Building Community Based Integrated and Climate Resilient Natural Resources Management and Enhancing Sustainable Livelihood in the South-Eastern Escarpments and Adjacent Coastal Areas of Eritrea

Part I: Project Information

GEF ID
10789

Project Type
FSP

Type of Trust Fund
MTF

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Building Community Based Integrated and Climate Resilient Natural Resources Management and Enhancing Sustainable Livelihood in the South-Eastern Escarpments and Adjacent Coastal Areas of Eritrea

Countries
Eritrea

Agency(ies)
FAO

Other Executing Partner(s)
Ministry of Land, Water and Environment (MoLWE)

Executing Partner Type
Government

GEF Focal Area
Multi Focal Area

Sector

Taxonomy

Focal Areas, Forest, Forest and Landscape Restoration, Biodiversity, Protected Areas and Landscapes, Productive Landscapes, Biomes, Grasslands, Desert, Coral Reefs, Mainstreaming, Fisheries, Agriculture and agrobiodiversity, Species, Plant Genetic Resources, Threatened Species, Livestock Wild Relatives, Crop Wild Relatives, Climate Change Mitigation, Climate Change, Agriculture, Forestry, and Other Land Use, Climate Change Adaptation, Livelihoods, Climate resilience, Least Developed Countries, Ecosystem-based Adaptation, Mainstreaming adaptation, Climate finance, Community-based adaptation, Private sector, Innovation, Climate information, Complementarity, Adaptation Tech Transfer, Land Degradation, Sustainable Land Management, Improved Soil and Water Management Techniques, Sustainable Pasture Management, Sustainable Livelihoods, Sustainable Agriculture, Restoration and Rehabilitation of Degraded Lands, Income Generating Activities, Drought Mitigation, Community-Based Natural Resource Management, Ecosystem Approach, Land Degradation Neutrality, Land Cover and Land cover change, Land Productivity, Carbon stocks above or below ground, Influencing models, Demonstrate innovative approache, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Stakeholders, Communications, Education, Behavior change, Awareness Raising, Local Communities, Type of Engagement, Partnership, Participation, Consultation, Information Dissemination, Beneficiaries, Private Sector, Individuals/Entrepreneurs, SMEs, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Gender results areas, Access and control over natural resources, Capacity Development, Knowledge Generation and Exchange, Participation and leadership, Access to benefits and services, Capacity, Knowledge and Research, Knowledge Exchange, South-South, Enabling Activities, Knowledge Generation, Training, Master Classes, Learning, Theory of change

Rio Markers

Climate Change Mitigation

Significant Objective 1

Climate Change Adaptation

Principal Objective 2

Biodiversity

Land Degradation

Submission Date

6/15/2022

Expected Implementation Start

1/1/2023

Expected Completion Date

1/1/2030

Duration

82In Months

Agency Fee($)

1,411,228.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	LDCF	7,002,082.00	15,096,502.00
CCA-2	Mainstream Climate Change Adaptation and Resilience for Systemic Impact	LDCF	2,000,000.00	4,564,263.00
BD-1-1	Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors	GET	2,430,562.00	5,661,189.00
LD-1-1	Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	GET	3,247,664.00	7,548,251.00
LD-2-5	Create enabling environments to support scaling up and mainstreaming of SLM and LDN	GET	1,000,000.00	3,535,584.00
		Total Project Cost($)	**15,680,308.00**	**36,405,789.00**

B. Project description summary

Project Objective

Project Objective: Enhance resilience of vulnerable agro-pastoralist and fishing communities along degraded landscapes/seascapes in the south-eastern escarpments and adjacent coastal areas of Eritrea through an integrated ecosystem-based and market-driven approach.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1. Enhancing the enabling environment for CCA, SLM/SFM and BD conservation mainstreaming in priority sectors through integrated policies, planning and finance	Technical Assistance	Outcome 1: Strengthened policy, planning and finance frameworks for CCA, SLM/SFM & BDC at national and community-level	1.1 Mechanisms for improved cross-sectorial coordination of policies, plans and finance/ investments in place at national and subnational leve to support mainstreaming of CCA, SLM/SFM and BDC in relevant sectors. 1.2 Comprehensive informed decision-making programming improvements mainstreams BD, SLM/SFM, and CCA 1.3 Spatial planning effectively guides decision-making towards achievemen of mainstreamed CCA, SLM/SFM, and BDC objectives 1.4 Financing mechanisms in place to sustain continued mainstreaming and advanced achievement of CCA, SLM/SFM, and BDC objectives	GET	711,000.00	2,178,660.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1. Enhancing the enabling environment for CCA, SLM/SFM and BD conservation mainstreaming in priority sectors through integrated policies, planning and finance	Technical Assistance	Outcome 1: Strengthened policy, planning and finance frameworks for CCA, SLM/SFM & BDC at national and community-level	1.1 Mechanisms for improved cross-sectorial coordination of policies, plans and finance/ investments in place at national and subnational leve to support mainstreaming of CCA, SLM/SFM and BDC in relevant sectors. 1.2 Comprehensive informed decision-making programming improvements mainstreams BD, SLM/SFM, and CCA 1.3 Spatial planning effectively guides decision-making towards achievemen of mainstreamed CCA, SLM/SFM, and BDC objectives 1.4 Financing mechanisms in place to sustain continued mainstreaming and advanced achievement of CCA, SLM/SFM, and BDC objectives	LDCF	951,750.00	2,178,661.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2: Promoting ecosystem-based SLM/SFM, CCA and BDC across the landscape and seascape for sustainable and resilient livelihoods	Investment	Outcome 2: Effective advisory and supply services for up and out scaling of SLM/SFM, CCA and BDC in the targeted landscape/seascape	2.1 Extension services effectively and efficiently facilitate fisheries, livestock and agriculture capacity building to advance BD conservation, SLM, and CC resilient practices. 2.2 Field school program established to effectively support mainstreaming of BD conservation, SLM, and CC resilient practices by rural fisheries, livestock and agriculture sectors.	GET	5,260,000.00	11,796,689.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2: Promoting ecosystem-based SLM/SFM, CCA and BDC across the landscape and seascape for sustainable and resilient livelihoods	Investment	Outcome 2: Effective advisory and supply services for up and out scaling of SLM/SFM, CCA and BDC in the targeted landscape/seascape	2.1 Extension services effectively and efficiently facilitate fisheries, livestock and agriculture capacity building to advance BD conservation, SLM, and CC resilient practices. 2.2 Field school program established to effectively support mainstreaming of BD conservation, SLM, and CC resilient practices by rural fisheries, livestock and agriculture sectors.	LDCF	2,463,250.00	3,217,279.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 3: Scaling up adaptation technologies and innovations in selected value chains (crop, livestock and fisheries), improving market access and resilience of supply systems	Investment	Outcome 3: Climate and COVID resilient livelihoods through innovations and improved access to technologies, markets and distribution networks.	3.1 Supply chain network assessed and priorities for strengthening resilience in selected value chains identified in a participatory process. 3.2: Targeted capacity building for agricultural cooperatives, MSMEs and agro-industries in identified priority areas 3.3: Women and youth entrepreneurship strengthened for increased resilience of crop-pastoralist-fishing dependent livelihoods and access to credit and markets improved.	LDCF	4,399,077.00	11,484,500.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 4: Monitoring & Evaluation, communication and knowledge transfer	Technical Assistance	Outcome 4: Project monitored and evaluated, lessons learnt and assessment of SLM/SFM, CCA and BDC innovations are disseminated	4.1 Project M&E system and adaptive learning and management established and implemented. 4.2. Communication and knowledge management strategy developed and implemented	GET	389,215.00	1,950,000.00
Component 4: Monitoring & Evaluation, communication and knowledge transfer	Technical Assistance	Outcome 4: Project monitored and evaluated, lessons learnt and assessment of SLM/SFM, CCA and BDC innovations are disseminated	4.1 Project M&E system and adaptive learning and management established and implemented. 4.2. Communication and knowledge management strategy developed and implemented.	LDCF	759,335.00	1,950,000.00
			Sub Total ($)		**14,933,627.00**	**34,755,789.00**

Project Management Cost (PMC)

GET	318,011.00	819,675.00
LDCF	428,670.00	830,325.00

Project Management Cost (PMC)		
Sub Total($)	**746,681.00**	**1,650,000.00**
Total Project Cost($)	**15,680,308.00**	**36,405,789.00**

Please provide justification

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($)
Recipient Country Government	Ministry of Local Government (MoLG)	In-kind	Recurrent expenditures	17,850,000.00
Recipient Country Government	Ministry of Land, Water and Environment (MoLWE)	In-kind	Recurrent expenditures	7,800,000.00
Donor Agency	IFAD	Grant	Investment mobilized	8,439,789.00
GEF Agency	FAO	Grant	Investment mobilized	2,066,000.00
GEF Agency	FAO	In-kind	Recurrent expenditures	250,000.00
			Total Co-Financing($)	**36,405,789.00**

Describe how any "Investment Mobilized" was identified

The investment mobilized was identified from IFAD?s Integrated Agriculture Development Project / IADP project, through IADP?s interventions undertaken in in the target landscapes in the Debub and Norther Red Sea regions / USD 8,439,789; And FAO's ongoing and planned TCP/GCP projects contributing to achieve the expected results over the 2023-2030 period including: Support to the preparatory phase of the Agricultural Census of Eritrea and initiation of a permanent agricultural statistics system / USD 500,000; Technical Assistance for strengthening fisheries research, development and management capabilities / USD 650,000; Hand in Hand Initiative in Eritrea / USD 360,000; and Contributions to IADP (Integrated Agriculture Development Project).

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($)
FAO	GET	Eritrea	Biodiversity	BD STAR Allocation	2,430,562	218,751	2,649,313.00
FAO	GET	Eritrea	Land Degradation	LD STAR Allocation	4,247,664	382,290	4,629,954.00
FAO	LDCF	Eritrea	Climate Change	NA	9,002,082	810,187	9,812,269.00
				Total Grant Resources($)	**15,680,308.00**	**1,411,228.00**	**17,091,536.00**

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 ($)

300,000

PPG Agency Fee ($)

27,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	LDCF	Eritrea	Climate Change	NA	172,230	15,501	**187,731.00**
FAO	GET	Eritrea	Biodiversity	BD STAR Allocation	46,502	4,185	**50,687.00**
FAO	GET	Eritrea	Land Degradation	LD STAR Allocation	81,268	7,314	**88,582.00**
				Total Project Costs($)	**300,000.00**	**27,000.00**	**327,000.00**

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15,000.00	15,000.00	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)
15,000.00	15,000.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
Akula National Park	**125689**	**Select**	15,000.00	15,000.00		

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)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15000.00	15000.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Select				

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15,000.00	15,000.00		

Indicator 3.3 Area of natural grass and woodland under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Select				

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

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

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)
209000.00	209000.00	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)

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

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

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

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)
209,000.00	209,000.00		

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Select				

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

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

Title	Submitted

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,000.00	50,000.00		

Indicator 5.1 Fisheries under third-party certification incorporating biodiversity considerations

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

Type/name of the third-party certification

Indicator 5.2 Large Marine Ecosystems with reduced pollution and hypoxia

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

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE

Indicator 5.3 Amount of Marine Litter Avoided

Metric Tons (expected at PIF)	Metric Tons (expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

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?e (direct)	0	2437808	0	0
Expected metric tons of CO?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?e (direct)		2,437,808		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting		2023		
Duration of accounting		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?e (direct)				
Expected metric tons of CO?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)

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

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
	200.00		

Fishery Details

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		62,000		
Male		57,000		
Total	0	119000	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 results of the EX-ACT analysis show that the project can constitute a sizeable net carbon sink ranging from -2,437,808 tCO2eq to -3,248,394 tCO2eq over 20 years, mainly due to avoided emissions from improved cropland management practices. The cropping activities constitute a carbon balance ranging from -1,032,720 tCO2eq to -1,838,222million tCO2eq over 20 years, depending on the extent to which the project will improve current practices or introduce agroforestry systems. More specifically, the lower-bound value (-1,032,720 tCO2eq over 20 years) is calculated assuming that 95% of the targeted area (193,800 ha) will support improvements in annual cropland, while only the remaining 5% (10,200 ha) involve land-use changes. The higher-bound (-1,838,222 million tCO2eq over 20 years) assigns 85% (173,400 ha) and 15% (30,600 ha), respectively. Further mitigation benefits will come from the regeneration of afro-montane forests and mangroves (-1,283,700 tCO2-eq over 20 years) and improved practices of grassland (-31,763 tCO2eq over 20 years) and marine habitat (-5,981 tCO2eq over 20 years). Concerning marine habitat, higher benefits are associated with a greater volume of annual catch regulated. According to the Baseline Survey Report (Ministry of Marine Resources, 2020), the annual catch in Eritrea could range from 0.312 tonnes to 2.08 tonnes per vessel. Multiplying these values for the 250 vessels targeted by the project, the annual catch regulated could range from 78 tonnes (-897 tCO2eq over 20 years) to 520 tonnes (-5,981 tCO2eq over 20 years). Benefits are expected to come from using more sustainable gear as per the FAO Code of Conduct for Responsible Fisheries (1995). The benefits generated through the abovementioned activities would largely compensate for the GHG emissions increase in the livestock sector and trough irrigation systems, 3,721 tCO2eq and 2 tCO2eq, respectively. The project will contribute to UNCCD 2018-2030 Strategic Framework Strategic Objective 1: improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality as well as to achieving voluntary Land Degradation Neutrality (LDN) targets at national and subnational level. During the PPG, a team of experts carried out a comprehensive assessment. This included gender and social specialists, ecologists, fisheries, agriculture and rangeland specialists, forestry and water specialists, climate change experts, a senior statistician and cartographer. These specialists conducted fieldwork guided by the respective sub-region Ministry of Agriculture (MOA) officers. This included detailed discussions with government, private sector, and village community members. To help inform issues related to climate change, a socio-economic questionnaire was prepared and applied to 435HHs (33% female respondents) in the four sub-regions. Experts conducted key informants? interviews (KIIs) and observation checklists. Fourteen villages from the four Sub Zobas representing various Agro-Ecological Zones were included in Focal Group Discussions (FGDs). In addition to group discussion with farmers in the sub-zone, the kebabi Administrators, and MOA project staff in Sela (Sub-zone office) were interviewed, in order to have an overview of the means of livelihood of the

people in sub-zone. Secondary data was collected from progress reports, archives, government and donor reports, and files of the office in the four Sub-Zobas (Segheneiti, Adikeih, Senafe and Foro). Terrestrial and marine wildlife and habitat studies were conducted to examine ecosystems, species groups, uses and impacts on both flora and fauna. Rapid assessment and line transect was the methods used for data collection. Semi quantitative rapid assessment data was collected from 500m*500m inspection quadrats bisecting the beach. GPS of the specific sites as well as other environmental conditions were recorded. Aichi Targets The project will support Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society and each of the associated targets. Target Anticipated Contributions Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably. The project will assist rural communities of Eritrea to come to a much greater understanding of biodiversity value through awareness building, including mainstreaming of biodiversity concerns within relevant sectors through participatory spatial planning. Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems. The project will pay particular attention to mainstreaming biodiversity concerns with sectoral planning and policies related to development and poverty reduction. Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions. This project is designed to deliver GEF-7 mainstreaming objectives, including elimination of incentives for biodiversity negative actions. Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits. The project?s efforts with regards to spatial planning, capacity building, and policy improvements will result in contributions to this target. Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced. Project effort is designed to reduce loss of natural habitats, including globally significant forests currently under threat from unsustainable practices. Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits. The project will contribute to the realization of more sustainable fisheries management, including improvements related to reducing overfishing and conservation of depleted stocks. Target 7: By 2020 areas under

agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity. Efforts are designed specifically to incentivize sustainable management of agriculture to ensure biodiversity conservation.

