. Partnerships with academia will contribute to the dissemination of knowledge. The socialization of outcomes and exchange of experiences will contribute to the dissemination of the results obtained. Better coordination and articulation between institutions will allow the dissemination of the project's actions and outcomes to other areas where the results can be implemented and replicated. The systematization of experiences and lessons learned will help to scale up the project outcomes at national and international levels.

198. *Capacity Development (CD)*: The project will support system-wide capacity development regarding the conservation and sustainable use of dry forests in the Northern Coast of Peru. CD is incorporated in all of the project components as it is essential to achieve more sustainable, country-driven and transformational results at scale as well as deepening country ownership, commitment and mutual accountability. The project's CD activities are designed to empower people, strengthen producer organizations and institutions as well as enhance the enabling policy environment interdependently and based on inclusive assessment of country needs and priorities.

8) Summary of changes in alignment with the project design with the original PIF

<i>Table 6. PROJECT RESULTS MATRIX</i>		
<i>EXPECTED OUTCOMES AND OUTPUTS</i>	CHANGE PROPOSAL (PPG)	SUPPORTING ARGUMENTS
<i>Component 1</i>		
<i>Outputs: 1.1.1 Multi-sectoral and multi-level platforms strengthened with capacity-building for the</i>	Outputs: 1.1.1 Multi-sectoral and multi-level coordination spaces strengthened with capacities for the conservation and sustainable management of dry	The text and order of the Outputs was revised to better reflect the type of intervention expected of the project, in accordance with the activities defined in cooperation with project partners and stakeholders from the

<p><i>conservation and sustainable use of dry forests (with 30% participation of women)</i></p> <p><i>1.1.2. Eight (8) planning instruments that incorporate the landscape approach and mainstream sustainable management and dry forest restoration.</i></p> <p><i>1.1.3 Regional strategic tourism plans</i></p> <p><i>1.1.4 Watershed management plans that mainstream sustainable management and dry forest restoration.</i></p> <p><i>1.1.5 Two (2) compatible guidelines to promote the conservation of dry forest in a comprehensive manner.</i></p>	<p>forests, under an integrated management approach in different territorial areas of dry forest (with at least 30 % participation of women)</p> <p>1.1.2 Management and planning instruments that mainstream the integrated management approach to natural resources and the landscape, as well as LDN priorities in the sustainable management and restoration of the Dry Forest.</p> <p>1.1.3 Protocols to implement the Dry Forest Management guidelines (LFFS, Art. 60, Forest Management Regulations) that mainstream the landscape approach and LDN principles in Ecological-economic zoning (EEZ), Forest Zoning (FZ) and Concerted Development Plans (CDP).</p> <p>1.1.4 Proposal for a macro regional policy to encourage the sustainable management and conservation of the Dry Forest through an ecosystem-based approach including LDN principles and articulated with Water Resources Management Plans (LFFS, Art. 24).</p>	<p>confirmed areas.</p>
<p><i>1.1.6. Platform with systematized information for decision-making, available for all stakeholders</i></p>	<p>4.1.5 Regional information platforms updated and accessible to all stakeholders. (Tumbes, Piura, Lambayeque y La Libertad) - SIAR</p> <p>4.1.6 National platform with publicly accessible project information - SINIA</p>	<p>This Output was moved to Component 4 and divided between 2 Information Platforms.</p>
<p><i>1.1.7. Proposal of regulatory framework to encourage the conservation of dry forests through an ecosystem-based approach</i></p>	<p>1.1.4 Proposal for a macro regional policy to encourage the sustainable management and conservation of the Dry Forest through an ecosystem-based approach including LDN principles and articulated with Water Resources Management Plans (LFFS, Art. 24).</p>	<p>The text was revised to better reflect the policy that is being contemplated.</p>

<p>1.2.2 Effective dry forest monitoring systems strengthened, incorporating technological innovations (SIAR, SIAL, Open Foris, Collect Earth, EXACT).</p>	<p>1.2.2 Regional Spatial Data Infrastructure (IDER) strengthened for informed decision making to improve land management, with effective and innovative dry forest monitoring systems (SIAR, SIAL, Open Foris, Collect Earth, EXACT) and LDN indicators.</p> <p>1.2.3 Strengthening information systems for decision-making on land use, land management and monitoring of deforestation, degradation and biodiversity loss.</p>	<p>Effective dry forest monitoring systems with technological innovations (PIP) were improved with the coordination of the National Forest Conservation Program PNCB (MINAM), with whom these two Outputs were collaboratively proposed.</p>
<p>Component 2</p>		
<p>n/a</p>	<p>2.1.4 Pilots of financial sustainability models implemented for PA and OMEC.</p>	<p>This new Output reflects the importance of accessing and implementing financing opportunities from budget programs that will be more readily available as a result of strengthened management.</p>
<p>2.2.1 Regional Conservation Systems with a watershed and landscape approach, ensuring ecological connectivity.</p>	<p>2.2.1 New protected areas and/or other effective conservation measures (OMEC) established in priority sites for connectivity between existing PA.</p>	<p>The text was adjusted to better reflect the areas identified for the consolidation of the Regional Conservation Systems.</p>
<p>2.3.3 Best practices on dry forest restoration implemented with communities.</p>	<p>2.3.3 Instrument to guide, promote and make restoration actions effective to recover the resilience of Dry Forests.</p>	<p>This text was revised to reflect the importance of including a document (Guide) that records the experiences of the project, supports the sustainability of the project and allows replicability beyond the scope and implementation period of the project.</p>
<p>Component 3</p>		
<p>n/a</p>	<p>3.2.5 Strengthened capacities of small producers for sustainable production and business management.</p>	<p>This Capacity Building Program (new Output) was included in order to reduce the gaps in technical, administrative and commercial aspects that organizations linked to the Value Chains currently have.</p>
<p>Component 4</p>		

4.2.2 <i>Mid-term Review and Final Evaluation to confirm progress and guide project implementation</i>	4.2.2 Mid-term Review, Final Evaluation and Impact Assessment to confirm progress, guide project implementation and measure impact	In addition to the required MTE and FEV, the project will conduct an Impact Assessment to determine the impact of project activities through a methodology that goes beyond a standard process evaluation.
Co Financing		
US \$53,665,437	US \$57,833,521.42	The COVID pandemic has had a serious impact on Peru's economy and therefore the availability of cofinancing resources since the elaboration of the PIF. The project team, with FAO support, continues to engage project partners to identify potential resources.

[1] MINAM (2016). Intervention Strategy of the National Forest Conservation Programme for Climate Change Mitigation by 2030

[2] Banda-R et al. (2016); Bastin et al. (2017)

[3] AIDER (2014a). Feasibility study of forest carbon projects in the Bosque de P?mac Historic Sanctuary ? SHBP

[4] Miles et al. (2006)

[5] Portillo-Quintero y S?nchez-Azofeifa (2010)

[6] Maestre et al. (2012)

[7] MINAM (2018). National Ecosystems Map of Peru.

[8] ?ngulo (2009). Los bosques secos del noreste del Peru: una invitaci?n a la reflexi?n

[9] Linares-Palomino (2004). Los bosques tropicales estacionalmente secos II. Fitogeograf?a y Composici?n Flor?stica

[10] List of global ecoregions or bioregions identified as conservation priorities by the WWF.

[11] ?ngulo (2009). Peru - Important Bird Areas Americas ? Priority sites for biodiversity conservation.

[12] Cony (1999). Importance of physiological, ecophysiological and genetic studies on species of the genus *Prosopis* for the recovery of degraded ecosystems in Latin America, in Reports of the International Seminar: Dry Forests and Desertification.

[13] Castillo and Bustamante, 2019, as cited by MINAM (2020) in Situational Diagnosis of Mesquite Forests in Northern Peru.

[14] INEI (2017). National Censuses 2017

[15] INEI ? ENH (2017-2018)

[16] INEI-CENAGRO (2012)

[17] It should be noted that the identified peasant communities encompass communities and that their territory includes considerable extensions of dry forests.

[18] INEI (2017). The census information collected in the field from peasant communities is of a declarative nature.

[19] COFOPRI (2014)

[20] Mendoza and Quevedo (2019)

[21] AIDER (2013). Enhancing capacities to develop REDD projects in Dry Forest Ecosystems.

- [22] Rodríguez y Álvarez (2002). Interaction between poverty and natural resources: small ruminant producers on the northern coast of Peru.
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- [25] Analysis of roles and responsibilities of men and women based on primary and secondary sources (See Gender Analysis of the Project).
- [26] Kometter (2009). Forest diagnosis Piura Region.
- [27] JICA (2019). Studies conducted in 2016 and 2018 through satellite imaging and presented in the ProBosque Project results.
- [28] Kometter (2012). Forest Diagnosis, Piura
- [29] Andina (2020). Available at: <https://andina.pe/agencia/noticia-apicultores-lambayeque-reportan-muerte-masiva-abejas-viru-767208.aspx>
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- [32] Barrena A. V., Et all (2010). Análisis de recursos biológicos leñosos y de residuos para uso combustible. Capítulo 5. Bioenergía y seguridad alimentaria BEFS - El análisis de BEFS para el Perú - Compendio técnico - Resultados y conclusiones. FAO. Roma. II.
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- [41] Ministry of the Environment. (2017). Degraded areas - National gap. General Directorate of Environmental Territorial Management.
- [42] MINAM. Situational Diagnosis of Mesquite Forests in Northern Peru | 2019
- [43] National Forestry and Wildlife Inventory
- [44] Low: when less than 30 % of the 'mesquite' trees are affected. Moderate: between 30 % and 60 % of the 'mesquite' trees are affected and High: more than 60 % of the 'mesquite' trees are affected.
- [45] Llontop 2012
- [46] Whaley, O. Q., Borda, C., Moat, J., Wilkinson, T., Bravo Sánchez, A., & Gagné, R. J. (2020). Ecology and diagnosis of *Enallodiplosis discordis* (Diptera:Cecidomyiidae): A fierce new defoliator with direct repercussions for loss of Prosopis dry forest and livelihoods in Peru. *Revista peruana de biología*, 27(4), 451-482. A recent article published in the Peruvian Journal of Biology describes in detail the biology of the fly and provides the basis for integrated fly management (IPM) with proposals for cultural and biological management.

[47] RDE N° D000109-2020-MINAGRI-SERFOR-DE: National Forestry and Wildlife Research Plan 2020-2030 and RDE N° D000140-2020-MIDAGRI-SERFOR-DE, National Forestry and Wildlife Research Agenda.

[48] SERNANP (2014)

[49] In La Libertad region, the EEZ is in the initial and preliminary stage, while in the Tumbes region this process is in the formulation and implementation stage.

<https://www.minam.gob.pe/ordenamientoterritorial/wp-content/uploads/sites/129/2017/02/Avances-en-regiones-ZEE-Mapa.pdf>

[50] Approved by REGIONAL ORDINANCE N° 275 - 2013/GRP-CR

[51] PIP Recovery of the ecosystem service of water regulation in the micro-watersheds of the peasant communities of Anchalay and Hualambi, district of Jilili, Province of Ayabaca, Department of Piura and PIP Recovery of the ecosystem service of water regulation in the Puzmalca micro-watershed of the District of Canchaque, Province of Huancabamba, Department of Piura.

[52] Made up of eight departments: Tumbes, Piura, Lambayeque, La Libertad, Cajamarca, Amazonas, San Martín and Loreto.

[53] Created by MR No 0080- 2020- MINAGRI

[54] This Platform has its origins in the NorBosque de Tumbes, Piura and Lambayeque Programmes.

[55] Approved by SD No 345-2018-EF dated 31 December 2018

[56] Approved by SD No N° 112-2021-EF dated 20 May 2021

[57] National Water Authority

[58] From now on, the department of Cajamarca is excluded from the analysis, as it is not within the prioritised area of intervention, except for the district of Tocmoche in the province of Chota.

[59] Note: All estimated population information comes from INEI 2017 and agricultural population from CENAGRO 2012.

[60] Dry Forest Programme - JICA. Lambayeque Forest Deforestation Monitoring Study. Preliminary version 2019.

[61] Analysis of the Deforestation Rate in the Piura Region 2011 - 2015. GORE PIURA. 2015.

[62] Cited as an obligation in the Forestry and Wildlife Law.

[63] Resolution of the Executive Management 284- 2018 MINAGRI-SERFOR- DE. National forest fire prevention and risk reduction plan.

[64] Zanoni, Callacna, 1997, referenced in 'El género Prosopis 'algarrobos' in Latin America and the Caribbean. FAO. <http://www.fao.org/3/ad314s/AD314S08.htm>

[65] Driven by the Dry Forest Project Component, 2007 ? 2012. SERNANP ? PROFONANPE ? GORE TUMBES, PIURA and LAMBAYEQUE.

[66] PCA: Private Conservation Area.

[67] ECA: Environmental Conservation Area.

[68] Through the PIP: Capacity strengthening for the management of the Regional Conservation System of Natural Areas in the Piura Region. COD SNIP 133370.

[69] Recognised as a Good Practice in favour of the environment in the National Environmental Award 'Antonio Brack Egg' - 2020 Edition. Peru Natural Category, with mention in Comprehensive Territorial Management.

[70] RCA = Regional Conservation Area.

[71] Proposal currently promoted by ATFFS Lambayeque - SERFOR and the NGO Conservation of the Spectacled Bear SBC Peru.

[72] As a reference MINAM published in 2020 the document: Guía de modalidades de conservación de la diversidad biológica fuera del ámbito de las ANPs.

[73] Law on Natural Protected Areas. LAW No 26834

[74] Of the 22 categorised natural protected areas, five are under national administration, i.e.

SINANPE, four are under regional administration, RCA, and 13 are under private administration.

[75] SERNANP. Stakeholders map and participatory management radar draft. 2015.

- [76] SERNANP. Guidelines for GEF Biodiversity Project Monitoring Reports. 2016
- [77] REDD+ Project 'Reducing Deforestation and Degradation of Dry Tropical Forests in Piura and Lambayeque' developed by the NGO AIDER.
- [78] The Algarrobo Project had an intervention in the Tumbes, Piura and Lambayeque regions during the period 1992 to 2006.
- [79] Official UN Exchange Rate for July 2021 is 3.967 Soles = 1 USD.
- [80] Analysis included in the Report of Component 3 (of this Project): Sustainable Production Practices for Dry Forest Conservation. M. Bailetti.
- [81] Forest Management Plan is the forest management instrument that constitutes the dynamic and flexible tool for the implementation, monitoring and control of forest management activities, aimed at achieving the sustainability of the ecosystem. It has the character of affidavit.
- [82] CITE Agroindustrial Piura, Feb. 2020. 'Exploratory diagnosis of carob production and related by-products and beekeeping production in the department of Piura'.
- [83] Interviews with producers. February 2020.
- [84] The #PeruCRIS Project pursues the articulation and cooperation between SINACYT institutions to operate the National Information Network on Science, Technology and Technological Innovation (STI). <https://perucris.concytec.gob.pe/>
- [85] Final Report. Target and Actions to achieve the 2030 land degradation target.
- [86] Peru also ratified the Conventions on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1973.
- [87] Forest Management Regulations of the Forestry and Wildlife Law, approved by S. D. 018 - 2015 MINAGRI.
- [88] The public consultation (which consists of publishing the draft guidelines for 15 days in order to hear the opinions and suggestions of interested parties) is the last stage of the process, prior to the opinion of the Executive Management of SERFOR (which is in the process of recruitment). When the recruitment process is completed, MINAM will need to coordinate the public consultation.
- [89] The EEZ in Tumbes is being developed, so this is an opportunity for incorporating this protocol
- [90] Forestry and Wildlife Law. Law No. 29763.
- [91] The web includes videos, infographics and information, which can include a playful space to encourage young people to be agents of environmental change. For example, this experience was developed by MINAM https://aulaambiental.minam.gob.pe/_y <https://aulaaprende.minam.gob.pe/>
- [92] The Spatial Data Infrastructure comprises policies, standards, norms and guidelines to organise the production and access to quality spatial information via internet. In other words, the spatial information of the region is organised and standardised to make it available to decision-makers, project developers and the general public in a regional geo-portal. Example: <http://geoportal.regionsanmartin.gob.pe/>.
- [93] <http://geobosques.minam.gob.pe/geobosque/view/acerca.php> The Dry Forest Cover Monitoring Module (DFCM) will be composed of 5 sub-modules including: 1) Deforestation (Forests and forest loss), 2) Early warning, 3) Degradation, 4) Land-use change, 5) Reference levels.
- [94] These include natural protected areas (PA), regional conservation areas (ACR), private conservation areas (ACP), among other conservation modalities.
- [95] PCA = Private Conservation Areas
- [96] The development and/or updating of the aforementioned protected area management documents will be coordinated with the Directorate for the Management of Protected Areas and the heads of the PAs of SERNANP, and with the natural resources departments of the regional governments in the case of the RCAs.
- [97] Matrix for detecting the training needs of the Heads of PAs.
- [98] <https://www.gob.pe/institucion/sernanp/noticias/78354-patrimonio-natural-del-peru-apuesta-por-la-gestion-efectiva-y-sostenibilidad-de-las-areas-naturales-protegidas>
- [99] MINAM 2020 Gu?a de modalidades de conservaci?n de la diversidad biol?gica fuera del ?mbito de las ?reas naturales protegidas.
- [100] Example: critical habitat proposal between the Bosque de P?mac Historic Sanctuary and the Laquipampa Wildlife Reserve (Lambayeque), PCA proposal in the rural community of Salas (Lambayeque).

[101] Example: areas of Arena Verde S.A.C. company in Morrope, Gloria company in Olmos valley - Lambayeque and Mocan Estate in La Libertad.

[102] Located in the Andes slopes of the Lambayeque region between the districts of Motupe and Oyotun; and an adjoining portion of the Cajamarca region.

[103] For the PWT and PIP, a review of current opportunities will be carried out to define the Project timeline and whether a technical dossier will be prepared, or the projects will be implemented.

[104] Nature-based Solutions (NBS) are 'actions to sustainably protect, manage and restore natural or modified ecosystems that address societal challenges in an effective and adaptive manner, while simultaneously providing benefits for human well-being and biodiversity' (IUCN Resolution WCC-2016-Res-069).

[105] <https://onlinelibrary.wiley.com/doi/pdf/10.1111/rec.12337>

[106] <https://www.permaculturenews.org/2013/02/22/before-permaculture-keyline-planning-and-cultivation/>

[107] <http://www.bosquesandinos.org/5-guias-para-la-restauracion-de-bosques-montanos-tropicales/>

[108] The Territorial Agreements are mechanisms to identify participatory commitments established in the preliminary document 'Policy Guidelines for the Integrated Management of Natural Resources' and, in the event that the approval of the mechanism is delayed, other options will be explored.

[109] Dry Forest Producer Survey in Piura, March 2020.

[110] A nutraceutical or 'bioceutical' is a pharmaceutical alternative which claims physiological benefits.

[111] Strategic plan for carob syrup in Piura, Alamo Owar; et al. 2010.

[112] SUNAT. Export Report by National Sub-item / Country of destination 2019.

[113] The implementation of a 'Deforestation Free' Value Chain is a process of planning and implementation of practices by the actors in the chain, for the production of goods and services without the transformation of natural forests, protecting areas of high conservation value and maintaining good relations with the community.

[114] Carob syrup is perceived as healthy due to the content of natural sugars, iron and calcium.

[115] In the northern zone, there are 20,386ha of avocado tree and 8,631ha of blueberries in production that require 12 and 6 hives/ha respectively, requiring a total of 296,418 hives.

[116] Germany buys 4,600 tonnes/year and Japan buys more than 7,000 tonnes.

[117] An umbrella brand will be promoted to help producers in deforestation-free chains to position their products as 'Friends of the Dry Forest', thereby improving their image, volumes and sales prices. SERNANP currently manages the brand 'Allies for Conservation', which could be strengthened to be assigned to sustainable dry forest products.

[118] The 'Allies for Conservation' brand is awarded by the National Service of Natural Protected Areas to products inspired by nature, whose main differentiating element is that they are made by small enterprises and associations under strict standards of conservation and management of resources from protected areas.

[119] A competition between entrepreneurs to provide solutions to proposed challenges, developed in workshops and group work during 3 to 5 days where participants receive training on topics relevant to the idea, entrepreneurship and management of innovation proposals. In this case, 'Challenge' topics related to dry forest initiatives will be promoted.

[120] 'Green Organisations' are those that are interested in and implement, as part of the conservation agreement, sustainable forest management activities so their Value Chains become 'Deforestation-Free'.

[121] Regenerative Livestock: implementation of agro-ecological stock farming practices such as Voisin Rational Grazing (VRP) which considers the multiple biological processes of the soil, grass, animal, the use of organic fertilisers, the intensity of the herd (number of heads per hectare), among others.

[122] <http://siar.minam.gob.pe/tumbes/>, <http://siar.regionpiura.gob.pe/>, <http://siar.minam.gob.pe/lambayeque/>, <https://sinia.minam.gob.pe/contenido/siar-libertad>.

[123] WOCAT is a global Sustainable Land Management (SLM) network that promotes the documentation, exchange and use of knowledge to support adaptation, innovation and decision-making in SLM. <https://www.wocat.net/en/>

[124] <https://sinia.minam.gob.pe/>.

[125] System-wide capacity development (CD) is essential to achieve more sustainable, country-driven and transformational results at scale as deepening country ownership, commitment and mutually accountability. Incorporating system-wide CD means empowering people, strengthening organizations and institutions as well as enhancing the enabling policy environment interdependently and based on inclusive assessment of country needs and priorities.

1b. Project Map and Coordinates

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

199. The project's direct area of intervention covers six (6) major corridors. The area forms part of the western slopes of the Andes, where numerous rivers and gorges flow towards the Pacific Ocean. Among the main river basins are the Jequetepeque, Chancay-Lambayeque, Piura, Chira, Tumbes and other smaller basins (for more details see maps in Annex D). The polygons of each corridor can be viewed and downloaded at [https://projectgeffao.users.earthengine.app/view/bosqueseco-desforestacion-corredores.?](https://projectgeffao.users.earthengine.app/view/bosqueseco-desforestacion-corredores.)

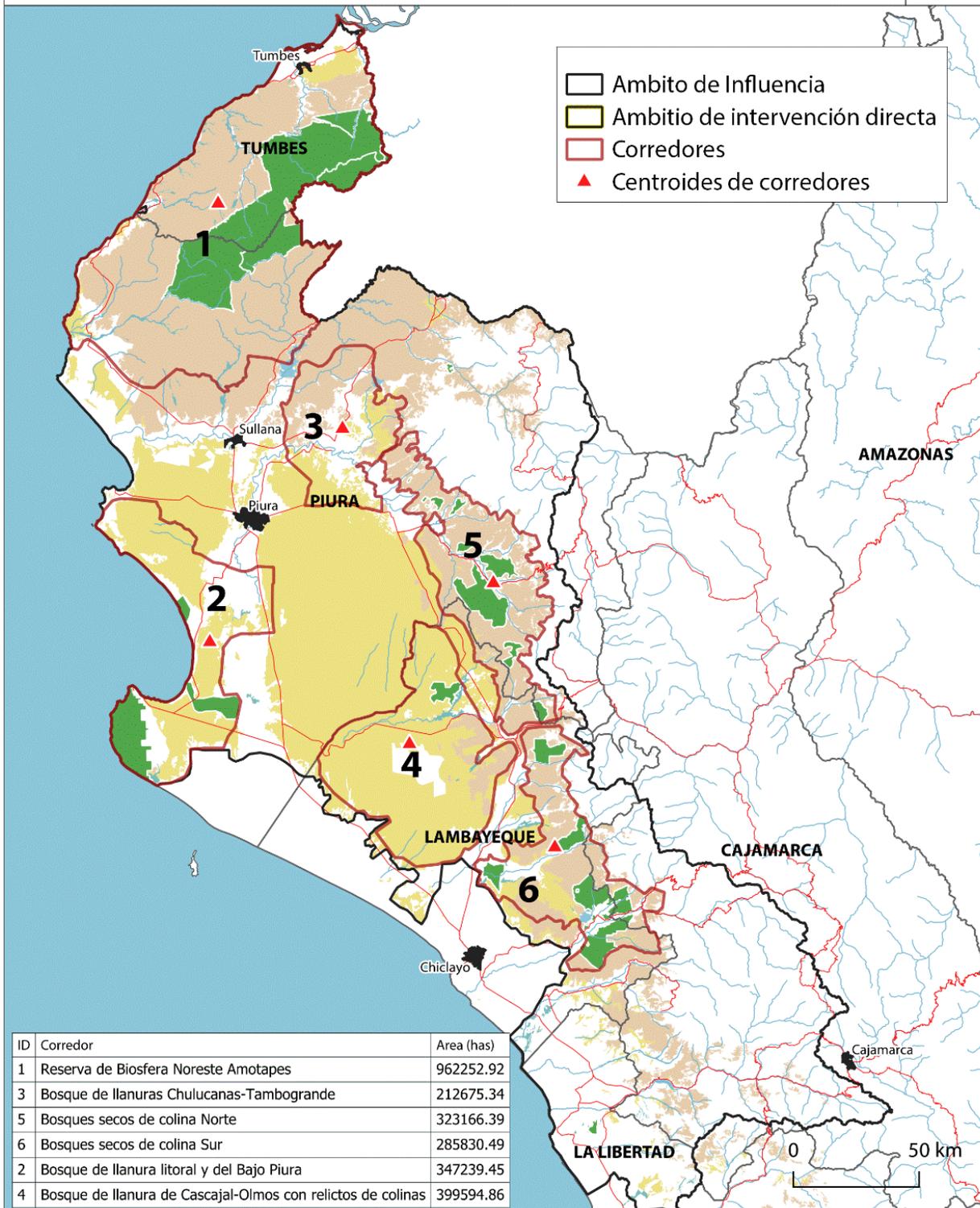
Table 7 Geographical coordinates of the project by corridor.

Corridor	Departments	Centroid coordinates	Altitude range (masl)	Surface (has)
Noroeste Biosphere Reserve Amotapes.	Piura, Tumbes	4° 3'25"S, 80°44'50"O	0-1500	962,000
Coastal and Lower Piura Plain Forest.	Piura	5°37'58"S, 80°47'25"O	0-300	347,000
Chulucanas Tambogrande plain forest.	Piura	4°52'10"S, 80°18'27"O	50-1300	213,000
Cascajal-Olmos plain forest with relicts on hills.	Lambayeque	6° 0'24"S, 80° 4'36"O	15-1000	400,000
North dry hill forests.	Piura-Lambayeque	5°25'48"S, 79°46'13"O	100-2000	323,000
South dry hill forests.	Lambayeque	6°23'0"S, 79°33'26"O	50-1800	286,000

Source: Prepared by the author.

200. In addition to the six corridors described above (see Section 1.2), the Project intervention is intended to be carried out (with component 2 and 3) in two specific sites which are not corridors, but relicts of dry forests of unique biological value where needs (at the request of regional and local stakeholders) and opportunities (initiatives underway and associated cofinancing) have been identified. These two sites are: Cañoncillo Forest PCA in the province of Pacasmayo, department of La Libertad; and Yacila de Zamba PCA in the province of Ayabaca, department of Piura.

Map 2. Map of the Project's area of influence, direct interventions, corridors and centroids.



Legenda

- Ciudades
- Límite departamental
- Ríos y quebradas
- Red Vial Nacional
- Espacios protegidos**
- Áreas protegidas
- Bosque seco**
- Bes-cm
- Bes-II
- Besr

Proyecto "Manejo sostenible y restauración del Bosque Seco en la Costa Norte del Perú"
 Concepción y elaboración: José Mamani
 Fuente de datos: INEI, Minam, MTC, Semanp.
 Elaborado en QGIS
 Mayo 2021
 Elaborado en QGIS

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

N/A

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

1. STAKEHOLDER CONSULTATION IN PROJECT FORMULATION

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date
GEF	Other	Donor	Work meetings	Planning	Permanent
MINAM-Directorate General for Natural Resources Strategies.	Direct Beneficiary	National Government	Bilateral meetings and workshops	Planning, Revision and Information	Permanent
MINAM-Directorate for Monitoring and Evaluation of Natural Resources in the Territory.	Direct Beneficiary	National Government	Bilateral meetings, interviews and workshops	Planning, Coordination and Review	January-March 2021
MINAM-Directorate General for Education, Citizenship and Environmental Information.	Direct Beneficiary	National Government	Bilateral meetings and interviews	Planning and Information	January-March 2021
MINAM-PNCBMCC	Indirect Beneficiary	National Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January-March 2020

MIDAGRI- Directorate for Agricultural Statistics.	Indirect Beneficiary	National Government	Interviews	Revision and Information	January 2021
MIMP- Directorate of Articulation with Regional and Local Governments (DGTEG).	Indirect Beneficiary	National Government	Bilateral meetings and interviews	Planning, Revision and Information	March 2021
MIMP- Directorate General for Gender Mainstreaming.	Indirect Beneficiary	National Government	Bilateral meetings	Coordination and Information	February 2021
SERFOR- Directorate General for the Sustainable Management of Forest and Wildlife Heritage.	Indirect Beneficiary	State Sector	Bilateral meetings and interviews	Planning and Information	December 2020, January-March 2021
SERNANP- Directorate for the Management of Natural Protected Areas.	Direct Beneficiary	State Sector	Interviews	Coordination and Information	December 2020
SERNANP- Knowledge management.	Direct Beneficiary	State Sector	Interviews	Information	December 2020
SERNANP- Peru's Natural Heritage.	Direct Beneficiary	State Sector	Bilateral meetings	Coordination and Information	January 2021
SERNANP- Biosphere Reserve.	Direct Beneficiary	State Sector	Interviews	Coordination and Information	January 2021
SERNANP- Training Manager	Direct Beneficiary	State Sector	Interviews	Information	January 2021
SERNANP- Participatory Management UOF	Direct Beneficiary	State Sector	Interviews	Revision and Information	March 2021
Regional Development Agency of Piura	Indirect Beneficiary	State Sector	Bilateral meetings	Coordination and Information	February 2021
ATFFS Lambayeque	Direct Beneficiary	State Sector	Bilateral meetings and workshops	Planning, Coordination and Information	December 2020, January-March 2021

ATFFS Piura	Direct Beneficiary	State Sector	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	December 2020, January-March 2021
INIA Lambayeque	Direct Beneficiary	State Sector	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January-February 2021
Regional System of Natural Protected Areas Conservation of Piura.	Direct Beneficiary	State Sector	Interviews	Coordination and Information	December 2020
El Angolo Hunting Reserve Administration - Illescas Reserved Area.	Direct Beneficiary	State Sector	Interviews	Information	January 2021
Cerros de Amotape National Park Administration.	Direct Beneficiary	State Sector	Interviews	Information	January 2021
Bosques de P?mac Historic Sanctuary Administration.	Direct Beneficiary	State Sector	Interviews	Information	January-February 2021
Laquipampa Wildlife Refuge Administration	Direct Beneficiary	State Sector	Interviews	Information	January 2021
Rural Women's Network of Piura.	Indirect Beneficiary	State Sector	Interviews and workshops	Revision and Information	February 2021
GORE La Libertad-Regional Management of Agriculture.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	December 2020, January-March 2021
GORE La Libertad-Regional Management of Environment.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January-March 2021

GORE La Libertad- Deputy Management of Social Development and Family Area of the Regional Management for Development and Social Inclusion.	Direct Beneficiary	Regional Government	Bilateral meeting and workshops	Coordination, Revision and Information	February 2021
GORE Lambayeque- Area of Environmental Affairs ? MIDAGRI.	Direct Beneficiary	Regional Government	Bilateral meetings and interviews	Coordination, Revision and Information	January 2021
GORE Lambayeque- Natural Resources Management.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January- March 2021
GORE Lambayeque- General Management.	Direct Beneficiary	Regional Government	Bilateral meetings	Planning and Coordination	March 2021
GORE Lambayeque- Regional Management of Agriculture.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January- March 2021
GORE Lambayeque- Gender Equality Programme of the Regional Management of Social Programmes	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Coordination, Revision and Information	January- February 2021
GORE Piura- Agriculture Directorate.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January- March 2021
GORE Piura- Natural Resources Management.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January- March 2021

GORE Piura-Regional Management of Social Development.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Coordination, Revision and Information	February 2021
GORE Piura-NORBOSQUE Programme.	Direct Beneficiary	Regional Government	Interviews	Coordination and Information	January 2021
GORE Tumbes-Agriculture Directorate.	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	December 2020, January-March 2021
GORE Tumbes-Forest Directorate	Direct Beneficiary	Regional Government	Interviews	Information	December 2020
GORE Tumbes-Natural Resources Management	Direct Beneficiary	Regional Government	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January-March 2021
GORE Tumbes-General Management.	Direct Beneficiary	Regional Government	Bilateral meetings	Planning and Coordination	January-March 2021
GORE Tumbes-Regional Management of Social Development.	Direct Beneficiary	Regional Government	Interviews and workshops	Revision and Information	February 2021
RCA Moy?n Palacio.	Direct Beneficiary	Regional Government	Interviews	Information	December 2020
RCA Salitral Huarmaca.	Direct Beneficiary	Regional Government	Interviews	Information	December 2020
CECOBOSQUE	Indirect Beneficiary	Peasant Communities Organisations	Bilateral meetings, interviews and workshops	Coordination, Revision and Information	December 2020, January - March 2021
FEDECCAL	Indirect Beneficiary	Peasant Communities Organisations	Bilateral meetings, interviews and workshops	Coordination, Revision and Information	January-March 2021
Santa Rosa de las Salinas Peasant Community.	Direct Beneficiary	Peasant Community	Interviews	Information	March 2021

Santo Domingo de Olmos Peasant Community.	Direct Beneficiary	Peasant Community	Interviews	Information	March 2021
Apostol Juan Bautista de Locuto Peasant Community.	Direct Beneficiary	Peasant Community	Interviews	Information	February 2021
Bioersity International	Other	Academia	Interviews and workshops	Revision and Information	January-February 2021
CIZA UNALM	Other	Academia	Interviews	Revision	March 2021
Royal Botanic Gardens Kew	Other	Academia	Interviews	Planning, Revision and Information	December 2020
UDEP- Innovation Area Directorate and Business Incubator Directorate HUB-UDEP	Other	Academia	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	November 2020, January-March 2021
TECAPA Agricultural Cooperative of Users (PCA Ca?oncillo)	Direct Beneficiary	Local Organisation	Interviews	Information	December 2020
Association for the Protection of Dry Forest of Choloque village (ASPROBOS)	Direct Beneficiary	Local Organisation	Interviews and workshops	Revision and Information	December 2020, January-March 2021
Asociaci?n Ecologica Las Zarandas - Asociaci?n de Promotores Tur?sticos - APROTUR	Direct Beneficiary	Local Organisation	Interviews	Information	February 2021
Arena Verde S.A.C.	Indirect Beneficiary	Private Sector	Interviews	Information	February 2021
Asociacion Pro Olmos	Indirect Beneficiary	Private Sector	Interviews	Information	February 2021
CARE Peru - Piura	Indirect Beneficiary	Private Sector	Interviews	Revision and Information	February-March 2021
CERPLAN La Libertad	Indirect Beneficiary	Private Sector	Bilateral meeting and workshops	Coordination, Revision and Information	February 2021

Agricultural Corporation CAO/Horizonte	Indirect Beneficiary	Private Sector	Interviews	Information	February 2021
Integrated Bayovar Project Social Fund (FOSPIBAY)	Indirect Beneficiary	Private Sector	Interviews	Information	March 2021
Fundaci?n para el Desarrollo de la Region Nor Oriental Lambayeque (FUNDENOR)	Indirect Beneficiary	Private Sector	Bilateral meetings, interviews and workshops	Information	January 2021
INKATERRA	Indirect Beneficiary	Private Sector	Interviews	Information	February-March 2021
Miski Mayo	Indirect Beneficiary	Private Sector	Bilateral meetings and interviews	Information	January-March 2020
PEOT	Indirect Beneficiary	Private Sector	Bilateral meetings	Planning, Coordination and Information	March 2021
Plantaciones del Sol S.A.C.	Indirect Beneficiary	Private Sector	Interviews	Information	December 2020
Travel Life Peru	Indirect Beneficiary	Private Sector	Interviews	Revision e Information	February 2021
Apiculture Technical Board Lambayeque.	Indirect Beneficiary	State Sector-Privado	Bilateral meetings and interviews	Information	January 2020
PCA Huerta Chaparr?	Indirect Beneficiary	Civil Society	Interviews	Information	January 2021
FENMUCARINAP	Indirect Beneficiary	Civil Society	Bilateral meetings	Coordination and Information	February 2021
AIDER	Other	Civil Society	Bilateral meetings, interviews and workshops	Coordination, Revision and Information	January-March 2021
AROCHA Peru	Other	Civil Society	Bilateral meetings, interviews and workshops	Planning, Coordination, Revision and Information	January 2021

ARPEL	Other	Civil Society	Bilateral meetings, interviews and workshops	Information	February 2021
BIOS Peru (Gatos del Desierto)	Other	Civil Society	Interviews	Planning and Information	January 2021
CITE Agroindustrial Piura	Other	Civil Society	Bilateral meetings, interviews and workshops	Information	February 2021
CONDESAN	Other	Civil Society	Bilateral meetings	Planning and Information	November 2020-January 2021
CORBIDI	Other	Civil Society	Interviews	Planning	January 2021
ECOBOSQUE	Other	Civil Society	Interviews and workshops	Revision and Information	January 2021
Ecoswell	Other	Civil Society	Bilateral meetings	Planning, Coordination and Information	December 2020
HELVETAS	Other	Civil Society	Bilateral meetings and interviews	Information	March 2021
Huarango Nature	Other	Civil Society	Bilateral meetings	Planning and Information	November 2020-January 2021
Naturaleza y Cultura Internacional (NCI)	Other	Civil Society	Interviews	Planning and Information	December 2020, March 2021
NGO Solidaridad - Cluster de Banano	Other	Civil Society	Interviews	Information	February-March 2021
NGO Yunkawasi	Other	Civil Society	Interviews	Information	February 2021
Rainforest Concern	Other	Civil Society	Bilateral meetings	Planning, Coordination and Review	November 2020-January 2021
SBC Peru	Other	Civil Society	Interviews	Planning, Coordination and Information	December 2020, January 2021
Sostenibilidad de Bosques para el Desarrollo (SBD)	Other	Civil Society	Interviews	Information	February 2021

SUMPA	Other	Civil Society	Bilateral meetings	Planning and Revision	December 2020
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(+) Add stakeholders as necessary

2. STAKEHOLDER CONSULTATION IN PROJECT IMPLEMENTATION

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Expected timing
GEF	Other	Donor	Work Meetings	Quarterly
MINAM	Direct Beneficiary	National Government	Meetings	Monthly
PNCBMCC	Indirect Beneficiary	National Government	Meetings	Quarterly
MIDAGRI	Indirect Beneficiary	National Government	Meetings	Quarterly
MIMP	Indirect Beneficiary	National Government	Meetings	Quarterly
SERFOR	Indirect Beneficiary	State Sector	Meetings	Quarterly
SERNANP	Direct Beneficiary	State Sector	Meetings	Quarterly
Regional System of Conservation of Natural Protected Areas (Piura, Lambayeque, Tumbes and La Libertad)	Direct Beneficiary	State Sector	Meetings and workshops	Quarterly
ATFFS Lambayeque	Direct Beneficiary	State Sector	Meetings and workshops	Quarterly
ATFFS Piura	Direct Beneficiary	State Sector	Meetings and workshops	Quarterly
INIA Lambayeque	Direct Beneficiary	State Sector	Meetings and workshops	Quarterly
Rural Woman Network, Piura	Indirect Beneficiary	State Sector	Meetings and workshops	Biannual
FENMUCARINAP	Indirect Beneficiary	Civil Society	Meetings and workshops	Biannual
GORE La Libertad	Direct Beneficiary	Regional Government	Meetings and workshops	Monthly
GORE Lambayeque	Direct Beneficiary	Regional Government	Meetings and workshops	Monthly

GORE Piura	Direct Beneficiary	Regional Government	Meetings and workshops	Monthly
GORE Tumbes	Direct Beneficiary	Regional Government	Meetings and workshops	Monthly
Local Governments (Selected Districts).	Direct Beneficiary	Local Government	Meetings and workshops	Quarterly
CECOBOSQUE	Indirect Beneficiary	Peasant Communities Organisations	Meetings and workshops	Biannual
FEDECCAL	Indirect Beneficiary	Peasant Communities Organisations	Meetings and workshops	Biannual
Peasant Communities (selected).	Direct Beneficiary	Peasant Community	Meetings and workshops	Biannual
Producer associations (selected).	Direct Beneficiary	Local Organisation	Meetings and workshops	Biannual
Private companies (selected).	Indirect Beneficiary	Private Sector	Meetings and workshops	Biannual
Civil Society (selected).	Other	Civil Society	Meetings and workshops	Biannual
Academia (Universities and Innovation Centres selected).	Other	Academia	Meetings and interviews	Biannual

(+) Add stakeholders as necessary

Grievance Redress Mechanism[1]

Focal Point	<p>- FAO Peru: Mr Enrique Román, Assistant FAO Representative, Peru.</p> <p>- Ministry of the Environment: Vice-Ministry of Strategic Management of Natural Resources.</p>
Contact	<p>- FAO: Calle Almenara 328, Miraflores / e-mail: FAO-PE@fao.org / Tel: (+51) 4472641.</p> <p>- MINAM: Av. Antonio Miroquesada (ex Juan de Aliaga) 425 4? piso, urbanizaci?n San Felipe - Magdalena del Mar/ tel?fono: 6116000.</p>

<p>Explain how the complaints or grievance mechanism will be or has been notified to stakeholders.</p>	<p>The project will establish a field-level grievance mechanism for complaints that will be announced during the project start-up phase. Contact information and information on the process for filing a grievance will be disseminated through meetings, workshops and other events at the project start-up and throughout the entire life of the project. In addition, it is expected that all awareness-raising materials distributed will include the necessary contact information and grievance process information. The project will also be responsible for documenting and reporting, as part of safeguards monitoring, on any complaints received and how they were addressed.</p>
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Disclosure (only for Moderate or High Risk)

<p>Meaning of Disclosure</p>	<p>Disclosure is the action and effect of disseminating, promoting or publishing relevant project information to make it available to beneficiaries and stakeholders in order for them to participate effectively. FAO encourages disclosure in a timely, accessible and culturally appropriate manner and that due attention be paid to the specific needs of the beneficiaries, especially native communities that may be affected by the implementation of the project.</p>	
<p>Disclosure information/shared document</p>	<p>To ensure the widest possible dissemination and disclosure of project information, including details related to environmental and social safeguards, local and accessible dissemination tools will be used, including audio-visual materials such as handouts, brochures, videos and community radio broadcasts, as well as other media. Particular attention will be given to Peasant Communities, illiterate or technically illiterate people, people with hearing or visual impairments, people with limited or no access to the internet and other groups with special needs. Dissemination of information to these groups will be carried out with the assistance of project partners and local stakeholders.</p>	
<p>Disclosure dates</p>	<p>From: October 2021</p>	<p>Until: 60 days before CEO Endorsement at the latest</p>
<p>Location</p>	<p>At the local level (Peasant Communities involved in the project), regional coordination offices (if implemented) and the Project Coordination Office in Lima.</p>	
<p>Language (s)</p>	<p>Considering that the Spanish language is widely spoken and used in all the communities within the scope of the project, this will be the language used.</p>	
<p>Additional information</p>	<p>It is necessary to mention that the levels of coordination with the Peasant Communities directly involved in the Project will start with the coordination at the Regional Representative Organisations level, then with the community leaders and board of directors to reach the aforementioned communities.</p>	

The objective of the grievance redress mechanism is to improve the efficiency of the project, identifying concerns, queries, clarifications, doubts, complaints or grievances of the actors involved throughout the project cycle or stages (inception, implementation and closure). The mechanism is

intended to be accessible, collaborative, expeditious and effective in resolving problems through timely attention, dialogue, joint analysis and negotiation.

The main purpose of this mechanism is to pay special attention to vulnerable groups or people who are isolated or excluded for geographical, cultural, economic, access to formal education and gender reasons. Its objective is to provide attention to people who have a complaint, claim, doubt, comment, in order to avoid discomfort in the population and to maintain harmonious relations during the implementation of a project.

FAO is committed to ensuring that its programmes are implemented in accordance with the Organization's environmental and social obligations. To better achieve these objectives and to ensure that beneficiaries of FAO programmes have access to an effective and timely mechanism to address their concerns about non-compliance with these obligations, the Organization, in order to further complement efforts to receive, review and take appropriate action on these concerns at the programme management level, has mandated the Office of the Inspector General to independently review complaints that cannot be resolved at that level.

FAO will facilitate the resolution of complaints from beneficiaries of FAO programmes regarding alleged non-compliance with FAO's social and environmental commitments. To this end, concerns may be reported in accordance with the eligibility criteria of the Guidelines for compliance reviews following complaints related to the Organization's environmental and social standards, which applies to all FAO programmes and projects.

The grievance redress mechanism is important for the following reasons:

? Identifies and resolves problems during the project stages, to the extent that the early warning system is working properly. It can identify and address potential problems before they escalate, avoiding delays in implementation and higher intervention costs.

? Identifies systemic, recurrent or more frequent problems and identifies underlying problems related to the intervention's implementation and processes that need to be addressed.

? Improves project outcomes through timely problems resolution. The mechanism can directly contribute to the timely achievement of the project outcomes.

? An effective grievance redress mechanism promotes greater accountability among stakeholders, which positively affects the specific activities and governance

Concerns, complaints or grievances should be addressed at the closest appropriate level, i.e. at the technical/project management level and, if necessary, escalated to the next level of the Regional Office. If a concern or complaint cannot be resolved through consultation and measures at the project management level, a complaint may be filed, requesting a Compliance Review with the Office of the Inspector General (OIG) pursuant to the Guidelines. Programme and project managers will be responsible for addressing concerns brought to the attention of the focal point.

Principles to be followed during the complaint resolution process include impartiality, respect for human rights, including those relating to Peasant Communities, compliance with national standards, consistency with standards, equality, transparency, honesty and mutual respect.

Grievance mechanism at project level.

The project will establish a field-level grievance mechanism for complaints during the inception phase of the project. Contact information and information on the process for filing a complaint will be reported in all meetings, workshops and other events over the life of the project. In addition, it is expected that all awareness-raising material will include the necessary contact information and process to file a grievance. The project will also be responsible for documenting and reporting any grievances received and how they were addressed, as part of safeguards performance monitoring.

At this level, the mechanism includes the following stages:

1. The claimant submits a grievance through one of the channels of the grievance redress mechanism to any project office (regional offices or national headquarters) or directly to the local facilitators or component coordinators, which will be forwarded to the National Project Coordinator to assess whether the grievance is admissible. The confidentiality of the grievance must be preserved during the process.
2. As regards peasant communities, the grievances will be submitted either verbally or in writing to the leaders of their organisations, who will report them to the relevant project counterpart (local facilitator). If the claimant has the means to submit the grievance directly, he/she has the right to do so by submitting it directly to the Technical Project Management Unit (UGTP, acronym in Spanish). The grievance will be processed with due consideration to anonymity, as well as to any existing traditional dispute resolution mechanisms of conflict resolution and will not interfere with the community self-government system.
3. Admissible grievances will be dealt with by the UGTP, the Component Coordinator or Local (Regional) Project Facilitator who will be responsible for recording the complaint or grievance, how it has been addressed and whether a resolution has been agreed upon.
4. If the situation is too complex or the claimant does not accept the resolution, the grievance should be submitted to a higher level (National Coordinator or FAO Representative), until a settlement is reached.
5. For each grievance received, written evidence will be sent within ten (10) working days; thereafter, a proposed resolution will be made within thirty (30) working days.
6. In accordance with and in compliance with the resolution, the person in charge of dealing with the grievance may interact with the claimant or may convene interviews and meetings to better understand the reasons for the grievance.
7. All complaints or grievances received, their responses and resolutions, shall be properly recorded, documented and reported as part of the safeguards performance monitoring of any grievances and how they were addressed.

Internal process of the grievance redress mechanism.

1. Project Team. The grievance could be submitted in writing or verbally to the Project Team directly or through the local facilitators. At this level, grievances received will be recorded, investigated and resolved by the component coordinator.
2. National Project Coordinator. If the grievance has not been resolved, it will be passed to the National Coordinator, if the National Coordinator was unable to resolve it, the assistance of the FAO Representative will be requested.
3. FAO Representative. If the FAO Representative is unable to resolve a complex grievance, he/she will request the advice of the Regional Office or transfer the resolution to the regional office.
4. FAO Regional Representative. He/she will only be called upon in specific situations; if the problem is complex, it will be dealt with the assistance of the FAO Inspector General, accordingly.

Resolution of the complaint or grievance.

After following the procedure and after acceptance of a solution by the claimant, a settlement document must be signed.

National Project Coordination (NPC)

He/she must respond within 5 working days.

FAO Representation in Peru	Any person at the FAO Representation may receive a grievance and should request proof of receipt. If the case was accepted, the FAO Representative should respond within 5 working days in consultation with the FAO Representation and Project Team.
FAO Regional Office for Latin America and the Caribbean	It should respond within 5 working days in consultation with the FAO Representation. FAO Regional Representative: for Latin America and the Caribbean
Office of the Inspector General (OIG)	To report possible fraud and misbehaviour By fax, confidential: (+39) 06 570 55550 By email: Investigations-hotline@fao.org By confidential hotline: (+ 39) 06 570 52333

Disclosure

Disclosure is the action and effect of disseminating, promoting or publishing relevant project information to make it available to beneficiaries and stakeholders in order for them to participate effectively. FAO promotes that information dissemination is timely, accessible and culturally appropriate; that due attention is paid to the specific needs of beneficiaries, especially native communities that may be affected by project implementation.

FAO will disclose all moderate risk projects. For this purpose, a means of disclosure (usually the portal (<http://www.fao.org/environmental-social-standards/disclosure-portal/en/>) will be established to publicly disclose project documentation related to environmental and social safeguards (Environmental and Social Analysis, and other relevant documents).

In addition, to ensure the widest possible dissemination and disclosure of project information, including any details related to environmental and social safeguards, local and accessible dissemination tools will be used, including audio-visual materials such as handouts, brochures, videos and community radio broadcasts, as well as other tools. Particular attention will be given to Peasant Communities, illiterate or technically illiterate people, people with hearing or visual impairments, people with limited or no access to the internet and other groups with special needs. Dissemination of information among these groups will be carried out with project partners and local stakeholders.

Indigenous Peoples

108 Peasant Communities live and make use of the dry forests in the project area (91 in Piura, 16 in Lambayeque and 1 in La Libertad) with a population of 472,818 inhabitants and occupy a total area of 2,126,222.93 ha. Regarding the organisational structure, these communities have a Communal Board of Directors that is elected every two years and exercises its functions as of January 1st of the following year. In terms of organisation, most of them have limitations in terms of leadership, resource management and planning for the adequate use of the communal territory. It is also necessary to mention that only the communities that have hosted projects in their territories have developed capacities for forest management and sustainable cattle raising in the dry forest.

As regards **economic activities**, families combine the supply of temporary labour (hired by agro-export companies) with productive activities typical of the dry forest, such as cattle raising, carob harvesting and preparation of carob syrup, bee keeping (honey production), and other extractive activities such as the use of Palo Santo, charcoal, firewood, etc. They also use the forest to satisfy subsistence and supply needs, such as firewood, construction materials, and the supply of medicinal plants, which has allowed the communities and the forests to have the capacity to adapt and be resilient to climatic conditions. In relation to agricultural activity, it is mainly large-scale commercial agriculture that generates greater impacts on the forests and small-scale agriculture (dry farming) mainly for self-consumption; and with regard to livestock, it is characterised by its diversity, with a greater proportion of cattle and pack animals (horses, donkeys and donkeys) and small livestock, including goats, sheep, pigs and poultry. It should be noted that the small livestock production prevailing in the dry forest is extensive and with low levels of inputs and low productivity of meat and milk, which in turn generates impacts due to overgrazing. Regarding the role of women, the multiple responsibilities they have in addition to their household chores and caring for children and the sick are complemented by productive activities and dry forest management, which are not always remunerated, which limits their participation in the exercise of community positions and their insertion into the labour market, while for men, the occupation usually declared is that of cattle rancher and farmer, which limits the productive contribution of women to the family economy. On the other hand, the participation of young people prevails when there is a demand for labour for specific activities (e.g. harvesting mesquite, Palo Santo, rain-fed crops and grazing), since the vast majority of them are engaged in studies and other activities unrelated to the plots of land.

Among the **main problems faced** by communities are land conflicts, which can arise within the community, among the community members themselves, as well as with external agents. Both require different legal instruments of defence: on the one hand, clarity in the allocation and ownership of plots and their registration in the community; on the other hand, the legalisation of the communal property/territory deeds. In relation to the legal recognition of their lands, there are some limitations that need to be considered. In the case of Piura, 31 peasant communities of the dry forest are recognised and registered in public registries and have a descriptive memory; moreover, 90 % of them have maps with the red seal that was granted to them during the Agrarian Reform; however, at that time they did not update or rectify the maps, which is why the georeferencing of their territories is currently required. Among the communities that updated their georeferencing with their own means are C.C. Jos? Ignacio Tavera Pasapera and C.C. San Mart?n de Sechura. Likewise, in Lambayeque, the majority are recognised and registered in public registries, with the exception of the CC San Pedro de Chochope, for which there is no confirmation of entitlement. It is also worth mentioning that in Piura 98 % of the statutes have not been updated, mainly due to a lack of legal advice, problems of land tenure in some cases, the private interests of some community members and outsiders, and a lack of financing. In the case of Lambayeque, between 1991-1992, the last statutes were created, which are still in force today. Since then, only some communities have opted to modify articles related to the power of the boards of directors to make decisions regarding land tenure; however, as in Piura, most of the statutes are outdated and require institutional advice. Finally, the community boards of directors have not changed their leaders by 2021 in most of the Peasant Communities in Piura and Lambayeque, mainly due to the

current limitations of COVID-19, it is expected that, based on the new provisions of the national government, they will be able to carry out the election process as far as possible. Therefore, for the time being, most of the boards of directors have extended their period of representation, with whom it would be necessary to coordinate in due time when the implementation phase of the project begins and verify the current status of these boards.

The Project proposes a collaborative, coordinated and agreed work with the Peasant Communities, with emphasis on strengthening and participation in conservation interventions, restoration and sustainable productive activities, considering their needs and priorities to the extent possible, and aligned with the objectives of the Project, providing the communities with strategic tools (organisational strengthening, training programme, materials and field experiences) to successfully carry out the planned activities of governance, ecological connectivity, restoration, value chains, knowledge management and monitoring. In other words, the intervention strategy with the Peasant Communities will be based on the articulation of strengths (knowledge, capacities, organisation) and collective work (mainly communal work in field activities), which will generate mutual benefit for both parties within the framework of the Project's objectives, which will allow the synergy of joint actions for the fulfilment of international commitments and the goals defined as a country, which will result in the sustainable development of the population.

In this context, the Project will produce positive impacts on the governance, territorial planning and sustainable use of dry forests in the Peasant Communities, and therefore the measures to enhance the positive impacts and opportunities proposed are based on adequate dissemination of information on the Project, timely promotion of participation and a real commitment to participation by the local stakeholders involved. Hence, for the implementation phase, several activities will be carried out to ensure their participation, which are described in greater detail in this Indigenous Peoples' Plan, such as: (1) Elaboration of a Diagnosis of selected Peasant Communities, (2) Implementation and follow-up of the Consultation, Participation and Engagement Process, (3) Implementation of a Participatory Communication Plan, (4) Participation in national and regional events, (5) Establishment of spaces for dialogue and permanent working meetings, (6) Dissemination of timely information, (7) Implementation of corrective measures and follow-up of Complaints and Grievance Mechanisms, (8) Communal working committees, and (9) Field visits and monitoring. In addition, the representative organisations will form part of the organisational structure of the project through the Technical Advisory Committee, where they will provide input on specific issues and attend meetings convened by the Project Directorate, when necessary, to ensure that the project outcomes are in line with the organisations' priorities. It should be noted that protocols and measures established by the national, regional governments and communities due to COVID-19 will be considered and observed. In addition, some measures will be implemented to address the limitations of face-to-face interactions with Peasant Communities such as: (a) remote communication by email, videoconference and telephone to adapt to the new situation with representative organisations and leaders of Peasant Communities, (b) in case of travel restrictions, those responsible for each component and/or activity or local officials will receive remote information and will be in charge of ensuring adequate participation of the Peasant Communities and (3) community meetings and field activities will be carried out with small and targeted groups, with due consideration to the relevant health measures.

[1] This section has to be adapted to each specific country.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

201. The main actors involved and interested in the project have been mapped or identified, with consideration given to those who could be directly or indirectly affected by the project, those who

participate in the implementation of the project, and those who can influence and decide on the application or use of the project outcomes. Likewise, mechanisms for the dissemination of relevant project information are essential in ensuring effective participation by the beneficiaries and stakeholders, as well as mechanisms for complaints, which improve the efficiency of the project by identifying, from the outset, concerns, consultations, clarifications, doubts, and potential complaints of the stakeholders involved throughout the project cycle (inception, implementation and closure), paying special attention to vulnerable groups or people who are isolated or excluded for reasons of geography, culture, economics, access to formal education and gender. The Stakeholder Engagement Matrix and the mechanisms described are detailed in Annex I2.

202. Stakeholders were invited to participate in the formulation of the Project (see Table 8, below). Government institutions were involved in the design of project activities and local stakeholders in the intervention areas were consulted. In accordance with FAO procedures, capacity assessments will be developed jointly with the Capacity Development Office. Capacity assessments will be developed by stakeholders selected through selection mechanisms. If FAO tools are used during Project implementation (Collect Earth, SHARP tool), this will require training a national institution (usually at local level with a national counterpart) to carry out the work with the technical support of FAO. The FAO Guidelines on Environmental and Social Management and the FAO Project Cycle Guide were applied during Project formulation. The table below identifies the main stakeholders involved in project formulation and their role:

Table 8: National, regional and local stakeholders involved in the formulation of the project.

Stakeholders	Interest / Role in project formulation
<p>Ministry of the Environment (MINAM).</p>	<p>Ensures the sustainable use, conservation of natural resources and environmental quality for the benefit of people and the environment in a normative, effective, decentralized and articulated manner with public, private and civil society organizations.</p> <p>Role in the formulation phase: convene institutions to participate in the design processes (meetings, consultation and validation workshops), lead the design of project components, identify activities under the technical components of the project, allocate co-financing.</p> <p>Participants: Directorate General for Natural Resources Strategies and Directorate General for Climate Change and Desertification.</p>
<p>Ministry of Agricultural Development and Irrigation (MIDAGRI).</p>	<p>Responsible for designing, implementing and supervising the National Agrarian Policy, the Agrarian Planning System, the Integrated System of Agricultural Statistics, national innovation, health, food safety, physical-legal sanitation, use and development of natural resources in accordance with the National Environmental Policy.</p> <p>Role in formulation phase: Participate in consultation and information gathering processes. Support in the identification of activities related to strengthening value chains, environmentally-friendly practices and sustainable management, extension and transfer of land.</p>

Stakeholders	Interest / Role in project formulation
Ministry of Production (PRODUCE).	<p>Responsible for formulating, approving, directing, coordinating, implementing, monitoring and evaluating national development policies and plans for the fisheries and industry sub-sectors.</p> <p>Role in the formulation phase: Participate in consultation and information gathering processes. Support the identification of activities related to the strengthening of value chains.</p>
Ministry of Foreign Trade and Tourism (MINCETUR).	<p>Responsible for defining, directing, executing, coordinating and supervising the country's foreign trade and tourism policy.</p> <p>Role in the formulation phase: Participate in the consultation and information gathering processes. Support the identification of activities related to the strengthening of tourism related activities.</p>
Ministry of Women's Affairs and Vulnerable Populations (MIMP).	<p>Responsible for designing, coordinating and leading the implementation and development of the processes and mechanisms necessary for the implementation, monitoring, supervision and evaluation of national and sectoral policies with a gender approach. Its competencies include promoting and strengthening gender mainstreaming in public and private institutions and State policies, plans, programs and projects.</p> <p>Role in the formulation phase: Participate in the consultation and information gathering processes. Support the identification of activities related to gender mainstreaming in the project components.</p>
National Forest Conservation Programme for Climate Change Mitigation ? PNCBMCC.	<p>Contributes to the conservation of forests, reduction of greenhouse gas emissions, deforestation and forest degradation, and promotes the improvement of the quality of life of local people.</p> <p>Role in the formulation phase: Participate in consultation and information gathering processes. Establish synergies with the progress of the early warning system of dry forest deforestation.</p>
National Forest and Wildlife Service - SERFOR.	<p>The country's national forestry and wildlife authority leads sustainable, inclusive and competitive forestry and wildlife management to meet the challenges of climate change and pressure on forests.</p> <p>Role in the formulation phase: Participate in consultation and information gathering processes. Support in the identification of activities related to inter-institutional strengthening, productive practices, value chains, restoration and synergy with ongoing projects.</p>

Stakeholders	Interest / Role in project formulation
<p>National Service of Natural Protected Areas ? SERNANP.</p>	<p>Governing body of the National System of Natural Areas Protected by the State (SINANPE), and technical and regulatory authority in coordination with regional and local governments and owners of land recognized as regional and private conservation area.</p> <p>Role in the formulation phase: Participate in consultation and information gathering processes, synergy with ongoing projects in order to consolidate conservation corridors in Natural Protected Areas under different conservation modalities.</p>
<p>Regional and local governments of Piura, Tumbes, Lambayeque and La Libertad.</p>	<p>Local governments promote comprehensive development for economic growth, social justice and environmental sustainability.</p> <p>Role in the formulation phase: Participate in consultation processes, information gathering at regional and local levels, and the design of activities in the project components at regional and local levels.</p>
<p>Academia and Technological Innovation Centres (CITE):</p> <p>Universidad Nacional de Piura, Universidad Nacional Pedro Ru?z Gallo, Universidad Nacional de Tumbes and Universidad Nacional de Trujillo.</p> <p>Universidad de Piura, Universidad Santo Toribio de Mogrovejo (USAT).</p> <p>Universidad Nacional Mayor de San Marcos and Universidad Nacional Agraria La Molina- Facultad de CCFF</p> <p>CITE Agroindustrial Piura.</p>	<p>The universities provide academic and knowledge development support through research. Technological Innovation Centres (CITE) promote innovation and encourage the use of new technologies among producers, enterprises, associations, cooperatives.</p> <p>Role in the formulation phase: Participate in consultation processes and information gathering for the design of activities (production practices, value chains, restoration).</p>

Stakeholders	Interest / Role in project formulation
<p>Peasant Community Representative Organisations.</p> <p>Central de Comunidades Campesinas del Bosque Seco de Piura (CECOBOSQUE).</p> <p>Federaci?n de Comunidades Campesinas de Lambayeque (FEDECCAL).</p>	<p>These organizations defend the territory and natural resources and promote welfare and development of the community members through training and education of management teams, influence over public policies, and promotion of the productive development of their associates, with gender equity and food sovereignty.</p> <p>Role in the formulation phase: Supply information related to the Peasant Communities (land tenure, statutes, economic activities, traditional forest management practices and projects) and facilitate the process of consultation, participation and engagement with the communities.</p>
<p>Local organisations:</p> <p>Asociaci?n para la protecci?n de los bosques secos (ASPROBOS),</p> <p>Asociaci?n Agraria Manga de Salitral,</p> <p>Asociaci?n Ecol?gica Las Zarandas, Empresa Comunal de Servicios Agropecuarios Dotor,</p> <p>Cooperativa Agraria de Usuarios TECAPA,</p> <p>Colectivo Pro Los Guayacanes de Aver?as</p>	<p>Associations or cooperatives made up of community members or local people who have a legal basis, board of directors and statutes in order to implement sustainable activities in their territory.</p> <p>Role in the formulation phase: Supply information related to traditional forest management practices, projects and identification of value chains and sustainable activities.</p>

Stakeholders	Interest / Role in project formulation
<p>The productive private and business sector:</p> <p>Empresa Agrícola Arena Verde S.A.C, Empresa Energía Eléctrica S.A., Empresa WS Tinajones S.A.C, Plantaciones del Sol, Asociación Pro Olmos, Original Beans, Cooperativa NorAndino, Empresa Bosque Seco S.R.L ECOBOSQUE, Empresa Agropecuaria Santa María de Locuto S.R.L, Derivados del Bosque E.I.R.L, Ecoandino, Algarrobos Orgánicos del Perú, La Española E.I.R.L., INCABIOTEC, Inkaterra, CARETUR Tumbes, Travel Life Peru</p>	<p>Private companies that, in the framework of their social responsibility, carry out some activities related to the conservation and restoration of dry forests and productive companies linked to the supply chains of the prioritized products at regional and national levels, which market processed natural products from the project area.</p> <p>Role in the formulation phase: participate in the analysis and articulation of how to develop and implement strategic alliances with projects under development within the framework of social responsibility and with productive enterprises, the identification of market needs to design and define the supply of products and services with added value.</p>
<p>Technical cooperation and NGO:</p> <p>JICA, GIZ, Earth Innovation Institute, AIDER, MDA, NCI, SBC Peru (Conservación del Oso de Anteojos), ONG Solidaridad, Arocha Peru, ONG Yunkawasi, Huarango Nature, Rainforest Concern, Bioversity International, EcoSwell</p>	<p>Provide specialized technical assistance for the development of policies, instruments, information and capacities for the conservation and sustainable use of dry forests.</p> <p>Role in the formulation phase: Identification of synergies with projects to achieve greater impacts and scalability.</p>

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier; Yes

Member of project steering committee or equivalent decision-making body;

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

203. The Gender Action Plan (GAP - uploaded as attachment under the documents section as "*Annex6_Gender Action Plan PAG Proyecto Bosques Secos_ingles*"), elaborated on the basis of the Gender Analysis, is an essential instrument that guides the design and implementation of actions that contribute to gender equality and women's empowerment within the Project's framework of action in accordance with the national policy and international agreements on gender. As an integral part of the project, the gender dimension is included not only in the gender section, but throughout the entire Prodoc, including the results framework, the stakeholders' engagement plan and the risk management plan.