Meta Information - LDCF

LDCF true
SCCF-B (Window B) on technology transfer false
SCCF-A (Window-A) on climate Change adaptation false

Is this project LDCF SCCF challenge program?
false

This Project involves at least one small island developing State(SIDS). false

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This Project involves at least one fragile and conflict affected state. false

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This Project will provide direct adaptation benefits to the private sector. true

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This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). false

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This Project has an urban focus. false

This Project covers the following sector(s)[the total should be 100%]:*

Agriculture	**30.00%**
Natural resources management	**40.00%**
Climate information Services	**0.00%**
Costal zone management	**10.00%**
Water resources Management	**20.00%**

Disaster risk Management	**0.00%**
Other infrastructure	**0.00%**
Health	**0.00%**
Other (Please specify:)	**0.00%**
Total	**100%**

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise false

Change in mean temperature true

Increased Climatic Variability true

Natural hazards true

Land degradation true

Costal and/or Coral reef degradation true

GroundWater quality/quantity true

To calculate the core indicators, please refer to Results Guidance

Core Indicators - LDCF

CORE INDICATOR 1	Total	Male	Female	% for Women
Total number of direct beneficiaries	119,000	57,000	62,000	52.10%

CORE INDICATOR 2

Area of land managed for climate resilience (ha)	224,000.00

CORE INDICATOR 3

Total no. of policies/plans that will mainstream climate resilience	9

CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained	15,200	7,600	7,600	50.00%

OUTPUT 1.1.1

Physical and natural assets made more resilient to climate variability and change

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		Male	Female
Total number of direct beneficiaries from more resilient physical assets	**0**	**0**	**0**

Ha of agriculture land	Ha of urban landscape	Ha of rural landscape	No. of residential houses
		224,000.00	**0**

No. of public buildings	No. of irrigation or water structures	No. of fishery or aquaculture ponds	No. of ports or landing sites
0	**0**	**0**	**0**

Km of road	Km of riverban	Km of coast	Km of storm water drainage
Other	Other(unit)	Comments	
0		**224,000 hectares of land reporting progressive achievement of biodiversity conservation, SLM, and climate change adaptation targets.**	

OUTPUT 1.1.2

Livelihoods and sources of income of vulnerable populations diversified and strengthened

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		Male	Female
Total number of direct beneficiaries with diversified and strengthened livelihoods and sources of income	**119,000**	**57,000**	**62,000**
Livelihoods and sources of incomes strengthened / introduced			

Agriculture	Agro-Processing	Pastoralism/diary	Enhanced access to markets
true	**true**	**true**	**true**
Fisheries /aquaculture	Tourism /ecotourism	Cottage industry	Reduced supply chain
true	**false**	**false**	**false**
Beekeeping	Enhanced opportunity to employment	Other	Comments
true	**false**	**false**	

OUTPUT 1.1.3

New/improved climate information systems deployed to reduce vulnerability to climatic hazards/variability

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		Male	Female
Total number of direct beneficiaries from the new/improved climatic information systems	**0**	**0**	**0**

Climate hazards addressed			
Flood	Storm	Heatwave	Drought
false	**false**	**false**	**false**

Other	Comments		
false			

Climate information system developed/strengthened

Downscaled Climate model	Weather/Hydromet station	Early warning system	Other
false	**false**	**false**	**false**

Comments

Climate related information collected

Temperature	Rainfall	Crop pest or disease	Human disease vectors
false	**false**	**false**	**false**

Other	Comments
false	

Mode of climate information disemination

Mobile phone apps	Community radio	Extension services	Televisions
false	**false**	**false**	**false**

Leaflets	Other	Comments
false	**false**	

OUTPUT 1.1.4

Vulnerable natural ecosystems strengthened in response to climate change impacts

---

Types of natural ecosystem

Desert	Coastal	Mountainous	Grassland
false	**false**	**false**	**false**

Forest	Inland water	Other	Comments
false	**false**	**false**	

OUTPUT 1.2.1

Incubators and accelerators introduced

		Male	Female
Total no. of entrepreneurs supported	**0**	**0**	**0**

		Comments
No. of incubators and accelerators supported	**0**	

		Comments
No. of adaptation technologies supported	**0**	

OUTPUT 1.2.2

Financial instruments or models to enhance climate resilienced developed

Financial instruments or models

PPP models	Cooperatives	Microfinance	Risk insurance
false	**false**	**false**	**false**

Equity	Loan	Other	Comments
false	**false**	**false**	

OUTPUT 2.1.1

Cross-sectoral policies and plans incorporate adaptation considerations

---

Will mainstream climate resilience	Of which no. of regional policies/plans	Of which no. of national policies/plan
0	**2**	**3**

Sectors

Agriculture	Fishery	Industry	Urban
true	**true**	**false**	**false**

Rural	Health	Water	Other
true	**false**	**true**	**false**

Comments

OUTPUT 2.1.2

Cross sectoral institutional partnerships established or expanded

No. of institutional partnerships established or strengthened	**1**
Comments	**Cross-sectoral watershed coordination mechanism established to support achievement of integrated CCA, SLM/SFM and BD conservation objectives with members representing MoA, MoLWE, MoMR, MoLG, and 4 sub-Zoba administrations.**

OUTPUT 2.1.3

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks	**8**
Comments	**Data and Information Management System Vulnerability Risk Assessment Program Early Warning System Land Degradation Monitoring and Information Management Program Rangeland and Livestock Monitoring and Information Management Program Agriculture Monitoring and Information Management Program Fisheries and Marine Habitat Conservation Monitoring and Information Management Program Forest Monitoring and Information Management Program**

OUTPUT 2.1.4

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks	**8**

Comments

Data and Information Management System
Vulnerability Risk Assessment Program Early Warning System
Land Degradation Monitoring and Information Management Program Rangeland and Livestock Monitoring and Information Management Program Agriculture Monitoring and Information Management Program Fisheries and Marine Habitat Conservation Monitoring and Information Management Program Forest Monitoring and Information Management Program

OUTPUT 2.2.1

No. of institutions with increased ability to access and/or manage climate finance

---

No. of institution(s)

Comments

OUTPUT 2.2.2

Institutional coordination mechanism created or strengthened to access and/or manage climate finance

---

No. of mechanism(s)

Comments

OUTPUT 2.2.3

Global/regional/national initiatives demonstrated and tested early concepts with high adaptation potential

---

No. of initiatives or technologies

Comments

OUTPUT 2.2.4
Public investment mobilized

Amount of investment (US$)

Comments

OUTPUT 2.2.5
Private investment mobilized

Amount of investment (US$)

Comments

OUTPUT 2.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

Total no. of people trained	**15,200**	Male **7,600**	Female **7,600**
Of which total no. of people at line ministries	**0**	Male **0**	Female **0**
Of which total no. of community/association	**15,000**	Male **7,500**	Female **7,500**
Of which total no. of extension service officers	**200**	Male **100**	Female **100**
Of which total no. of hydromet and disaster risk management agency staff	**0**	Male **0**	Female **0**
Of which total no. of small private business owners	**0**	Male **0**	Female **0**
		Male	Female

Of which total no. school children, university students or teachers	**0**	**0**	**0**

Other	Comments

OUTPUT 2.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

---

		Male	Female
No. of people with raised awareness	**0**	**0**	**0**

Please describe how their awareness was raised

OUTPUT 3.1.1

National climate policies and plans enabled including NAP processes by stronger climate information decision-support services

---

No. of national climate policies and plans

Comments

OUTPUT 3.1.2

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks

Comments

OUTPUT 3.1.3

Vulnerability assessments conducted

No. of assessments conducted

Comments

OUTPUT 3.2.1

No. of institutions with increased ability to access and/or manage climate finance

---

No. of institution(s)

Comments

OUTPUT 3.2.2

Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance

---

No. of mechanism(s)

Comments

OUTPUT 3.2.3

Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential

No. of initiative(s) or technology(ies)

Comments

OUTPUT 3.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

		Male	Female
Total no. of people trained	**0**	**0**	**0**

		Male	Female
Of which total no. of people at line ministries	**0**		

		Male	Female
Of which total no. of community/association	**0**		

		Male	Female
Of which total no. of extension service officers	**0**		

		Male	Female
Of which total no. of hydromet and disaster risk management agency staff	**0**		

		Male	Female
Of which total no. of small private business owners	**0**		

		Male	Female
Of which total no. school children, university students or teachers	**0**		

Other	Comments

OUTPUT 3.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

---

		Male	Female
No. of people with raised awareness	**0**		

Please describe how their awareness was raised

Part II. Project Justification

1a. Project Description

1.a PROJECT DESCIPTION

A. Context

1. The State of Eritrea is situated in the Horn of Africa. The country is bordered by Sudan in the north and west, Ethiopia in the south and Djibouti in the southeast. Eritrea?s extensive coastline along the Red Sea stretches 1,900 km to east and northeast with more than 350 islands. The nation?s total land surface area is approximately 117,600 km2. The human population is estimated at 3.4 million people, but recent population surveys are not available. The country is divided into six regions (Zobas), fifty-five sub-regions (sub-Zobas), and approximately 2,700 villages.

2. Eritrea is a Least Developed Country (LDC). Approximately 70% of the population lives in rural areas and relies upon agriculture, livestock and fisheries.[1][1] Much of this rural economy is subsistence based. Eritrea has high levels of land degradation and is very vulnerable to economic, climate and exogenous shocks.[2][2] With extremely low agricultural productivity, rural households are frequently affected by poverty and food insecurity.

3. Across the arid and semi-arid coastal lowlands, pastoral and agro-pastoral systems are most common with many rural communities maintaining a semi-nomadic lifestyle. In the highlands and along the rugged steep valley of the escarpment, farming is a sedentary mix of crops with more limited livestock production. Landholdings are generally small and fragmented, typically less than two hectares. Many farmers continue to rely upon draught animals for cultivation.

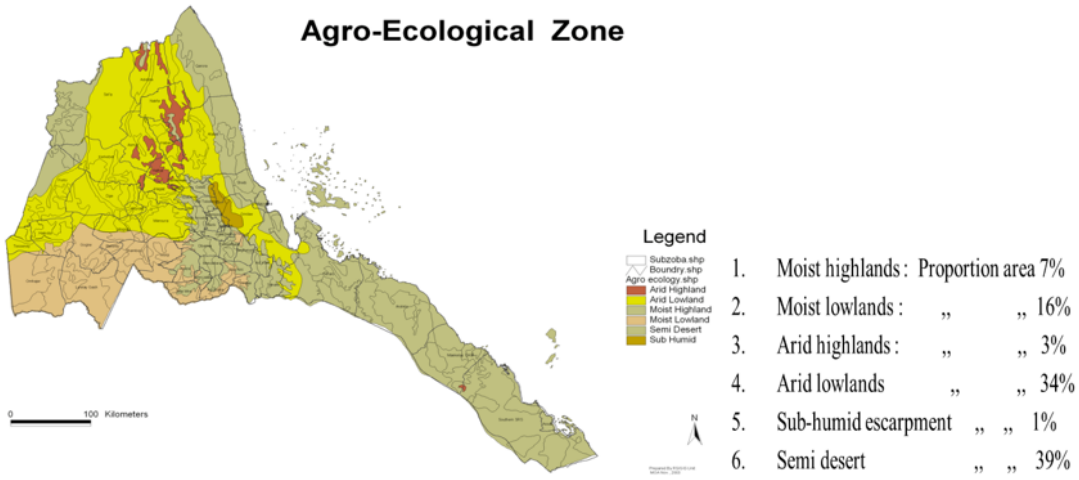
4. There are an estimated 5.75 million goats, 2.62 million sheep, 2.4 million cattle and 0.39 million camels.[3][3] During periods of drought or flooding when agricultural production decreases, poor households tend to rely on livestock sales as a coping mechanism.[4][4]

5. Most agriculture remains rainfed with only 10% of all agriculture irrigated.[5][5] FAO estimates that in good rainfall years, Eritrea produces only 60-80% of its total food needs and less than 50% in poor rainfall years. Principle crops include sorghum, pearl millet, maize, wheat, barley, chick-pea, grass pea, lentil and field pea, sesame, groundnut, flax and sunflower.

6. Red Sea fisheries are important for coastal communities. Rigorous data is scarce with most fishing for subsistence and only limited commercial sales. Many investments have encouraged expansion of the commercial fishing industry. However, investments in fishing fleets, landings, processing facilities as well as preservation infrastructure have largely failed due to several factors including limited market and profitability.

7. Eritrea?s highly variable climate reflects the country?s diverse and dramatic topography. Elevations range from below sea level to over 3,000 meters. The country contains a portion of the expanding Sahel-Saharan desert and the Red Sea. Both influence the nation?s climate. The coastal regions are hot and arid with mean annual temperatures exceeding 27^0 C. The highlands tend to be temperate with mean temperatures of approximately 22^0 C. Isolated micro-catchments found in the steep escarpment may be sub-humid. Some pockets are considered cool with mean annual temperatures of less than 19^0 C.