204. The GAP recognizes the demographic and socio-cultural characteristics of the communities located in the area of direct intervention of the project, as well as the barriers and gaps that limit the equal participation of women and men in the access, management and sustainable management of dry forests, their resources and the benefits they provide.

205. The GAP articulates the most important gender-related priorities in the intervention landscape through the outputs and outcomes of each project component in order to address gender differences for the adequate participatory and inclusive management of the dry forests of the Northern Coast of Peru, contributing to achieving Peru's land degradation neutrality and gender equality goals.^[1] The actions proposed in the GAP will be implemented in a coordinated and simultaneous manner at three levels of intervention (project team, partners and strategic allies, and local beneficiary population) during the five-year life cycle of the project. Ultimately, the project will directly benefit approximately 16,800 people, including women (8,548, 50.9 %) and men (8,252, 49.1 %) and their organizations, to improve their skills for the conservation and sustainable use of the dry forest.

206. The main contributions of the project to gender equality and women's empowerment in the area of intervention include:

? **Component 1:** (i) Raise awareness and strengthen the capacities of civil servants and decision-makers for sustainable, inclusive and gender-sensitive dry forest management; (ii) engage women and men, young people and adults, in the development of policies, standards and management and planning tools for the conservation and sustainable dry forest management; (iii) inclusive and gender-sensitive policies, standards, planning and management tools for dry forest sustainability consistent with national gender equality regulations.

? **Component 2:** (i) Sensitize and strengthen the capacities of officials as well as decision-makers for sustainable, inclusive and gender-sensitive management of protected areas located in the project's direct intervention area; (ii) engage women and men, young people and adults, in the planning and integrated management of protected areas located in the direct project intervention area; (iii) engage women and men, young people and adults, in dry forest restoration practices; (iv) inclusive and gender-sensitive management plans for PAs and OMECs consistent with national regulations on gender equality.

? **Component 3:** (i) Strengthen the capacities of farmers in sustainable production practices and dry forest restoration; (ii) Improve the processes and capacities of producer organizations and their members (women and men) along the prioritized value chains; (iii) promote the inclusion of women, highlighting their participation in the productive activities of the prioritized value chains; (iv) inclusive and gender-sensitive value chains of deforestation-free dry forest products and by-products .

? **Component 4:** (iii) contribute to recognizing the importance of mainstreaming gender in sustainable dry forest management; (ii) recognize the roles, needs, interests and contributions of women and men, young people and adults, in dry forest conservation, management and restoration; (iii) gender-sensitive monitoring and evaluation plan.

? **Cross-cutting through all four components:** (i) contribute to the generation, access and use of information disaggregated by sex, age, social status, place of residence, among others; (ii) contribute to the development of gender-sensitive quantitative and qualitative indicators, which allow measuring and evaluating the impact of the actions and decisions made in the Project's framework.

207. The project will promote an alliance with the Directorate General of Gender Mainstreaming (DGTEG) of the MIMP, which is the technical regulatory authority at the national level, in charge of directing, coordinating, controlling and evaluating gender mainstreaming in the design and management of national and subnational public policies. As such, it will support and advise the gender mainstreaming process, taking into account the objectives and goals on gender equality of the country, the MIMP and the GAP in the regions targeted by the project. Likewise, within the scope of the project, a partnership will be pursued with the Regional Social Development Managements of the Regional Governments to engage their support in the process of gender mainstreaming in the activities related to the planning and integral management of the dry forest that fall under the competence of the GORES.

208. To ensure gender mainstreaming, a gender expert will be contracted by the project to be responsible for coordinating, monitoring and ensuring gender mainstreaming in all project activities and outcomes. In addition, the gender expert will provide guidance and technical support to the project team as well as to the different national, regional and local stakeholders to foster the mainstreaming of the gender approach in their areas of work or interest related to the project. For a detailed version of the Project's Gender Action Plan, see Annex 6.

[1] Supreme Decree 008 of 2019 [Ministry of Women and Vulnerable Populations], whereby the National Policy on Gender Equality is approved. 4 April 2019.https://cdn.www.gob.pe/uploads/document/file/305292/ds_008_2019_mimp.pdf

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

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

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

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

209. The role of the private sector continues to grow, and the project will take advantage of this through the development of strategic partnerships that have the potential for innovation and technology for a more sustainable development of productive activities. The private sector is a key actor in the different links of the value chain (production, processing and marketing). Market research will be carried out with the private sector to design and define the supply of biodiversity products and services with added value. Interaction with companies and productive associations will promote links with peasant communities and their biodiversity products or services with markets, promoting a business model for biotrade. It is envisioned that this will expand production on a larger scale under sustainable management protocols and the subsequent transformation of high quality and high value products to bring them to markets.

210. The following productive businesses and associations have been identified in the project intervention areas: Ecoandino (carob flour), Algarrobos Orgánicos del Peru (carob flour), Empresa Comunal Santa María de Locuto (carob, carob coffee, carob powder and organic honey), Bosque Seco S. R.L. ECOBOSQUE (honey, fine carob flour, carob coffee substitute), Asociación para la Protección de los Bosques Secos del Caserío de Choloque - ASPROBOS (organic honey, carob powder), La Española E.I.R.L. (carob jam), Ecoandino (carob flour). The project will also provide training in finances so that producers can responsibly take advantage of the opportunities of the portfolio of available rural credit options, financial viability and the development of credits and/or insurance at favorable rates. This will be subject to the application of environmental sustainability criteria that will form part of this training, for example in the Agricultural Bank (AGROBANCO) where green credits are available.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

211. Risk management is a structured, methodical approach to identifying and managing risks for the achievement of project objectives. The project's risk management plan will allow stakeholders to manage risks by specifying and monitoring mitigation actions throughout implementation. Part A of this section focuses on external risks to the project and Part B on the identified environmental and social risks from the project.

212. Regarding social and environmental safeguards, the project is classified as category B because it is a sustainable management and restoration initiative in dry forests that is expected to produce positive and sustainable social, economic and environmental outcomes. However, the activities in Components 2 and 3 of the project have some potential for social and environmental impacts, so the project risk level has been identified following the FAO safeguards and guidelines that apply to the project.

Section A: Risks to the project

In the section below, elaborate on indicated risks **to the project**, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.

Table 9. Risks Matrix with stakeholders and mitigation measures

Risk	Impact*	Likelihood	Mitigation action(s)	Responsibility
<p>Insufficient inter-institutional coordination between the different levels of government (national, regional and local) and deficiencies in the articulation mechanisms with the private sector, local representative organizations and academia.</p>	Moderate	Low	<ul style="list-style-type: none"> - Strengthening coordination spaces, harmonization of policies, development plans and investments for the improvement of sustainable and inclusive dry forest management. - Exchange of information based on dynamic and efficient spaces for dialogue and decision-making that will contribute to improve the synergy among public institutions, the private sector, local organizations and academia. - Establish strategic alliances with institutions and projects to join forces and identify areas for joint work. - Design and implement a dissemination plan for the project at institutional/project level. 	<p>Project Steering Committee.</p> <p>Regional and Local Governments.</p> <p>Public and Private Institutions.</p> <p>Organizations representing Peasant Communities.</p> <p>Community Leaders.</p>
<p>Changes of authorities at different government levels, which could modify implementation deadlines and delay some scheduled activities.</p>	Low	Medium	<ul style="list-style-type: none"> - Institutional strengthening and clear definition of the roles and responsibilities of each institution participating in the project. - Letters of commitment signed with national, regional and local government to ensure continuity of actions in case of potential changes. - Promote inter-institutional articulation and strengthening of management capacities of stakeholders. 	<p>MINAM, MIDAGRI, SERFOR, SERNANP.</p> <p>Project Steering Committee</p> <p>Regional and Local Governments.</p> <p>Organizations representing Peasant Communities.</p> <p>Community Leaders.</p>

<p>Poor participation of Peasant Communities, as well as low engagement of women and young people</p>	<p>Moderate</p>	<p>Low</p>	<ul style="list-style-type: none"> - Awareness raising and broad promotion of the project across the Peasant Communities. - Design and implement a participatory communication plan. - Keep regular consultation with community leaders, promoting their participation in planning meetings and implementation activities, and organize groups for dialogue with men, women, youth and elders. - Establish clear agreements and commitments before, during and at the end of the project (minutes of commitments in each case). 	<p>Project Steering Committee. Project Coordinator. Organizations representing Peasant Communities. Community Leaders.</p>
<p>Participating entities do not honor co-financing commitments.</p>	<p>Low</p>	<p>Low</p>	<p>- The participating entities sign co-financing letters and are part of the Project Steering Committee, which further ensures their commitment to the project.</p>	<p>MINAM Project Steering Committee.</p>

<p>Climate change related events (floods, droughts, fires) affect the target population.</p>	<p>Moderate</p>	<p>Medium</p>	<ul style="list-style-type: none"> - Support and technical assistance in the process of developing adaptation and mitigation plans for climate change that are formulated within the scope of the project. - Strengthening the adaptive capacity and resilience of Peasant Communities to adapt to climate change by strengthening their community organizations and valuing their traditional knowledge. - Implementation of interventions that respond to site conditions and the needs of the local population in the face of events such as floods, droughts and fires. 	<p>MINAM, MIDAGRI.</p> <p>Project Coordinator.</p> <p>Regional and Local Governments.</p> <p>Community Leaders.</p>
<p>Economic pressures prevent the adoption of measures to reduce the threat to dry forests.</p>	<p>Moderate</p>	<p>Low</p>	<ul style="list-style-type: none"> - Awareness raising and training of beneficiaries through Field Schools that contribute to improve the understanding of the importance of dry forest ecosystem services and the need to adopt sustainable uses and practices for their management. - Strengthened capacity of local producers and stakeholders to proactively interact with value chains and respond to changing market conditions. 	<p>Project Coordinator.</p> <p>Regional and Local Governments.</p> <p>Community Leaders.</p>

<p>Demographic, migratory and cultural changes.</p>	<p>Moderate</p>	<p>Low</p>	<ul style="list-style-type: none"> - Feasibility analyses of the production and management models being promoted will include considerations of labor reduction due to migration. - The project will actively support the systematization, exchange and valuation of traditional knowledge and develop local capacities to adapt it to changing conditions. 	<p>Project Coordinator. Regional and Local Governments. Community Leaders.</p>
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<p>Impacts of COVID-19 may delay the implementation, co-financing and/or reduce capacity to have face-to-face interactions with stakeholders.</p>	<p>Moderate</p>	<p>Medium</p>	<ul style="list-style-type: none"> - Implementation of remote communication by e-mail, videoconference and telephone to adapt to the new situation. - In case of travel restrictions, local facilitators or officials will receive remote information and ensure adequate participation of local stakeholders (including the implementation of the Consultation, Participation and Engagement Process and the Gender Action Plan). - Meetings could be held with small, targeted groups, considering appropriate health measures. - During the implementation of the project, the protocols and measures established by the national, regional and community governments due to COVID-19 shall be considered and respected. - The duration of the project is considered reasonable and the Work Plan takes into account the impacts from COVID on activities, as experienced during the PPG (i.e. virtual meetings, social distancing), as well as projections from the government regarding control measures, vaccination rates and permitted low-risk activities (i.e. outdoors). In addition, the Mid-Term evaluation will provide an opportunity to determine if any adjustments need to be made to the WorkPlan and project duration 	<p>Project Coordinator. Regional and Local Governments. Community Leaders.</p>
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Section B: Environmental and Social risks from the project ? ESM Plan

This section is based on the risk matrix obtained during risk screening in the concept note (in FPMIS) and based on further update and revision by the PTF under the responsibility of the LTO.

213. An environmental and social risk management plan is provided in Annex II. This ESM Plan will be monitored during project implementation and regularly reported upon through the project progress reports:

Table 10. Environmental and social management plan for the project - ESS2

Identified risk	Risk rating	Risk description in the Project context	Mitigation action(s)	Indicator(s)	Progress on mitigation action(s)
<p>ESS2 Biodiversity, Ecosystems and Natural Habitats.</p> <p>Will this project take place within a legally designated protected area or its buffer zone? Yes</p>	High	The project will promote the ecological connectivity of dry forests through corridors that take Natural Protected Areas and OMECs as their core.	<p>Capacity strengthening of Natural Protected Areas and OMECs managers with a landscape approach.</p> <p>Management</p>	<p>Percentage of capacity gap reduction to improve the implementation of integrated land management based on PA and landscape connectivity.</p> <p>Number of PA management</p>	<p>The project progress reports will be evaluated biannually.</p> <p>Responsible: M&E specialist Environmental safeguards specialist.</p>

<p>Could the project change a natural ecosystem into an agricultural/aquaculture/forestry production unit with reduced flora and fauna diversity? No</p>	<p>Low</p>	<p>The project will promote the sustainable management and restoration of dry forests, so it will not change the natural habitat, diminish biodiversity or affect the functionality of the ecosystem, rather, on the contrary, it will promote its conservation, integrating actions aimed at increasing sustainable agricultural and forestry production to ensure the livelihoods of the population.</p>	<p>plans for Natural Protected Areas and OMECs articulated with community, local and regional development plans for integrated territorial management.</p>	<p>plans, community development plans that include landscape connectivity approach.</p>	
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Table 11. Environmental and social management plan for the project ? ESS9

Identified risk	Risk rating	Risk description in the Project context	Mitigation action(s)	Indicator(s)	Progress on mitigation action(s)
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<p>ESS9 Indigenous Peoples and Cultural Heritage.</p> <p>Are there indigenous peoples living outside the project area where the activities will take place? Yes</p>	<p>Moderate</p>	<p>In the highlands of Lambayeque and La Libertad (over 1600masl) there are people recognized as Quechua Indigenous Peoples; however, they are not part of the area of direct intervention of the project.</p>	<p>Document the needs of the selected Peasant Communities and include them in the project during the implementation phase.</p> <p>Implement a Consultation, Participation and Engagement Process with selected Peasant Communities.</p>	<p>Percentage of selected peasant communities in the area of direct intervention of the project.</p> <p>Diagnostic Report on Selected Peasant Communities.</p> <p>Consultation, Participation and Engagement Process Report.</p>	<p>It will be evaluated biannually through project progress reports.</p> <p>Responsible: M&E specialist. Environmental safeguards specialist.</p>
<p>Do project activities affect indigenous peoples living outside the project area? No</p>	<p>Low</p>	<p>The rights, territory, natural resources, livelihoods or knowledge of Indigenous Peoples and Peasant Communities living outside the project area will not be adversely affected.</p>	<p>Design a communication, dissemination and participatory awareness-raising plan.</p> <p>Share detailed, objective and clear</p>	<p>Complaints and Grievance Mechanism Monitoring Reports.</p> <p>Reports on project outcomes and lessons learned with each</p>	

<p>Are there indigenous peoples living in the project area where the activities will take place? No</p>	<p>Low</p>	<p>Although there are no Indigenous or Native Peoples recognized as such by the Ministry of Culture (based on the criteria established in Law 29785) in the prioritized project area, there are Peasant Communities (key local actors to guarantee the sustainability of the project), which occupy 38% of the total area and own 37% of the total area of dry forests (3,422,212 ha).</p>	<p>information including positive and negative aspects with the selected Peasant Communities.</p>	<p>community.</p>	
<p>Could the project adversely or seriously affect the rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems and culture or heritage (physical and non-physical or intangible) of indigenous peoples within and/or outside the project area? No</p>	<p>Low</p>	<p>The rights of Indigenous Peoples and Peasant Communities will not be adversely affected. The project will contribute to systematizing, valuing and exchanging traditional knowledge, as well as developing local capacities and restoring forests for future sustainable use by the Peasant Communities.</p>			

<p>Would the project be located in an area where cultural resources exist? Yes</p>	<p>Moderate</p>	<p>The project proposes conservation corridors to preserve the biodiversity and cultural resources associated with forests and Peasant Communities.</p>			
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6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

6.a Institutional arrangements for project implementation.

214. The governance structure of the Project will be organized as follows:

- ? Project Steering Committee (PSC).
- ? Technical Advisory Committee (TAC).
- ? Project Directorate (PD)
- ? Project Management Unit (PMU)

215. The operational aspects of the roles, functions and responsibilities of each level of collaboration will be described and specified in the Project Operational Manual in a section dedicated exclusively to the Project governance.

Project Steering Committee (PSC)

216. This is the highest authority of the project and is responsible for monitoring and supervising the fulfilment of the commitments undertaken by the Ministry of the Environment and the FAO-IUCN consortium. It is the project's strategic, decision-making and general guidance body, and, as such, will make the most important decisions in order to solve the problems that cannot be solved at the operational level to achieve the project's objectives.

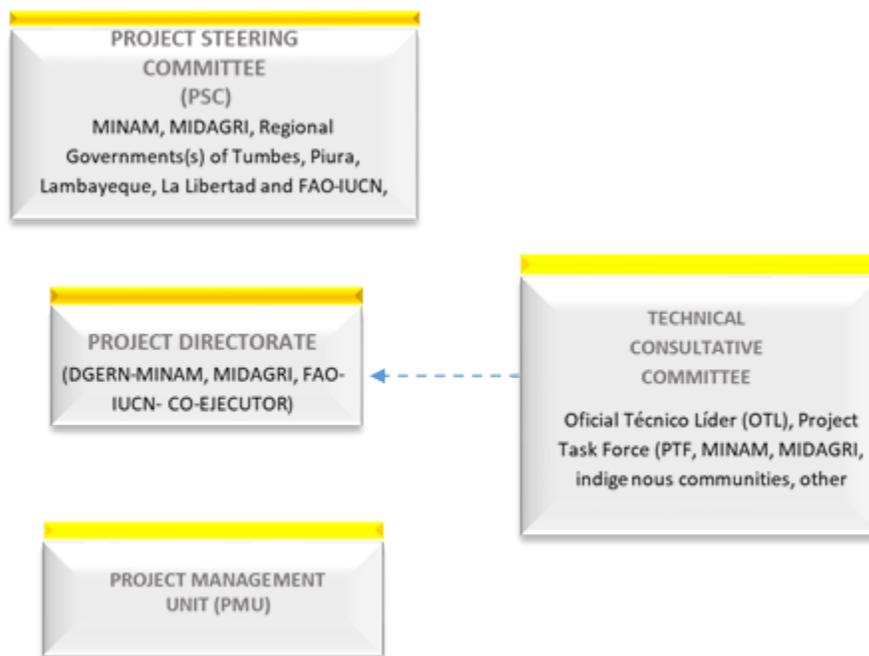
217. The PSC will be composed of: MINAM, MIDAGRI, Regional Governments (Tumbes, Lambayeque, La Libertad and Piura) and the FAO-IUCN consortium. The GEF Operational Focal Point of MINAM participates in the PSC with voice, but not vote. The PSC will meet at least once a year and decisions will be made by consensus. Appendix 11 includes the terms of reference of the PSC.

218. Responsibilities:

- ? Promote dialogue and communication between the parties.
- ? Advise on the achievement of the Project's objective, strengthening the national dimension of the Project and capitalizing on the contribution of the sectors to the achievement of the Project's objective.
- ? Provide general strategic and technical guidelines to the PMU, articulating synergies between national, regional and global processes, projects and initiatives in order to maximize time and resources, and enhance the impact of the project.

- ? Ensure the quality of project outcomes, sustainability and impacts.
- ? Review, discuss and approve the Global AOP (which includes the Global Procurement and Contracting Plan and the Global Budget).
- ? Review, discuss and approve the AOP (which includes the Annual Procurement and Contracting Plan and the Annual Budget).
- ? Approve the biannual project progress reports to be sent to the FAO-IUCN consortium.
- ? The steering committee can approve changes to activities, which will be reported to FAO who will report to the GEF in the annual progress report (PIR) sent to the donor, changes cannot modify the targets and indicators of the PRODOC outputs and outcomes.
- ? Other changes should be proposed to the GEF through the implementing agency (FAO) for approval in coordination with the GEF Operational Focal Point (MINAM).

Figure 2. Peru Project's Implementation Arrangements



Project Directorate (PD)

219. The PD is responsible for the efficacy, efficiency and effectiveness of the outcomes, as well as the impact and sustainability of the project and the technical quality of expenditures.

220. The Project Directorate will be composed of MINAM, MIDAGRI, the FAO-IUCN Consortium and the Sub-Executing Partner. A member of the DGERN will be designated as the National Project Director (NPD), with MINAM in Lima. The NPD will be responsible for the Project Directorate. The GEF Operational Focal Point participates with voice but not vote in the Project Directorate

221. Responsibilities:

- ? Guide and guarantee the implementation of the Project, in accordance with the PRODOC and the management instruments.

- ? Evaluate and suggest changes to the project to the Steering Committee.
- ? To ensure the governance of the Project.
- ? Oversee the technical and financial programming and implementation of the project.
- ? Provide Project reports to the Steering Committee, in accordance with the monitoring and follow-up plan.
- ? Pre-approve the Project Annual Operating Plan (AOP) and the Annual Procurement and Contracting Plan (APCP).
- ? Supervise the performance of the Project Coordinator.
- ? Supervise, through the Project Coordinator, that the consultants and project staff fulfil the responsibilities in their ToR within the agreed deadlines.
- ? Organise and convene Steering Committee meetings with the support of the Project Coordinator.
- ? Participate in monitoring and mid-term and final evaluations.

Technical Advisory Committee (TAC)

222. The Technical Advisory Committee will provide technical support on specific issues. It will be consulted when deemed necessary by the Project Directorate or the National Project Coordinator, i.e. it does not meet on a regular basis and will be established during the first year of Project implementation.

223. The TAC will be composed of, but is not limited to, FAO and GEF project support structures, IUCN, specialists from MINAM, MIDAGRI, MINCETUR and the Ministry of Culture, Regional Governments, Non-Governmental Organizations working in the dry forest sector or in the regions of the project's area of influence; Universities, Institutes or Research Centers; Business Associations.

224. Responsibilities:

- ? Provide advice on issues or problems that arise during the implementation of the project, at the request of the Project Directorate or the National Project Coordinator.
- ? Provide timely assistance to the Project Management Unit, in coordination with or under supervision of the Project Directorate.
- ? Attend meetings convened by the Project Directorate, when necessary.

225. It should be specified that the partners involved in the implementation of the project will collaborate with the implementing agencies of other programs and projects to identify opportunities and facilitate synergies with other relevant GEF projects, as well as with projects supported by other donors. This collaboration will include: (i) informal communications between GEF agencies and other program and project implementing partners; and (ii) exchange of information and dissemination materials between projects.

National Project Director (NPD)

226. The role of National Project Director will be fulfilled by MINAM, under the MINAM (DGERN). To this effect, the DGERN of MINAM will designate a National Project Director, who will be responsible for:

- ? Ensure that Project planning, review, monitoring and reporting requirements are met.
- ? Ensure that coordination between participants is effective and that decisions are implemented.
- ? Ensure that outputs and outcomes are of good technical quality and are produced on time.
- ? Achieve the Project outcomes in an effective and efficient manner.

- ? Ensure the impact and sustainability of the Project
- ? Oversee the technical quality of Project expenditures.
- ? Ensure timely and strategic inter-agency coordination of Project implementation.

227. The functions of the National Project Director include:

- ? Support the implementation of the project with the project executing partner, in particular the execution of the Operating Plan and the Procurement and Contracting Plan.
- ? Lead the inter-institutional arrangements necessary for the implementation of the project activities.
- ? Provide strategic guidance to the Co-executing Partner for the implementation of the Project.
- ? Reviewing and endorsing technical progress reports and financial reports.
- ? Reporting and providing advice to the PSC on the status of the Project for decision making.
- ? Support the management of the country's co-financing letters to the project budget.
- ? Convene monthly meetings of the National Project Coordinator and the Co-executing Partner to take stock of the progress of the project and the plan of activities for the following periods, in preparation for the meetings of the Directorate.
- ? Convene bi-monthly meetings with the PD to review the technical and financial implementation of the project based on the approved Annual Operating Plan for the Project.
- ? Supervise the project activities that are linked to the development of policies or regulatory framework of the sector.
- ? The Project Director in coordination with FAO-IUCN, MIDAGRI and the Executing Partner will establish periodic coordination meetings with the different Regional Coordination Units (represented by the Natural Resources Managers of the Regional Governments) when deemed necessary.

Project Management Unit (PMU)

228. The PMU will consist of a Project Team (PT) funded by the GEF. The member organizations of the PSC will look for co-financing. Following the PSC and PM guidelines, the main function of the PMU is to ensure the coordination and implementation of the Project through the effective implementation of the annual work plans and budgets.

229. The PMU will be composed of one Project Coordinator, one Technical-Administrative Assistant, and 4 local Component Coordinators. In addition, the Project will have the technical advice of one expert in safeguards and gender. ANNEX 11 mentions the functions of each post and TOR, detailing the profile, experience, necessary skills and the tasks and functions of each post. The Project Coordinator will be recruited by the co-executing partner and confirmed by the Project Steering Committee.

230. The **Project Coordinator (PC)** will be responsible for planning, executing and coordinating the Project, ensuring its effectiveness, efficiency and desired impacts. The Coordinator will be physically located at the Ministry of Environment, whose costs will be considered as part of the co-financing provided by MINAM. The PTC should distribute his/her time between the capital city (Lima) (40%) and the regions (60%) and work in close consultation with the component coordinators. The Coordinator will perform the following strategic and operational roles:

231. Strategic roles:

- ? Lead the M&E management and implementation of the project with the support of the Executing Agency.

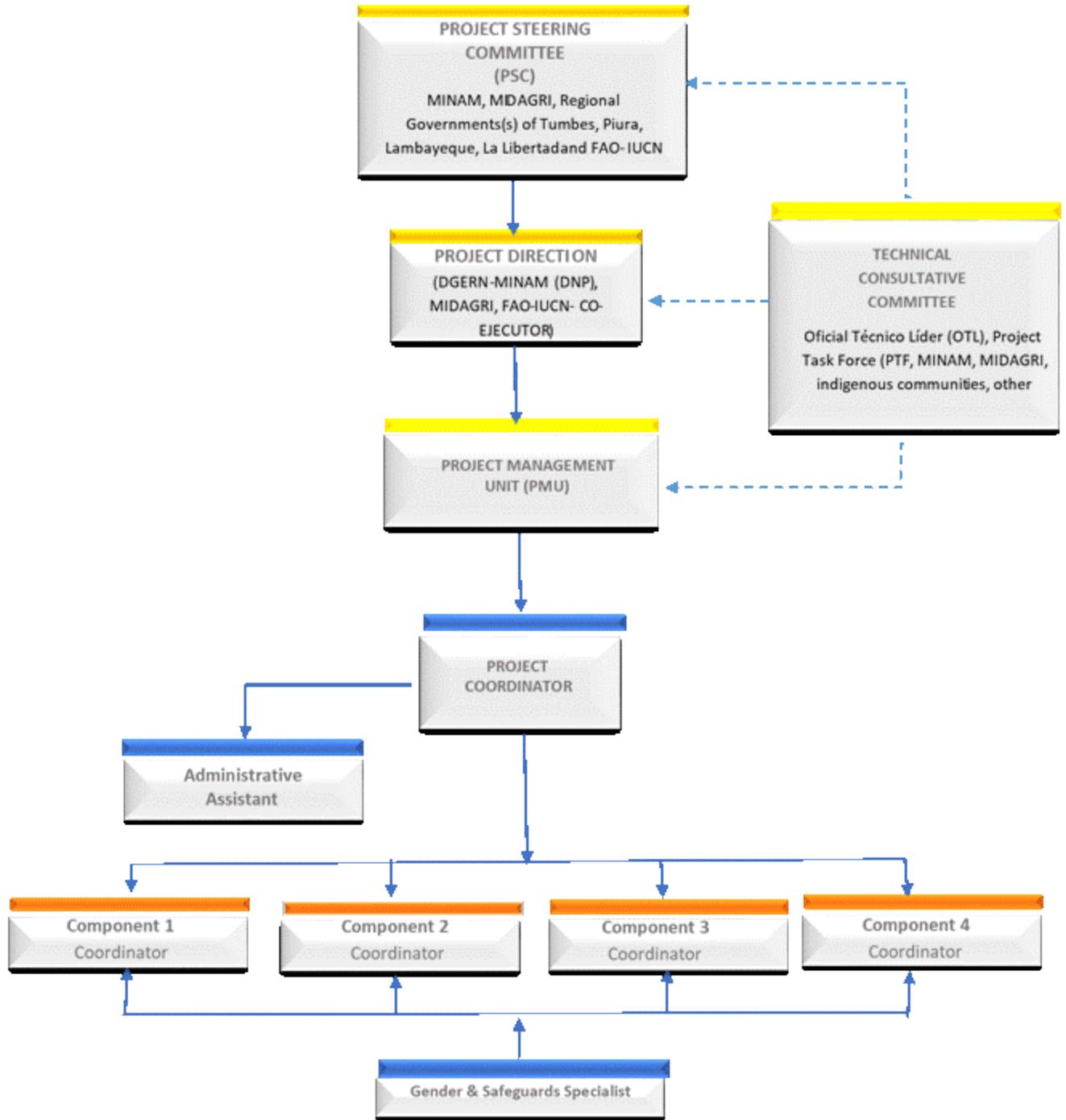
- ? Report periodically, but not less than twice a year, to the Project Steering Committee on the Project's achievements and obstacles related to the implementation and financing of the project.
- ? Act as Technical Secretary of the PSC and PD.
- ? He/she is responsible for the scope of the project results chain (planning, executing and coordinating the project and being accountable for the effectiveness, efficiency, effectiveness and impact of the project).
- ? The Coordinator will be supported by the co-executing partner who will be responsible for the day-to-day financial and operational management, as set out in the annual work plans and budgets approved by the Steering Committee, in coordination with the Project Directorate.
- ? He/she is operationally responsible for the timely management for the timely delivery of resources to the project team and in particular to the Project Management Unit.
- ? Submit the POA and PAAC to the PD at the beginning of each year for review and approval and subsequent approval by the PSC.
- ? Implement the AOP and PAAC of the project with the support of the Executing Agency.
- ? Facilitate and deliver the necessary inputs for the preparation of monitoring reports.
- ? He/she is responsible for the communication strategy, knowledge management strategy and cross-cutting strategies (gender and intercultural).
- ? Facilitate and coordinate with the Executing Agency the flow of information from the field to MINAM, FAO, MIDAGRI, GEF and CTC.
- ? Generate the necessary mechanisms to guarantee the co-financing committed by public and private institutions to the project.

232. Operational roles:

- ? Prepare and propose annual operational plans and specific work plans. The annual operational plans and work plans should be based on the PRODOC and will be monitored on a bi-annual basis or as directed by the Project Directorate
- ? Participate in the selection process of candidates for the specialists required by the project according to the annual operational plan and PRODOC.
- ? Maintain close communication and coordination with members of the Project Directorate;
- ? Establish, coordinate and maintain effective communication with the different sectors, and officials of the Directorates that are part of the Technical Advisory Committee, to facilitate the achievement of the project objectives and outcomes and to create synergy between sectors and coordination between the national and regional level.
- ? Explore and promote synergies with other existing major initiatives at national, regional and local level.
- ? Draft the preliminary version of the ToR of the project team, in coordination with the Technical Project Supervision, for submission to the Project Directorate and approval.
- ? Submit technical and financial progress reports (six-monthly) at different stages of the Project, following FAO and GEF formats, as appropriate, according to the specified outputs and on the scheduled dates. All reports are subject to revision and will only be considered final after incorporation of comments and observations and respective approval by MINAM, MIDAGRI and FAO-IUCN.
- ? Carry out quality control of consultancies, services and others in coordination with the Project Management Unit (PMU).