8. There are two rainy seasons: summer and winter. The summer rainy season occurs June through September and impacts most of the country. The winter rainy season occurs November to March and impacts the eastern escarpment, southern escarpment and coastal zone. Over seventy percent of Eritrea is classified as arid and receives less than 350 mm of moisture annually.[6][6] The coastal lowlands are extremely dry. The northwest lowlands receive approximately 200 mm annually. The southwestern lowlands receive 700 mm annually with some areas of the eastern escarpment receiving more than 1,000 mm annually.



9. Eritrea is water scarce. Over 96% of Eritreans rely upon groundwater. [7][7] No perennial rivers flow through Eritrea. There are five river basins each with seasonal flows. The Water Resources Department of the Ministry of Land, Water and Environment estimates that nearly 86% of Eritrea?s surface water flows west towards Sudan and less than 10% flows to the east to the Red Sea. [8][8]

10. Eritrea is part the Eastern African Highland and Horn of Africa global biodiversity hotspots. However, the biodiversity resources of Eritrea are not well documented.

11. Eritrea has recorded 126 mammal, 90 reptile and 19 amphibian species. There are an estimated 700 species of plants. The country continues to provide habitat for African elephant, giraffe, hyena, jackal, greater kudu, African wild ass, Nubian ibex, waterbuck, leopard, Colobus monkey and numerous other smaller species. Eritrea houses the world?s only viable population of free ranging African wild ass.

12. Eritrea has 577 bird species with approximately 320 resident species. Twelve bird species are of global concern and 13 are ?regional endemics? (Ethiopia and Eritrea). Notable bird species include the Crab Plover, Bridled tern, White-eyed Gull, Lesser-crested Tern and Green-backed Heron, White-eyed Gull, Brown noddy, Socotra cormorant and Brown booby.

13. Eritrea is a centre for crop diversity with landraces of global conservation significance. Eritrea is a primary and secondary centre of diversity for sorghum, wheat and barley, pulses and vegetables. Approximately 20 varieties of sorghum, 8 maize, 6 barley, 5 teff, 3 pearl millet, 3 finger millet, 3 sesame and 2 Niger (Nihug) are described. These specialized crops play an important role in the agricultural strategy of farmers, especially those practicing rain-fed agriculture.

14. The country is home to many pasture species of leguminous and grasses and the highlands of Eritrea. About 120 leguminous species have been reported to occur at elevations between 1,500 and 2,500 m above sea level.

15. Eritrea is considered one of the world?s most important repositories of marine biodiversity. The country?s Red Sea coastline remains relatively pristine. The coastal zone is sparsely populated and largely void of development. Commercial fisheries and tourism sectors are not well developed.

16. Diverse coastal and marine habitats such as mangrove, coral reef, and sea grass remain. Mangrove forests cover 15% or 6,400 hectares of the coastline.[9][9] More than 11 species of sea grass are identified.

17. Eritrean waters have over 1,100 fish species and 44 genera of hard corals recorded with reefs showing surprising resilience to increasing sea temperatures/extreme events. Globally endangered fish species include the Hump-head wrasse (*Cheilinus undulatus*).

18. Megafauna includes several species cetaceans and dugongs (*Dugong dugon*). The globally endangered whale shark (*Rhincodon typus*) is observed on a regular basis within the waters of Eritrea. Five of the seven sea turtle species known to exist globally are found and nest in Eritrean waters: Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*), Loggerhead (*Caretta caretta*), Olive ridley (*Lepidochelys olivacea*) and Leatherback (*Dermochelys coriacea*).

Project Area

19. The project takes a large land and seascape approach. The project area boundaries roughly follow the Comaile River watershed and associated Gulf of Zula. The entire project area covers approximately 225,000 ha terrestrial and 50,000 ha marine.

20. The project area will cover a diverse array of habitats and production zones ranging from the highlands to Red Sea. Elevations range from 3,000 m to sea level. The project area is inclusive of four ecological zones: Highland Plateau, Mid Altitude Escarpment, Coastal Lowlands and Red Sea.

21. The project area will include portions of two regions (Zobas) and four associated sub-regions (sub-Zobas).

Target Zoba	Target Sub-Zoba	Population	Villages
Debub	Adi Keyh	52,423	81
	Segeneyti	21,405	12
	Senafe	17,141	12
Northern Red Sea	Foro	37,903	52
	Subtotal	128,874	157

22. Eritrea has developed rudimentary LDN targets for at the Zoba level. For Debub Zoba, the objective is no net loss from 2015 ? 2030 across the entire region with 27% showing net gain. For the Northern Red Sea Zoba, the objective is no net loss from 2015 ? 2030 across the entire region with 10% showing net gain.

23. Approximately 20 mammal species are also found within the project area, including greater kudu, klipspringer, bushbuck, Ethiopian and common genet, leopard, Hamadryas baboon, spotted and striped hyena. The region harbors 66 resident and migrant species including the White-cheeked turaco, found only in forested highlands of Eritrea, Ethiopia and Sudan.

24. The areas house some of the last remaining tropical coniferous and broad-leaved (afro-montane) forest along the Horn of Africa with *Juniperus Procera* and *Olea Africana*. Critically endangered endemic plant species such as *Aloe schoeleri* and threatened endemic species *Aloe neosteudneri,* are found here.

25. Eritrea?s sections of the Red Sea are some of the region?s most pristine and represent critically important global biodiversity value. The Gulf of Zula is relatively undeveloped. Dissie Islands, a proposed protected area, is located at the top end of the Gulf. The Gulf?s fisheries are in some ways protected due to highlands flooding. Large logs and other debris wash into the Gulf from the highland during annual floods. This debris makes commercial fishing and the use of commercial nets extremely difficult and expensive. The floods also deliver nutrients to the coastal system, impacting marine biodiversity, mangrove health, and sea grass habitats.

26. The Gulf of Zula provides habitat for dugong and 15 species of cetaceans. All five turtle species known to Eritrea are found here. There are nearly 52 species of known corals with an estimate 2,500 ? 3,000 hectares of coral reef within the Gulf. FAO estimates 120 ? 150 hectares of mangroves remain along the Gulf of Zula. There are two species of mangroves: *Avicennia marina* and *Rhizophora mucronate*.

27. As with national statistics, nearly all residents are rural and engaged in agriculture, livestock, and fisheries. Additional production activities include honey and charcoal.

28. Families in the upper reaches are generally sedentary agriculturalists. The uplands agricultural system is almost entirely rainfed. Highlands farmers generally maintain very few head of livestock, e.g., a pair of oxen, one or two milk cows, a donkey for transportation and a flock of small ruminants.

29. The middle escarpment, between the coast and highlands, is defined by very steep slopes and ravines. These areas have very few permanent residents and access is difficult. Many of these people remain highly nomadic, moving livestock seasonally. Households in the middle escarpment often have small fields and water harvest structures located along the steep ravine floors.

30. Families along the coastal plains practice a mix of agro-pastoralism occasionally supplemented by fishing. Coastal residents continue to seasonally migrate with their livestock along the coast and/or into higher elevations to seek better pastures. Spate irrigation is practiced with seasonal flood waters diverted to fields. Sub-Zoba Foro is particularly well-known for spate irrigation including substantial past investments in dams and diversions.

Livestock and Beekeeping

Zoba	Sub Zoba	Cattle	Sheep and Goats	Camel	Donkey	Improved Beehives	Traditional Beehives
Debub	Adikeih	3,513	12,762	99	807	921	154
	Segheneiti	4,073	5,748	831	765	1,116	206
	Senafe	1,220	7,264	104	847	631	1,820
Northern Red Sea	Foro	8,074	51,323	1,399	1,293	-	-

Subtotals	16,880	77,097	2,433	3,712	2,668	2,180

31. Along the Red Sea, fishing is mostly for subsistence with only limited commercial value. Families use very modest gear and traditional boats such as ?Houri?, ?Sambuk? or ?Sedafa?. Some fishing vessels from the region will travel to the northern portion of the gulf to fish and then continue onwards to the large town of Massawa to sell their fish. Sea cucumber and shark fin are considered profitable.

32. Over 80% of total energy consumption is derived from biomass.[10][10] Charcoal and wood sales are important elements of the agrarian economy. Energy saving ovens have been introduced and, according to initial evidence determined during multiple PPG field visits, a large percentage of households in the target villages now use energy saving ovens.

33. Freshwater is scarce. Most residents rely upon ground water and seasonal surface water for drinking. All water sources are often shared between people and livestock. As discussed in further in baseline, many villages have small-scale water harvest structures for crop and livestock production often supported through Government investment.

34. According to investigations carried out during PPG, nearly all production is for subsistence with most families struggling to produce enough harvest for a single year. Less than 10% of farmers reported that a good year?s harvest will sustain a household for one year. Coping strategies include familial loans, livestock sales, remittances, government food aid and cash for work programs.

35. Landholdings tend to be less than .5 hectares. A majority of farmers rely upon draught animals. Yields are very low with 0.5-3 q/ha to less than 0.8 q/ha. Rain fed crop production focuses upon cereals (barley, wheat, taff (*Eragrostis teff*) sorghum maize and finger millet), pulses (faba bean, field pea, lentil) and oil crop mainly linseed and rape seed.

36. Horticultural crops are few. Vegetable crops include tomato, potato, onion, pepper, leafy vegetables (cabbage, lettuce, spinach, etc), carrot, okra and water melon. Onion, okra, and water melon, are cultivated along with potato, leafy vegetables, carrot and spinach.

37. Local farmers practice several production approaches.

? Early Maturing Crops: Early maturing crops such as two rows of barley that grow within a short period of time (e.g., 90 days). Sorghum is also early maturing and often drought tolerant.

? Inter-tillage Cultivation: Generally applied when the crop reaches knee high stage ranging from 21 to 50 days and on average it is about 32 days after crop germination.

? Inter-Cropping and Mixed Cropping: These are usually hanfets (wheat and barley mixtures) and mixtures of white and red taff (sergen) while in the other Zobas the type of intercropping practiced are mainly sorghum with cowpea/bean and vegetables with maize as wind breaker.

? Crop Rotations: Practiced between cereals and legumes or leafy vegetables with tuber crops and so on. The legumes provide nitrogen to the soil through nitrogen fixation to help maintain soil fertility.

? Dry Planting: Successful when the rainfall is not interrupted in between otherwise if the rainfall stops after germination the seedlings will die. In view of climate change, dry planting has some advantages.

? Fallowing: Rest the land from crop production to enrich the soil fertility, increase the water holding capacity, decrease soil erosion, enhance growth of wild legumes that enrich soil fertility through nodule formation. Often used used as grazing area for livestock.

Crop husbandry practices by the households				
Sub Zoba	Inter tillage	Intercropping	Crop rotation	Weeding
Adi Keih	89.3%	84.4%	88.9%	91.6%
Segeneity	92.2%	22.6%	81%	97.6%
Senafe	87.3%	45.0%	59.2%	85.4%
Mean	89.6%	50.7%	76.4%	91.5%

38. According to PPG derived statistics, more than 90% of farmers in the area tend to raise their own seed stocks. A few producers will receive seeds from the Ministry of Agriculture, local markets, or barter with friends and relatives. Improved seed varieties are not common. In Foro, improved hybrid maize varieties were imported from India and China.

39. The soil fertility of the study area is very poor. Soil fertility loss appears common with most land under intense production and grazing pressure. The topography is steep and vulnerable to high rates of soil erosion.

40. The Ministry of Agriculture is the main supplier of Urea and DAP. Both are not widely used by farmers, primarily due to cost constraints. Coastal plain farmers generally do not use any fertilizer. The floodplains are fertile from sediments deposited during spate irrigation.

Fertilizer Use				
Sub zuba	Manure	Urea	DAP	No Fertilizer Use
Adi Keih	66.1%	10.5%	11.2%	12.2%
Segeneity	45.9%	13.1%	20.2%	12.6%

Senafe	70%	6.8%	5.1%	8.1%
Foro	4.8%	2.4%	2.4%	90.4%
Mean	46.7%	8.7%	9.7%	28.3%

C. THREATS: ROOT CAUSES AND DRIVERS

Climate Change, Vulnerability and Impact

41. Rural Eritrea is highly vulnerable climate-related risks and natural hazards due to many factors, including environmental degradation.[11][11] Addressing climate change and associated environmental issues are urgent governmental priorities. However, ecosystem services, including soil and water, upon with agriculture and livestock depend are stretched beyond capacity with local residents barely able to produce enough food for their survival. Drought, higher temperatures and increasingly unpredictable rainfall will each impact food security, vulnerability, poverty and economic development.

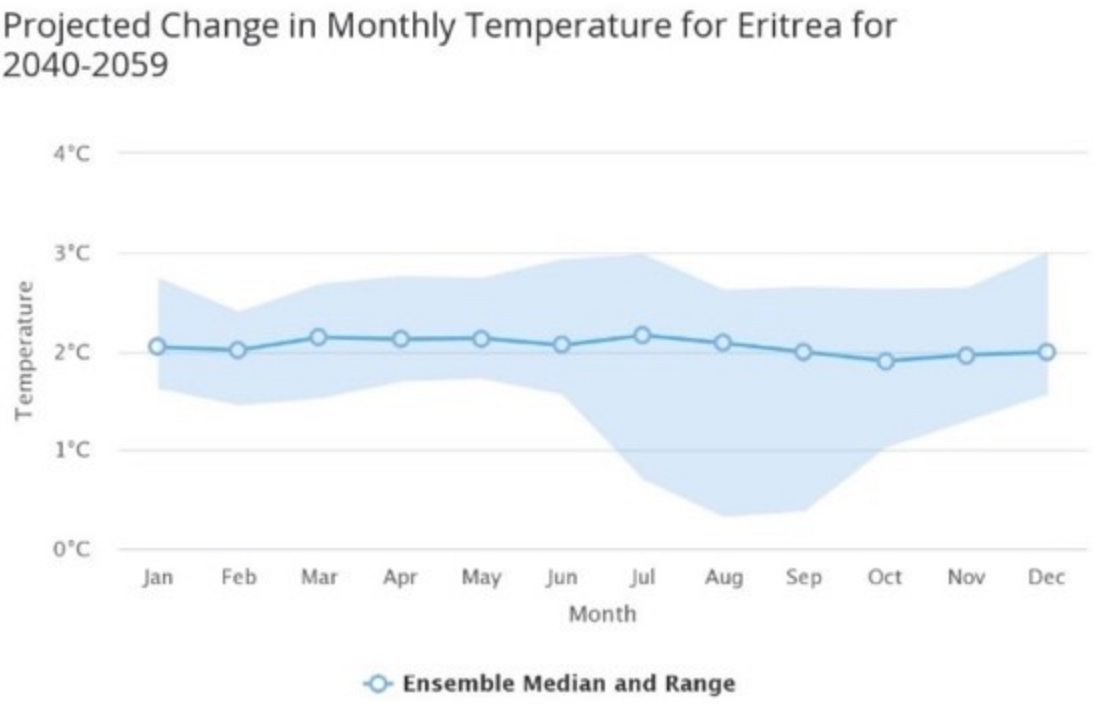
42. Recurrent drought, increasing temperatures and evaporation patterns are resulting in reduced stream flows, lower groundwater, deteriorating water quality, and lost base flows. Over 89% of households interviewed during the PPG reported that the shortage of rainfall is the major limiting factor agriculture and livestock production.