- ? To give conformity to the products and reports presented by the consultants and/or suppliers contracted for the Project.
- ? Manage payments to suppliers, consultants or other private entities contracted.
- ? Monitor and follow up the team that makes up the PMU, supervise the activities of the Project.
- ? Monitor consultant and supplier contracts and approve deliverables.
- ? Coordinate FAO-GEF Agency supervision missions.
- ? Organize PSC and TAC sessions.
- ? Elaborate the terms of reference and technical specifications for the implementation of the various components of the Project and based on the stipulations of the PRODOC.
- ? Responsible for the elaboration of the GEF PIR monitoring tool.
- ? Provide direction to the implementation of activities in the regions and supervise their work.
- ? The PC will review all technical products produced by component managers and regional facilitators to ensure alignment with project objectives and quality standards.
- ? Coordinate the execution of all outputs and activities of the annual operational plan and work plans to ensure their timely and efficient implementation.
- ? Follow up and monitor progress in the field and ensure timely delivery of outcomes, outputs and activities in accordance with project monitoring and evaluation guidelines.
- ? Ensure the comprehensiveness and complementarity of the four project components during implementation and compliance with the approaches that have been considered in each of its components for approval by the GEF.

Figure 3. Peru project's structure and organization



Implementing Agency

233. The main function of the Implementing Agencies is to ensure that the implementation, monitoring and evaluation of the Project complies with GEF policies and procedures. The Implementing

Agencies will oversee the proper fiduciary management of Project funds in compliance with GEF policies and procedures and will provide technical and administrative oversight and monitoring of the Project to ensure that the Project meets its objectives and achieves its intended outcomes in an efficient and effective manner.

234. The implementing agencies are also responsible for providing technical assistance to the project in coordination with MINAM and MIDAGRI and GORES and facilitating collaboration and exchange of information, experiences and lessons learned with other initiatives related to the conservation and sustainable management of Dry Forests.

235. The Food and Agriculture Organisation of the United Nations (FAO) and the International Union for Conservation and Nature (IUCN) are Implementing Agencies of the Global Environment Facility (GEF). FAO is the lead agency for this project and will coordinate with IUCN. As the lead implementing agency, FAO will lead the coordination and communications with the implementing partner. FAO and IUCN will be responsible for the implementation of the project as follows: (i) FAO will lead the delivery of the outcomes and outputs of Components I, III and IV; (ii) IUCN will be in charge of Component II.

236. Responsibilities

237. In addition to those described under the Project Steering Committee and Project Directorate sections, the Implementing Agencies shall have the following responsibilities:

? Provide technical assistance and supervise the overall implementation of the project, in accordance with the goals and indicators stipulated in PRODOC.

? Participate in the elaboration processes of the Global Operating Plan, Annual Operating Plans, Budget and the global and annual Procurement and Contracting Plan of the project.

? Participate in the selection and recruitment processes of the project team as stipulated in the OPA.

? Process transfers of funds to the Implementing Partner in accordance with the provisions, terms and conditions of the signed Operational Partners Agreement (OPA).

? Manage a portion of the GEF funds that has been agreed with the Co-executing Partner to maintain the direct implementation of FAO. The funds will be managed according to FAO and IUCN regulations and procedures and will be specified (denomination and amount) in the PRODOC and agreements to be signed with the Co-executing Partner.

? Monitor and supervise that the Co-executing Partner complies with the Operational Partner Agreement and the implementation of the project in accordance with the objective, targets and indicators stipulated in the Project Document (PRODOC), the operational plans, work plans and budgets approved by the PDC, the agreements with the co-financiers and the rules and procedures of FAO, IUCN and the Executing Partner's own for the sake of efficiency and transparency.

? Review and discuss with the Co-executing Partner and approve the project financial and progress reports detailed in the Co-executing Partner Agreements and their annexes.

? Act as permanent liaison, as necessary, with the Government, UN Country Team members, resource partners and other stakeholders, as appropriate.

? Provide overall guidance, oversight, technical assistance and leadership, as appropriate, for project implementation.

? Report to the Secretariat and Evaluation Office on project progress through the Annual Project Implementation Review and provide financial reports to the GEF Trustee.

? Conduct at least one supervision mission per year.

? Lead the Independent Mid-Term Review and Final Evaluation, through the FAO Evaluation Office and in coordination with the Project Directorate.

? Monitor the implementation of the Social and Environmental Risk Mitigation Plan, in accordance with FAO Environmental and Social Safeguards.

? Oversee compliance with the GEF Communication and Visibility Policy, including the GEF (www.thegef.org) and FAO, IUCN Branding Guidelines and Standards for Graphic Standards, as well as the agreements established, and commitments made in the Operational Partner Agreement.

? Coordinate monthly meetings with the Operational Partner for the operational - financial - technical follow-up with the participation of the technical team of the project, which contribute to the implementation of the project.

? Coordinate with the Operational Partner the creation and use of a shared folder of information and operational documents of the project.

Ministry of the Environment - MINAM

238. MINAM is the GEF Operational Focal Point in Peru and the Project Executing Agency. MINAM will designate, as part of its counterpart, a member of the General Directorate of Natural Resources Strategies (DGERN) as National Project Director (NPD). The NPD will be responsible for the overall implementation and coordination of the project.

239. In addition to what is described under the Project Steering Committee, Project Director and Project Directorate sections, MINAM shall have the following responsibilities:

? Provide specialized technical assistance on specific issues upon request by the PM or the PMU.

? Support the PMU in the coordination of project activities at national, regional and local levels.

? Review and agree on ToRs and outputs related to policy and regulatory issues.

? Facilitate access to MINAM sites and facilities to support the implementation of project actions.

? Coordinate for the different directorates of MINAM to provide technical expertise through the Technical Advisory Committee (TAC), when necessary.

? Guarantee the co-financing committed as counterpart of the project.

240. MINAM as the Operational Focal Point of the GEF (OFP-GEF) in Peru will have the following responsibilities:

? Participation in the PSC and PM with voice but not vote.

? Participation in project M&E.

? Participation in the review and feedback (prior to translation into English) for the Annual Project Implementation Review (PIR).

? Oversight of the co-financing process.

- ? Participation in the process and review of the Mid-Term Review and the Final Evaluation.

Ministry of Agricultural Development and Irrigation - MIDAGRI

241. MIDAGRI is a member of the PM as deputy to the Project Director, who will designate a professional as counterpart.
242. In addition to what is described under the sections on the Project Steering Committee and Project Directorate, MIDAGRI will have the following responsibilities:
- ? Provide specialized technical assistance on specific issues upon request by the PM or the PMU.
 - ? Support the PMU in the coordination of project activities at national, regional and local levels.
 - ? Review and agree on ToRs and outputs related to policy and regulatory issues.
 - ? Facilitate access to MIDAGRI sites and facilities to support the implementation of project actions.
 - ? Coordinate for the different directorates of MIDAGRI to provide technical expertise through the Multisectoral Technical Team.
 - ? Guarantee the co-financing committed to the project.

Regional Governments (GOREs)

243. The GOREs are members of the PSC and each regional government will designate a professional as part of its cofinancing contribution.
244. In addition to what is described under the Project Steering Committee sections, the GOREs will have the following responsibilities:?
- ? Provide specialized technical assistance on specific issues upon request by the PM or the PMU.
 - ? Support the PMU in the coordination of project activities at national, regional and local levels.
 - ? Facilitate access to GOREs sites and facilities to support the implementation of project actions.
 - ? Guarantee the co-financing committed as counterpart of the project.

Co-executing partner

245. The Government of Peru opened a call for proposals for fund managers / co-executors in October 2020. PROFONANPE* was selected to support MINAM in the co-execution of project activities, under the supervision of MINAM, as well as the administrator / co-executor of the fund.

PROFONANPE, has become the operational ally of MINAM, in charge of the technical, administrative and financial management of the Portfolio of projects of the Seventh GEF replenishment, where MINAM is the executing entity .

The implementing agencies (FAO and IUCN) will conduct a fiduciary analysis of the selected co-executing agency. Based on the results of that assessment, the GEF implementing agency (s) and the selected co-executing agency could sign an Operational Partner Agreement (OPA) / Implementation Agreement (s). They will not be considered significant risk partners.

246. The co-executing partner in Peru is responsible for ensuring that the project is implemented in compliance with national environmental priorities and GEF implementation procedures. In close coordination with FAO, IUCN and the Project Directorate, the co-executing partner will supervise the implementation of the project and will support the execution of the midterm and final evaluations.

247. The co-executing partner will comply with the rules and regulations of FAO and IUCN on the execution of projects and will be responsible to the Government of Peru and GEF Implementing Agencies for:

? The proper implementation, administration and management of the Project's financial resources and the quality and timely achievement of the Project outcomes.

? Recruitment of the Coordinator and the team of experts and consultants specified in the Project Document under the leadership of the Project Directorate and the implementing agencies for (i) the implementation, monitoring and quality control of the project activities, (ii) the quality and timely achievement of the Project outcomes, and (iii) the monitoring of the co-financing commitments established by the Project partners during the full formulation of the Project.

? Manage the budget in full compliance with the terms and conditions of the Operational Partners Agreement (OPA) or implementation agreements to be signed between the Implementing Partner and the Implementing Agencies and as stipulated in the PRODOC.

? Daily management and implementation of the administrative and financial activities necessary for the implementation of the agreed components of the Project in full compliance with the signed OPA/implementing agreement and the Project Document and in close coordination with the Project Directorate.

248. FAO and IUCN will closely monitor the implementation of the project, supervise the co-executing Partner in the light of the implementation agreements / OPA and its operational implementation protocols, and provide the required general guidance and technical support.

6.b Coordination with other relevant GEF-financed projects and other initiatives.

249. The project will coordinate with other GEF-financed projects with the objectives of identifying opportunities and facilitate mechanisms to achieve synergies. This collaboration will be undertaken through: i) informal communications between GEF Agencies and executing partners of other programs and projects; ii) annual coordination meetings; iii) specific meetings on technical matters; iv) meetings and activities to exchange experiences and lessons. The project will develop collaboration mechanisms with the following projects:

250. GEF-UNDP #9387 Sustainable Productive Landscapes in the Peruvian Amazon - The project will benefit from progress and lessons learned in terms of policy convergence, value chains, dissemination of good practices and sustainable community management. GEF 9387 operates in landscapes other than those of this project and with agricultural products.

251. GEF-WWF #9374 Securing the Future of Peru's Natural Protected Areas - This initiative aims to protect globally important biodiversity and implement policies to promote sustainable land use and the restoration of native vegetative cover. The new GEF project will ensure coordination and exchange of lessons learned with respect to promoting financial sustainability in PA, protecting globally important biodiversity and ecosystem services, which form part of Component 2 of the new GEF Project.

252. GEF-FAO #9092 Sustainable Management of Agro-biodiversity and Vulnerable Ecosystems Recuperation in Peruvian Andean Regions through Globally Important Agricultural Heritage Systems Approach - The objective of the initiative is to conserve in situ and sustainably use globally important agrobiodiversity through the preservation of traditional agricultural systems, the integrated management of forest, water and land resources, and the maintenance of ecosystem services in selected Andean regions. The project will ensure coordination of activities to maximise synergies and foster the exchange of lessons learned.

253. The project will also coordinate with the GEF 7 Impact Programmes: Amazon Sustainable Landscapes Program (ASL2) and Food Systems, Land-Use and Restoration Impact Programme (FOLUR) led by FAO. The new GEF project will ensure coordination and sharing lessons learned.

**It should be noted that the identified Operational Partner(s) or OP, results to be implemented by the OP and budgets to be transferred to the OP are non-binding and may change due to FAO internal partnership and agreement procedures which have not yet been concluded at the time of submission*

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

254. Article 66 of the Political Constitution of Peru sets forth that: 'Natural resources, renewable and non-renewable, are patrimony of the Nation. The State is sovereign in their utilization. An organic law fixes the conditions of their use and grants them to private individuals. Such a concession grants the title holders a real right subject to those legal regulations'. The National Accord includes explicit commitments to: integrate national environmental policy with economic, social, cultural and territorial planning policies; institutionalize public and private environmental management to protect biological diversity and facilitate the sustainable use of natural resources, with explicit reference to forest resources; and promote the agricultural and rural development of the country, including agriculture, livestock, aquaculture, agro-industry and the sustainable use of forests.

255. The project is aligned with the Bicentennial Plan, Peru 2021, which establishes as a national objective: 'the conservation and sustainable use of natural resources and biodiversity with an integrated and ecosystem approach and an environment that allows a good quality of life for people and the existence of healthy, viable and functional ecosystems in the long term'. It is directly linked to Strategic Line of Action 6 on Natural Resources and Environment, through its specific Objectives: SO1 Sustainable use of natural resources with the participation and benefit of local populations. SO4 Ensure that the population and productive systems are adapted to climate change. SO5 Strengthen the National Environmental Management System (SNGA) from the three levels of government, with active citizen participation.

256. The project is aligned with the National Environmental Policy, which is one of the main management tools for the achievement of sustainable development in the country and forms the basis for the conservation of the environment to promote and ensure the sustainable, responsible, rational and ethical use of natural resources and the environment, to contribute to the integral, social, economic and cultural development of human beings, in permanent harmony with their environment. The GEF Project clearly and effectively contributes to this objective, as well as to Policy Axis 1: Conservation and sustainable use of natural resources and biological diversity, Policy Axis 3: Environmental governance and Policy Axis 4: International environmental commitments and opportunities.

257. Likewise, the National Forestry and Wildlife Policy is structured on the basis of five essential thematic axes for the management of the Nation's Forest and Wildlife Heritage, each one with policy guidelines aimed at specifying concrete results, which express their integral and effective implementation. The most important linkage is found with Policy Axis 1 'Institutionality and governance' and Guideline 2: 'The Policy Axis of sustainability, which establishes the conservation, protection, maintenance, improvement and sustainable use of the nation's forest and wildlife heritage as guidelines within the framework of an ecosystem approach, and special management for the conservation and sustainable use of forest ecosystems and other types of wild vegetation that are subject to threats or degradation processes.

258. The National Agricultural Policy aims to achieve a sustained increase in the incomes and livelihoods of farmers and agricultural producers, prioritizing family farming, based on greater capacities and more productive assets, and with sustainable use of agricultural resources. The proposed guidelines are directly related to the 12 policy axes: 1) Sustainable Water and Soil Management, 2) Forestry and Wildlife Development, 3) Legal Security on Land, 4) Irrigation Systems and Infrastructure, 5) Financing and Agricultural Insurance, 6) Agricultural Innovation and Automation, 7) Disaster Risk Management in the Agricultural Sector, 8) Capacity Development, 9) Productive Conversion and Diversification, 10) Market Access, 11) Agricultural Health and Agri-Food Safety, 12) Institutional Development.

259. On the other hand, the project is aligned with the National Biodiversity Strategy 2021 and the Action Plan 2014-2018, which aim to help Peru preserve and make rational use of its mega-biodiversity, including the revaluation of its traditional knowledge to meet the basic needs and well-being of current and future generations. In particular, its strategic lines of Peru's biodiversity conservation, mainstreaming the sustainable use of biodiversity in natural resources management, establishing measures for the conservation and restoration of biodiversity, encouraging citizens' participation in biodiversity conservation, improving biodiversity management tools.

260. The project is also aligned with the National Strategy to Combat Desertification and Drought 2016-2030, in particular with its specific objectives related to the development of synergistic, multi-sectoral, intra-sectoral, regional and local plans, programs and projects; the strengthening of stakeholders' management capacity; and the implementation of technological innovations that help sustainable land management.

261. It is also aligned with the Land Degradation Neutrality (LDN) targets, which are currently in the process of being approved and whose implementation will contribute to the targets set out in the Bonn Challenge and its regional platform for the LAC 20x20 Initiative. Peru committed to the target of restoring 3.2 million hectares of degraded land (see Annex E for details on LDN). Land Degradation Neutrality is a framework that cuts across many processes (Ecological, Political, Administrative, Economic, Social, Educational). It is included in the SDGs and informs the UNCCD in Target 15.3 which uses as an indicator the 'percentage of degraded land over the total area'. This simplification and the use of a well-defined remote sensing approach to produce national reports brings all the attention. However, these State Change indicators are only one dimension of the LDN Impact and, as such, are a limited view that is often not sensitive enough to capture the efforts made in such a cross-cutting process. To monitor LDN along its entire impact, it is necessary to include Process/Response indicators, which are related to strengthening the enabling environment, including legislation, stakeholder capacities and information/monitoring systems. There are also Stress Reduction/Pressure Change indicators, which are the best natural resources management, sustainable management practices, land management activities which, over time, may or may not lead to State Change, but will certainly act to prevent and reduce land degradation. The country has a national voluntary target to 'Achieve the LDN by 2030, with respect to the 2015 baseline', meaning by 2030, Peru should report no net loss of natural capital of land resources with reference to 2015, following the methodological framework of indicator 15.3.1 of the Sustainable Development Goals (SDGs) and LDN. The LDN aims to maintain and increase the amount of healthy and productive land resources, in accordance with national development priorities.

262. In this context, the project aims to address land degradation issues in the dry forests of Northern Peru using the Land Degradation Neutrality (LDN) response hierarchy: Avoid > Reduce > Revert, supporting the country in its implementation of its voluntary national LDN targets and sub-targets. The LDN aims to maintain and increase the amount of healthy and productive land resources, in accordance with national development priorities. Thus, project actions towards the sustainability and effective management of protected conservation areas and buffer zones that contribute to avoid land degradation in the northern coast of Peru, as well as the implementation of sustainable production practices and sustainable use of dry forests favoring the reduction of degradation and the increase of restoration areas that allow revert degradation, improving the ecological connectivity of the dry forests of northern Peru,

contribute directly to the different voluntary national LDN sub-targets. In particular, the achievement of the three cross-cutting LDN sub-targets in Peru requires the promotion of governance with a multi-sectoral, multi-level and multi-stakeholder approach for the sustainable development of dry forests in Peru that strengthens responsible and inclusive land governance and the sustainable distribution of ecosystem services, thus improving food security and the resilience of land and the people who depend on it. In this sense, the project reinforces the synergies between the targets of Sustainable Development Goal 15 of the 2030 Agenda: 'Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and revert land degradation and halt biodiversity loss'.

263. The Forest and Climate Change Strategy is another tool that is closely related to the GEF Project, because it is an effort to understand and quantify the problem of deforestation, its direct and indirect causes, the actors, the economic activities involved, but also to identify the necessary measures to address them, for which two specific objectives have been established that confirm this close relationship: to reduce GHG emissions from the USCUS sector in an economically competitive, sustainable, equitable and inclusive manner, in a way that it contributes to the country's development, improves the well-being of the population and contributes to the global effort to mitigate climate change and Specific Objective (SO2): to reduce the vulnerability to climate change of the forest landscape and the population that depends on them, especially indigenous peoples, peasants and vulnerable groups, improving their resilience and adaptive capacity, considering and revaluing their traditional knowledge.

264. Furthermore, the project is also aligned with the Nationally Determined Contributions (NDCs) through which Peru commits to reduce greenhouse gas emissions by 2030, and in which forests are one of the prioritised thematic areas.

265. The Master Plan for Natural Protected Areas - National Strategy defines the policy and strategic planning guidelines, as well as the conceptual framework for the effective management and establishment and long-term operation of Natural Protected Areas and the National System of Protected Natural Areas. National System of Natural Areas Protected by the State (SINANPE), formulating measures to conserve and complement the required ecological coverage.

266. The project is consistent with the National BioTrade Strategy and its Action Plan 2025, whose objective is to consolidate the institutional framework, the legal framework and the necessary mechanisms to promote and implement BioTrade in Peru.

267. At the regional level, the project is aligned with the development tools of the regions: the Concerted Development Plan Tumbes 2017-2030 aiming for a sustainable use of resources in the territory; the Concerted Development Plan Piura 2016-2020 aiming to 'make the department of Piura a safe and inclusive department that develops a competitive, diversified and innovative economy, thanks to the sustainable and responsible use of natural resources'; the Concerted Development Plan Lambayeque 2016-2021, whose objective is to achieve a 'vision of Lambayeque as the articulating node of the Peruvian Northeast, with an ordered, competitive and sustainable territory, with a high level of institutionalism, in a framework of equity and social justice'; and the Concerted Development Plan La Libertad 2016-2021 with the objective of making 'La Libertad a sustainable territory, a reference for human, agro-industrial and tourism development, based on the culture of identity and innovation of our ancestors: the guamachuco, mochica-chimu and inca'.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

268. Component 4 will be responsible for knowledge management to create institutional memory, promote continuous learning, develop documentation to scale up the project and visibility strategies for capacity development and political influence. The communication and knowledge management strategy will be implemented as a collaborative initiative between the regions of the dry forest areas and knowledge management systems of sectors as part of the themes of sustainable use of biodiversity and landscape restoration.

269. The objective of knowledge management is that the information can reach the stakeholders to reinforce changes in attitudes and practices promoted by the project and ensure that the intervention and the impacts achieved can be replicated in other initiatives for the conservation of the dry forest. To this end, the following actions are proposed: (i) raise awareness of the importance of dry forest conservation through the promotion of strategic communications and publications; (ii) systematize and share the experiences and knowledge resulting from the project; lessons learned from the projects will be transferred and codified, transmitted to national, regional and global knowledge centers (e.g. repositories of universities and research institutes, as well as FAO digital tools) to contribute to the global knowledge resource on best practices and disseminated to stakeholders; (iii) communicate and disseminate project activities locally, nationally and internationally; activities include participation and organization of fairs and other events on the importance of the dry forest, publications in magazines, making videos, news reports of the project through the Internet, and social networking and web platforms of FAO, IUCN and Peruvian government partners; (iv) rescue and value the ancestral knowledge (agricultural, livestock, biodiversity use) of the dry forest communities that contribute to the conservation of forests through technology.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

270. Monitoring and evaluation of project outcomes and objectives will be based on the objectives and indicators of the Project Results Framework (Annex A1: Project Results Framework). Monitoring and evaluation activities will be guided by FAO and GEF policies and guidelines on monitoring and evaluation. The monitoring and evaluation system will also facilitate learning and replication of outcomes and lessons learned in relation to integrated natural resources management

271. The roles, responsibilities and budget for monitoring and evaluation described in the Monitoring and Evaluation Table (Table 12, below) will be carried out through: (i) daily monitoring and supervision by the Project Management Unit (PMU) and contracted staff and suppliers, FAO technical and administrative supervision in terms of progress towards meeting targets, for which participatory mechanisms and methodologies will be developed to support the monitoring and evaluation of performance indicators and outputs; (ii) technical monitoring of indicators to measure the reduction of land degradation (PMU and FAO in coordination with partners); (iii) supervision of technical and financial reports; (iv) review of mid-term and final evaluation (independent consultants and FAO Office of Evaluation); and (v) monitoring and supervision missions (FAO -IUCN).

272. The project will have an M&E Plan that will be designed by the Component 4 Coordinator in coordination with the PMU. As part of the M&E, project monitoring and follow-up reports will be prepared. In addition, compliance with the established targets will be monitored. M&E will monitor the overall environmental benefits and the contribution to Peru's sustainable development goals. These efforts will be carried out in synergy with the implementation of the other project components, which, as mentioned above, include capacity strengthening activities and thus awareness raising of all relevant stakeholders. M&E will contribute to mitigating risks and avoiding the repetition of mistakes. It will also contribute to the sustainability and scaling up of achievements at sub-national, national and regional levels.

The M&E system will also facilitate learning and replication of outcomes and lessons learned in relation to integrated natural resource management. Lessons learned will be shared with GEF, MINAM, MIDAGRI, regional governments, local governments, among others.

273. Monitoring and evaluation of project outcomes and objectives progress will be based on the objectives, indicators of the Project Results Framework (Appendix A1) and Core Indicators. Monitoring and evaluation activities will be guided by FAO and GEF policies and guidelines on monitoring and evaluation. The monitoring and evaluation system will also facilitate learning and replication of outcomes and lessons learned in relation to integrated natural resource management.

Supervision and monitoring responsibilities

274. The roles and responsibilities for monitoring and evaluation will be carried out in line with Table 12. Therefore, at the beginning of project implementation, the PMU, in coordination with the Project Directorate, will establish a project progress monitoring system. Participatory mechanisms and methodologies will be developed to support the monitoring and evaluation of performance indicators and outputs. During the project inception workshop, monitoring and evaluation tasks will include: (i) presentation and explanation (if necessary) of the project Results Framework with all project stakeholders; (ii) review of monitoring and evaluation indicators and their baselines; (iii) preparation of draft clauses that will be needed to be included in consultant contracts to ensure compliance with monitoring and evaluation reporting functions (if applicable); and (iv) clarification of the division of monitoring and evaluation tasks among the various project stakeholders. A preliminary monitoring and evaluation (M&E) matrix will be prepared and discussed and agreed upon by all stakeholders during the inception workshop. The M&E Matrix will be a management tool for the PMU and implementing partners to: (i) monitor the achievement of output indicators; (ii) monitor the achievement of outcome indicators; (iii) clearly define responsibilities and means of verification; and (iv) select a method for processing indicators and data.

275. The M&E Plan will be prepared within the first three months of Year 1 of the project, validated with the Project Directorate, and approved by the Project Steering Committee (PSC). The M&E Plan will be based on the M&E Matrix, and will include: (i) updated results framework, with clear indicators per year; (ii) updated baseline, if needed, and selected data collection tools (including sample definition); (iii) narrative of the monitoring strategy, including roles and responsibilities for data collection and processing, reporting flows, monitoring matrix, and a brief discussion of who, when and how each indicator will be measured. Responsibility for project activities may or may not coincide with responsibility for data collection; (iv) updated implementation arrangements, if necessary; (v) inclusion of the monitoring tool indicators, data collection and monitoring strategy to be included in the mid-term review and final evaluation; and (vi) evaluation workshop schedule including self-assessment techniques.

Indicators and Sources of Information

276. To monitor project outputs and outcomes, including contributions to global environmental benefits, specific indicators have been set out in the Project Results Framework (Appendix A1). The Project Results Framework indicators and means of verification will be applied to monitor both project performance and impact. By following the monitoring procedures and progress reporting formats, the data collected will be sufficiently detailed to track specific outputs and outcomes and flag project risks in a timely manner. In most cases, target output indicators will be monitored biannually, and outcome indicators will be monitored annually, if possible, or as part of mid-term and final evaluations.

277. The project's output and outcome indicators have been designed to monitor progress in building and consolidating capacity for the conservation and sustainable management of dry forests and associated landscapes at different levels, from the smallholder beneficiary population to local and regional governments to central government institutions. The effectiveness of capacity development for the maintenance and enhancement of dry forests is measured not only by restoration coverage, integrated management practices and the number of traditional varieties managed, but also by the social and economic benefits of these management practices and the associated marketing mechanisms generated. The indicators are designed to detect the distribution of benefits and impacts across gender and age groups, as well as implications for livelihoods and overall food security. Impacts on the enabling environment are

largely measured by the existence and effectiveness of key capacities and instruments in the target local and central institutions.

278. The main sources of information to support the M&E plan include: (i) government and other project partners' monitoring systems; (ii) participatory workshops with stakeholders and beneficiaries to review project progress; (iii) on-the-ground monitoring of good practices, sustainable forest management and agro-ecosystem management; (iv) progress reports prepared by the project technical coordinator with inputs from partners, project specialists and other stakeholders; (v) consultants' reports; (vi) training reports; (vii) mid-term evaluation and final evaluation; (viii) financial reports and budget reviews; (ix) Project Implementation Review (PIR) report; and (x) supervision mission reports.

Programming and Reporting

279. The reports and planning products to be prepared under the monitoring and evaluation program are: (i) Project Inception Report; (ii) Operating Plan and Comprehensive Procurement and Contracting Plan, (iii) Annual Operating Plan and Annual Procurement and Contracting Plan; (iv) Annual Project Reports (PIR); (v) Quarterly Technical Reports; (vi) Quarterly Financial Reports; (vii) Annual Co-Financing Reports; (viii) Mid-Term Review; (ix) Terminal Evaluation; (x) Terminal Report; (xi) Financial Audits; and (xii) Spot Checks. In addition, the GEF Monitoring Tool (METT) for each of the focal areas covered by the project will be completed and used to compare progress against the baseline established during project preparation. In addition, the co-executing Partner will prepare and submit reports described in the Annexes of the Operating Partners Agreement, and submit them to the FAO Representation periodically, as agreed in the Operating Partners Agreement.

Evaluation Provisions

280. Two external project evaluations, a Mid-Term Review (MTR) ? managed by the Budget Holder - in the 3rd quarter of project year 3 and a Terminal Evaluation (TE) ? launched at least six months prior to the project end date, will be carried out. The BH will arrange an independent MTR in consultation with the PSC, the PMU, the LTO and the FAO-GEF Coordination Unit. The **MTR** will be conducted to review progress and effectiveness of implementation in terms of achieving project objective, outcomes and outputs. The MTR will allow mid-course corrective actions, if needed. The MTR will provide a systematic analysis of the information on project progress in the achievement of expected results against budget expenditures. It will refer to the Project Budget (see Annex A2) and the approved AWP/Bs. It will highlight replicable good practices and key issues faced during project implementation and will suggest mitigation actions to be discussed by the PSC, the LTO and FAO-GEF Coordination Unit.

281. The GEF evaluation policy foresees that all medium and large size projects require **a separate terminal evaluation**. Such evaluation provides: i) accountability on results, processes, and performance; ii) recommendations to improve the sustainability of the results achieved and iii) lessons learned as an evidence-base for decision-making to be shared with all stakeholders (government, execution agency, other national partners, the GEF and FAO) to improve the performance of future projects.

282. The Budget Holder will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED and will be responsible for quality assurance. Independent external evaluators will conduct the terminal evaluation of the project taking into account the ?GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects?. FAO Office of Evaluation (OED) will provide technical assistance throughout the

evaluation process, via the OED Decentralized Evaluation Support team ? in particular, it will also give quality assurance feedback on: selection of the external evaluators, Terms of Reference of the evaluation, draft and final report. OED will be responsible for the quality assessment of the terminal evaluation report, including the GEF ratings.

283. After the completion of the terminal evaluation, the BH will be responsible to prepare the management response to the evaluation within four weeks and share it with national partners, GEF OFP, OED and the FAO-GEF Coordination Unit.

Disclosure

284. The project will ensure transparency in the preparation, conduct, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and representatives of local communities. The disclosure of information shall be ensured through posting on websites and dissemination of findings through knowledge products and events. Project reports will be broadly and freely shared, and findings and lessons learned made available.

Table 12. Summary of main monitoring and evaluation activities

M&E Activities	Responsibility	Time frames/ Periodicity	Budget
Inception workshop.	PC with support from the Project Directorate, FAO, Task Force.	Two months after the start of the project.	USD 6,000
Various materials for M&E	Project Management Unit	Annually	USD 3,000
Inception Project report.	PC in coordination with the co-executing partner.	Immediately after the workshop.	PMC and co-executor staff time covered by the project budget (PMC)
Baseline.	PMU with technical support from Project Directorate and Task force.	At the start of the project.	USD 69,017
Supervision visits and progress rating of PIRs.	CP; FAO ? IUCN	Annual, or as required.	FAO and IUCN visits will be taken over by the GEF agency commissions.
Project implementation Review (PIR).	Prepared by the PC in coordination with the co-executing partner, supervised by LTO and BH. Approved and sent to GEF by FAO.	Annual.	FAO staff time financed by GEF agency fees PMU staff time covered by the project budget.
Co-financing Reports.	PC with Project Directorate support.	Annual.	PMC and co-executor staff time covered by the project budget (PMC)
Technical and Financial Reports.	PC in coordination with the Implementing Partner.	As required.	PMC and co-executor staff time covered by the project budget (PMC)

Mid-Term Review	FAO (Budget Holder) with participation of the Project Directorate and OFP.	At mid-term of project implementation.	USD 40,000 for an external consultancy.
Terminal Evaluation.	FAO (FAO Office of Evaluation) with participation of the Project Directorate and OFP.	At the end of project implementation.	USD 40,000 for an external consultancy.
Final Report.	PC with support from co-executing partner.	Two months before the end of the project.	USD 6,550
Grand Total			USD 164,567

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

285. Section 1.7 details the benefits in terms of environmental, economic and social sustainability. Benefits can also be organized by geographical scale, with positive socio-economic impacts at local, regional, national and other dry forest levels.