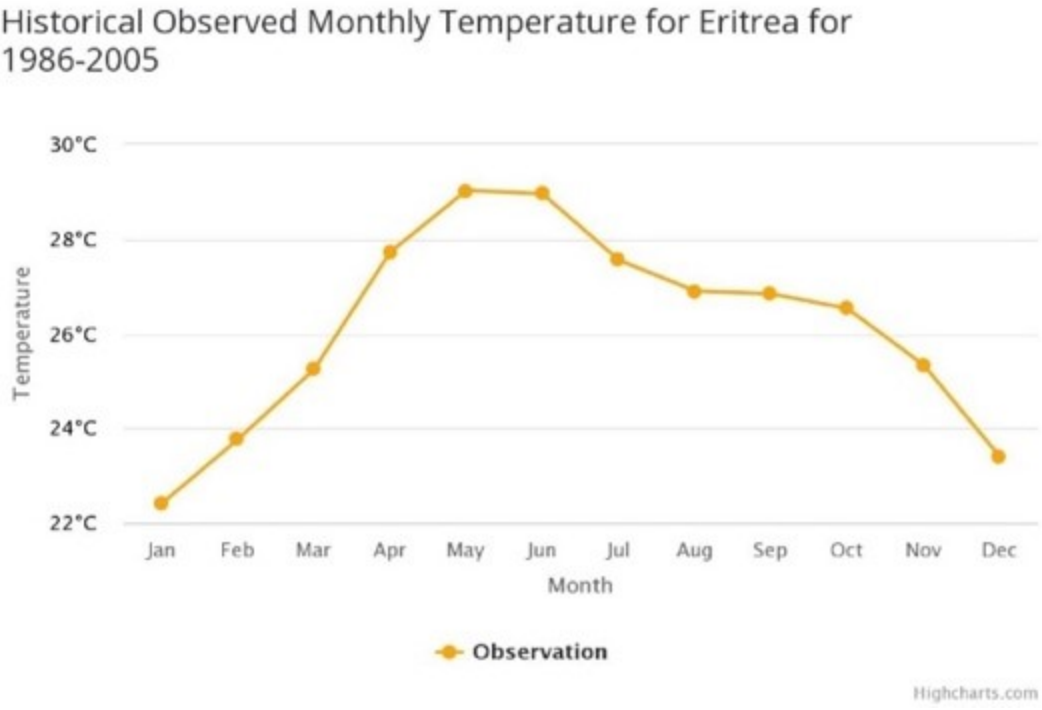
43. Climate change impacts Eritrea?s marine environment. Sea temperature increases harms fisheries and reefs, causing bleaching responses and overall deterioration of coral reefs in the Red Sea. Temperature changes impact food and nutrient supply, growth, survival, reproduction, prey-predator dynamics and habitat. Climate change increases toxic algal blooms (e.g., red tide) threatening shellfish populations in particular.[12][12]

44. Severe climate risks and hazards such as drought, flash floods and sea level rise follow observed changes in mean, range and variability of temperature and precipitation throughout the country. This includes an increased frequency of dry spells, seasonal droughts and multi-year droughts. Projected climate change impacts are significant and include a temperature increase above the mean global value, increasing variability in rainfall, more frequent dry spell and more severe droughts. Over the past 60 years, temperatures have increased approximately 1.7?C. [13][13]

45. Projected change under two emission scenarios (scenario with low GHG emissions (RCP2.6) and one scenario with very high GHG emissions (RCP8.5)[14][14]) indicates that under both scenarios, the average monthly temperature is expected to increase with a median value of more than 1 degree Celsius

in a medium-term future (2040-2059), compared to the historical observed temperature. Climate scenarios projected in 2040-2059 where under the RCP8.5 scenario, mean annual temperature is projected to rise by 2.05?C (1.24?C to 2.73?C).[15][15] [16][16]



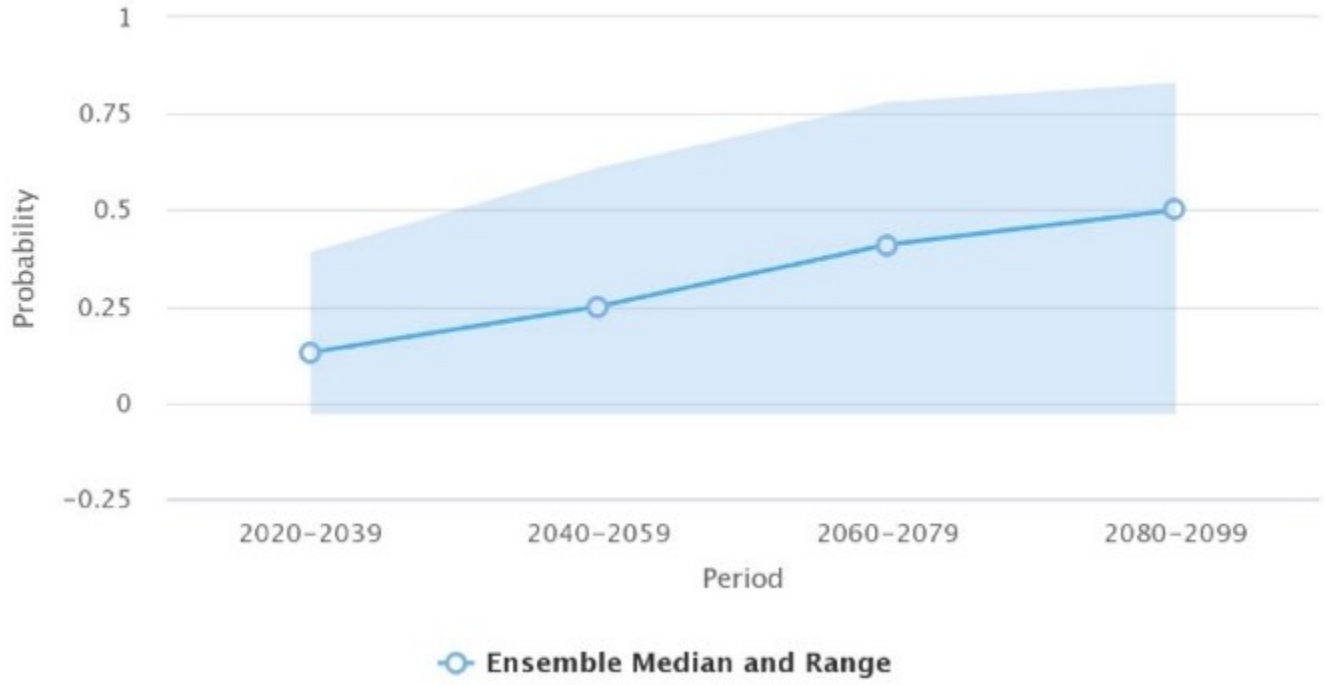


46. Projections of monthly precipitation under two emission scenarios indicates that compared to reference period. The average monthly precipitation is expected to change under both under both scenarios for the period of 2040-2059. Mean annual precipitation is projected to rise by 8.26mm (-111.32mm to 301.32mm) under the RCP8.5 scenario. The average monthly precipitation under the two

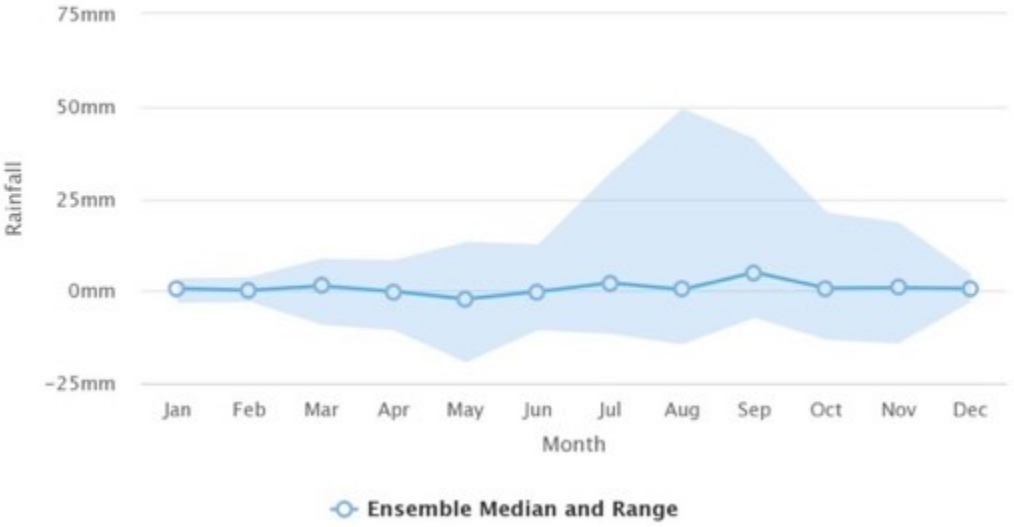
scenarios projects slight changes around the rainy season, suggesting less precipitation during April-May, inducing a later onset and ending of the rainy season (taking into consideration the median values).

47. An increasing trend of higher temperatures combined with little precipitation variability are expected to increase the likelihood of drought conditions. Under a high emissions scenario (RCP8.5), the likelihood of annual severe drought is projected to increase to a 50 percent chance in the last decades of this century (2080-2099).[17][17]

Projected Change in Annual Severe Drought Likelihood for Eritrea

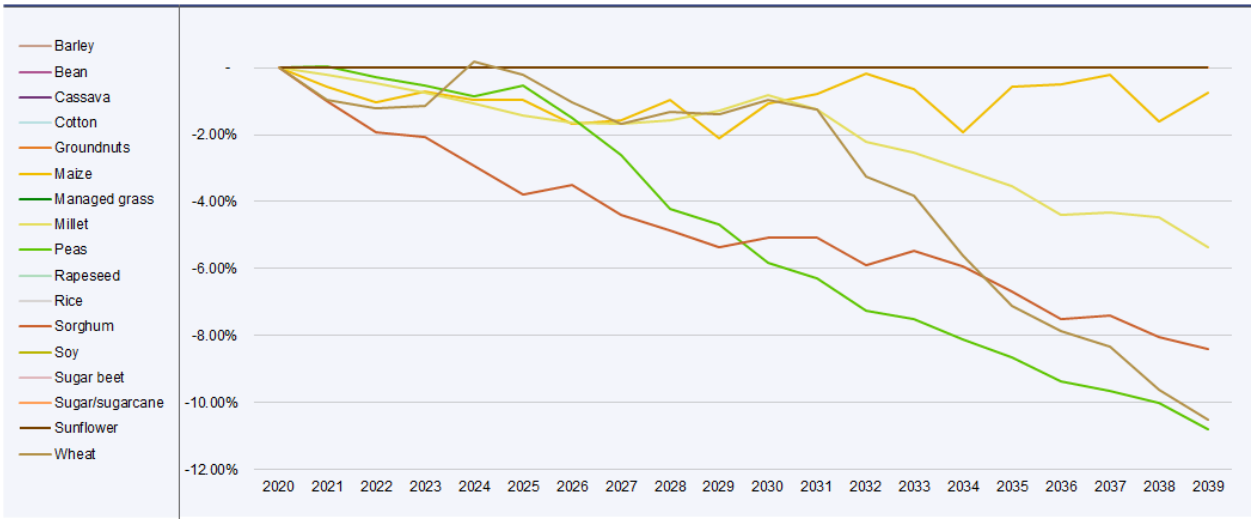


Projected Change in Monthly Precipitation for Eritrea for 2040-2059



48. Similarly, the sea level along the Eritrean coast is projected to rise under increased GHG emission scenarios. At tje proposed project site (near Massawa) under a high GHG emission scenario sea level could rise with more than 55 cm by 2100.[18][18]

49. The projected national average crop will decline due to climate change. New crop pests are appearing and particularly the desert locust is causing great concern due to its devastating impact on crops in the Horn of Africa. Irrigated crops are also adversely affected due to depletion and drying of water wells on which irrigation depends, as well as unusually heavy flooding during the rainy season. These circumstances are increasing the heavy toll on subsistence farmers and threatens to further exacerbate food insecurity and erosion of rural livelihoods.



50. Droughts in Eritrea will likely increase under climate change. Increased temperatures and rates of evaporation will negate any increases in rainfall. This will lead to decreased soil moisture and reduced productivity. Recurring droughts and increasing rainfall variability are also affecting pastoralism through reduced feed and water availability, leading lower productivity as well as loss of livestock. In addition, thermal stress is increasingly exceeding thresholds that animals can tolerate, leading to decreased feed intake, interference with animal productive and reproductive functions, requiring a shortening of grazing hours and increasing exposure to pathogens.

Forest Loss

51. Forest loss impacts biodiversity conservation, land degradation, and water resources. In 1912, forests covered nearly 3.5 million hectares of Eritrea.[19][19] By 1952, this figure decreased to about 1.2 million forested hectares. The figure reduced to 588,000 forested hectares by 1960. Now less than

117,000 hectares of Eritrea remain forested.[20][20] Despite this enormous loss over the past century, the region continues to hold some of the last remnants of the great forests that once spread across the Ethiopian and Eritrean highlands.

52. Historical conflicts contributed substantially to forest loss. Current forest loss is now largely the result of agriculture expansion, unsustainable livestock management, and household fuelwood demands. Eritrean forests are heavily used for cooking, construction, and charcoal. Local residents have few alternatives and strongly prefer the use of natural wood for cooking. Again, energy saving stoves are widely used and available. Along coastal areas, camel grazing causes mangrove degradation particularly near villages or settlements.

53. Farmers often perceive forested areas as having higher rates of rainfall. This results in the clearing of steep forested slopes that are highly vulnerable to erosion. Ironically, leaving forests intact along these mountainous areas actually increases moisture levels. Intact highland forests capture significant moisture ? including from clouds - and help soil to retain this moisture.[21][21]

54. Once trees are removed, soil degradation becomes prevalent and rampant. Domestic livestock decrease vegetation cover and stymie forest regeneration. The end result is increasingly marginalized soils and production value.