286. Committees for dry forest conservation governance, restoration and monitoring and/or integrated natural resource management will be consolidated at regional and local levels and green jobs will be created and incomes will be increased and diversified. The improvement of productive and management capacities for articulation in value chains, as well as more sustainable territorial and resource management, including protected areas that provide ecosystem services, will contribute to the improvement and sustainability of the livelihoods of men and women, mainly indigenous, who depend on forest ecosystems in the project's direct area of intervention. By expanding the range of livelihood options, in terms of the variety of resources harvested and the restoration of degraded ecosystems, as well as contributing to the improvement of economic income per unit area managed, it will contribute to food security and strengthen their capacity to adapt to climate change.

287. At the national level, and in other dry forest areas, the project will build lessons and improve the tools and capacities of decision-makers and other stakeholders for land and biodiversity management, in order to replicate sustainable biodiversity management models and financial mechanisms for the restoration, conservation and sustainable use of ecosystem services in other dry forest landscapes, which in turn provide benefits to the local population.

288. At the local, regional and national level, these benefits are related to the protection, better management of protected areas, forests of high conservation value, land restoration and reduction of GHG emissions, which will translate to reduced effects of climate change on vulnerable populations, reduced deforestation and land degradation, as well as reduced species extinction and reduced flow of ecosystem services in the dry forest.

289. The project will strengthen cooperation for the valuation and conservation of biodiversity and effective governance in the use of natural resources. It will also contribute to international and national agreements aimed at ensuring healthy and functional ecosystems. The project will protect and restore a source of biodiversity and climate change mitigation that also contributes to degradation neutrality goals, with economic, social and environmental benefits at all levels.

290. In the area of dry forests, the Project will be the opportunity to generate a broad institutional dialogue on the Integrated Management of Natural Resources, with emphasis on this ecosystem and other associated ecosystems, with the purpose of building a territorial management proposal that enhances sectoral intervention in the promotion of conservation and sustainable use of natural resources, thus contributing to the improvement of the quality of life of citizens and the interventions of the sector at national, regional and/or local level.

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

During the design of the project, the level of risk was determined by identifying potential risks through an environmental and social diagnostic questionnaire based on the FAO Environmental and Social Standards (ESS). The result was that the activated standards are: ESS 2 (Biodiversity, Ecosystems and Natural Habitats) and ESS 9 (Indigenous Peoples and Cultural Heritage), each of which are submitted to a second analysis to determine the specific risks that apply to the project, a process that rated the project as 'Moderate Risk'.

Also, according to the environmental and social checklist, the main aspects to be included and/or implemented by the project are measures to strengthen resilience to climate change, reasonable and

feasible efforts to avoid practices that may have a negative impact on biodiversity, safeguards of the relationships between biological and cultural diversity, and measures to avoid risks or impacts on Protected Natural Areas, critical habitats and ecosystem functions. It will also generate opportunities and working conditions in rural areas and avoid practices that may increase the vulnerability of workers, considering the needs, priorities and constraints of women and men and promoting equal participation in decision-making processes and equal access for both, and control over productive resources and services.

It is worth mentioning that based on the consultation with different stakeholders, some risks and impacts that the project would generate were identified in a participatory manner. The main risks identified are: insufficient inter-institutional coordination between the different government levels, deficiencies in the articulation mechanisms between the different actors, changes of authorities at the different government levels, lack of participation of the Peasant Communities, deficiencies in the participation of women and young people, non-compliance with co-financing commitments, events related to climate change, economic pressures that hinder the adoption of measures to reduce the threat to dry forests, demographic, migratory and cultural changes, and the impacts of COVID-19. On the other hand, the impacts identified are mostly positive and mainly linked to opportunities to improve coordination spaces, harmonisation of policies, programmes and plans, promotion of collaborative and articulated governance among stakeholders, capacity strengthening of managers of Natural Protected Areas and OMECs, Peasant Communities, local producers with a landscape approach and employment generation promoting the participation of men and women. However, among the negative impacts, it was identified that the project could generate expectations and the subsequent loss of credibility due to non-compliance, conflicts between communities that are not direct beneficiaries, competition for employment opportunities and difficulty in integrating into the traditional economy at the end of the project.

Considering the potential risks based on the analysis of FAO Environmental and Social Standards (ESS) and the risks and impacts identified in a participatory manner with stakeholders, a Risk Management Plan that involves mitigation measures in order to improve the sustainability of the project was developed.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex I1_ ESS_RiskManagementPlan	CEO Endorsement ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Results Chain	Indicators	Baseline	Mid-term target	Final Target	Means of Verification	Assumptions	Data Collection Manager
COMPONENT 1. Promoting governance with multi-sectoral, multi-level and multi-stakeholder approach for the sustainable development of dry forests in Peru.							
OUTCOME 1.1 National, regional and local actors of the public and private sector have improved their coordination and harmonized policies, plans and investments related to sustainable and	Number of public and private institutions that coordinate and harmonize policies, plans and investments related to sustainable and inclusive dry forest management according to LDN priorities in a participatory manner.	0: Institutions currently coordinate in spaces that deal with sectoral issues and implement their management tools. In addition, management and planning tools are about to expire, are sectoral, do not consider the landscape approach, and the principles of LDN are not sufficiently integrated into the management tools.	80 public and private institutions participate in different spaces, coordinate and harmonize policies, plans and investments related to sustainable and inclusive dry forest management.	120 public and private institutions participate in different spaces, coordinate and harmonize policies, plans and investments related to sustainable and inclusive dry forest management.	Accords, Technical Reports, Macro-regional Agreements, regional and municipal ordinances.	Political and institutional willingness to coordinate and harmonize policies for sustainable dry forest management.	Regional Governments - Local Governments - Peasant Communities - MINAM - SERNANP - MIDAGRI - SERFOR- PNCB- NGOs.

<p>inclusive dry forest management and LDN priorities .</p>	<p>GEF Core Indicator 11: Number of women and men who are direct beneficiaries of project actions that improve their skills for the conservation and sustainable use of the dry forest.</p>	<p>0</p>	<p>4,125 men and 4,270 women. Total: 8,395</p>	<p>8,252 men and 8,548 women. Total: 16,800</p>	<p>Accords, Technical Reports, Macro-regional Agreements, regional and municipal ordinances.</p>	<p>Political and institutional willingness to coordinate and harmonize policies for sustainable dry forest management.</p>	<p>Regional Governments - Local Governments - Peasant Communities - MINAM - SERNANP - MIDAGRI - SERFOR-PNCB-NGOs.</p>
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<p>OUTPUT 1.1.1 Multi-sectoral and multi-level coordination spaces strengthened with capacities for the conservation and sustainable management of dry forests, under an integrated management approach in different territorial areas of dry forest (with at least 30% participation of women)</p>	<p>Number of strengthened macro-regional and regional coordination spaces for the conservation and sustainable forest management.</p>	<p>01: Except for the Regional Environmental Committee (CAR), no other macro-regional and regional coordination space has full participation of communities, private sector and local governments. Only in Lambayeque the Regional Wildlife Control and Surveillance Board has been established, the CARs do not have representative technical groups for dry forest management and the Directive Councils for the Regional Conservation Systems of Tumbes and Lambayeques are inoperative, and in La Libertad they have not been yet established.</p>	<p>26 environmental and productive coordination spaces are strengthened with the participation of communities and local governments for the conservation and sustainable dry forest management (20% women's participation). 2 environmental coordination spaces (Regional Wildlife Control and Surveillance Board) created with all the representative stakeholders.</p>	<p>26 coordination spaces are strengthened with the participation of communities, the private sector and local governments for the conservation and sustainable dry forest management (30% women's participation). 3 environmental coordination spaces (Wildlife Control and Surveillance Board) created with all the representative stakeholders.</p>	<p>Accords, Technical Reports, Updated Environmental Management Tools, Regional, Local Ordinances.</p>	<p>Political will to establish joint agreements on land management with a sustainable approach</p>	<p>Regional Governments _ Local Governments - Civil organisations - Peasant Communities - MINAM - MIDAGRI - SERNANP - SERFOR - PRODUCE - PCM</p>
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<p>OUTPUT 1.1.2 Management and planning instruments that mainstream the landscape approach, integrated natural resources management, and LDN priorities in the sustainable management and restoration of the Dry Forest.</p>	<p>Number of Strategies to be updated and formulated to improve the sustainable ecosystem management in Piura, Lambayeque and La Libertad regions.</p>	<p>0: The regional Climate Change, Biodiversity and Combat Desertification Strategies are about to expire or need updating in the regions of Piura, Lambayeque and La Libertad; in Tumbes there are no such instruments. MINAM is currently promoting a policy for the development of Integrated Regional Strategies within the framework of the CC, BD, LCD Conventions</p>	<p>2 regional strategies to improve ecosystems management integrating the directives of the three conventions (CC, BD, CD Conventions).</p>	<p>4 regional strategies to improve ecosystems management integrating the directives of the three conventions (CC, BD, CD Conventions).</p>	<p>Plans</p>	<p>Political and institutional willingness to implement participatory processes for the formulation of instruments.</p>	<p>MINAM - SERFOR - SERNANP Regional Governments.</p>
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<p>Number of new and updated regional plans contributing to sustainable dry forest management.</p>	<p>0: Piura and Lambayeque have Forestry Development Plans that expire in 2030 and 2021 respectively, and need to be updated. The 04 regions have an Environmental Action Plan, but these will expire in 2022. The regional technical committees for economic activities related to the dry forest (apiculture and livestock farming) should evaluate and update their planning instruments during the project implementation period, in addition to aligning them with the macro-regional policy on dry forests (Output 1.1.6).</p>	<p>04 Environmental - Forestry plans contribute to the sustainable management of the dry forest are formulated</p> <p>06 Environmental - Forestry - Productive plans that contribute to the sustainable management of the dry forest are updated</p> <p>Among which are the following regional instruments: Forest Development Plan, Restoration Plan, Reforestation Plan of commercial species, Environmental Action Plan, Operational Plans of Technical Tables of Beekeeping, Livestock</p>	<p>08 Environmental - forestry plans that contribute to the sustainable management of the dry forest are elaborated.</p> <p>12 Plans of an environmental - Forestry - Productive nature that contribute to the sustainable management of the dry forest are updated</p> <p>Among which are the following regional instruments: Forest Development Plan, Restoration Plan, Reforestation Plan of commercial species, Environmental Action Plan, Operational Plans of Technical Tables of Beekeeping, Livestock</p>	<p>Plans (documents)</p>	<p>Political and institutional willingness to implement participatory processes for the formulation of instruments.</p>	<p>MINAM - SERFOR - SERNANP Regional Governments.</p>
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<p>Number of Local Strategic Tourism Plans that promote sustainable activities and include safeguards for dry forests.</p>	<p>0: The four regions have a Regional Strategic Tourism Plan (PERTUR) that includes the PA in its strategic component. At the local level, there are no Local Strategic Tourism Plans in the area of influence of the PA to stimulate the economy of the population.</p>	<p>2 Local Strategic Tourism Plans (PELTUR) for districts with territory in PA: Noroeste Biosphere Reserve (community being set up), Province of Morropon, Province of Ferreñafe.</p>	<p>4 Local Strategic Tourism Plans (PELTUR) for districts with territory in PA: Noroeste Biosphere Reserve (community being set up). Provinces of Morropon, Ferreñafe (Birdwatching), Sechura, Pacasmayo - Chepén and Motupe.</p>	<p>Local Strategic Plans Municipal Ordinances</p>	<p>Political and institutional willingness to execute the technical-participatory processes for the formulation of the instruments.</p>	<p>Local Governments, Regional Tourism Directorates and Management, MINCETR, SERNANP, OMEC, Peasant Communities, Civil Organizations.</p>
<p>Number of watershed management plans mainstreaming sustainable dry forest management and restoration.</p>	<p>0: Water Resource Plans exist with limited intervention in dry forest and insufficient articulation with national LDN targets. There are indications that the overexploitation of the underground water is affecting the productivity and survival of the mesquite tree.</p>	<p>4 proposals for watershed management plans mainstreaming dry forest conservation and restoration, articulating targets with national LDN targets, developed for Tumbes, Lambayeque, Piura and La Libertad.</p>	<p>4 watershed management plan mainstreaming dry forest conservation and restoration, articulating targets with national LDN targets, developed for Tumbes, Lambayeque, Piura and La Libertad.</p>	<p>Technical reports Meeting minutes Mechanism for its insertion in HR management processes issued by the HR Council</p>	<p>Political and institutional willingness to execute the technical-participatory processes for the formulation of the instruments.</p>	<p>HR Council MINAM SERNANP National Water Authority - ANA SERFOR GOREs</p>

<p>OUTPUT 1.1.3 Protocols to implement the Dry Forest Management guidelines (LFFS, Art. 60, Forest Management Regulations) that mainstream the landscape</p>	<p>Number of instruments to implement dry forest management guidelines : ecotourism, conservation, timber, non-timber and wildlife.</p>	<p>0: There are currently no instruments to facilitate forest management according to the characteristics of the dry forest ecosystem and guidelines approved by SERFOR.</p>	<p>3 Guides on good practices for implementing dry forest management: timber, non-timber and wildlife.</p>	<p>5 Guides on good practices for implementing dry forest: timber, non-timber, wildlife, ecotourism and conservation.</p>	<p>Good practices guidelines for dry forest management (05), approved by SERFOR, GORE Virtual Application</p>	<p>Political and institutional willingness to execute the technical-participatory processes for the formulation of the instruments.</p>	<p>MINAM - SERNANP - SERFOR - GORE</p>
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<p>approach and LDN principles in Ecological-economic zoning (EEZ), Forest Zoning (FZ) and Concerted Development Plans (CDP).</p>	<p>Number of Protocols mainstreaming landscape approach and LDN principles in territorial management tools.</p>	<p>0: There are no protocols to improve the integrated management of the territory in local/regional development plans, local EEZ, and forest zoning (FZ). There are Ecological-Economic Zoning Studies: in Tumbes the base map has been approved at meso level (scale 1/50 000) and thematic studies are in the process of approval; in Piura there is an Ecological-Economic Zoning-EEZ at meso level (scale 1/100 000); in Lambayeque there is an Ecological-Economic Zoning-EEZ at meso level (scale 1/100 000), both approved through a Regional Ordinance, in the case of La Libertad: are in the initial stage of the process of Ecological-Economic Zoning - EEZ, meso level (1/100 000), (Public Investment Project with SNIP code N° 66932). The Forest Zoning has come to halt in the four departments. The PDRCs of</p>	<p>3 protocols mainstreaming landscape approach and LDN principles in zoning and PDRC processes (one protocol to strengthen EEZ processes, one protocol to strengthen FZ processes, one protocol to strengthen PDRC processes)</p>	<p>3 protocols mainstreaming landscape approach and LDN principles in zoning and PDRC processes (one protocol to strengthen EEZ processes, one protocol to strengthen FZ processes, one protocol to strengthen PDRC processes)</p>	<p>Proposed protocols developed. Regional Ordinances Directives, Technical Opinions of MINAM and SERFOR.</p>	<p>Actors are willing to engage in compliance with provisions and adopt best practices.</p>	<p>GORE of Tumbes, Piura, Lambayeque, La Libertad, MINAM, SERFOR, CEPLAN</p>
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<p>OUTPUT 1.1.4 Proposal for a macro regional policy to encourage the sustainable management and conservation of the Dry Forest through an ecosystem-based approach including LDN principles and articulated with Water Resources Management Plans (LFFS, Art. 24).</p>	<p>Percentage of the process for developing and adopting a macro-regional policy (strategy and ordinance) for sustainable dry forest management and conservation, with an ecosystem approach and articulated with Water Resources Management Plans.</p>	<p>0%: At present, there is no macro-regional policy on dry forests for the regions that share this ecosystem, and dry forests are not considered as priority ecosystems in watershed management (and without sufficient articulation with national LDN goals).</p>	<p>50%: Macro-regional policy project (Strategy and ordinance) for dry forest conservation with ecosystem approach elaborated and partially articulated with Water Resources Management Plans.</p>	<p>100% Macro-regional policy (Strategy and ordinance) for dry forest conservation with ecosystem approach and articulated with Water Resources Management Plans adopted by regional and local decision makers.</p>	<p>Policy Project Regional Ordinances approving the Policy (or Community Approval)</p>	<p>Political and institutional willingness to execute the technical-participatory processes for the formulation of the instruments.</p>	<p>Regional Governments - Macro-regional Platform Bosques del Norte - Civil Organizations - Peasant Communities - MINAM - SERNANP - MIDAGRI - SERFOR</p>
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<p>OUTCOME 1.2 Capacities of institutional and local stakeholders strengthened for decision-making on land-use, territorial planning, and monitoring of deforestation, degradation and biodiversity loss.</p>	<p>Percentage of reduction of capacity gaps and institutional strengthening of national, regional and local government officials in decision-making on land-use, land-use management and monitoring of deforestation, degradation and biodiversity loss.</p>	<p>0%: 78 institutions and their officials still lack adequate capacities (knowledge, equipment, organisation and timely and up-to-date information) for decision-making on land-use, land-use management and monitoring of deforestation, degradation and biodiversity loss.</p>	<p>60% reduction of capacity gaps and institutional strengthening of national and regional government officials.</p> <p>(The remaining 40% corresponds to local governments).</p>	<p>100% reduction of capacity gaps and institutional strengthening of national, regional and local government officials.</p>	<p>Baseline based on a survey or gap/capacity needs analysis. Mid-term and term project evaluation reports based on the application of a survey or measurement tool.</p>	<p>Actors are willing to adopt best practices to improve their performance as civil servants.</p>	<p>MINAM, Regional Governments, Local Governments</p>
	<p>Level of improvement of local stakeholders monitoring and surveillance capacities .</p>	<p>0% Level of dry forests spatial monitoring and tracking capacity of local actors (currently in other similar spaces it is between 5 percent - 10 percent women's participation).</p>	<p>40% level of spatial tracking and monitoring capacity of local stakeholders (20 percent women).</p>	<p>80% Level of dry forest spatial tracking and monitoring capacity of local stakeholders (at least 30 percent women).</p>	<p>Baseline based on a survey or capacity assessment analysis of monitoring capacities. Mid-term and term project evaluation reports based on the application of a survey or measurement tool.</p>	<p>Actors have an interest in improving and maintaining capacities for dry forest monitoring.</p>	

<p>OUTPUT 1.2.1 Capacity development program for the sustainable management of dry forests, with a landscape and gender-sensitive approach.</p>	<p>Number of Capacity Development Programmes for Dry Forests management. Number of virtual courses (Self-instructional) published on the Environmental Classroom platform on Dry Forests.</p>	<p>0: Courses and diploma courses for decision-makers, including recent training for specialists from MINAM, MIDAGRI, GOREs and other organisations in the introduction of advanced technology for the analysis, application and use of satellite information (ProBosque JICA) and for appointed officials from GOREs and central government in the formulation of the Low Emission Rural Development Strategy (EII).</p>	<p>2 Capacity Development Programmes for Dry Forests Management: Piura and Lambayeque. 1 MOOC course on MINAM's Environmental Classroom Platform</p>	<p>2 Capacity Development Programmes for Dry Forests Management: Piura, Lambayeque, Tumbes and La Libertad. 1 MOOC course developed with the support of international experts including evidence on Dry Forests.</p>	<p>Diploma Curricula, Certificates of Completion and Diplomas with an Agreement with Universities. Number of participants in the MOOC Virtual Course on dry forests at national and international level.</p>	<p>Actors are willing to adopt best practices to improve their performance as civil servants. Interest in self-instructional courses and virtual certificates.</p>	<p>MINAM, Regional Governments, Local Governments</p>
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<p>OUTPUT 1.2.2 Regional Spatial Data Infrastructure (IDER) strengthened for informed decision making to improve land management, with effective and innovative dry forest monitoring systems (SIAR, SIAL, Open Foris, Collect Earth, EX ACT) and LDN indicators .</p>	<p>Number of Regional Spatial Data Infrastructures (IDER) strengthened for effective regional dry forest monitoring systems.</p>	<p>Digital tools available such as: SIAR, SIAL, Open Foris, Collect Earth, EX ACT, GEOBOSQUE, GEOMIDAGRI , which will facilitate the dry forest monitoring and LDN indicators in the departments of Tumbes, Piura, Lambayeque and La Libertad. In addition, the SIAR of the departments of Tumbes, Piura, Lambayeque and La Libertad as well as the SIAL require capacity strengthening at the interface of updating the published information and reports on the state of the environment at the regional and local level, and that these are available in an unrestricted and user-friendly manner (also in component 4). IDER management committees have been set up in Gores at Amazonian level, but not in dry forest regions.</p>	<p>4 IDER created with: Technical Committees set up and operational. Regulations for its operation: Ordinance of creation and Directive of operation include interoperability services with MINAM (SINIA-GEOSERVIDOR) /MIDAGRI (SERFOR).</p>	<p>4 IDER strengthened with: Technical Committees set up and operational Regulations for its operation: Creation Ordinance and Operating Directive Ordered and classified information from different sources and formats at regional level. Basic equipment for operation. Operational platform integrated with the national government's georeferenced information systems.</p>	<p>Regional Ordinance approved and created by IDER. Operating Directive. Data reports. Monitoring Reports.</p>	<p>Actors are willing to adopt best practices to improve dry forest monitoring.</p>	<p>MINAM - SERFOR - SERNANP - GORE - RSDI</p>
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<p>OUTPUT 1.2.3 Strengthening information systems for decision-making on land use, land management and monitoring of deforestation, degradation and biodiversity loss.</p>	<p>Percentage of the progress in the strengthening of information systems</p>	<p>30%: In Minam, through the National Forest Conservation Programme, there is the Geobosques platform that provides annual information on forest loss and early warnings of deforestation for Amazon wet forests. For dry forests, the baseline has been determined for 2018, and the methodology for annual monitoring will be available by the end of 2021. It is considered important to implement early deforestation warnings for dry forests. TBD% progress of environmental information services</p>	<p>60%: Strengthened national system (GEOBOSQUE) that provides annual dry forest loss reports and early warning reports on deforestation in dry forests. TBD % of Environmental Information Services including statistical, normative, documentary (research, publications, etc.) and geo-referenced information.</p>	<p>100%: strengthened national system (GEOBOSQUE) that provides annual dry forest loss reports and early warning reports of deforestation in dry forests, 100% integrated with SINIA and GEOSERVIDOR.</p>	<p>Online information system, reporting dry forests monitoring. Forest investment projects formulated.</p>	<p>Actors are willing to adopt best practices to improve dry forest information systems.</p>	<p>MINAM - SERFOR - SERNANP - GORE (IDER)</p>
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COMPONENT 2. Ecological connectivity of dry forests and restoration through effective management and financial sustainability of conservation areas and buffer zones.

<p>OUTCOME 2.1 More effective management of protected areas and OMEC.</p>	<p>GEF CORE INDICATOR BD 1.2 National protected land area (ha) with improved management practices for conservation and sustainable use.</p>	<p>287,705 hectares of PA of SINANPE have some participatory management, but require strengthening. RCAs and the RAMSAR Site are poorly managed. Most PCAs and ECAs do not have management.</p>	<p>341,041 hectares of national and regional PAs (RCAs) have improved management practices.</p>	<p>398,013 hectares of national, regional (RCA) and private-communal (PCA) PA with improved management practices.</p> <p>17,941 hectares of OMEC with improved management practices.</p>	<p>Report</p>	<p>There is a methodology for assessing landscapes with areas under sustainable management.</p>	<p>MINAM - GORE - SERNANP - SERFOR</p>
	<p>% improvement in management, as measured by METT.</p>	<p>METT baseline scores: ? National Reserve of Tumbes: Baseline: 71 ? Cerros de Amotape National Park: Baseline: 74 ? El Angolo Hunting Reserve: Baseline: 73 ? Bosque de Pomac Sanctuary: Baseline: 93 ? Laquipampa Wildlife Refuge: Baseline: 65 ? Illescas Reserved Zone: Baseline: 18</p>	<p>METT score increases by at least 5% of its baseline.</p>	<p>METT score increases by at least 10% in relation to the implementation of integrated land management on the basis of PA and landscape connectivity.</p>	<p>METT</p>	<p>Training and adoption of best practices result in better PAs management.</p>	<p>MINAM - SERNANP -</p>

<p>OUTPUT 2.1.1. PA and OMEC Updated and / or prepared management plans that incorporate the landscape connectivity approach and are articulated with management instruments at the communal, local and regional levels.</p>	<p>Number of PA management plans articulated with community, local and regional development plans that mainstream the landscape connectivity approach for integrated territorial management.</p>	<p>3 national PA master plans are out of date (Cerros de Amotape NP, NR of Tumbes, Laquipampa WR), and 2 more will expire during the next year (HR El Angolo, Bosque de Pomac HS). The Illescas RZ is in the process of categorisation and will require the elaboration of its first master plan. Of the 4 RCAs, only 1 has an approved master plan (Dry Forest of Salitral-Huarmaca RCA) and 3 are pending observations and/or elaboration. The heads of the national PA require the updating and elaboration of at least 7 resource management plans (natural fodder, tourism, tara). In addition, 15 management plans need to be formulated in the PCAs and ECAs.</p>	<p>5 National PA and RCA master plans. 3 resources management plans in national PA. 7 resources management plans in PCAs and ECAs.</p>	<p>10 national PA and RCA master plans that mainstream the landscape connectivity approach for the integrated territorial management.</p> <p>7 resources management plans (for national PA) mainstreaming sustainability of their resources and the landscape connectivity approach for integrated territorial management.</p> <p>15 resources management plans (for PCAs and ECAs) mainstreaming sustainability of their resources and the landscape connectivity approach for integrated territorial</p>	<p>Updated PA management plans with a landscape connectivity approach. Community development plans that mainstream the landscape connectivity approach for integrated territorial management.</p>	<p>Governmental institutions, PA managers and organised local people have an interest in improving their capacities for integrated territorial management and landscape connectivity.</p>	<p>SERNANP, GORE, heads of OECM, MINCULTURE, SERFOR, COMMUNITY ORGANISATIONS</p>
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<p>OUTPUT 2.1.2 Strengthened capacities of national, regional and local interest groups for the integrated management of natural resources and territory on the basis of the PAs and OMEC</p>	<p>Number of PA and OMEC that have similar/uniform instruments with standardised criteria and methods that consider integrated territorial management.</p>	<p>6 PAs and OMEC have similar/uniform instruments with standardised criteria and methods that consider integrated territorial management.</p>	<p>9 PAs and OMEC have similar/uniform instruments with standardised criteria and methods that consider integrated territorial management.</p>	<p>11 PAs and OMEC have similar/uniform instruments with standardised criteria and methods that consider integrated territorial management.</p>	<p>Capacity gap baseline, mid-term and term project evaluations.</p> <p>Instruments, protocols, methodologies for monitoring of integrated territorial management.</p>	<p>Governmental institutions, PAs managers and organised local people have an interest in improving their capacities for integrated territorial management and landscape connectivity.</p>	<p>SERNANP, GORE, SERFOR, PRODUCE, MINAGRI, ECA, MINCULTURA, heads of OECMs</p>
<p>OUTPUT 2.1.3 Financial sustainability models for prioritized landscape with prioritized innovative instruments, and fundraising strategy with private sector's participation.</p>	<p>% progress in the development of a financial sustainability model for PAs.</p>	<p>0%: there is no proposal for financial sustainability of regional protected areas or OECMs.</p>	<p>40% progress of financial sustainability model for regional protected areas or OECMs.</p>	<p>100% of the financial sustainability model formulated in a participatory manner with regional and national actors (to be implemented in Output 2.1.4).</p>	<p>Meeting minutes, process reports, proposal document.</p>	<p>There is political will from regional and local governments to lead the formulation of a proposal for financial sustainability for regional protected areas.</p>	<p>MINAM, SERNANP, GORE, SERFOR, MEF, PA MANAGEMENT COMMITTEES, NGOs, corporations, bio-business chain producers.</p>

<p>OUTPUT 2.1.4 Pilots of financial sustainability models implemented for PA and OMEC.</p>	<p>Number of pilot financial sustainability mechanisms being implemented.</p>	<p>1 Administration Contract at CCEA. 2 RCA Implementing PIP for its management. 1 PCA (Mangamanguilla) implements a forest harvesting project that helps to cover management costs in the area. Public investment project (profile and file approved) for RCA Moyan Palacio. PIP profile approved for RCA Huacrupe La Calera (technical file is missing). Initial proposal for management contract in the PA of Tumbes and Piura by AIDER.</p>	<p>2 financial mechanisms being implemented.</p>	<p>4 financial sustainability mechanisms being implemented.</p>	<p>Technical reports. Memorandum of Agreement between the parties on the mechanisms.</p>	<p>There is political will from regional and local governments to lead the formulation of a proposal for financial sustainability for regional protected areas.</p>	<p>GORES, SERNANP, SERFOR, MINAM</p>
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<p>OUTCOME 2.2 Connected corridors and functional dry forest areas are preserved using management models based on landscape approach.</p>	<p>Area (ha) between PA with management models based on a landscape approach for conserved corridors .</p>	<p>The protected area in the six identified corridors is 413,642 Ha, which are the hub of the conserved corridors. At least 10 new conservation and/or sustainable management modalities have been proposed within the corridors, totalling around 83,000 ha and that would complement the management of these landscapes. These are distributed as follows: - Biosphere Reserve Corridor: Area PA = 244,953 Ha, proposed = 16,000 Ha - Coastal plain forest corridor and Bajo Piura: PA area = 54,859 ha, proposals = 0 Ha - Chulucanas - Tambogrande plain forest corridor. PA area = 0 Ha, possible proposals = 5,000 Ha - Cascajal-Olmos plain forest corridor with relics in hills. PA area = 7,272 Ha, possible proposals = 5,000 Ha. - Northern Hill</p>	<p>460,700 ha of conserved corridors with management models based on a landscape approach .</p>	<p>508,200 ha of conserved corridors with management models based on landscape approach .</p>	<p>Technical report on the evaluation of conserved corridors.</p>	<p>There is political will to manage landscape corridors in the dry forest.</p>
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<p>OUTPUT 2.2.1. New protected areas and/or other effective conservation measures (OMECE) established in priority sites for connectivity between existing PA.</p>	<p>Number of new PA or OMECE created through the project.</p>	<p>7 proposals for the creation of new PAs or OMECE within the prioritised areas (Critical Habitat Pan de Azucar - Laquipampa, Salas, Jaguay Negro, Talandracas dry forest, Talara, Hualtales de Plateritos, Pan de Azucar Macuaco).</p> <p>Possibility of establishing OMECE in the intervention area of the Olmos Irrigation Project.</p>	<p>4 new PA or OMECE.</p>	<p>9 new PA or OMECE.</p>	<p>Regulation for the creation or recognition of PAs or OECMs.</p> <p>Articles of Incorporation of the Management Committee (governance mechanism established).</p>	<p>There is political will to improve the legal status of priority areas for the conservation and creation of PA or OECM.</p>	<p>GORE, SERNANP, SERFOR, PRODUCE, MINCULTURA, MINAM</p>
<p>OUTPUT 2.2.2 Regional Conservation Systems with strengthened management capacities for landscape connectivity and territorial articulation.</p>	<p>Number of planning, tracking and monitoring instruments implemented to guide and articulate the management of PAs, OMECE in the scope of each Regional System.</p>	<p>1 multi-annual Plan of the SRCAN Piura. There are no planning instruments in the other Regional Systems. 1 Action Plan for the Noroeste Biosphere Reserve Amotapes - Manglares</p>	<p>4 multi-annual plans of the regional conservation systems being implemented. 1 Biosphere Reserve Action Plan, 20% progress in implementation.</p>	<p>4 multi-annual plans of the regional conservation systems being implemented. 1 Biosphere Reserve Action Plan, 40% progress in implementation.</p>	<p>Work Plan documents and Ordinances</p>	<p>There is political will to improve management capacities for landscape connectivity and territorial articulation.</p>	<p>GOREs SERNANP Community / Macro-regional Platform Bosques del Norte</p>

<p>OUTCOME 2.3 Dry forests recovered through landscape restoration mechanisms.</p>	<p>GEF Core Indicator LD 3.2: Area of forests restored as a result of the project.</p>	<p>As of 2018, 156 442.07 Ha have been reforested (110,000 Ha reforested in M?rrope HR according to the Contingency Plan before the occurrence of 'El Ni?o' Phenomenon in 1997), systematised information of 86 restoration experience in the dry forest (Bioversyti, 2017). There is a National Strategy for the Restoration of Ecosystems and Degraded Forest Lands by 2030. Systematisation of Restoration Experiences in Peru. Guidelines for the restoration of forest and other wild vegetation ecosystems. Guidance for the restoration of forest and other wild vegetation ecosystems. There is no cultivation for fuelwood even though it is in high demand, only extraction. Experiences, investment and interest in forest restoration in agro-industries such as Arena</p>	<p>760 ha of restored dry forest.</p>	<p>2,278 ha of restored dry forest.</p>	<p>Biological Monitoring Reports every six months (includes the previous description).</p>	<p>Communities will not migrate for reasons of climate change and composed of committed local group. There is political and local community willingness to lead landscape restoration processes ; SUPPORTS FULFILMENT OF LDN TARGET ## (CESAR)</p>	<p>Regional Conservation Systems GOREs SERFOR INIA SERNANP</p>
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<p>OUTPUT 2.3.1 Financial instruments generated to leverage investments in forest recovery (to be implemented in 2.3.2).</p>	<p>Number of financial instruments leveraging investments in forest restoration.</p>	<p>(i) Public investment (PE invests) in restoration projects is limited (CUI: 2326603/2411991/2359071 (ii) The new agrarian regime implies a gradual increase in IR (from 15% to 30% in 8 years, mechanisms must be created so that it is invested for the benefit of the local community; (iii) There are no investments in restoration with works funds for taxes, however there are in other regions: Cuzco and Ancash (iv) There are different competitions for research funds (FONDECYT), being key research in aspects of degradation by pests and restoration from genetic improvement in dry forest.</p>	<p>7 financial instruments leveraging investments in forest restoration: (i) 02 PIP or IOAR: Idea, profile and Technical File (ii) 02 Public Works taxes: Technical file, Technical file (iii) 03 File for Fondecyt (Concytec)</p>	<p>9 financial instruments leveraging investments in forest restoration: (i) 03 PIP or IOAR: Idea, profile and Technical File (ii) 03 Public Works taxes: Technical file, Technical file (iii) 03 File for Fondecyt (Concytec)</p>	<p>Financial management documents (Project, Technical report, etc.). Biannual fund management and administration reports.</p>	<p>GORES and MUNIS align with SDGs and national restoration goals and generate portfolios of restoration projects, nature-based solutions, natural infrastructure, recovery of ecosystem services with support from the private sector and academia for planning, management and financing.</p>	<p>Central information office for dry forests; Regional Governments, districts, civil and private organisations; MINAM, MIDAGRI, PRODUCE, MINCETUR. CONCYTEC, FONDOE MPLEO</p>
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<p>OUTPUT 2.3.2 Best practices in restoration implemented with communities in priority areas for Dry Forest connectivity.</p>	<p>Number of pilot restoration interventions implemented in strategic and accessible locations with the communities.</p>	<p>0: 9 localities with restoration projects within the identified corridors. Its areas of intervention total up to 7,000 ha, mainly on the lands of peasant communities. 4 localities are currently ongoing (Arena verde S.A.C, Maido Per?, P.C. Sechura), the others completed their intervention in the last four years (Bioversity International, 2018).</p>	<p>13 pilot restoration interventions in strategic and accessible locations with communities (65 ha average).</p>	<p>34 Pilot restoration interventions in strategic and accessible locations with communities (65 ha average).</p>	<p>Accords, Commitment Agreements with Communities, Biannual technical reports.</p>	<p>Local communities are willing to lead landscape restoration processes. Communities are committed to learning and implementing good restoration practices. Fair payment for their work.</p>	<p>Regional governments, districts, civil organisations, peasant communities, MINAM and MIDAGRI (SERFOR, INIA).</p>
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<p>OUTPUT 2.3.3 Instrument to guide, promote and make restoration actions effective to recover the resilience of Dry Forests.</p>	<p>Percentage of progress in the elaboration and implementation of Guidelines to promote and give effectiveness to restoration actions to recover dry forest resilience.</p>	<p>0%: There are no guidelines. At the national level there is systematised information and instruments for planning restoration.</p>	<p>60% progress in the elaboration and implementation of guidelines to promote and perform restoration actions to recover the resilience of the dry forest, including: Module 1: Planning for the implementation of restoration practices at the local level. Module 2: Selection of potential species for restoration. Module 3: Selection and implementation restoration strategies and practices.</p>	<p>100% progress in the elaboration and implementation of guidelines to promote and perform restoration actions to recover the resilience of the dry forest, comprising: Module 4: Extension, Monitoring and Maintenance of areas under restoration. Module 5: The landscape approach in mesoscale restoration planning.</p>	<p>Progress Reports</p>	<p>Peruvian and foreign scientists, conservation and restoration specialists, public and private entities and dry forest communities can coordinate, share and systematise available information from different past interventions, monitor and evaluate those of the GEF-7 project and analyse secondary information for the elaboration of the guidelines.</p>	<p>Regional Governments, MINAM and MIDAGRI (SERFOR, INIA) Civil organisations, peasant communities.</p>
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COMPONENT 3. Sustainable production practices for the conservation of the natural heritage of the dry forest on the Northern Coast of Peru.