55. The desire to intensify agriculture is understandable in a country where food security is paramount and where livelihoods are so closely tied to the natural resource base. With an expanding agrarian population and diminished productivity to meet the country?s food security requirements, demands for crop land are growing with farms expanding into increasingly marginal areas.

56. The Government and local communities are highly engaged in forest conservation and reforestation efforts. As detailed in the baseline analysis, this includes extensive enforcement supported by nurseries, ex-closures, and community work programs. Deforestation continues despite the strong efforts made by the Forestry and Wildlife Authority (FWA). There is currently limited protection for woodlands.[22][22] Much of the problems relate to inadequate regulatory and incentive measures that link community responsibility to forest conservation, maintaining ecosystems services, and realizing social benefits.

Biodiversity Loss

57. Terrestrial biodiversity challenges are directly linked to habitat degradation with climate change serving as contributing factor. This includes the loss of forests and other habitats due to unsustainable agriculture, livestock, and forestry practices. Hunting of wildlife is extremely limited.

58. Eritrea?s coast is one of the least disturbed areas of the entire Red Sea region and globally recognized for extensive marine life and challenging access. Marine biodiversity is primarily

threatened by IUU fisheries and distinct capture markets focused upon sharks and sea cucumbers. Emerging policies and investments are encouraging fisheries development and exploitation. Unfortunately, the push for increased exploitation is not accompanied by commensurate conservation safeguards, e.g., planning, informed decision-making, and conservation capacity. As capture fishing expands, marine resources will become increasingly vulnerable.

59. Eritrea has issues with invasive species. Two exotic tree species - *Prosopis juliflora (S.W)* D.C and *Prosopis chilensis* - were introduced to combat desertification. *Prospois juliflora* now inhabits most coastal riverine habitats. *Nicotiana glauca* shrub species was noticed first time in 1975 with the introduction of food aid. The species grow on disturbed soils along road sides and marginal areas between 1,000-2300 m above sea level and is toxic to animals. At least four exotic marine species including *Distichlis stricta*/*spicata* (saltgrass or desert saltgrass), *Spartina alterniflora* (cordgrass), *Sesuvium spp*. (seapurslane) and *Rhizophora spp*. (mangrove) are now in Eritrean waters. Many of Eritrea?s government sponsored reforestation projects also rely exotic tree species.

Land Degradation

60. Land degradation is a major problem in Eritrea. Land degradation is evinced by loss of soil fertility and erosion. Land degradation is driven by unsustainable agriculture, livestock and forestry practices. Land degradation negatively impacts ecosystem services, food security and economic well-being.

61. The UNCCD found that land productivity is declining across 8% of the Eritrean land mass and nearly 16% of Eritrea shows early signs of productivity decline. Only 12% of all land cover is stable but remains stressed. [23][23] Land degradation is particularly pronounced in the temperate and relatively crowded highlands due to unsustainable agriculture and forestry practices.[24][24]

62. The annual rate of soil loss from cropland is estimated at 12?17 tons/ha. Meanwhile, crop yield is declining at the rate of 0.5% per annum due in part to soil erosion.[25][25] Communities have very low adaptive capacities and face a high degree of risk exposure. This includes limited and insufficient access to innovative SLM and climate resilient practices.

63. Livestock is a major driver of land degradation with stocking rates generally exceeding carrying capacity. Poor herd health and increased livestock numbers often combine to intensify land degradation. There is very little data available regarding overall herd fitness. However, anecdotal data from PPG field visits and discussions point to very low herd health. Issues such as parasite loads often result in livestock increasing grazing requirements while reducing weight gain. As domestic herds increase, grazing territories and periods expand and climate-related impacts continues to weaken an already vulnerable system. This includes increased competition for water and graze between wild and domestic animals. This also limits the ability of grasslands and forests to recover, further increasing vulnerabilities.

D. Barriers

Barrier 1: Limited capacity to mainstream CCA, SLM/SFM and BDC measures into sectoral and spatial planning and informed decision-making.

64. Although Eritrea is committed to addressing biodiversity conservation, land degradation and climate change vulnerability, the systems are not in place to do this in a sustained, coordinated, strategic, informed and cost-effective manner. Removing this barrier requires the creation of a safety net for advanced and strategic decision-making based upon improved cross-sectoral coordination, information management, spatial planning, and sustainable financing.

65. There is an urgent need mainstreamed these issues within decision-making and planning processes both vertically and horizontally. This includes across national level government agencies and between national, Zoba, and sub-Zoba administrations. There is also a need to more effectively engage rural producers and private enterprise in these processes.

66. Eritrea aspires to mitigate land degradation, reduce desertification, and promote adaptation programs to improve agricultural productivity as broadly expressed in the National Indicative Plan and sector plans.[26][26] These plans address sustainable natural resource management (land, water, forest and wildlife) throughout the country and prioritize afforestation, soil and water conservation especially through government led community-based initiatives.

67. The Government supports high-level cross-sectoral engagement as exampled by working groups such as the Agriculture, Food Security, Environment (AFE) and Climate Change Working Group (AFE- WG). Village Development Plans help to engage community members and prioritize development actions.

68. These baseline initiatives provide a foundation upon which to build. However, the barrier persists. Institutions do not fully coordinate and integrate sector-related priorities (agriculture, financial services, industry and trade) into climate and environmental strategies, processes and planning.

69. National and local governments require capacity to actuate and support to integrate climate change interventions, sustainable land management and biodiversity conservation practices fully and effectively into policies, budgets and workplans. MoLWE is at the forefront in addressing climate and environmental issues. However, there is no formal or informal mechanism in place to harmonize and harness cross-sectoral efforts inclusive of agencies responsible for agriculture, forestry, water, livestock, and marine issues.

70. Capacity is needed to generate strategic spatial plans designed to prioritize investment and action to effectively identify and deliver conservation objectives. Experience is needed with the design of comprehensive systems for spatial planning, conservation prioritization, technical inputs, financing, and regulatory management to address the ecological and social challenges related to agriculture, livestock, forestry and fisheries. There is a need to build programming that establishes vulnerability

assessments as a means to monitor, track, and prognosticate climate change vulnerabilities and adaptive measures.

71. There is not a working example of a large land/seacape approach to effectively maintain ecosystem services. No working model for how Eritrea will address climate change impacts at a large landscape level, recognizing the inter-connections between biodiversity, land, water, livestock, agricultural, fisheries, and forestry. There is no protected area law, regulation, and/or management planning to anchor large land/seascape conservation planning. There are no protected areas formally gazetted.

72. The emerging push for cooperatives presents an opportunity to address tenure and management issues for communities. However, the GoE needs support to help integrate community-based approaches to ecosystem conservations measures such as grazing reform, water resources management, marine conservation and forestry conservation and restoration. For instance, Eritrean reforestation projects often rely upon exotic tree species. Non-natives are planted in part due to antiquated laws that do not allow harvest of native species. The advent of cooperatives may present an opportunity to remove the barrier through innovative policy and planning approaches that encourage native reforestation.

73. Critically, the Government of Eritrea seeks to put in place sustainable financing mechanisms in order to sustain and amplify strategic approaches to biodiversity conservation, SLM and the reduction of climate change vulnerability. Designing and implementing an innovative financing approach will be critical if the identified barrier is going to be fully removed and that removal is to be enduring.

74. The entire decision-making network requires support to generate and assess information required to inform decision-making in order to efficiently and effectively address environmental challenges and related vulnerabilities. These capacities are currently largely absent. Rigorous information gathering required to make informed decisions does not exist. For instance, only four rainfall gauges are in place, each at the sub-Zoba centre. There is no comprehensive ground, satellite, or survey data generation and information management system in place.

75. This lack of capacity to systematically link policy, decision-making, planning, and information across sectors results in a high-risk situation, both in terms of continued degradation of ecosystem services and a failure to address imminent climate change risk.

Barrier 2: Low capacity to adopt and sustain CCA, BDC and SLM/SFM practices and technologies at community level.

76. Rural Eritreans do not benefit from a durable program designed to comprehensively build self-capacity to identify and adopt climate resilient agriculture, livestock, and/or fisheries practices. These practices are complicated in Eritrea and to be successful must maintain or enhance ecosystem services by promoting SLM and biodiversity conservation.

77. Traditional adaptation mechanisms and strategies practices implemented by rural Eritreans are becoming inadequate as climate change advances. These practices do not effectively protect people and the environment from increasing climate variability and extreme events. Indeed, most existing

practices exacerbate environmental degradation and ecosystem erosion. Rural Eritreans urgently need access to information and innovations to adapt. However, the current information delivery system is inadequate and requires investment. As a result, rural communities do not have access to knowledge, tools/technologies and networks required to sustainably adopt CCA, BDC and SLM/SFM practices and innovations.

78. Removing this barrier will require aggressive improvements to improve Eritrea?s existing system of extension services and support direct engagement by community members in beneficial conservation actions. This should include establishment of a comprehensive field training program that specifically targets LD, BD, and CC challenges at the producer level.

79. Extensions services are the principal mechanism for capacity building across rural Eritrea. This includes extension officers responsible for animal health and production, fisheries, agriculture and forestry. These services currently face substantial capacity constraints. For instance, each GoE extension officer services approximately 3,500 rural producers.[27][27] This greatly constrains the country?s agricultural growth potential and the ability to proactively identify and adopt resilient production practices.

80. The MoA has extension staff positioned in each of the four sub-Zobas within the project?s target watershed. Very few extension officers are assigned at the village level. Existing extension officers have almost no access to in-service training opportunities, let alone specialized training covering critical issues pertaining to LD, CC, and BD conservation. There is not a formal field school training program established to support design and provisioning of capacity building to local agriculture, livestock, and fishing community members. The FWA responsible for forests conservation and nurseries shares offices with the extension workers at the sub-Zoba levels. Although the MOMR does not have fisheries extension services, they have experience in coastal and marine areas management, including mangrove afforestation of coastal areas.

81. An MoA animal health centre is located in each Sub-Zoba. These centres are generally poorly equipped and critically short of basic equipment. There is no animal health laboratory. There are 59 livestock extension staff across the entire project area. Only 29 of these individuals have diplomas or higher qualifications. Sub-Zoba Fora has an estimated 62,000 head of domestic livestock served by 5 animal production and health experts.

82. Approximately 130,000 adults live in the target area and nearly all are engaged in livestock, agriculture or fisheries. According to MOA information shared during the PPG, approximately 700 farmers across the target area benefited from any extension training each year pre-Covid. Most of these beneficiaries were male.

Farmers annually benefitting from extension services training			
Sub Zoba	2019	2020	2021

	male	female	male	female	male	female
Adi Keih	6	4	35	12	23	9
Segeneity	72	92	0	0	15	5
Senafe	130	70	85	85	75	25
Foro	250	50	65	30	0	0
Total	458	216	185	127	113	39

83. In addition to only reach a very small percentage of the tens of thousands of farmers in the target area, existing training programs focus upon increasing production. Extension agents distribute inputs such as fertilizers, seeds, pesticides, veterinary medicines and tractor services. There is no formal or informal program in place to effectively and comprehensively address biodiversity conservation, land degradation, and climate change vulnerability across productive livestock, agriculture, and fisheries sectors.

84. The Ministry of Agriculture understands the urgency of this issue and is engaged. For instance, the MoA recently conducted a Rapid Agricultural Production Situation Assessment (RAPSA) which collected basic data at Sub-Zoba levels to support identification of agriculture and livestock capacity building priorities.

85. There are large-scale public soil and water conservation works and reforestation programmes regularly implemented. These programs are based on the ?Eritrean philosophy of self-reliance and popular participation?. Achievements recorded include 305,232 hectares of forest conservation areas established nationally with approximately 214,133 hectares of temporary conservation areas and 91,099 hectares of permanent conservation areas. This provides

86. These and other commitments provide a strong baseline upon which to build. However, effectively addressing this barrier will require substantial investment in extension services improvement, development and implementation of field schools to build the capacities of farmers, livestock holders, and fisheries interests to successfully identify and adopt pro-conservation and resilient practices, and the implementation of models building upon expanding existing ?self-reliance and popular participation? approaches.

Barrier 3: Insufficient access to finance and an unfavorable investment climate, including inadequate access to post-harvest technology, and insufficient coordination among producer organizations and private sector actors such as input suppliers and processors.

87. Eritrea has struggled to assist producers, and particularly women and women headed households, to realize production opportunities that allow for mobility beyond subsistence towards more stable and

climate resilient production. Being unable to move beyond the existing cycle subsistence has consistently challenged food security, ecosystem and economic advancement for this sector.

88. Opportunities such as vegetables sold at local markets, goats and honey sold at national domestic markets and exported to regional and international markets are discussed. Each currently suffers from very narrow windows of opportunity due to capacity and knowledge challenges. Market and sales opportunities are limited. The national economy and market systems are not expansive.

89. Challenges faced by smallholders who are willing to sell their production surpluses include: high seasonal variability of farm-gate prices; wide price differentials between farm-gate and urban wholesale prices due to weak rural storage facilities and insufficient transport opportunities; inadequate infrastructure, storage and processing facilities and transport; as well as limited farmer organizational services to support the development of micro, small and medium-sized enterprises (MSMEs). Marketing and value addition remain substantially underdeveloped in rural areas.

90. For instance, beekeeping is a significant agricultural occupation in Eritrea and can offer income and food to poor households, particularly to those with limited access to land.[28][28] However, honey is repeatedly referred to as the go to commodity proposed by nearly all development initiatives. The market is becoming saturated with thousands of honey producers competing for smaller market share.

91. Making improvements demands innovation and capacity support, particularly exposure to emerging international practices designed to incrementally improve value chain access that could provide valuable lessons for rural Eritrean businesses. There is a need to build capacities for practical and creative business planning, innovation, opportunity identification, and cooperative funding/implementation approaches.

92. Producer organizations are not well coordinated and often face managerial and organizational challenges in supporting with market linkages and services, whereas marketing systems are often informal and quality tends to be of suboptimal standard.

93. Groups of farmers, livestock producers, and fishing interests are not well organized. Although there are branches of National Union of Eritrean Women (NUEW) and National Union of Eritrean Youth and Students (NUEYS) exist. However, these organizations have low capacities in terms of value chain improvements and weak integration with the Ministry of Agriculture. This results in large capacity gaps in terms of economies of scale along the entire value chain, well-coordinated natural resource management to drive pro-conservation and resilient practices, and lost opportunities for shared learning.