<p>OUTCOME 3.1 Sustainably conserved and managed dry forests of the Peruvian Northern Coast are more resilient to anthropogenic threats, mainly agriculture and livestock, and have a better response capacity to climate change effects.</p>	<p>Number of actions/initiatives implemented to preserve the ecosystem services of the dry forest and improve productivity for its sustainable use with a gender approach.</p>	<p>0: Baseline on past and current projects related to the sites to be intervened, outcomes. Current unsustainable management, with technology and high environmental impact.</p>	<p>13 actions/initiatives implemented to preserve the ecosystem services of the dry forest and improve productivity for its sustainable use with a gender approach.</p>	<p>34 actions/initiatives implemented to preserve the ecosystem services of the dry forest and improve productivity for its sustainable use with a gender approach.</p>	<p>Biannual reports with surveys to families involved and measured results.</p>	<p>Political will of governments to conserve forests and ecosystem services and of communities to develop conservation initiatives.</p>	<p>Regional governments, districts, civil organizations, peasant communities, MINAM and MIDAGRI (SERFOR, INIA).</p>
	<p>GEF Core Indicator BD 4.1: Landscape area with best management practices.</p>	<p>0: No ha with best landscape management practices have been identified.</p>	<p>2,000 ha with improved landscape management practices.</p>	<p>8,000 ha with improved landscape management practices.</p>	<p>Socio-ecological report every 6 months.</p>	<p>There is a methodology for assessing areas with best management practices.</p>	
	<p>GEF Core Indicator 4.3: Area (ha) with sustainably managed production systems.</p>	<p>0: No sustainable management model of production systems has been identified.</p>	<p>500 ha with sustainably managed production systems.</p>	<p>2,000 hectares with sustainable land management of production systems.</p>	<p>Socio-economic report every 6 months.</p>	<p>There is a methodology for assessing areas with sustainably managed production systems.</p>	

	<p>GEF Core Indicator 4.4: Area of high conservation value with avoided forest loss (through conservation agreements with producers).</p>	<p>Number of ha of high conservation value with forest loss currently avoided.</p>	<p>50,000 ha of high conservation value with forest loss avoided.</p>	<p>67,941 ha of high conservation value with avoided forest loss (through conservation agreements with producers).</p>	<p>Agreements/arrangements between producers and Regional Conservation Systems Authorities.</p>	<p>Interest of producers in agreeing conservation agreements to prevent forest loss.</p>	
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<p>OUTPUT 3.1.1 Farmer field schools established in the territories for capacity-building in sustainable biodiversity management, sustainable production practices and Dry Forest restoration (restoration in Output 2.3.2).</p>	<p># of field schools as an extension methodology established in the territories and promoting sustainable management of biodiversity, sustainable production practices and dry forest restoration.</p>	<p>0: There are field schools developed by INIA and SENASA for agricultural producers that do not address biodiversity and/or forests related issues:</p> <p>10 Field Farmer Schools to train experts in Good Agricultural Practices in 2020 and 70 FFS in Good Agricultural and/or Livestock Practices in Lambayeque are scheduled for 2021. (Facilitators were trained in 2019).</p> <p>INIA, based on the ECAs, has developed a Training Guide for Field School Facilitators on Quinoa Production.</p>	<p>13 field schools established in the territories and promoting sustainable biodiversity management, sustainable production practices and dry forest restoration.</p>	<p>34 field schools established in the territories and promoting sustainable biodiversity management, sustainable production practices and dry forest restoration.</p>	<p>Certificates (In partnership with universities and/or institutes). Training reports. Agricultural family economy report (Participatory methodologies).</p>	<p>Interest of the community members to strengthen their capacities and to be trained in the Field Farmer Schools with an official certification.</p>	<p>Regional governments, districts, civil organisations, peasant communities, MINAM (EDUCCA) and MIDAGRI (SERFOR, INIA).</p>
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<p>OUTPUT 3.1.2 Territorial agreements established with producers and communities in High Conservation Value Forest (HCVF) areas.</p>	<p>Number of Territorial Agreements established with communities that manage areas of HCVF, to ensure their conservation and sustainable use.</p>	<p>0: There is no evidence of agreements in place with communities managing areas of HCVF to ensure conservation or sustainable use.</p>	<p>30 Territorial Agreements.</p>	<p>60 Territorial Agreements.</p>	<p>Technical reports, Resources exploitation reports. Biological monitoring report.</p>	<p>Recognition of HCVF and interest in establishing conservation agreements in HCVF areas.</p>	<p>Regional governments, districts, civil organisations, peasant communities, MINAM (SERNAMEP) and MIDAGRI (SERFOR, INIA).</p>
<p>OUTCOME 3.2 Strengthened value chains with the increase of deforestation-free dry forest products and by-products, with higher value and access to markets, fostering collaboration between resource</p>	<p>Number of deforestation-free (DF) value chains (VC), strengthened and competitively articulated with the market.</p>	<p>There are 5 potential productive activities in the dry forest: apiculture, carob and by-products, livestock farming, ecotourism, palo santo (fruit), which are VC and only apiculture VC is free of deforestation, however, the high mortality of beehives are a consequence of poor agricultural practices, poor management and climate change.</p>	<p>2 VC of strengthened and articulated apiculture with the market in a competitive way.</p>	<p>5 DF VC strengthened: apiculture, carob and by-products, livestock, ecotourism and palo santo.</p>	<p>Statistics on sales, employment, sustainably managed areas. Agreements/business partnerships</p>	<p>VC producers are willing to participate.</p>	<p>Regional Directorates of Agriculture, SERFOR, NGOs, CITEs.</p>

<p>managers and users and the private sector.</p>	<p>Number and type of start-ups with market access under sustainable production schemes and biodiversity conservation and sustainable land management efforts.</p>	<p>0: At present, there is an application that serves as an example to build upon: an application was designed by the company AGROS, which provides technical assistance to smallholders all over the world at a cost of one dollar per month. The company is from Piura and has been awarded by the MIT in Massachusetts as one of the best enterprises at a global level.</p>	<p>1 application for the articulation of producers with the market (of which 50% are led by women).</p>	<p>1 application for the articulation of producers with the market (of which 50% are led by women).</p>	<p>Reports</p>	<p>There is demand from producers for easy-to-use technological tools.</p>	<p>Regional Governments, Academia, Institutions developing technology.</p>
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<p>OUTPUT 3.2.1 Diagnoses and marketing strategies to access sustainable markets developed for Dry Forest products and tourism.</p>	<p>Number of diagnosis of Value Chains of: carob and by-products developed, apiculture and bee products developed, livestock farming, eco-tourism and palo santo. Number of business strategies developed .</p>	<p>0: There are no complete diagnosis of the VCs identified. 0: No business strategies for sustainable markets with a Value Chain approach have been implemented.</p>	<p>5 DF VC diagnosis: carob and carob products, beekeeping, livestock, ecotourism and palo santo. 2 niche market studies. 34 business strategies, including the following: 10 organisations with sanitary registration and better presentation of their products, two macro-regional business rounds, five producers use a guarantee seal, one GMPs of the NTP for carob products, 10 events to disseminate their qualities and identify adulterated products, 10 regional and/or national Trade Fairs (participation)</p>	<p>5 DF VCs diagnostic: carob and carob products, beekeeping, livestock, ecotourism and palo santo. 4 market niche studies. 34 business strategies, including the following: 20 organisations with sanitary registration and better presentation of their products, 6 macro-regional business roundtables, 20 producers using a guarantee seal, 3 GMPs of the NTP for carob products, 20 events for the dissemination of their qualities and identification of adulterated products, 20 regional and/or national Trade Fairs (participation)</p>	<p>Reports on diagnosis and studies, dissemination events, business conferences. Reports on diagnosis and studies, dissemination events, business roundtables. Technical standards</p>	<p>VCs producers are willing to participate.</p>	<p>Regional Directorates of Agriculture, SERFOR, NGOs, CITEs, Technical Committees, producers.</p>
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<p>OUTPUT 3.2.2 Timely information on markets and access using new technologies.</p>	<p>Number of virtual applications. Number of business venture events (Challenge). Exploratory study on the export of propolis to the Asian market.</p>	<p>0: There are no applications for DF products. There are no studies of the Asian market for propolis. Challenges have been held for other themes or products but not for DF products.</p>	<p>1 virtual application. 1 Asian market study for propolis. 1 challenge implemented. 20 corporations linked to E-commerce platforms.</p>	<p>1 virtual application 1 Asian market study for propolis 3 challenge implemented 50 corporations linked to E-commerce platforms</p>	<p>Reports of the implemented application. Study report</p>	<p>VCs producers are willing to participate. Interested business incubators</p>	<p>Regional Directorates of Agriculture, SERFOR, NGOs, CITEs, producers, business incubators.</p>
<p>OUTPUT 3.2.3 Partnerships among producers, public and private sector to leverage sustainable investments</p>	<p>Number of partnerships.</p>	<p>0: there are currently no inter-institutional partnership agreements for DF VCs to leverage sustainable investments, but there is interest from export product clusters or business groups to offset carbon emissions from their activities.</p>	<p>1 inter-institutional agreements (Options: Agroideas, PNIA).</p>	<p>3 inter-institutional agreements for the financing of projects and/or forest sustainability. (Options: Agroideas, PNIA, other private)</p>	<p>Reports Business Plans formulated and approved Business Plans executed and monitored</p>	<p>VCs producers are willing to participate. Public and private sector actors willing to participate.</p>	<p>Regional Directorates of Agriculture, SERFOR, NGOs, CITEs, producers, InnovatePeru, PNIA, entrepreneurs.</p>

<p>OUTPUT 3.2.4 Demonstrations to improve local stakeholders' capacities in sustainable production and enhancement of the biodiversity value for implementing deforestation-free value chains (implementation of 3.2.1).</p>	<p>Diversified livelihoods of small-scale and entrepreneurial producers linked to BD-friendly practices and level of market access, measured by: Number of pilots of agrosilvopastoral plots. Business plan for the sustainable use of palo santo: palo santo oil from seed and timber. Number of apiculture pilots including pollination services. Number of ecotourism route pilots.</p>	<p>- There are pilot agrosilvopastoral plots that were implemented by CEPESER, AIDER. - Business Plans - At present, the oil is extracted from timber and there is a lot of informality and illegality in the VC of palo santo. - Apiculture pilots including pollination services - The beekeeping VC is not consolidated so the actors work independently. In the case of pollination services, there is a 40-70% mortality rate of beehives. - There are some pilots of ecotourism routes.</p>	<p>22 Business Plans of the Pilot Models. 1 Business plan for palo santo oil from seed and timber. 4 Pilots of agrosilvopastoral plots. 4 Pilots for the production of carob and carob products. 7 Pilots for sustainable beekeeping production. 5 Pilots for sustainable livestock farming. 2 Ecotourism pilots.</p>	<p>59 Business Plans of the Pilot Models. 1 Business plan for palo santo oil from seed and timber. 9 Pilots of agrosilvopastoral plots. 7 Pilots for the production of carob and carob products. 14 Pilots for sustainable beekeeping production. 17 Pilots for sustainable livestock farming. 12 Ecotourism pilots. 1 Pilot for sustainable production of palo santo.</p>	<p>Report on business plans for pilot models. Pilot models reports.</p>	<p>VCS producers are willing to participate. Public and private sector actors willing to participate. The presence of El Niño phenomenon or any other natural event does not affect the implementation of the pilot models.</p>	<p>Regional Directorates of Agriculture and Tourism, SERFOR, NGOs, CITEs, producers, entrepreneurs.</p>
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<p>OUTPUT 3.2.5 Strengthened capacities of small producers for sustainable production and business management.</p>	<p>Number of organisations established. Number of capacity strengthening plans. Number of exchange of experiences (or Internships to successful experiences). Number of Diploma courses in Bio-business and Eco-business Plans.</p>	<p>There are organisations of producers agglutinated as enterprises, Producers' Associations, but none in the form of Cooperatives and only two as Communal Corporations. Technical and administrative strengthening plans have been implemented in some organisations, but have yet to be completed due to their current shortcomings. Exchange of experience have taken place, but to recognise specific rather than comprehensive issues. Diploma courses to formulate sustainable business plans (Agroideas - ESAN), which have had a high impact in the buffer zones of PA.</p>	<p>4 producer organisations formed. 10 capacity strengthening plans. 2 exchange of experiences. 1 Diploma in Bio-business and Eco-business Plans.</p>	<p>8 producer organisations established. 30 capacity strengthening plans. 5 exchange of experiences. 2 Diploma courses in Bio-business and Eco-business Plans.</p>	<p>Technical reports on the progress of activities. Strengthening plans. Agreements with Universities for three Diploma courses.</p>	<p>VCs producers are willing to participate. Public sector actors willing to participate. The presence of El Niño Phenomenon or any other natural event does not affect the participation of producers.</p>	<p>Regional Directorates of Agriculture, NGOs, CITEs, producers.</p>
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COMPONENT 4. Knowledge Management, Monitoring and Evaluation (M&E) based on adaptive management principles and the delivery of measurable and objectively verifiable outcomes.

<p>OUTCOME 4.1 Knowledge management of the project articulated with national information systems and the GEF and contributing to the scaling up and replication of best practices and lessons learned.</p>	<p>Number of best practices replication and lessons learned in new dry forest areas.</p>	<p>0</p>		<p>3 replications by region of best practices and lessons learned in new dry forest areas.</p>	<p>Technical reports Press releases</p>	<p>Actors involved in dry forest management show interest in dry forest conservation.</p>	
<p>OUTPUT 4.1.1 Mechanism for dissemination and exchange of best practices and lessons for the replication and scaling-up of outcomes .</p>	<p>Number of mechanisms for outcomes dissemination and exchange implemented. (Mechanisms: Dry Forest Knowledge Audit, Policy Brief, Systematized Briefs)</p>	<p>0: There is no mechanism for outcomes dissemination.</p>	<p>1 Dry forest knowledge audit. 4 systematized briefs (01 per region).</p>	<p>3 Mechanisms for dissemination and exchange of outcomes implemented by region.</p>	<p>Technical Reports Communicator Reports Press releases Publication in SINIA/ONIA</p>	<p>Government institutions, PA managers and organized local population have an interest in improving communication and knowledge management, and have updated and complete information for its adequate distribution.</p>	<p>MINAM MIDAGRI GORES GOLOS IMPLEMENTING AGENCIES</p>

<p>OUTPUT 4.1.2 Gender-sensitive communication and information strategy.</p>	<p>Percentage of implementation of the gender-sensitive communication and information strategy.</p>	<p>0% There is no Communication Strategy.</p>	<p>50% of the Communication Strategy implemented by: 3 Dissemination campaigns 3 Activations with health security protocols</p>	<p>100% of the Communication Strategy implemented by: 5 dissemination campaigns 5 activations with health security protocols</p>	<p>Reports, Proposals / Profile of activities, Attendance lists, Press releases</p>	<p>Government institutions, PA managers and organised local population have an interest in improving communication and knowledge management, and have updated and complete information for its adequate distribution.</p>	<p>MINAM MIDAGRI GORES GOLOS IMPLEMENTING AGENCIES</p>
<p>OUTPUT 4.1.3 Exchange of regional experiences in the management of Dry Forests.</p>	<p>Number of events for exchanging experiences. Number of mechanisms for exchanging experiences on dry forest.</p>	<p>0: No events for exchanging experiences have taken place.</p>	<p>1 Exchange of Experiences 1 Community of practice formed (MINAM, SERFOR, SERNANP, GORES, NGOs)</p>	<p>3 Exchanges of Experiences 1 Strengthened community of practice</p>	<p>Reports</p>	<p>Government institutions, PA managers and organised local population have an interest in improving communication and knowledge management, and have updated and complete information for its adequate distribution.</p>	<p>MINAM MIDAGRI GORES GOLOS IMPLEMENTING AGENCIES</p>

<p>OUTPUT 4.1.4 Lessons learned systematized and disseminated with public and private stakeholders (including gender mainstreaming and successful stories by women).</p>	<p>Number of events to systematized lessons learned. Number of integrated methodology for the systematization of experiences on dry forests. Number of publications. Number of successful experiences of women.</p>	<p>There are isolated systematisation of experiences (projects). There are no integrated methodologies for the systematisation of experiences on dry forests.</p>	<p>1 integrated methodology for the systematization of experiences on dry forests.</p>	<p>3 events on systematization of experiences and lessons learned 4 Publications</p>	<p>Reports, Proposals / Activity Profile, Attendance Lists.</p>	<p>Government institutions, PA managers and organized local population have an interest in improving communication and knowledge management, and have updated and complete information for its adequate distribution.</p>	<p>MINAM MIDAGRI GORES GOLOS IMPLEMENTING AGENCIES</p>
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<p>OUTPUT 4.1.5 Regional information platforms updated and accessible to all stakeholders.</p>	<p>Regional virtual platforms for up-to-date and publicly accessible information, with an emphasis on dry forest issues.</p>	<p>Regional information platforms partially operational for dry forest information.</p> <p>4 SIAR platforms created under the responsibility of the Regional Governments (Tumbes, Piura, Lambayeque and La Libertad) but with limitations for their proper functioning.</p> <p>2 Regions (Tumbes and La Libertad) started the formulation of public investment projects to strengthen their environmental information services.</p>	<p>1 specialised repository on dry forests linked to the SIARs of Tumbes, Piura, Lambayeque and La Libertad.</p> <p>4 Gores with institutional, technological and human capacities strengthened in environmental information management (generation, processing and dissemination) with emphasis on dry forest issues.</p> <p>50% Information providers with improved capacities to produce information related to dry forests.</p>	<p>4 regional virtual information platforms updated and accessible to the public, with emphasis on dry forest issues.</p> <p>100% Information providers with improved capacities to produce information related to dry forests.</p>	<p>Reports made by MINAM on the operation of the SIAR Tumbes, Piura, Lambayeque and La Libertad.</p> <p>Reports on platforms visits and users.</p> <p>Information on dry forests disseminated on regional platforms.</p>	<p>Government institutions, PA managers and organised local population have an interest in improving communication and knowledge management, and have updated and complete information for its adequate distribution.</p>	<p>MINAM MIDAGRI GORES GOLOS IMPLEMENTING AGENCIES</p>
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<p>OUTPUT 4.1.6 National platform with publicly accessible project information.</p>	<p>National virtual platform of updated information, with emphasis on dry forest issues in the departments of Tumbes, Piura, Lambayeque and La Libertad.</p>	<p>National Platform of outdated information on dry forest in the departments of Piura, Lambayeque and La Libertad.</p>		<p>1 National virtual platform of updated information, with emphasis on dry forest issues in the departments of Tumbes, Piura, Lambayeque and La Libertad.</p>	<p>Reports</p>	<p>Government institutions, PA managers and organised local population have an interest in improving communication and knowledge management, and have updated and complete information for its adequate distribution.</p>	<p>MINAM MIDAGRI GORES GOLOS IMPLEMENTING AGENCIE</p>
<p>OUTCOME 4.2 M&E system supporting project implementation, based on measurable and verifiable results and adaptive management principles.</p>	<p>Number of Monitoring and Evaluation Reports.</p>	<p>0: Monitoring and evaluation reports</p>	<p>4 Reports; 1 Evaluation</p>	<p>10 Monitoring reports (2 annual)</p>	<p>Monitoring and evaluation reports</p>	<p>The project is being implemented adequately, within deadlines, without environmental or social problems, with satisfactory coordination locally, between regions and at the national level.</p>	<p>Steering Committee / Implementing Agency GEF</p>

<p>OUTPUT 4.2.11 M&E strategy developed with relevant stakeholders, clearly defining expected outcomes, the expected time periods of implementation, and confirmation through objectively verifiable indicators and means of verification.</p>	<p>Percentage of progress of implementation of M&E strategy that incorporates (annual) reports containing expected results, progress of indicators and means of verification.</p>	<p>0%</p>	<p>50% progress of M&E Strategy including (annual) reports containing expected results, progress of indicators and means of verification.</p>	<p>100% progress of M&E Strategy including (annual) reports containing expected results, progress of indicators and means of verification.</p>	<p>Reports</p>	<p>The project is being implemented adequately, within deadlines, without environmental or social problems, with satisfactory coordination locally, between regions and at the national level.</p>	<p>Steering Committee / Implementing Agency GEF</p>
<p>OUTPUT 4.2.2 Mid-term Review, Final Evaluation and Impact Assessment to confirm progress, guide Project implementation and measure impact.</p>	<p>Evaluation reports containing recommendations.</p>	<p>0 Reports (baseline measurement for impact assessment will start in year 1)</p>	<p>3 annual reports, 1 Mid-Term Review Report containing progress and recommendations;</p>	<p>5 annual reports, 2 reports, Mid-term Review Report and Final Evaluation Report containing Project completion; Impact assessment report.</p>	<p>Evaluation Reports</p>	<p>The project is being implemented adequately, within deadlines, without environmental or social problems, with satisfactory coordination locally, between regions and at the national level.</p>	<p>Steering Committee / Implementing Agency GEF</p>

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

<i>Comments</i>	<i>FAO response</i>	<i>Reference</i>
<p><i>STAP Comments:</i> <i>The project includes a Theory of Change; however, it needs to include underlying assumptions or alternative pathways. STAP recommends that project proponents revisit the ToC during PPG phase and make use of the STAP primer on Theory of Change.</i> <i>During PPG phase it would be beneficial to provide detail regarding the underlying assumptions and processes which include the various stakeholders and their roles. See STAP primer on Theory of Change for more information.</i></p>	<p><i>The Theory of Change has been updated and expanded in accordance with the STAP primer on Theory of Change.</i></p>	<p><i>ProDoc Section 1a.3. Proposed Alternative Scenario and Theory of Change</i></p>
<p><i>STAP is pleased to note that this project evaluates climate risk in a thoughtful and detailed manner (as an Annex) and that further work will be done during PPG phase to identify and incorporate appropriate climate smart interventions on the ground.</i></p>	<p><i>Indeed, climate smart interventions are an important part of Component 2 with regards to restoration and Component 3 with regards to value chains, such as apiculture (inclusion of complementary feeding to compensate for changes in flowering seasons and duration).</i></p>	<p><i>ProDoc Section 1a.3, Components 2 and 3</i></p>

STAP welcomes the project is to apply the LDN Conceptual Framework and the LDN Guidelines purposely written for GEF projects. In this regard, STAP suggests that planned LDN interventions consider land potential? and that complementary national and subnational indicators be selected appropriate for locally-relevant ecosystem services that are not covered by the three global LDN indicators ?SOC, Net Primary Productivity and land cover/land use change.

A baseline assessment of landscapes prioritized for project intervention was performed during the PPG phase. Not only the 3 LDN global indicators, but also relevant national indicators were considered, as suggested by STAP. In this regard, both biophysical and socio economic indicators were taken into consideration to guide activities to avoid, reduce and reverse degradation. As presented in Annexes 1 and 3, for each landscape, local assessments of land degradation, deforested area, main type of forest, presence of key threatened biodiversity, protected area cover, presence of organized farmer communities, trends in deforestation, population (disaggregated by gender), presence of species with particular socio economic value, and other, were considered to select and prioritize different types of conservation, restoration and other SLM practices. In addition, the gap indicator (indicador de brecha) from the General Directorate of Environmental Territorial Planning (Direcci?n General de Ordenamiento Territorial Ambiental) will also be considered for planned LDN interventions. This indicator is based on National and Regional Assessments on land potential and degradation, which integrates different indicators, such as primary productivity trends, fragmentation, causes of degradation, socio economic indicators among other inputs, and classifies the territory into areas that require support for SLM and degraded areas in natural ecosystems.

ProDoc Annexes 1 and 3

<p><i>Key stakeholders and their roles are articulated and appear to include all relevant groups. Additional effort could be applied during PPG phase to go beyond detailing roles and responsibilities but also to articulate how the project will promote engagement between stakeholders and build ownership, thereby increasing likelihood of durable outcomes once the project is completed.</i></p>	<p><i>The project will promote engagement between stakeholders and build ownership throughout each of the components, resulting in improved coordination in conservation, restoration and productive activities. To date, the hygiene protocols associated with the COVID-19 pandemic have limited in-depth in-person consultations and engagement of local communities. Regardless, the Stakeholder Engagement Plan provides an extensive overview of how different individuals and groups will be engaged in each component, such as restoration activities, value chain, governance and monitoring. This Plan aims to increase the likelihood of durable outcomes once the project is completed.</i></p>	<p><i>ProDoc Section 2 Stakeholders and Annex I2</i></p>
<p><i>STAP recommends that communications and information strategy addressed to stakeholders (regional and local governments, producers, communities, and the education sector) profit from recent ICT development and successful experiences in the use of these technologies for capacity building and extension services in rural areas; these can accommodate for different cultural and social contexts. It is important that communication plans go beyond the usual ?I inform you? using traditional tools (printed materials). STAP provides a list of recent scientific literature that evidences the potential of innovative modes of communicating and delivering knowledge of stakeholders of rural areas, with attention to different levels of education.</i></p>	<p><i>The project welcomes this recommendation and will ensure that the communications and information strategy developed in Component 4 will take into account recent ICT development and successful experiences in the use of these technologies for capacity building and extension services in rural areas. Given the challenges faced by extension agents, especially as it relates to providing state of the art information on productive practices in real time to farmers, now more than ever with COVID-19 restrictions, it is expected that deploying modern means of information dissemination will be vital in bridging this gap. Furthermore, the project will consult the STAP?s list of recent scientific literature that evidences the potential of innovative modes of communicating and delivering knowledge of stakeholders of rural areas, with attention to different levels of education.</i></p>	<p><i>ProDoc Section 1a.3, Component 4</i></p>

Council:

Canada Comments:

? The project proposal should clarify how linked, or not, the project is to the United Nations Convention to Combat Desertification (UNCCD) activity. The proposal mentions that Peru's Environment Ministry is the country's national focal point to the UNCCD, and that it recognizes the concept of Land Degradation Neutrality (LDN) as part of its environmental approach and promotes the mainstreaming of sustainable land management (SLM) in planning and public policies; so, it should be made clear that there will likely be no overlap or duplication of activity with UNCCD activity.

The project is coordinating with the UNCCD focal point to ensure there is no overlap or duplication of activities. The focal point is the General Directorate of Climate Change, Desertification and Water Resources - MINAM

The project is in line and linked to the country's UNCCD activity. As specified throughout the project document, the proposed activities and outcomes directly contribute to most National Voluntary LDN targets and are aligned with Peru efforts to achieve these targets, as conversed with the UNCCD focal point. In addition, both project baseline assessment and impact monitoring are coordinated with the relevant general directorates of MINAM in order to not duplicate activities. National efforts to improve monitoring progress towards LDN will be part of the project as part of the coordinated work with the Directorate of Monitoring and Evaluation of the Natural Resources of the Territory (Dirección de Monitoreo y Evaluación de los Recursos Naturales del Territorio) and the UNCCD focal point to build synergic work. The MINAM also promotes sustainable land management (SLM) practices and the project aims to contribute with incremental activities to both LDN and SLM mainstreaming in the dry forest ecosystem. Enhancing intersectoral cooperation and communication is a key component of the project and will help ensure that there is no overlap or duplicated work with other UNCCD related activities. As suggested by STAP, the links to these activities are clarified in the corresponding sections of the project document.

ProDoc Section
1a.3, Components
1-4

<p><u>Germany Comments:</u> Germany approves the following PIFs in the work program but asks that the following comments are taken into account: Germany welcomes the well thought out proposal and particularly the significant government support in a forest type that so far has not been the focus of attention. Suggestions for improvements to be made during the drafting of the final project proposal: ? The proposal indicates that the project will support protected areas as well as other effective area-based conservation measures (OECMs). However, ACR (Regional Conservation Areas) and ACP (Private Conservation Areas), are erroneously considered within the category of OMEC. In Peru, ACR and ACP are considered Natural Protected Areas (ANP), not OMEC. It is recommended to correct the definition of OMEC, so they can be included in the project proposal. In that case, it could also be possible to generate synergies with GIZ's Regional Project Local Conservation Areas, which cooperates with the Regional Government of Piura (one of the target regions) on OMECs.</p>	<p>During the PPG, an analysis and confirmation of the project intervention area was made, taking into account the official definition / description of the different types of areas. In this regard, it was expanded to 5,626,000 ha, the justification is described in Annex 2.</p> <p>The project welcomes the suggestion of generating synergies with other projects. While the GIZ Project has completed implementation, the lessons learned are important for this Project, especially the guidelines for identifying further local protection measures that were created as part of sustainable land use planning. The Project will benefit from IUCN's participation in the GIZ Project, particularly through sharing the collected experiences that were incorporated into the CBD discussion on the systematisation and recognition of additional effective area-based conservation measures through a task force of the IUCN World Commission on Protected Areas.</p>	<p>ProDoc Annex 2</p>
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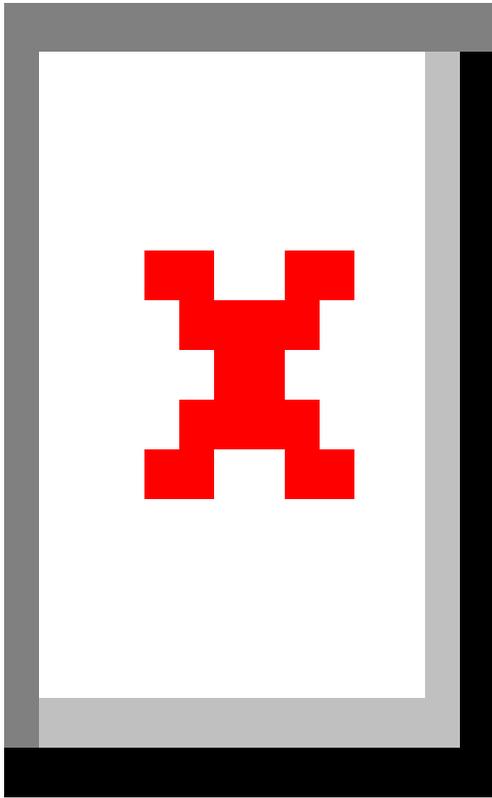
**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status
in the table below:**

PPG Grant Approved at PIF: 200,000 USD			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Activity 1: Specialized technical studies for Project formulation in: sustainable forest management and restoration, biodiversity in AP - OMEC, value chains, gender and socio-environmental management. Coordination and governance mechanism	172,689.00	189,989.00	0.00
Activity 2: Field trips for Project presentation and data collection	11,300.00	0.00	0.00

Activity 3: Holding workshops to present the Project and collect information	6,000.00	0.00	0.00
Activity 4: Systematization of information and operating expenses	10,011.00	10,011.00	0.00
Total	200,000.00	200,000.00	0.00

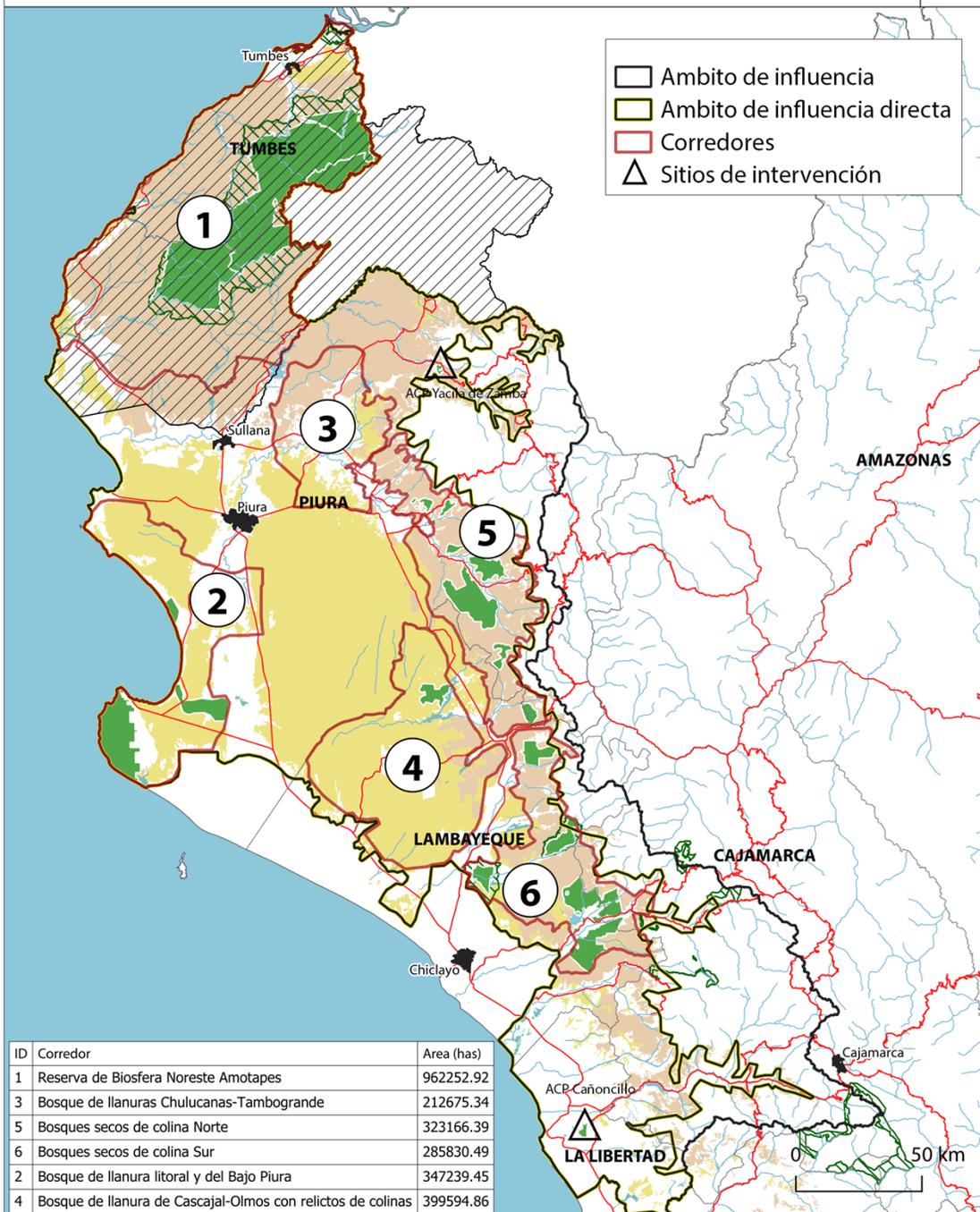
ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.



AMBITO DE INFLUENCIA Y CORREDORES DEL PROYECTO

2



Leyenda

- Ciudades importantes
- Límite departamental
- Ríos y quebradas

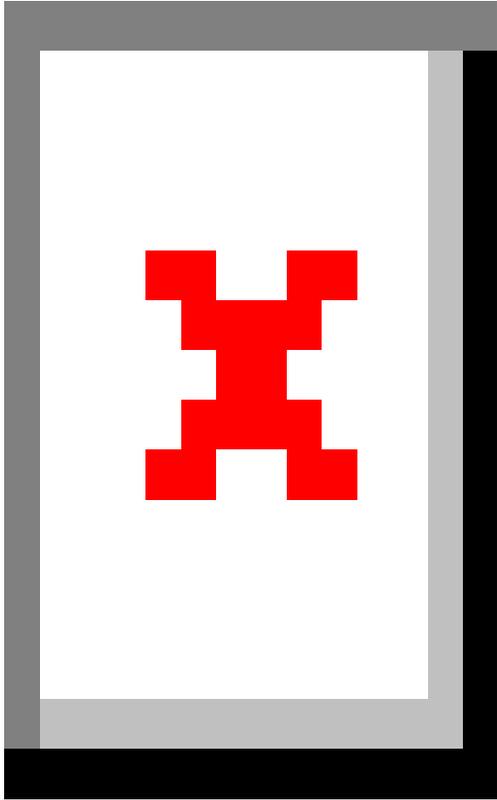
Espacios protegidos

- Áreas protegidas
- Zona de amortiguamiento
- Reserva de Biosfera

Bosque seco

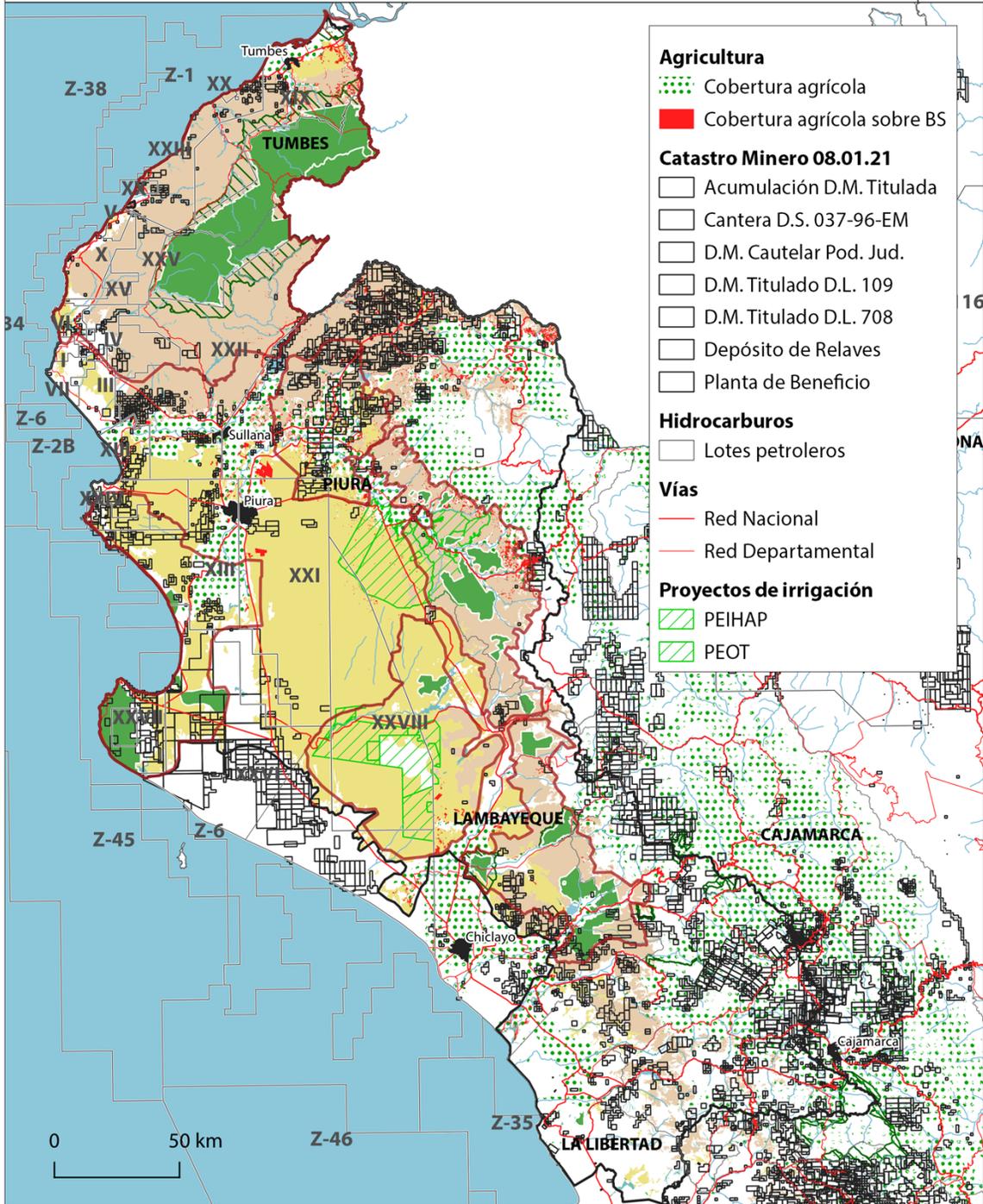
- Bes-cm
- Bes-II
- Besr

Proyecto "Manejo sostenible y restauración del Bosque Seco en la Costa Norte del Perú"
 Concepción y elaboración: José Mamani
 Fuente de datos: INEI, Minam, MTC, Sernanp.
 Elaborado en QGIS
 Mayo 2021
 Elaborado en QGIS



AMENAZAS

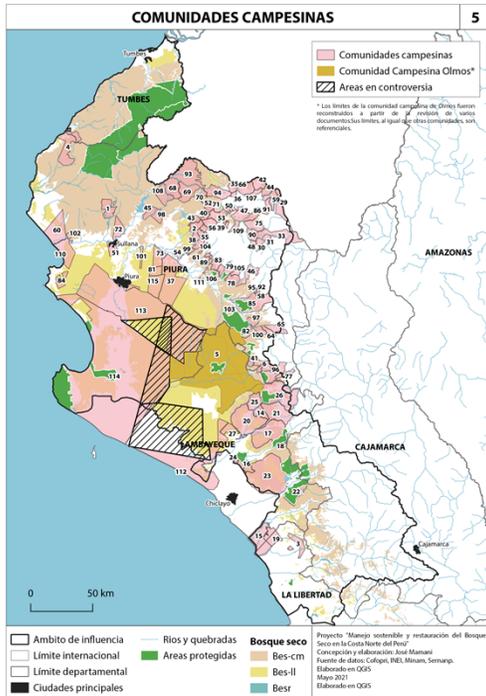
4



- Agricultura**
 - Cobertura agrícola
 - Cobertura agrícola sobre BS
- Catastro Minero 08.01.21**
 - Acumulación D.M. Titulada
 - Cantera D.S. 037-96-EM
 - D.M. Cautelar Pod. Jud.
 - D.M. Titulado D.L. 109
 - D.M. Titulado D.L. 708
 - Depósito de Relaves
 - Planta de Beneficio
- Hidrocarburos**
 - Lotes petroleros
- Vías**
 - Red Nacional
 - Red Departamental
- Proyectos de irrigación**
 - PEIHAP
 - PEOT

- Ambito global
- Areas protegidas
- Límite internacional
- Rios y quebradas
- Límite departamental
- Bes-cm
- Bes-II
- Ciudades principales
- Besr

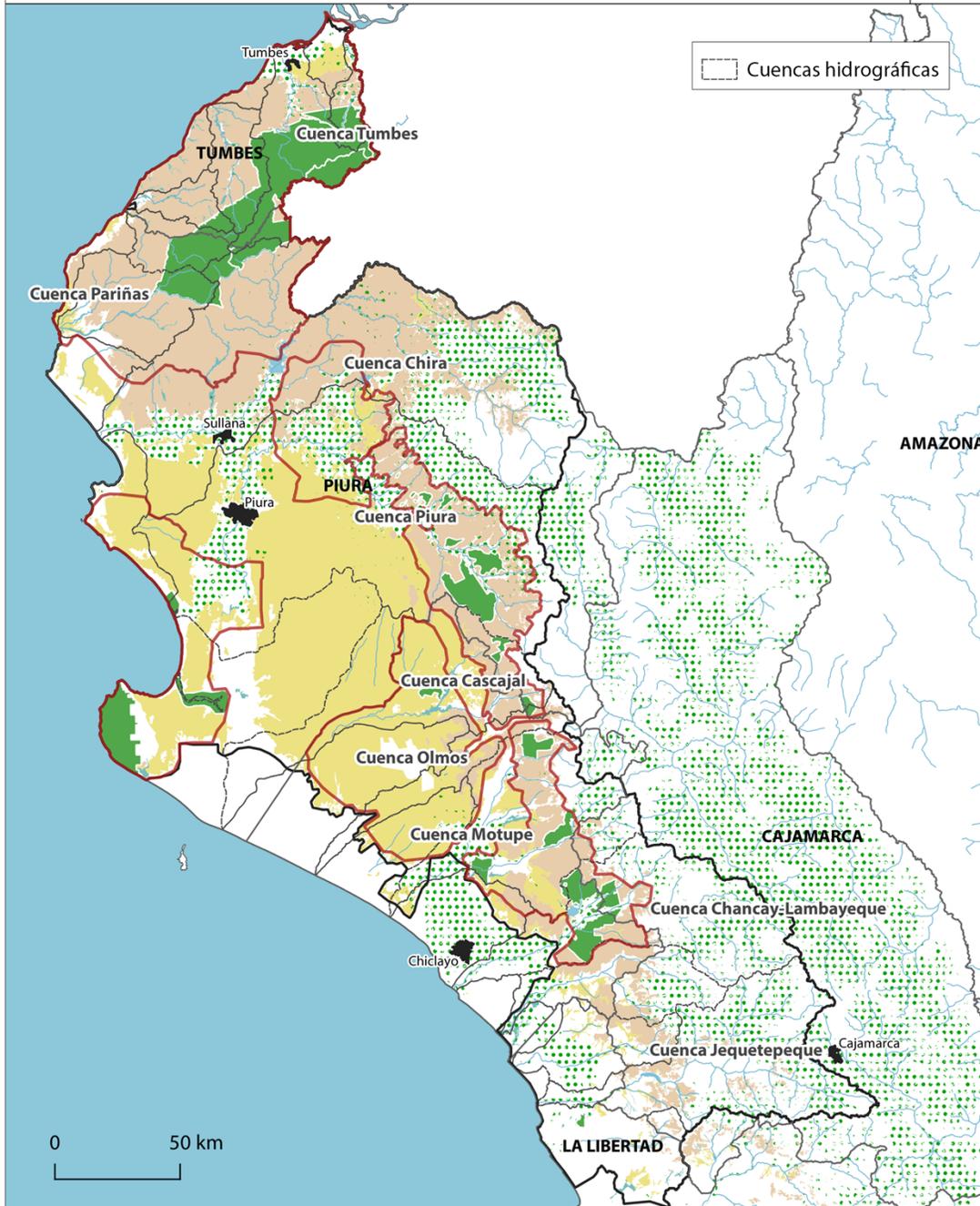
Proyecto "Manejo sostenible y restauración del Bosque Seco en la Costa Norte del Perú"
 Concepción y elaboración: José Mamani
 Fuente de datos: INEI, Midagri, Minam, Minem, MTC, Petroperu, Sernanp.
 Elaborado en QGIS
 Mayo 2021
 Elaborado en QGIS



ID	COM	NOMBRE	AREA HA		AREA HA	
1		SAN FELIPE SANTIAGO DE CAÑAS	12583.03	71	YACLA DE ZAMBA	3765.37
2		Hilano Melgar	6599.25	72	QUERECOTILLO Y SALTIRAL	10658.25
3		CHEPEN	9335.6	73	APOSTOL JUAN BAUTISTA DE LOCUTO	12074.45
4		MANCORA	26294.24	74	HOQUETS	1248.71
5		Santo Domingo de Olmos	200294.3	75	ANDRUCO	10814.6
6		MINIANGATE LANDA	10286.43	76	SIETE DE JUNIO	535.99
14		Chocope	2780.92	77	TAYACAS	3611.66
15		Lagunas	28666.53	78	COCA - MAMBUQUE Y SAN CRISTOBAL	6024.29
16		Manuel Avarillo	4673.48	79	SANTA CATALINA DE HOZA	8089.58
17		Calla	37392.94	80	ABAD BERRU GONZAGA DE SAN PEDRO	1041.4
18		San Antonio de Lajupampa	960.64	81	SEÑOR DE LOS MILAGROS DE CRUZ DE CAÑA	6660.51
19		San Francisco de Mocupe	12941.8	82	SAN JOSE DE HUACAS	7811.19
20		San Julian de Motupe	44993.13	83	SIMIRIS	3852.73
21		San Mateo de Peruchi	27631.69	84	SAN FRANCISCO DE LA BUENA ESPERANZA DE PANTA	7036.9
22		Santa Catalina de Chongoyape	20945.25	85	ANDAZO	31987.08
23		Santa Lucia de Ferrelafe	78146.1	86	CUJACA	8198.78
24		Santa Rita de Las Salinas	633.79	87	SAN ANDRES DE GUAYAZUL	502.6
25		Tongorape	11715.7	88	LUCHINDAY	1129.82
26		Tupac Amaru	48706.33	89	SAN JOSE	1757.46
27		Virgen Purisima Concepcion	73261.6	90	SANTA ROSA	6707.84
28		San Juan de Lagunas	1034.85	91	SAN VICENTE DEL MOLINO	3623.3
29		Samanga	9903.27	92	SANTA ROSA DE SOCCHA	517.02
30		José de San Martín de San Lázaro	3693.64	93	PANPA LARGA	33436.31
31		Aranca	2519.29	94	SANTA ROSA DE SUYO	14847.25
32		Canchabuyo Icaranacas	3383.77	95	SAN MARTÍN DE PALONAL	556.2
33		Yanta	21310.93	96	BELIZARIO RAMON ASENCIO PORCUYA LIMON KH 38	14644.54
34		Tupac Amaru de Licca Grande Cerro Lima y Zapotal	2527.84	97	SAN JUAN DE HANAYACO	5093.26
35		Tupac Amaru de Anchilay	4493.19	98	CLERY LAGARTOS	5587.2
36		Señor Cañón de Huambra	15103.51	99	MARIA ANGELA ALVARADO ZETA	1849.39
37		José Ignacio Tavara Pasquera	53528.7	100	CHALPA MOLLUO	4100.53
38		Tunal Zapayal	3981.28	101	SEÑOR CAUTIVO DE PROGRESO ALTO	2762.99
39		Montegrande	11344.65	102	ANOTAPE	2177.94
40		Timbal Pampas Verdes	2099.97	103	sin	15.27
41		San Jacinto de Ticto	2882.26	104	24 DE JUNIO LAS CUEVAS	4919.62
42		Mostazas	8276.46	105	SILAHUA	3228.09
43		La Monta	3736.8	106	JUAN VELASCO ALVARADO FRANCO	4051.5
44		LUCARQUI	4645.27	107	JORAS	4611.07
45		VIRGEN DEL CSNE	6985.63	108	NUESTRA SEÑORA DE LAS MERCEDES	13005.88
46		YIMANGU	8862.86	109	YEMBAS BUENAS	3744.49
47		ABREYFITE PINGOLA	19205.09	110	SAN LUCAS DE COLAN	2817.5
48		TULMANSITO	1262.05	111	sin	621.77
49		RAMON CASTILLA	122.71	112	San Pedro de Mompe	94030.35
50		LAPALMA	1616.27	113	SAN JUAN BAUTISTA DE CATAJACS	247875.9
51		sin	5714.53	114	SAN MARTIN DE SECHURA	607485.22
52		sin	4372.97	115	Castilla	20559.47
53		VIRGEN DEL ROSARIO DE PILLO	10999.36			
54		sin	12891.8			
55		JUAN VELASCO ALVARADO DE LLUSCA CHICA	2397.29			
56		SAPILLICA	7143.58			
57		HUANA DE INDIOS Y DE VERAS	4752.04			
58		SAN FRANCISCO BILCO	43.35			
59		LANCHAMPAPA	2899.49			
60		MIRAMAR	27782.88			
61		CORRIS AUGUSTO RIVERA DEL RIO SECO ALTO	610.1			
62		ANGELA MARIA ZETA	237.97			
63		sin	164.98			
64		CAREZA SECCHIRCA	4137.18			

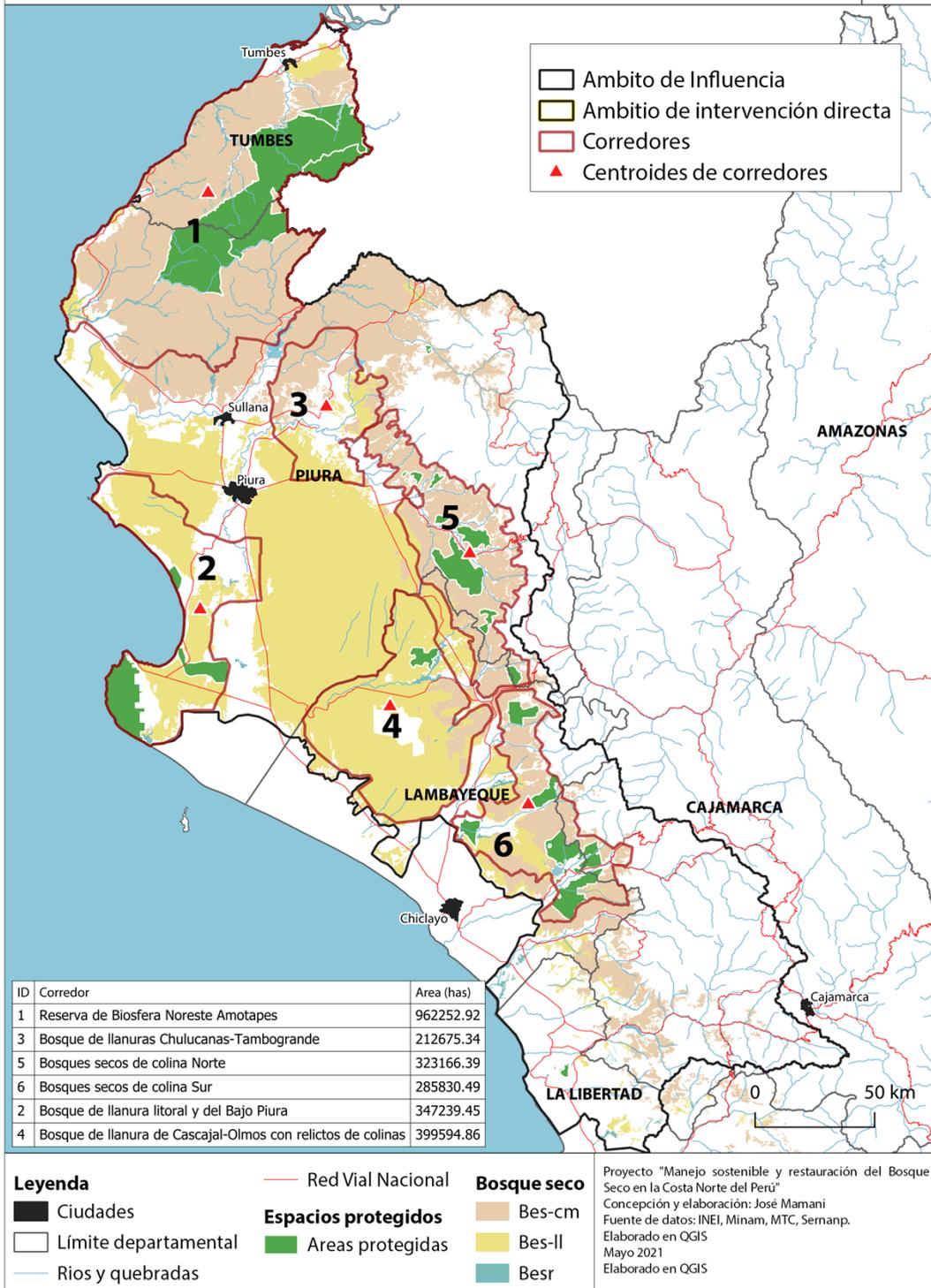
CUENCAS HIDROGRÁFICAS

6



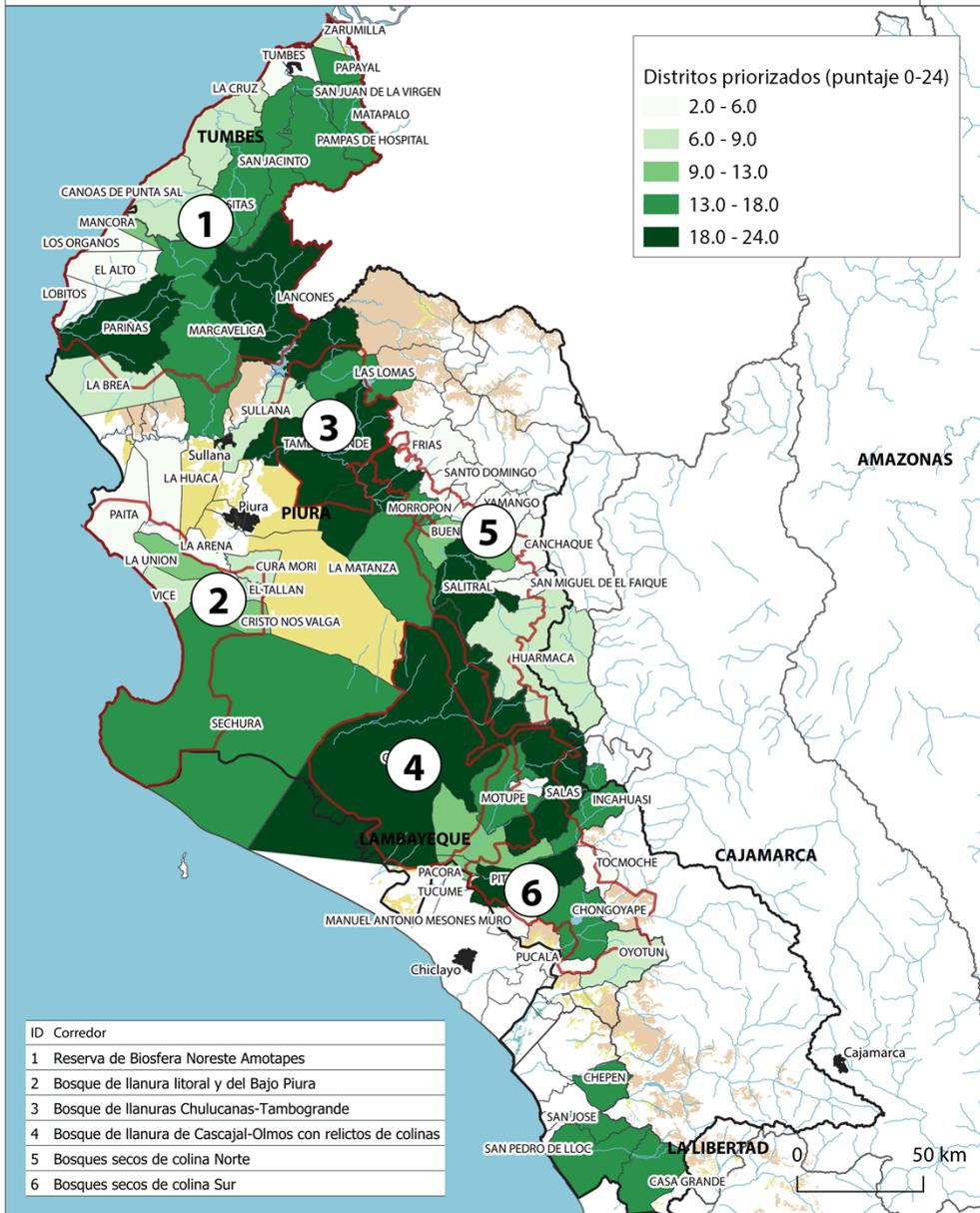
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|----------------------|------------------|--------------------|
| Ambito de influencia | Rios y quebradas | Bosque seco |
| Límite internacional | Agricultura | Bes-cm |
| Límite departamental | Areas protegidas | Bes-II |
| Ciudades principales | Corredores | Besr |

Proyecto "Manejo sostenible y restauración del Bosque Seco en la Costa Norte del Perú"
 Concepción y elaboración: José Mamani
 Fuente de datos: ANA, INEI, Minam, Sernanp.
 Elaborado en QGIS
 Mayo 2021
 Elaborado en QGIS



DISTRITOS PRIORIZADOS

8



Leyenda

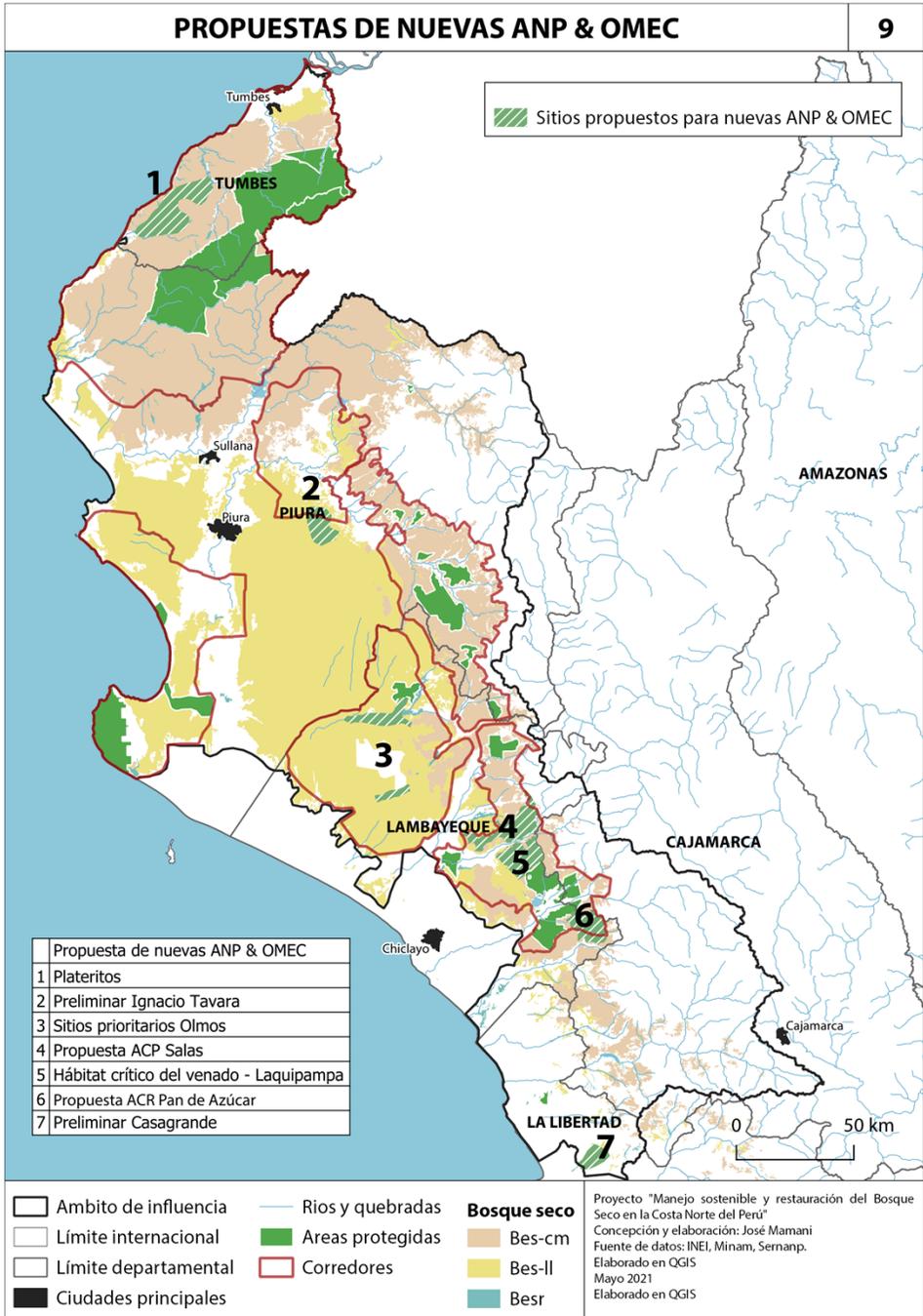
- Ciudades importantes
- Límite departamental
- Límite distrital

- Rios y quebradas
- Ambito de influencia
- Corredores

Bosque seco

- Bes-cm
- Bes-II
- Besr

Proyecto "Manejo sostenible y restauración del Bosque Seco en la Costa Norte del Perú"
 Concepción y elaboración: José Mamani
 Fuente de datos: INEI, Minam, Semanp.
 Elaborado en QGIS
 Mayo 2021
 Elaborado en QGIS



ANNEX E: Project Budget Table

Please attach a project budget table.