94. Eritrea has a nascent producer cooperative movement supported by the government. This provides an opportunity for producer organizations to upgrade and diversify their organizational and service delivery models in order to better provide services to their members and ensure their viability. There is a need to support communities and government to establish a firm ground-floor foundation for pro-

conservation, pro-gender, and pro-resiliency cooperatives that benefit from transparent management and engagement.

95. The MoMR supported fisheries cooperative support unit (CSU) and MoA supported Water Users Associations have both struggled to gain traction due to capacity constraints. These organizations need external inputs to assist with fundamental issues such as organizational structure, management objectives, business planning, and know-how with regards to how to improve production value while simultaneously maintaining ecosystem services and building greater climate change resilience.

96. Smallholders and women-led households in particular, have limited access to post-harvest technologies, market information and agribusiness skills, and supply chain infrastructure remains fragmented. Business planning too often is non-existent and leads to inefficient decision-making and wasted resources. This failure to generate persuasive business plans often means that the private commercial banks and microfinance institutions often do not engage with rural producers.

97. Financing is often difficult. Two financing programs exist under the baseline. However, neither provides assistance to access financing targeting ecosystem-based production practices to build climate change resiliency.

98. The Savings and Micro Credit Programme (SMCP) under Ministry of National Development promotes micro-scale activities to create employment opportunities. Commenced in 1996, the SMCP is a well-established public institution managing a revolving fund to support clients with limited access to financial services and assists farmers to purchase inputs ahead of the agricultural season.

99. The Minimum Integrated Household Agricultural Package (MIHAP) is a national flagship programme. Introduced in 2013, this program distributes integrated production starter packs (dairy cow/shoats, chicken, beekeeping, wood and fruit trees, improved stove, etc.) to communities with technical support and capacity building on good agriculture practices.

100. There are opportunities, if capacity existed, to use innovative community work programs to introduce revenue streams and capital into the system. Capacity and capital to incubate these approaches are quite limited. In addition, expanded production requires a balanced approach with safeguards to make certain advances promote ? rather than further degrade ? the ecosystem services upon which climate change resilience and community livelihoods depend.

101. There are also opportunities to build incubators that target women through concepts such as cooperative women?s production facilities. These are places where groups of women can combine resources to generate opportunities, trial innovative approaches without risk, and expand beyond existing subsistence and poverty cycles that exacerbate climate change vulnerability.

Barrier 4: Inadequate information to inform and guide decision making on CCA, BDC and SLM/SFM.

102. Even if Eritrea successfully removed the fundamental barriers related to issues of coordination, strategic planning, informed decision-making, extension services support, sustainable financing, and innovative practices, there would remain a need to be able to effectively capture and disseminate lessons learned to sustain and amplify results.

103. The country does not have a workable example of effectively suctioning lessons from successful practices and distributing these lessons through engagement with government, private, and investment stakeholders. There is a vital need to assist inter-sectoral agency support inclusive of the government stakeholders responsible for forestry, fisheries, livestock, and agriculture to generate cohesive messaging designed to build the capacities of local producers and SMEs to learn from, engage with, and uptake CC resilient and pro-conservation practices. This is urgently needed in order to address threats at a land and seascape level.

104. Removing this barrier demands innovative approaches with the Eritrean context. Smart phone and tablet technology is not widely available in rural Eritrea. Approaches need to be tailored to this situation, reliant upon a mix of analog and digital communication formats. In addition, capacities need to be built to engage in multiple languages and often with communities with relatively low levels of literacy.

105. In addition, there is need to link communication with a knowledge platform. This platform again needs to reflect the required integrated nature of effective responses, coordinating and linking multiple agencies at national, Zoba, and sub-Zoba levels.

106. Knowledge management and information sharing on available data, tools and methodologies remains largely uncoordinated and inaccessible at both national and landscape-level. In addition, the targeted geographies do not have the technical and/or financial capacity to establish a cost-effective knowledge management system. Information management is currently not well integrated into decision making for production and marketing activities in the project areas nor at national level. Information is not collated and systematically transferred to MSME, smallholders and other end-users to build awareness, inform landscape-level decision-making, and provide an early warning of climate shocks and environmental hazards.

E. The Baseline Scenario and Any Associated Baseline Projects

Government

107. Governance is decentralized with the country divided into six regions (Zobas). Each Zoba is responsible for rural development.[29][29]

108. Each of the following national level Ministries works directly through representatives situated at the Zoba and in some cases sub-Zoba levels.

? The Ministry of Land, Water and Environment (MoLWE) is broadly responsible for land, water, forestry, conservation and natural resources management. This includes environmental policy, regulation, enforcement, research and technical support.

? The Ministry of Agriculture is responsible for maintaining food security, including provision of extension and research services for both crops and livestock.

? The Ministry of Marine Resources (MoMR) oversees fisheries, including support for commercial and subsistence fisheries development.

? The Ministry of Finance and National Development (MoFND) coordinates matters with bilateral and multilateral agencies.

? Ministry of Local Government (MoLG) supports subnational government agencies to implement critical development actions.

109. The MoLWE?s Water Resources Department establishes legal and regulatory frameworks for water use. The Environment Department oversees conservation. The MoLWE allocates land concessions for agricultural development in accordance to the Land Proclamation (1994).

Policy Framework

110. The Government of State of Eritrea has a policy framework and ambitious macroeconomic roadmap to promote poverty reduction, economic growth, address climate change and environmental issues.

111. As noted in the barriers discussion, the current package of policy and legislation although well intended does not fully address and/or mainstream CC, LD, and/or BD concerns or provide for an integrated or cohesive approach. The package does not link with informed decision-making structure or fundamental financing requirements. Implementation has been slow. There is no protected area law, regulation, and/or management planning to anchor large land/seascape conservation planning.

112. Indeed, much critical legislation has existed in only draft form for decades.

? The *National Environmental Proclamation of 2017*: Umbrella environmental management law. The Act establishes the National Impact Review Committee, which reports to the Director General of the Directorate of the Environment. The Committee comprises 11 members out of which 9 are Permanent Members and two are appointed from the region (Zoba) where the project is to be implemented. The Directorate of Environment has technical offices at the Zoba and few at sub-Zoba levels to oversee environmental matters. The legal frameworks for the environmental management has yet to be formalized i.e. some of the environmental legal frameworks need to be enacted. This gap has been identified over the years as an obstacle to the effective functioning of the Department of Environment (DoE).

? *Land Proclamation No. 58/ 1994:* Government owns all land of the state and eliminates the village or family ownership systems (Article-3). This Law provides that all land is owned by the State

and citizens have use right only. This Proclamation provides tenure security and has been described as a framework for the evolution of grassroots action against land degradation. Article 50 of the proclamation gives the Government the usufruct right to expropriate land with appropriate compensation for a wide range of national reconstruction projects, including for, forestry and rangeland conservation projects. In elaborating the implementation of Proclamation 58/1994, the government introduced Legal Notice No. 31/1997, which mandates the (MOLWE), in collaboration with other ministries, to prepare land use and area development plan. According to such plans agricultural lands, particularly those to be reserved for irrigation, protected areas, and national parks, areas for afforestation programs, mining areas, etc. are to be identified.

? *Eritrean Water Law, Proclamation No. 162/2010*: Addresses rational management and use of the water resources; the provision of clean, safe and sufficient supply of water; and development of water resources without harming the environment. The stated objectives of the Water Proclamation are: conservation and protection from pollution and related risk factors of the country?s water resources; systemization of studies and documentation of data on water resources; Promotion of integrated water resources management and development as well as judicious prioritization of allocation and use of the same; establishment of pertinent legal framework and institutions with clear mandate in consonance with the principles of integrated water resources management; Promotion of public awareness and participation in water conservation, protection and management and proper utilization; and ensuring equity in the use, management and development of the resources.

? *The Proclamation for the Establishment of Local Governments No. 86/1996*: Cedes control and implementation of development programs and natural resource management to local governments.

? *The Forestry and Wildlife Conservation and Development Proclamation No 155/2006*: This Proclamation, in addition to the regulations for the issuance forestry permits (Legal Notice 111/2006) and regulations for the issuance of wildlife permits (Legal Notice 112/2006) provides the framework for the conservation and development of forests and wildlife resources of the country. The proclamation contains articles related to the conservation of natural resources. Some of the main ones include: (i) Mandates establishment of protected areas for the conservation of natural resources; (ii) Secures tree tenure to a person who plants trees on any land which that person has a legal right to use (Article-23); and (iii) prohibits unauthorized exploitation, transporting and processing of wood products for commercial purposes, cutting live trees for domestic use and clearing land for agriculture and other purposes (Article-21). Implementation of this proclamation is vital for the successful implementation of the recommendations provided in the BLS in relation to climate resilient NRM and sustainable livelihood.

? *The Proclamation to Establish an Integrated Coastal Area Management (ICAM) (2007) - Draft*: ICAM focuses on avoiding and mitigating environmental damage through coordinated planning and implementation of activities. It enables conservation of marine resources by managing coastal development activities. ICAM will be instrumental in the identification of locations for investment in the sustainable development of the coastal areas. The PRODOC could also work towards finalizing and implementation of the drafted ICAM as it contributes to the conservation of marine resources in the coastal area of the project.

? *The Proclamation to Establish the Eritrean Coastal Authority (2007) - Draft*: Establishment of the Eritrean Coastal Authority is essential for the establishment of an inter- sectoral Coastal Area Management Board (composed of representatives of 13 stakeholder members appointed by line Ministries or administrative agencies), which shall be responsible for the conservation and management of the coastal resources. This is institutional set-up is of high significance in the implementation of the PRO-DOC.

? *The Fisheries Proclamation No. 104/1998 and the Fishery Product Proclamation No. 105/1998:* The marine and coastal sector is covered by two proclamations and thirteen Legal Notices (Regulations), all promulgated in 1998 and 2003, and these are: The Foreign Fishing Vessel Regulation: Legal Notice No. 38/1998: (a) The National Fishing Vessel Regulation: Legal Notice No. 39/1998; (b) The Fishery Product Regulation: Legal Notice No. 40/1998; (c) The Fishery Product Hazard Analysis Critical Control Points Regulation: Legal Notice No. 41/1998; (d) The Potable Water Regulation: Legal Notice No. 42/1998; (e) The Aquaculture Products Regulation: Legal Notice No. 64/2003; (f) The Additives Regulations: Legal Notice No. 65/2003; (g) The Heavy Metals Regulations: Legal Notice No. 66/2003; (h) The Factory Vessel Regulations: Legal Notice No. 67/2003: (i) Potable Water Regulations in Fishery Product Activities: Legal Notice No.68/2003; (j) The Fishery Product Importation and Exportation Regulations: Legal Notice No 69/2003: (k) Regulations issued to amend the Foreign Fishing Vessels Regulations (Legal Notice No.38/1998): Legal Notice No. 70/2003; (l) Regulations issued to amend the Fishery Product Regulations (Legal Notice No.40/1998): Legal Notice No. 71/2003.

Policies, laws and regulations	Authority	Date of Enactment
Macro-Policy Document	GoSE	1994
Proclamation for the Establishment of Regional Administration (PERA) No. 86/1996	GoSE	1996
National Economic Policy Framework and Program	GoSE	1997
Interim Poverty Reduction Strategy Paper	GoSE	2004
Five-Year Indicative (Sector) Development Plans	GoSE	2009
National Indicative Development Plan (2014-2018)	GoSE	2014
Renewable Energy Sub-Sector Policy	MoEM	1997
National Action Programme to Combat Desertification and Mitigate the Effects of Drought (NAP)	MoA	2002
National Agricultural Development Strategy and Policy	MoA	2005

Policies, laws and regulations	Authority	Date of Enactment
Forest and Wildlife Policy (draft)	MoA	2005
Agriculture Sector Policy (draft)	MoA	2006
Forest and Wildlife Conservation and Development Proclamation No. 155	MoA/NFA	2006
National Coastal Policy (draft)	MMR	2006
The National Action Plan for the Conservation of Marine Turtles and their Habitats in Eritrea (Draft)	MMR	2006
The Proclamation to Establish an Integrated Coastal Area Management (ICAM) (Draft)	MMR	2007
National Implementation Plan on POPs (NIP)	MoA	2012
Country Report of the LDN Target Setting program in Eritrea	MoA	2018
Environmental Policies	Authority	Date of Enactment
Land and Forest Tenure Proclamation No. 58	MLWE	1994
National Environmental Management Plan	MLWE	1995
National Biodiversity Strategy and Action Plan (NBSAP)	MLWE	1996
Legal Notice No. 31	MLWE	1997
Proclamation on Conservation of Biodiversity (draft)	MLWE	1998
National Environmental Assessment Procedures and Guidelines	MLWE	1999
Land Use Planning Regulatory Framework	MLWE	1999
Integrated Water Resource Management	MLWE	2003
Vulnerability Assessment	MLWE	2005
The National Adaptation Program of Action	MLWE	2007
Biosafety Policy Framework	MLWE	2007
Land Use Policy (draft)	MLWE	2007
Ozone-depleting substances (ODS) Terminal Phase-out Management Plan	MLWE	2008

Policies, laws and regulations	Authority	Date of Enactment
Water Policy	MLWE	2010
Regulation on Ozone Depleting Substances	MLWE	2010
Water Law, Proclamation No. 162	MLWE	2010
National Appropriate Mitigation Measures (NAMAs) in the Eritrean Context	MLWE	2012
Environmental Law Proclamation (draft)	MLWE	2012
Eritrea Eritrea?s Intended Nationally Determined Contributions (INDCs) Report	MLWE	2015
Revised National Biodiversity Strategy and Action Plan for Eritrea (2014-2020)	MLWE	2015
Land Degradation Target Setting Programme	MLWE	2017

Civil Society Organizations

113. Communities often work together with government support to address land degradation and forestry issues. This includes terracing, afforestation and water enhancement projects. The government generally does this through *?food for work?* campaigns. These programs provide critical opportunities for women in particular. For example, the following community actions have taken place in the project area over the past several years. By GoE accounts, these actions have benefited nearly 70,000 women throughout the watershed.