Cost categories	Total Cost	C1	C2	C3	C4	M&E (account)	PMC	FAO	UICN
-----------------	------------	----	----	----	----	---------------	-----	-----	------

		Total	Total	Total	Total	ed for under 4.2)			
5014 Consultants									
Project Coordinator	239,088						239,088	0	0
Financial Specialist	16,391						16,391	0	0
Operations Specialist	16,391						16,391	0	0
Project Technical Specialist	134,000	34,238	52,159	32,864	14,740			134,000	
Forest Governance Specialist Consultant	198,990	198,990	0	0	0			198,990	0
Specialist consultant in PNAs, integrated land management and restoration)	198,990	0	198,990	0	0			0	198,990
Specialist Consultant in Productive Chains	198,990	0	0	198,990	0			198,990	0
Specialist Consultant in Knowledge Management and M&E	198,990	0	0	0	198,990			198,990	0
Safeguards and gender specialist	198,990	59,697	79,596	39,798	19,899			198,990	
Consultancy for the elaboration of the integrated strategy in a participatory manner - final stage (CC, DB and LCD) Tumbes Region OUTPUT 1.1.2	10,000	10,000	0	0	0			10,000	0

Consultancy for the elaboration of the integrated strategy in a participatory manner (CC, DB and LCD) in Tumbes region OUTPUT 1.1.2	12,000	12,000	0	0	0			12,000	0
Consultancy for the elaboration of the integrated strategy in a participatory manner (CC, DB and LCD) in Lambayeque region. OUTPUT 1.1.2	12,000	12,000	0	0	0			12,000	0
Consultancy for the elaboration of the integrated strategy in a participatory manner (CC, DB and LCD) in La Libertad region. OUTPUT 1.1.2	12,000	12,000	0	0	0			12,000	0
Forestry Consultancy to update / prepare the Forest Development Plan, restoration plan and commercial plantation plan, as well as provide technical assistance to consolidate coordination spaces in Tumbes. OUTPUT 1.1.2	24,000	24,000	0	0	0			24,000	0

<p>Forestry Consultant with experience in governance in dry forests to support the preparation or updating of the Forest Development Plan, restoration plan and commercial plantation plan, as well as providing technical assistance to consolidate coordination spaces in Piura. OUTPUT 1.1.2</p>	<p>24,000</p>	<p>24,000</p>	<p>0</p>	<p>0</p>	<p>0</p>			<p>24,000</p>	<p>0</p>
<p>Forestry Consultant with experience in governance in dry forests to support the preparation or updating of the Forest Development Plan, restoration plan and commercial plantation plan, as well as providing technical assistance to consolidate coordination spaces in La Libertad. OUTPUT 1.1.2</p>	<p>24,000</p>	<p>24,000</p>	<p>0</p>	<p>0</p>	<p>0</p>			<p>24,000</p>	<p>0</p>

Forestry Consultant with experience in governance in dry forests to support the preparation or updating of the Forest Development Plan, restoration plan and commercial plantation plan, as well as providing technical assistance to consolidate coordination spaces in Lambayeque. OUTPUT 1.1.2	24,000	24,000	0	0	0			24,000	0
Consultant for participatory update of the environmental action plan (EAP) Tumbes. OUTPUT 1.1.2	6,000	6,000	0	0	0			6,000	0
Consultant for participatory update of the environmental action plan (EAP) Piura. OUTPUT 1.1.2	6,000	6,000	0	0	0			6,000	0
Consultant for participatory update of the environmental action plan (EAP) La Libertad. OUTPUT 1.1.2	6,000	6,000	0	0	0			6,000	0
Consultant for participatory update of the environmental action plan (EAP) Lambayeque. OUTPUT 1.1.2	6,000	6,000	0	0	0			6,000	0

Study of the Potential of Tourist Resources (inventory) for the Promotion of Ecotourism in the districts of the PNA. OUTPUT 1.1.2	12,000	12,000	0	0	0			12,000	0
Consultant for the elaboration of local tourism plans in the biosphere reserve OUTPUT 1.1.2	12,000	12,000	0	0	0			12,000	0
Consultant for the elaboration of local tourism plans in Morropon, Sechura (Plans). OUTOUT 1.1.2	12,000	12,000	0	0	0			12,000	0
Consultant for the elaboration of local tourism plans in Ferreñafe and Chiclayo OUTPUT 1.1.2	12,000	12,000	0	0	0			12,000	0
Consultant for the elaboration of local tourism plans in Chepen. OUTPUT 1.1.2	6,000	6,000	0	0	0			6,000	0
Hydrogeologic al study of the aquifer in 03 intervention basins (Tumbes, Piura and Olmos) OUTPUT 1.1.2	24,000	24,000	0	0	0			24,000	0
Consultant for the elaboration of watershed management plans that incorporate the dry forest in Tumbes. OUTPUT 1.1.2	7,000	7,000	0	0	0			7,000	0

Consultant for the elaboration of watershed management plans that incorporate the dry forest in Piura. OUTPUT 1.1.2	7,000	7,000	0	0	0			7,000	0
Consultant for the elaboration of watershed management plans that incorporate the dry forest in Lambayeque. OUTPUT 1.1.2	7,000	7,000	0	0	0			7,000	0
Consultant for the elaboration of watershed management plans that incorporate the dry forest in La Libertad. OUTPUT 1.1.2	7,000	7,000	0	0	0			7,000	0
Forestry Consultant for the preparation of a manual (05 guide to good practices) of guidelines for forest management in dry forests in northern Peru. OUTPUT 1.1.3	20,000	20,000	0	0	0			20,000	0
Design and development of virtual tools and applications for forest management in dry forests. OUTPUT 1.1.3	10,000	10,000	0	0	0			10,000	0
Microregional diagnosis on loss and degradation of dry forests. OUTPUT 1.1.4	34,000	34,000	0	0	0			34,000	0

Consultant for the participatory preparation of a macro-regional policy project for the management of dry forests OUTPUT 1.1.4	30,000	30,000	0	0	0			30,000	0
Consultant for the design and implementation of two capacity building programs in dry forest management of national, regional and local governmental actors. (1 program for 2 regions) OUTPUT1.2.1	18,000	18,000	0	0	0			18,000	0
Consultancy for Development of capacities for the formation and operation of Technical Committees for the Management of Spatial Data Infrastructure - MS DR for 04 Regions. OUTPUT 1.2.2	48,000	48,000	0	0	0			48,000	0
Generation of operative platform integrated to information systems. OUTPUT 1.2.2	10,000	10,000	0	0	0			10,000	0

Consultant for Design and preparation of Action Plan and Early Warning System for dry forests. OUTPUT 1.2.3	60,000	60,000	0	0	0			60,000	0
Technical assistance to strengthen GIS. Tumbes OUTPUT 1.2.3	30,000	30,000	0	0	0			30,000	0
Technical assistance to strengthen GIS. Piura OUTPUT 1.2.3	30,000	30,000						30,000	0
Technical assistance to strengthen GIS. Lambayeque OUTPUT 1.2.3	30,000	30,000						30,000	0
Technical assistance to strengthen GIS. La Libertad OUTPUT 1.2.6	30,000	30,000						30,000	0
Consultant update / elaboration of 10 master plans (9,000 U \$ each) OUTPUT 2.1.1	90,000	0	90,000	0	0			0	90,000
Management plans and / or management consultant for ACPs and OMECs. 7 areas OUTPUT 2.1.1	56,000	0	56,000	0	0			0	56,000
Legal Advisory Service to update community statutes in ACPs, update boards of directors OUTPUT 2.1.2	10,000	0	10,000	0	0			0	10,000

Consultant for the application phase and candidacy of ANP to the IUCN green list. OUTPUT 2.1.2	18,000	0	18,000	0	0			0	18,000
Consultancy in Financial Mechanisms and Investments in Conservation (By Regional System) OUTPUT 2.1.3	60,000	0	60,000	0	0			0	60,000
Specialists in biodiversity conservation and strengthening of Regional Conservation Systems in Tumbes OUTPUT 2.2.2	30,000	0	30,000	0	0			0	30,000
Specialists in biodiversity conservation and strengthening of Regional Conservation Systems in Piura OUTPUT 2.2.2	30,000	0	30,000	0	0			0	30,000
Specialists in biodiversity conservation and strengthening of Regional Conservation Systems in Lambayeque OUTPUT 2.2.2	30,000	0	30,000	0	0			0	30,000

Specialists in biodiversity conservation and strengthening of Regional Conservation Systems in La Libertad OUTPUT 2.2.2	30,000	0	30,000	0	0			0	30,000
Preparation of the research, monitoring and management plan for restoration interventions (team of 3 action plan) OUTPUT 2.3.2	48,000	0	48,000	0	0			0	48,000
ROAM consulting team service composed of an Economist, Sociologist and GIS, Forestry Engineer (3.1) also participates in selecting the areas to intervene in restoration. OUTPUT 2.3.2	60,000	0	60,000	0	0			0	60,000
Consultant restoration and management of forests for sustainable production OUTPUT 2.3.2, 3.1.1 y 3.1.2	72,000	0	72,000	0	0			0	72,000
Consultant in good agricultural, forestry, beekeeping, livestock production practices OUTPUT 2.3.2, 3.1.1 y 3.1.2	72,000	0	0	72,000	0			72,000	0

Communication consultant: preparation and implementation of communication strategies at a macro-regional level sensitive to gender. OUTPUT 4.1.2	24,000	0	0	0	24,000			24,000	0
Consultant for the participatory systematization of the lessons learned from good practices of management and conservation of biodiversity and restoration of degraded areas in dry forests. OUTPUT 4.1.4	20,000	0	0	0	20,000			20,000	0
Consultancy for the design and implementation of virtual information platforms at the regional level and articulated to national platforms. OUTPUT 4.1.5	20,000	0	0	0	20,000			20,000	0
Consultant for the creation of a specialized repository on dry forests articulated to the SIARs of Tumbes, Piura, Lambayeque and La Libertad. OUTPUT 4.1.6	36,000	0	0	0	36,000			36,000	0

<p>Consulting: Analysis and implementation of the process of consultation, participation and commitments with selected Peasant Communities.</p>	<p>15,000</p>	<p>4,500</p>	<p>4,500</p>	<p>3,000</p>	<p>3,000</p>			<p>15,000</p>	
<p>Consultancy: Gender Mapping and Analysis at the local level (at the level of districts, peasant communities or populated centers that live and / or depend on the Dry Forest with which they will work during the implementation of the project to ensure that the appropriate measures are taken and not deepen inequalities).</p>	<p>15,000</p>	<p>4,500</p>	<p>4,500</p>	<p>3,000</p>	<p>3,000</p>			<p>15,000</p>	

<p>Consultancy: Gender Impact Assessment of the macro-regional policy project. Gender Impact Assessment of the macro-regional policy project to identify if the policy could have an unequal impact between genders and, if so, recommend corrective measures (based on the policy project). OUTPUT 1.1.6</p>	<p>4,000</p>	<p>4,000</p>	<p>0</p>	<p>0</p>	<p>0</p>			<p>4,000</p>	<p>0</p>
<p>Guide / Manual (digital) on how to mainstream the gender approach in policies and instruments for planning and management of the Dry Forest. Includes: practical pilot of implementation - evaluation to incorporate improvements. OUTPUT 4.1.2</p>	<p>7,000</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p>7,000</p>			<p>7,000</p>	<p>0</p>

2 Awareness and awareness manuals (digital) on the link between the environment - dry forest, gender and the phenomenon of the child - climate change (with examples), to support and facilitate the process of sensitization and capacity building for the sustainable management of the dry forest aimed at: (1) GOREs, GOLOS, PA managers and (2) leaders of communities and local actors. OUTPUT 4.1.2	10,000	0	0	0	10,000			10,000	0
Subtotal national consultants	2,779,821	927,925	873,745	349,652	356,629	0	271,871	1,774,960	732,990
5650 contracts		0	0	0	0				
Consulting to strengthen the beekeeping and livestock tables through 04 PIP. OUTPUT 1.1.1	32,000	32,000	0	0	0			32,000	0
Preparation of 04 PIPs to strengthen the capacities of regional entities in the management of dry forests. OUTPUT 1.1.4	32,000	32,000	0	0	0			32,000	0

Consultant for the elaboration of 03 landscape approach protocols and NDT principles in the EEZ, ZF and concerted development plans. OUTPUT 1.1.3	30,000	30,000	0	0	0			30,000	0
Design and implementation of virtual training program MOOC. OUTPUT 1.2.1	8,000	8,000	0	0	0			8,000	0
2 Publications (digital) that make known the experiences and knowledge of women and men in the management and conservation of the dry forest. OUTPUT 4.1.4	10,000	0	0	0	10,000			10,000	0
2 Brochures (digital) of Participatory Communication Plan and Brochure of Claims and / or Complaints Mechanism. OUTPUT 4.1.2	4,000	0	0	0	4,000			4,000	0
Elaboration of baselines and protocols for monitoring conservation objects	48,000	0	48,000	0	0			0	48,000
Service for the implementation of resource management plans in ANPs SINANPE & ACRs	28,000	0	28,000	0	0			0	28,000

Service for the implementation of resource management plans in ACPs y OMECs	49,000	0	49,000	0	0			0	49,000
Design and Implementation of a Plan to strengthen the capacities of personnel and management committees ANPs SINANPE, ACRs, Regional Conservation Systems. Includes about 80 people	40,000	0	40,000	0	0			0	40,000
Design and Implementation of a Capacity Building Plan for managers of ACP and OMECs (leadership and organization, updating of statutes, control and surveillance, financing management). It includes around 50 managers.	30,000	0	30,000	0	0			0	30,000
Design of Financial Plan by Regional System (includes definition of management levels and financing gaps)	32,000	0	32,000	0	0			0	32,000

Formulation of projects in public investment to strengthen management of the regional conservation system (profile + technical files 70,000 soles and 25,000 x profile and 42,000 x technical file)	50,000	0	50,000	0	0			0	50,000
Preparation of report on the implementation of the charge for the entrance of visitors to ANP	5,000	0	5,000	0	0			0	5,000
Preparation of REDD + Project	39,600	0	39,600	0	0			0	39,600
Specialized studies (biodiversity, GIS, land tenure) and preparation of technical files for the establishment of ANPs / OMECs	180,000	0	180,000	0	0			0	180,000
Service for the implementation of communication strategies of Regional Conservation Systems and Biosphere Reserve of the Northwest Amotapes - Manglares	15,000	0	15,000	0	0			0	15,000

Study of the state of conservation, land tenure and opportunities to establish conservation measures in the dry forests of La Libertad	15,000	0	15,000	0	0			0	15,000
Preparation of PIP or IOAR: idea, profile, technical file.	100,000	0	100,000	0	0			0	100,000
Elaboration of projects and Works for Taxes (WxT).	90,000	0	90,000	0	0			0	90,000
CONCYTEC projects / generate applications to FONDECYT.	28,000	0	28,000	0	0			0	28,000
Seed center implementation service, includes training local women's group	60,000	0	60,000	0	0			0	60,000
Scientific seed collection services, includes formation of local specialized groups x 6 corridors	90,000		90,000					0	90,000
Land preparation service for restoration by climatic association (ZA?, Keyline, pellets).	180,000		180,000					0	180,000
Invasive species control service	93,600		93,600					0	93,600

Design and Implementation of Field School Plan, (schedule-valued, topics / year, records ...)	15,000	0	0	15,000	0			15,000	0
Execution service of specialized interventions and logistics for Field Schools (transportation and feeding of personnel, land measurement service, location and layout of the field and today, nurseries and other)	41,268	0	0	41,268	0			41,268	0
BS CV diagnoses as a baseline of 5 chains in 4 regions: carob and its derivatives, beekeeping, livestock, ecotourism and palo santo OUTPUT 3.2.1	35,000	0	0	35,000	0			35,000	0
Preparation of market niche studies: organic honey, carob flour, carob, mix (carob + honey + pollen). (04) OUTPUT 3.2.1	24,000	0	0	24,000	0			24,000	0

Implementation of health registration and better presentation of their products in organizations (20) OUTPUT 3.2.1	16,000	0	0	16,000	0			16,000	0
Organization of regional macro business roundtables (06) OUTPUT 3.2.1	39,600	0	0	39,600	0			39,600	0
Implementation of product quality assurance seal of organizations (20) OUTPUT 3.2.1	30,000	0	0	30,000	0			30,000	0
Preparation of Peruvian Technical Standards of Good Manufacturing Practices for products and derivatives of BS (03) OUTPUT 3.2.1	3,000	0	0	3,000	0			3,000	0
Organization of events to disseminate benefits and identification of adulterated products (20) OUTPUT 3.2.1	9,000	0	0	9,000	0			9,000	0
Participation in regional and / or national trade fairs (20) OUTPUT 3.2.1	38,500	0	0	38,500	0			38,500	0
Design and implementation of virtual application (01) for dry forest value chains OUTPUT 3.2.2	15,000	0	0	15,000	0			15,000	0

Preparation of an Asian market study for propolis (01) OUTPUT 3.2.2	4,000	0	0	4,000	0			4,000	0
Challenge Organization (03) OUTPUT 3.2.2	9,000	0	0	9,000	0			9,000	0
Access of companies to E-commerce platforms (50) OUTPUT 3.2.2	25,000	0	0	25,000	0			25,000	0
59 Pilot Business Plans 01 Palo santo oil business plan from seed and wood OUTPUT 3.2.4	60,000	0	0	60,000	0			60,000	0
Pilot implementation of agrosilvopastoral plot: seeds, irrigation systems, fertilizers, materials (09) OUTPUT 3.2.4	89,008	0	0	89,008	0			89,008	0
Pilot implementation of algarrobina and derivatives production: hydraulic press, decanter tanks and stainless work tables, materials and work tools (10)	40,000	0	0	40,000	0			40,000	0
Pilot implementation of sustainable beekeeping production: hives, centrifuges, decanter tanks, tools and beekeeping materials (14) OUTPUT 3.2.4	126,000	0	0	126,000	0			126,000	0

Pilot implementation of sustainable livestock: livestock, veterinary kits, fences for semi-stables, training in animal health and livestock management (17) OUTPUT 3.2.4	153,000	0	0	153,000	0			153,000	0
Implementation of the ecotourism pilot: improvement of accesses, signs, improvement of basic services, advertising (12) OUTPUT 3.2.4	108,000	0	0	108,000	0			108,000	0
Pilot implementation of sustainable production of palo santo: oil production line from seed, Technical assistance (01) OUTPUT 3.2.4	18,000	0	0	18,000	0			18,000	0
Analysis of kitchen efficiency for the production of algarrobina OUTPUT 3.2.4	10,000	0	0	10,000	0			10,000	0
Acquisition of efficient kitchens for the production of algarrobina, to be delivered to the pilot model organizations for the production of algarrobina OUTPUT 3.2.4	20,000	0	0	20,000	0			20,000	0

<p>Formation and / or formalization of producer organizations with emphasis on Communities that have management plans: Community Enterprises, Cooperatives (08) OUTPUT 3.2.5</p>	16,000	0	0	16,000	0			16,000	0
<p>Implementation of capacity building plans: administrative and commercial management workshops: leadership and management, costing, records management, marketing, financial education, electronic commerce. Technical management workshops: BPM, Hygiene and Sanitation, process improvement, traceability (30) OUTPUT 3.2.5</p>	75,000	0	0	75,000	0			75,000	0
<p>Exchange of experiences as a training strategy (05) OUTPUT 3.2.5</p>	15,000	0	0	15,000	0			15,000	0

Execution of Bio-business and E-business Plans Diplomas: 25 participants for each 80-hour training course (40 hr) and technical assistance. Training services, food rental, local (40hr) (02) OUTPUT 3.2.5	20,000	0	0	20,000	0			20,000	0
Implementation of certifications: organic (honey), FSC (palo santo), HACCP (carob, honey), GMP (carob, flour).	40,800	0	0	40,800	0			40,800	0
Mobile phone service 02 teams	3,667	1,100	1,100	733	733			3,667	
Publication service of lessons learned from the Project	7,000	0	0	0	7,000			7,000	0
Document publication service prepared in the regions (04 comprehensive Regional Strategies, 10 Regional Plans)	28,000	0	0	0	28,000			28,000	0
Publication service of documents prepared in the regions (06 tourism plans)	12,000	0	0	0	12,000			12,000	0

Document publication service prepared in the regions (05 guides to good practices in dry forest management)	10,000	0	0	0	10,000			10,000	0
Document publication service prepared by SERNANP and GORE (10 Master Plans)	20,000	0	0	0	20,000			20,000	0
Gender document publication service	4,000	0	0	0	4,000			4,000	0
Restoration Document Publishing Service	2,000	0	0	0	2,000			2,000	0
Preparation of Policy Brief or automated summaries of dry forests	12,000	0	0	0	12,000			12,000	0
Forest knowledge audit	32,000	0	0	0	32,000			32,000	0
Study of the elaboration of the project baseline	69,017	0	0	0	69,017	69,017		69,017	0
Evaluation Mid-term	40,000	0	0	0	40,000	40,000		40,000	0
Final evaluation	40,000	0	0	0	40,000	40,000		40,000	0
Impact Analysis	180,054				180,054			180,054	0
Final Report	6,550					6,550	6,550	0	0
Spot check	26,650						26,650	0	0
Financial audit	60,000						60,000	0	0
5650 Subtotal of Contracts	2,937,314	103,100	1,174,300	1,095,909	470,804	155,567	93,200	1,670,913	##### #

5021 Travel		0	0	0	0				
International travel								0	0
IUCN green list certifier international trip	1,600	0	1,600	0	0			0	1,600
UNESCO representative international trip: mixed heritage nomination review	1,600	0	1,600	0	0			0	1,600
International travel allowances	8,400	0	8,400	0	0			0	8,400
National Travel		0	0	0	0			0	0
Project Coordinator National Trip (04 Times a year Lima)	2,600	0	0	0	2,600			2,600	0
National Viaticians of the Project Coordinator (04 times a year)	7,120				7,120			7,120	0
Round trip Airport Taxi Project Coordinator (02 times a year)	800				800			800	0
National Governance Specialist Trip (02 times a year Lima)	1,300	1,300	0	0				1,300	0
Governance Specialist National Viatics	3,560	3,560	0	0				3,560	0
Taxi Aeropuerto Ida y vuelta Especialista en Gobernanza (02 vez al a?o)	80	80						80	0

National Trip of Specialist in Knowledge Management and M&E (02 times a year Lima)	1,200				1,200			1,200	0
National Viatics Specialist in Knowledge Management and M&E	3,560		0	0	3,560			3,560	0
Airport Taxi Roundtrip Knowledge Management Specialist M&E (02 times a year)	80				80			80	0
Travel for coordination with the Steering Committee and others (National)	3,600	3,600	0	0	0			3,600	0
Viatics for coordination with the Steering Committee (National)	14,400	7,200	0	0	7,200			14,400	0
Travel for coordination with the Steering Committee and others (Regional)	3,600	3,600	0	0	0			3,600	0
Viatics for coordination with the Steering Committee and others (Regional)	14,400	8,640	0	0	5,760			14,400	0
Travel Specialist in monitoring social and environmental risks	1,300	1,300	0	0	0			1,300	0

National viatics in monitoring social and environmental risks	3,560	3,560						3,560	0
Local travel expenses for technical assistance from the Project Coordinator and Technical Assistant	12,240	0	0		12,240			12,240	0
Local travel expenses for technical assistance of those responsible for components 1 and 4	16,320	8,160	0	0	8,160			16,320	0
Local travel expenses for technical assistance from team leaders Component 2 and 3	59,192	0	59,192	0	0			0	59,192
5021 subtotal trips	160,512	41,000	70,792	0	48,720	0	0	89,720	70,792
5023 training and workshops		0	0	0	0				
Workshops - policies and procedures.	8,000	8,000	0	0	0			8,000	0
Regional participatory workshops for planning	48,000	48,000	0	0	0			48,000	0
Macro-regional participatory workshops	20,000	20,000	0	0	0			20,000	0
Local workshops (in prioritized population centers to monitor project activities)	160,270	160,270	0	0	0			160,270	0

Face-to-face events of the Capacity Building Program for Sustainable Forest Management OUTPUT 1.2.1 (includes teacher fees and mobilization of participants)	82,310	82,310	0	0	0			82,310	0
Meetings and community assemblies for training, information and dissemination of agreements with organizations regarding Control and Surveillance of dry forests	15,000	14,250	0	0	750			15,000	0
Meetings with strategic partner projects	10,000	10,000	0	0	0			10,000	0
Workshops to update or prepare master plans for ANPs SINANPE and ACRs with an integrated management approach to the territory	45,000	0	45,000	0	0			0	45,000
Workshops for updating or elaboration of resource management plans in ANPs SINANPE and ACRs	24,000	0	24,000	0	0			0	24,000

Workshops strengthening volunteer park rangers programs ANPs SINANPE & ACRs	36,000	0	36,000	0	0			0	36,000
Workshops for the validation of technical documents and studies for the creation of AP	12,600	0	12,600	0	0			0	12,600
Workshops for the validation of technical documents for the application and nomination phases of forests and pyramids of Lambayeque on the list of mixed heritage of humanity	4,500	0	4,500	0	0			4,500	
ROAM workshops	18,000	0	18,000	0	0			0	18,000
Workshops in field schools	204,000	0	0	204,000	0			204,000	0
Initiation Workshop (or presentation) and Final Workshop of the Project (1 x Tumbes - Piura, 1 x Lambayeque - La Libertad AND 1 X Lima)	6,000				6,000	6,000		6,000	0
Meetings Knowledge management, systematization and impact testimonies (Lessons Learned)	16,000	0	0	0	16,000			16,000	0

Workshops for the exchange of experiences at the regional level in dry forest management	15,000	0	0	0	15,000		15,000	0
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<p>Information and awareness meetings at two levels (1: strategic partners and allies and 2: beneficiary local population - meeting every 3 months * 4 departments * 2 levels * 4 years), include: (1) Community meetings and assemblies to ensure compliance with the Risk Management Plan and Rural Communities (participatory communication , complaints and responses mechanism and safeguards). (2) Meetings and assemblies to ensure compliance with the Gender Action Plan (PAG) (gender approach + other cross-cutting approaches: information exchange-progress, queries-doubts, articulation of support and support groups and networks, mainly at the level of local women's organizations and associations).</p>	<p>32,000</p>	<p>12,800</p>	<p>9,600</p>	<p>6,400</p>	<p>3,200</p>			<p>22,400</p>	<p>9,600</p>
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Implementation of gender affirmative actions and safeguards (in order to ensure the participation and representation of the local population, women, men, youth and adults, in the different spaces and activities planned within the framework of the project. Includes: \$ 8,000 * 4 departments * 4 years)	128,000	51,200	38,400	25,600	12,800			89,600	38,400
5023 Training and workshops subtotal	884,680	406,830	188,100	236,000	53,750	6,000	0	701,080	183,600
5024 Expendable acquisition		0	0	0	0				
		0	0	0	0			0	0
Stationery and office	4,800						4,800	0	
Materials for the preparation of various plans and studies	1,000	200	300	200	300			1,000	
Various materials for M&E	3,000	0	0	0	3,000	3,000		3,000	0
Materials to support internships (flashlights, clothing, backpacks, field notebooks, others)	19,000	0	0	0	19,000			19,000	0

Materials for various knowledge management meetings	2,500				2,500			2,500	0
Plants- Agroforestry / local plant material production (100 native plants / ha x 750 ha)	170,000	0	170,000	0	0			0	170,000
Restoration supplies (local purchase of organic fertilizers and others)	62,900	0	62,900	0	0			0	62,900
Fencing materials (RNA): poles, barbed wire, staples and others x 200 ha	149,600	0	149,600	0	0			0	149,600
Seed center maintenance materials (substrates, bags, cleaning and others)	24,000	0	24,000	0	0			0	24,000
Materials for Field School Workshops	20,400	0	0	20,400	0			20,400	0
5024 Acquisition of consumables subtotals	457,200	200	406,800	20,600	24,800	3,000	4,800	45,900	406,500
		0	0	0	0				
Restoration tools (straight shovel, fork, wheelbarrow, hoses, buckets and others)	10,200	0	10,200	0	0			0	10,200
Nursery infrastructure (cover and irrigation) for temporary maintenance of seedlings	20,000		20,000					0	20,000

Seed center freezer	8,000	0	8,000	0	0			0	8,000
Seed Center Equipment: moisture meter, scale and others	4,800	0	4,800	0	0			0	4,800
Seed center furniture	4,000	0	4,000	0	0			0	4,000
Inputs (eg, Laptops. Desktop computer, printer. Cell phones. Projectors, drone, internet cost) for the development of related technical activities such as: a) Management and planning instruments for the sustainable management and restoration of the dry forest and strengthening of coordination and exchange of information and dialogue. b) Implementation of an effective dry forest monitoring system in 04 regions c) ANP and OMEC management plans and d) Capacity building in decision makers, e) formulation of investment projects of community organizations and producers.	203,400	138,673	76,400	2,000	3,000			220,073	

6100 Subtotal non-expendable acquisitions	250,400	138,673	123,400	2,000	3,000	0	0	220,073	47,000
5028 GOE		0	0	0	0				
<i>Recurrent expenses related activities such as: car rental and fuel. For the execution of project field activities such as: a) Participatory formulation of resource management plans and ANP and OMEC management plans b) Strengthening the capacities of local actors to improve or innovate their restoration practices and pilots of landscape restoration implemented, c) Generate added value in prioritized value chains. d) strengthen capacities in technical, financial and managerial capacities for the development of sustainable companies.</i>	173,292	79,992	74,699	0	18,600			98,592	74,699
Specialized software (Arc Gis, remote sensors)	5,000	1,000	1,500	1,000	1,500			3,500	1,500
GPS	1,600	320	480	320	480			1,120	480

5029 GOE subtotals	179,892	81,312	76,679	1,320	20,580	0	0	103,212	76,679
Total by category	7,649,818	1,699,040	2,913,816	1,705,481	978,283	164,567	369,871	4,605,859	2,690,761
Grand Total	7,666,491	1,699,040	2,913,816	1,705,481	978,283	164,567	369,871	4,605,859	2,690,761

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

N/A

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencies is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

N/A

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

N/A