No.	Activity (2015 ? 2021)	Size Ha	Participants	
			Female	Male
1	Hillside terracing	23,100	18,000	8,875
2	Check dam	.07	10,422	5,211
3	New farm terrace	11,700	9,750	4,875
4	On farm soil terrace	23,400	19,500	9,750
5	Stone based terrace	35,600	29,666	14,833

114. Community reforestation is supported through MoA and MoLWE (Forestry and Wildlife). The Government manages a number of nurseries nationwide. Some government nurseries are able to produce over one-hundred thousand seedlings per year. However, under the baseline, the nurseries are generally in poor repair and reforestation efforts often rely upon non-native species.

115. There are three operational nurseries in the project area: Seneafe, Adi-Kieh, and Segenyti. Foro does not have an operational nursery. These three nurseries have a combined annual seedling production capacity of nearly 300,000 seedlings/year. However, each requires simple maintenance (e.g., fencing, seed storage and cleaning facilities, hand tools etc.) and sustainable, solar power generation for irrigation water to irrigate seedlings.

116. Reforestation generally occurs within either temporary or permanent (e.g., stone or brush) enclosures. Unfortunately, once the trees are planted, incentives and engagement with monitoring and enforcement are not generally effective. For instance, farmers are often reluctant to take seedlings and plant them in their homestead due to lack of tree tenure and land tenure. The entire baseline could be strengthened with greater access and application of tools such as community-based management regimes, innovative financing, and informed monitoring.

117. Since 1991, about 98 million seedlings have been planted nationally to rehabilitate around 40,000 ha of degraded lands. More than 250,000 ha of land has been enclosed in order to regenerate natural vegetation[30][30]. There are also efforts to decrease land degradation through introducing energy saving stoves.

118. Over the past few decades, nearly 2,451 hectares have been reforested in the project area. Many of these are showing good levels of regeneration, including both trees and vegetation. This is a strong baseline of activity with limited project investment and more emphasis upon long-term conservation of native species could be greatly expanded and enhanced.

Sub Zoba	Forest Enclosures (1998 ? present) Ha
Adi Keih	467
Segeneity	617
Senafe	567
Foro	800
Total	**2,451**

119. Similar enclosure (or ex-closure) approaches have been tried for livestock. In Senafe, six proposed livestock enclosures will rehabilitate nearly 300 degraded hectares of rangeland. Limited mangrove planting is also supported along coastal areas.14

120. Under the baseline, the GoE estimates that more than 130,000 efficient cooking stoves have been distributed throughout the target watershed to help address forest loss.

Relevant International Investments

121. This project will work extremely closely with two IFAD projects. One of these baseline projects (IADP) will provide GEF project co-financing. FAO is working closely with IFAD and the Government of Eritrea on both projects. Throughout the PPG period, extensive consultations took place to ensure alignment and synergy.

122. The Integrated Agriculture Development Project (IADP): 2020-2026: IFAD ? Budget: US$ 46,650,000. The IADP to enhance smallholder agricultural production and productivity in a sustainable and climate-resilient manner and to improve rural livelihoods. IADP will directly benefit some 60,000 rural households, i.e. more than 300,000 people, of which 40 percent will be women and 40 percent youth. Priority beneficiaries will include: rural small-scale farmers involved in subsistence agriculture; farmers and young people interested in establishing farmers? associations or cooperatives, or available to pilot micro enterprises; women; and youth (18?35 years), including demobilized soldiers.

123. Fisheries Resources Management Programme (FReMP): 2017-2023: IFAD ? Budget: US$ 37,710,000. Aims to ensure that fisheries resources in Eritrea are utilized in a sustainable manner to improve the livelihoods of coastal communities. FReMP will support the establishment of infrastructure and technologies for production, post-harvest operations and marketing of both marine and inland fisheries. It will also promote the development and capacity building of cooperatives and other enterprises and ensure that they have access to the requisite tools to undertake economically viable and sustainable fish-related businesses. In addition, the programme is expected to transform Eritrea's small-scale fisheries sector from subsistence to a sustainable commercial fish industry.

124. UNDP has been active in Eritrea supporting environmental and sustainable agriculture initiatives. Between 2017 ? 2021, UNDP related initiatives supported the construction of 1,023 km of terraces, check-dams with a capacity of 101,018 m3, and the planting of 329,000 trees. UNDP, EU, and GoSE worked together to successfully install solar power systems to support 500 SMEs, 15 schools, 2 kindergartens, and 2 community hospitals, and 5 health stations with over 2.3mw of solar pv benefitting 40,000 HHs. [31][31] Additional UNDP associated programs in the last few years have provided 2,300 horse-drawn carts to vulnerable households to assist them to become more self-reliant, distributed thousands of chickens and over 10,000 kgs of improved seeds.

125. GEF has supported a series of projects in Eritrea. In 2015, a GEF Country Portfolio Evaluation was completed summarizing twenty plus year of GEF investment. Some of the main findings of this

evaluation include discuss the need for quality evaluative evidence. There is very little information available to inform decision-making. This makes it a challenge to make certain investments are targeted, cost-effective, and delivering intended results. As the evaluation states: ?The disparate data and systems of these various entities do not allow for a holistic perspective on the overall status and results of the GEF portfolio in Eritrea. This fragmentation, combined with an overall lack of quantitative environmental data, makes accurate M&E of global environmental benefits difficult.? [32][32] The proposed project will directly address this concern by establishing a programmatic approach that links strategic planning, knowledge management, and monitoring to inform and adapt practice.

126. The project will build upon the baseline actions and lessons of the UNDP/GEF project ?Restoring degraded forest landscapes and promoting community-based, sustainable and integrated natural resource management in the Rora Habab Plateau, Nakfa sub-Zoba, Northern Red Sea Region of Eritrea? intended to create integrated landscape restoration plans at the village (kebabis) level. These plans focus upon particularly resources (e.g., water and forest rehabilitation). The capacities built for the small scaled restoration plans within the MoLWE?s Department of Water, Department of Land, and Forestry and Wildlife Authority will be applied to support the proposed project. This will be expanded to be more inclusive of MoA, MoLG and other national and subnational stakeholders.

127. The project will also build upon the UNDP/GEF ?Integrated Semenawi and Debubawi Bahri-Buri-Irrori- Hawakil Protected Area System for Conservation of Biodiversity and Mitigation of Land Degradation? project. This effort intended to operationalize a National Protected Area system and implement SLM technologies to combat degradation and reduce vulnerability to climate change and poverty. The latest PIR found that this project progressed in terms of SLM interventions and some progress in terms of drafting ? but not adopting ? biodiversity conservation legislation. The project?s MTR and PIRs reveal substantial challenges particularly related to project implementation arrangements, monitoring, and reporting. [33][33] These lessons were taken on board during the design of this proposed project. This proposed project has identified these challenges and will address them during project inception with all roles, responsibilities, and a delivery strategy clarified based upon the guidance of the approved Project Document. The PA project?s terminal evaluation is planned for December 2022.[34][34]

128. Additional baseline initiatives include the following.

Title	Funding and Operations	Description

Drought Resilience and Sustainable Livelihoods Program in the Horn of Africa Project II DRSLP II	AfDB Budget: U.A 12,475,000	Improve drought resilience of the pastoral and agro-pastoral nationally. Rebuild existing livelihoods through investment in integrated management and agricultural and water infrastructure.
Drought Resilience and Sustainable Livelihoods Programme V (DRSLP-V)	2019-2025 AfDB Budget: U.A 17,488,000	Support implementation of National Indicative Development Plan (NIDP) to: (i) accelerate economic growth, (ii) reduce rural poverty, (iii) improve food and nutrition security, and (iv) increase exports and decrease imports. Promote rainwater harvesting through construction of masonry dams and make the sector more dynamic through active participation in agribusiness for job creation. Address problems of food and nutrition insecurity, post-harvest losses, high rate of unemployment and inadequate Micro, Small and Medium Enterprises (MSMEs) in the agricultural sector.
The National Agricultural Program (NAP)	IFAD Budget: US$ 29,600,000	Contribute to rural household and national food security and poverty alleviation. Raise agricultural production and productivity through Agricultural Water Resources and Infrastructure Development; Integrated Agricultural Production; and Programme Support Services.

Sustainable Job Creation and Growth for Increased Food Security and Resilience in Eritrea	2020-2024 EU/EDF (UNDP) Budget: EUR 30,000,000	Support sustainable jobs and promote inclusive green growth in agriculture and agri-business in Eritrea. Enhance food security and resilience of rural communities, with a special focus on youth and women. Contribute to the extension of irrigation infrastructure and facilities to the end users, development of the land for irrigation as well as soil and water conservation upstream. Provide seeds and fertilizers, agricultural machinery and farm tools, are expected to contribute to increasing crop and livestock production. Access to credit to support young and women entrepreneurs to start up and/or expand small and medium agri-businesses and strengthen linkages to markets.
Africa?s Great Green Wall is a flagship initiative - Great Green Wall Initiative (GGWI)		Build rural communities? prosperity and resilience in arid and semi-arid areas in over 20 countries around the Sahara. In Eritrea, GGW Program seeks to promote soil and water conservation in catchment areas, farmland and along the rivers and streams. To date, 128.8 million tree seedlings have been planted, 52,930 ha of degraded area have been terraced and afforested, 394,380 ha have been enclosed/assisted natural regeneration while 65,231 degraded farmlands have terraced across Eritrea through the GGW program.

Inclusive Green Financing for Climate Resilient and Low Emission Smallholder Agriculture (IGREENFIN) and GCF Umbrella Program for the Great Green Wall Initiative	IFAD	Regional initiative is to support the building and scaling up of the resilience and adaptive capacity of rural communities and farmers? organizations by allowing beneficiaries to access credit lines for green agricultural investments. The project preparation facility (PPF) for the IGREENFIN project approved by GCF and child projects, including Eritrea, expected to be finalized soon.
Climate Change Adaptation Programme In Water and Agriculture	UNDP Adaptation Fund: Budget: US$ 6 million	Increase food security through ecologically sustainable and climate-resilient improvements in agricultural production. Increase community resilience and adaptive capacity to climate change through an integrated water management and agricultural development approach in the sub-Zobas of Hamelmalo and Habero in the Anseba Region. Floodwater harvesting and groundwater recharge; promote a range of climate-resilient technologies for enhanced agricultural and livestock production; climate risk information through a community-based early warning system.
Strengthening Climate Information Systems for Climate Change Adaptation in the Greater Horn of Africa through regional cooperation	GCF regional programme Intergovernmental Authority on Development (IGAD)	Strengthen climate resilience to extreme rainfall events, extreme droughts and floods. Establish improved early warning and climate information dissemination systems at the regional level and integrate within existing national climate information systems.

Value chain development of Banana and Citrus in Eritrea	2019-2022 FAO Budget: US$ 350,000	Address systemic constraints that hinder increase in production and productivity and the marketing of selected products by strengthening the linkages between value chain actors and promoting value addition for food loss reduction and diversification in selected regions. Test and evaluate different value adding technologies, equipment and practices for banana and citrus processing and develop a strategy for the fruit sector value chain and markets.
Improving Grain Post-Harvest Handling and Storage for Smallholder Farmers in Eritrea	2019-2021 FAO Budget: US$ 200,000	Provide technical assistance to the Ministry of Agriculture for grain post-harvest loss reduction initiative. Address challenges related to significant post-harvest losses (an estimated 30-40% of harvest) due to poor handling.
Livelihood support to smallholder farmers of Northern Red Sea Region in boosting their productivity project	2018-2021 FAO Budget: US$ 600,000	Contribute to improved food security and livelihood of vulnerable populations affected by successive drought. Provide inputs and strengthen extension services to reduce the vulnerability of agro-pastoralist communities affected by below-average rains, which have negatively affected crop production in marginal agricultural areas on the highlands of the coastal Northern Red Sea Region and where drought conditions have resulted in widespread failure of staple crops and critical feed shortages.

Early Warning Tools for Increased Resilience of Livelihoods in IGAD Region	2020-2021 FAO Budget: US$ 3,649,000	Contribute to saving lives through saving livelihoods, alleviating human suffering (without adding burden to either men or women) and paving the way for evidence-based humanitarian early and long term development actions in the East Africa region. Improve availability of animal feed-related data through the development, implementation, and institutionalization of three feed security assessment tools/methodologies.
Improving food and nutrition security of vulnerable women through net making and traditional small fishing activities in Eritrea	2019-2021 FAO Budget: US$ 500,000	Assist vulnerable women and women headed households to introduce production assets and scaling up of knowledge to empower the job creation and income generating activities and possibly linking women participation in programme activities and market.
Boosting Restoration, Income, Development, Generating Ecosystem Services (BRIDGES) project: Eritrea, Mauritania and Sudan	2018-2022 FAO Budget: US$ 3,000,000	Provide village communities within the Great Green Wall core areas with restored productive lands for resilient small scale farming, generating income and ecosystem services for their sustainable livelihoods.

F. Proposed Alternative and Theory of Change

129. The project objective is to enhance resilience of vulnerable agro-pastoralist and fishing communities along degraded landscapes/seascapes in the south-eastern escarpments and adjacent coastal areas of Eritrea through an integrated ecosystem-based and market-driven approach.

130. Rural Eritrea faces a host of environmental and food security challenges. Degradation of land, water, and forest resources is the norm driven by unsustainable agriculture, forestry, and livestock management practices. Although generally considered to be intact, fisheries are being targeted for increased exploitation and exposed due to the lack of pre-emptive conservation safeguards. As climate change advances, the precarious situation becomes increasingly tenuous for humans, biodiversity and the ecosystems upon which they depend.

131. Maintaining ecosystem services to sustain livelihoods, reduce climate risk, conserve biodiversity and decrease land degradation is an urgent but highly complicated endeavour in Eritrea. Several factors contribute to challenges.

132. The target area presents a variety of ecological, social, and production variation. Transportation is difficult. Elevations range from 3,000 meters to sea level. Stakeholders are widely dispersed across a rugged and challenging environment. Stakeholders are often extremely poor and face very high levels of vulnerability. Cohesively managing this complex system demands that institutional, policy, planning, and financing are well coordinated with mutually agreed objectives integrated across multiple government agencies and private stakeholders.

133. MoLWE is the primary management agency for land use and environmental concerns. However, delivering on this project?s intended core indicators requires working across terrestrial and marine ecosystems. Addressing conservation and resilience at broad spatial scales demands inputs and support from a host of government agencies such as MoA, MoMR, and MoLG. Zoba, sub-Zoba and village administrations are ultimately in charge of making development decisions.

134. Eritrea does not to date have a working example where this broad range of public and private interests come together to effectively support large land and seascape conservation that cohesively and collectively integrates CCA actions, SLM/SFM and BDC into programming, finance and planning frameworks.

135. Decision-making is generally not well coordinated between diverse organizations horizontally (e.g., fisheries, wildlife, agriculture, water resources, forestry, etc.) or vertically (e.g., national, Zoba, and/or sub-Zoba). There is not a strong conduit for the generation and application of data to inform decision-making at scale. Planning, and particularly spatial planning, is not in place covering large land and seascapes to provide clear management guidance. Decision-making is not organized around and aligned to achieve shared social and conservation objectives. In addition, financing required to maintain and support implementation of improved management systems is not in place. As a result, Eritrean stakeholders including government agencies work hard to address land degradation, biodiversity conservation, and climate change vulnerability challenges but do not have the systems and financing in place to get this job done.

136. At the producer level, most issues stem from ineffective information and technical support supply systems. The isolated position of rural Eritreans means that they generally rely upon fellow community members and/or extension officers for the knowledge required to improve and innovate practices. Unfortunately, the network of extension services is too thinly staffed to reach stakeholders. Existing extension officers do not have a system or a platform in place designed to effectively build skills, increase ranks, and/or deliver information and technical support to constituent rural households. The result is that rural Eritreans have little access to the knowledge and experience required to identify and adopt practices designed to effectively address biodiversity conservation, land degradation and climate change vulnerability issues.

137. Rural Eritreans have very few business options and little production variety, so they are often stuck repeating the same degradation and vulnerability exacerbating actions. Breaking the current

cycle is highly challenging when there are few markets and rural producers raise barely enough to meet their own annual household needs. Altering these patterns of behavior requires access to innovation. This includes business knowledge and financing required to strategically identify and adopt resilient alternatives. This problem is even more acute for women and youth who often have the greatest vulnerability challenges but the least adaptation options and opportunities. The result is that women and youth generally do not have the ability to effectively identify alternative business opportunities, access finance for these opportunities, and successfully implement.

138. Finally, the existing situation does not provide for a strong mechanism to professionally capture information, learn lessons, disseminate this information, engage stakeholders and provide an environment for effective adaptive management approaches.

139. Government and private stakeholders recognize and are eager to solve identified challenges. There is a baseline upon which to build. Examples include a system tree nurseries and community-based reforestation, terrace building and water harvesting. However, these efforts have largely taken place outside of strategic and cohesive system designed to address land degradation, biodiversity conservation, and climate change vulnerability in an integrated manner and at a scale designed to deliver meaningful results.

140. The project?s four components are designed to tackle each identified barrier using an integrated approach. The project will assist Eritrea to address challenges related to: a) integrated planning, financing, and informed decision-making; b) practical learning and capacity building; c) access to innovative financing and business practices; and, d) knowledge management and communication.

141. The project will assist Eritrea to establish the tools, skills and experience required to reverse this situation. The project will address rural development and livelihood security issues stemming from unsustainable productive sector management practices. Farming, livestock rearing, forestry, and fisheries are individually and cumulatively each identified drivers of biodiversity loss, land degradation and climate change vulnerability.

142. Eritrea has a strong desire to address BD, LD, and CCA issues. However, the country has very low financial and institutional capacity to initiate, sustain and maintain complicated programming. Infrastructure and travel is in many places difficult and best done by foot or animal. Rural households exist at the edge of subsistence with very few viable alternatives. Eritrea strongly prefers to implement programming without substantial international technical support. These factors must be fully considered for project implementation and design, requiring innovative approaches to make certain investments result in intended impacts, including achievement of core and result indicators.

143. Fundamentally, the project is designed to help Eritrea transform approaches at scale, extending across and entire watershed to encompass both terrestrial and marine environments. The project will work across a large and contiguous land and seascape region. Models predicated upon an integrated approach will be generated showing the positive and cumulative impacts that may be achieved. The project will set in a place a completely new way of doing business sustained by strategic planning, adequate financing, improved policy, and a highly effective and comprehensive network of extension services. The target beneficiaries will be private sector actors, government regulators, and agency

extension services. The project will assist community members to diversify income-generating and value-adding activities.

144. The project?s theory of change is designed around a focused effort to build the capacities of government agencies ? at national and subnational levels ? and rural households. This will be done primarily through a programmatic approach to that designs and launches a system for these target beneficiaries to access information, build knowledge and apply these through structural improvements such as new intersectoral advisory boards, financing and policy reforms, spatial planning, data generation and informed decision-making, field training and extension systems, empowered producer cooperatives, knowledge management and communication frameworks, and national and subnational networks for information building and exchange. Each of these structural reforms along with targeted modelling of improved practices will be focused upon building capacity to specifically sustain BD conservation. SLM, and CCA improvements.

145. The capacity of rural producers to address critical climate change challenges, and particularly those associated with the loss of ecosystems services, is extremely low. The ability of these at-risk households to access necessary skills and support is incredibly challenged. Very few agriculturalists annually benefit from any sort of training program across the entire project area. The project will drastically alter this dynamic by establishing a comprehensive program to build agriculture, fisheries, livestock, and forestry management capacities at the household level. Mainstreaming biodiversity conservation using ecosystem-based approaches is critically important in Eritrea to reduce climate change risk exposure and increase food security.[35][35] By the project close, thousands of small and medium enterprise rural producers will benefit from a well-coordinated and capacitated system of extension services. This network of extension officers will be in the field supporting producers to identify and adopt approaches designed to build climate change resilience, address land degradation, and conserve biodiversity.

146. Rural households will have access to and will be up-taking production and conservation practices that promote adaptation technologies and ecosystem-based solutions designed to strengthen rehabilitation, restoration and resilience in ecosystems and reduce environmental degradation and vulnerability to climate risks and hazards.

147. Under Component 1, the project will help to strengthen the existing enabling environment. This will include providing technical assistance to identify management gaps and opportunities for more collaborative management processes at national and subnational level. The project will support the design and implementation of spatial management plans that fully integrate BD, LD, and CC concerns. The project will establish a programmatic approach to generating information and using this information to inform-decision making at all levels. The project will assist with the design and implementation of innovative financing approaches to support improvements that are enduring and self-sustaining.

148. National and Zoba level policies will be harmonized and streamlined to better deliver CC, BD, and SLM benefits. Each of the four sub-Zobas will have a system for informed decision-making,

including rational and integrated spatial plans linked to monitoring and assessment. These will reflect vulnerability assessments, informs LDN and other target achievement, and improves the efficiency and effectiveness of conservation investments.

149. Spatial plans will cover marine and terrestrial areas. Based upon spatial planning results, marine and terrestrial protected areas will be formed as part of the mosaic required to maintain ecosystem services upon witch both biodiversity and local communities rely. This includes setting in place and monitoring ecosystem-based objectives and indicators to guide and inform decision-making and investments. Spatial management plans will help to describe and prioritize production practices, including forest conservation, livestock management, and agriculture development. This will provide the foundation for a massively expanded package of extension services designed to build the capacities of at-risk farmers, livestock producers, and fishing interests to engage in practices designed to increase resilience through improved land management and ecosystem-based conservation approaches.

150. Under Component 2, the project will revitalize extension services and associated field training to create an effective and lasting program for knowledge and capacity building. The project will facilitate increased staffing through recruitment of community trainers. The project will create a functional extension services training platform. The project will create a field training program designed to target livestock producers, farmers and fishing interests to enhance their ability to sustain land, reduce climate change vulnerability, and promote ecosystem-based production designed to conserve biodiversity.

151. Under Component 3, the project will focus upon assisting rural communities to improve their ability to expand production opportunities as a means to improve livelihoods, reduce climate change vulnerabilities, and engage in pro-conservation production practices. This will include working with women, community organizations, and others to improve access to required financing, technology, and business acumen. This is a substantial challenge in Eritrea where market opportunities are limited, particularly for rural poor whose farming, livestock, and fisheries practices often exist on a subsistence level with very little margin.

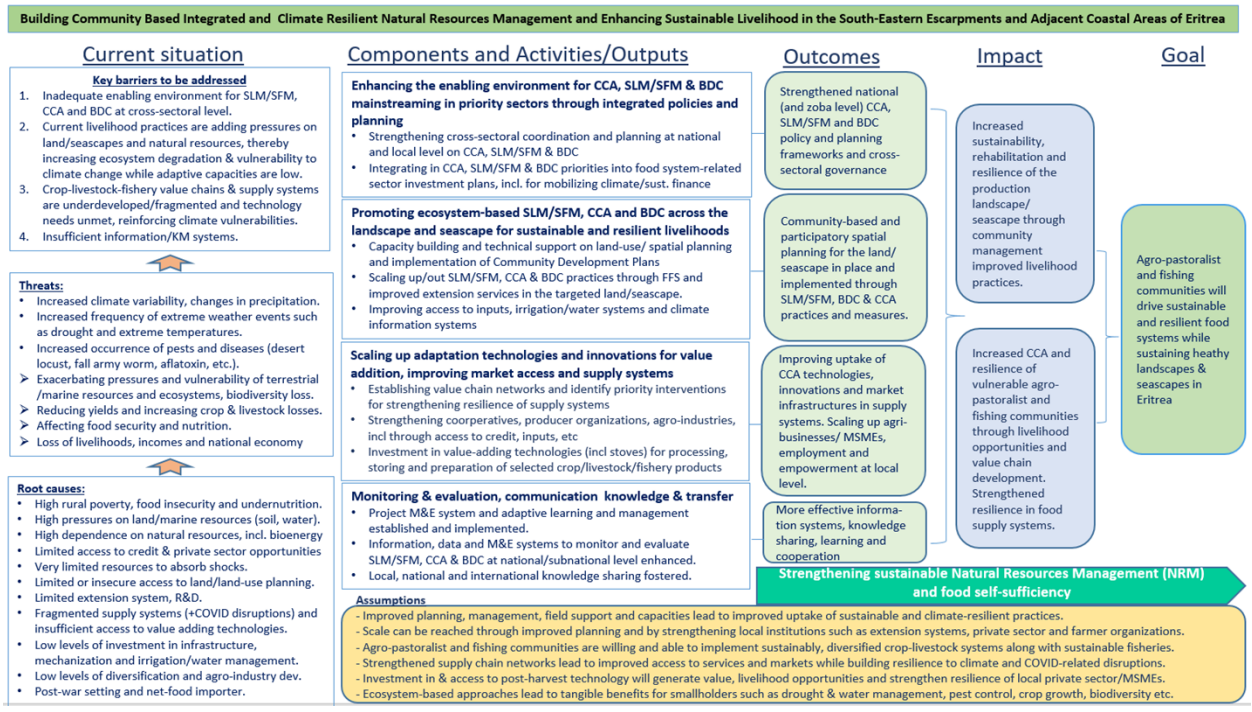
152. Under Component 4, the project will work to improve communication and knowledge management. This will include designing and implementing innovative approaches to engaging government agencies, private enterprise, and rural producers to help them to build capacities through access to best national and international practices as well as through information exchange and networking. This is critical and difficult in Eritrea where access to knowledge is often challenged by limited internet connectivity. Work under this component will also make certain that project is on-track to deliver intended national and global environmental benefits, including a suite of core and impact indicators, and is capturing and generating lessons to be amplified and sustained.

153. Gender is a critical issue that permeates the entire project design. The project will integrate gender throughout the fabric of each component. Under Component 1, gender will be central to policy and planning activities. This will include making certain that specific pathways are designed for women to meaningfully engage in decision-making. The project?s information management work under this component will parse out, track and report on issues of gender to make certain project investments and future government investments are working towards achievement of specific gender

targets. Under Component 2, field training materials and programs will again address issues of gender. For instance, women only cohorts and training will be offered. Extension service improvements will strive to reach parity in terms of women field officers and trainers. Under Component 3, financial and business improvements will target women and women headed households. These are often the most vulnerable in Eritrean society and most in need of alternative and sustainable revenue streams. Finally, under Component 4, the project?s knowledge management and communication strategies will again specifically target women through innovative approaches designed to better empower women.

154. The project is designed to closely align and coordinate with two large national investments supported by IFAD and the Government of Eritrea: The Integrated Agriculture Development Project (IADP) and Fisheries Resources Management Programme (FReMP). The additionality offered by the GEF investment will help to make certain these projects are actively supporting the delivery of biodiversity conservation, SLM, and CC benefits. Specifically, the GEF investment will provide critical knowledge and experience with the design and implementation of spatial planning and informed decision-making designed to promote ecosystem-based approaches. By working closely with the IFAD investments, GEF supported approaches to sustainable farming, livestock production, and fisheries will be amplified at national scale.

155. The project sets out to establish solutions that are enduring, effective and practical. This is defined in part by a design that makes certain capacities are in place and concrete plans adopted to ensure that national interests are fully capable of implementing and financing programming supported by this GEF investment.



G. Brief Description of Expected Outcomes and Components

Project Objective Enhance resilience of vulnerable agro-pastoralist and fishing communities along degraded landscapes and seascapes in the south-eastern escarpments and adjacent coastal areas of Eritrea through an integrated ecosystem-based and market-driven approach.	
Impact Indicators	15,000 hectares of terrestrial protected areas created or under improved management for conservation and sustainable use 15,000 hectares of area of land restored 209,000 hectares of landscapes under improved practices (excluding protected areas) 50,000 hectares of marine habitat under improved practices (excluding protected areas) 200 metric tons of globally over-exploited marine fisheries moved to more sustainable levels 62,000 female/57,000 men are direct beneficiaries as co-benefit of GEF investment
Anticipated Budget	Total: US$15,680,308 GEFTF: US$ 6,678,226 LDCF: US$ 9,002,082 Co-Financing: US$ 36,405,789 GEFTF: US$ 17,157,749 LDCF: US$ 19,248,041

Component 1: Enhancing the enabling environment for CCA, SLM/SFM and BD conservation mainstreaming in priority sectors through integrated policies, planning and finance

Outcome 1: Increased sustainability, rehabilitation and resilience of the production landscape/seascape through strengthened policy, planning and finance frameworks	
Impact Indicators	2 monitoring reports (mid-term and final) detailing how and what government policies, plans and finance frameworks effectively mainstream CCA, SLM/SFM and BDC as a result of this GEF investment. 6 annual CC vulnerability assessment reports covering each of the four target sub-Zobas distributed each year to national and sub-national stakeholders. 12 sets of meeting reports from cross-sectoral watershed coordination mechanism established to support achievement of integrated CCA, SLM/SFM and BD conservation objectives with members representing MoA, MoLWE, MoMR, and 4 sub-Zoba administrations. 274,000 hectares of productive land and marine areas covered by spatial plans monitored annually and reporting progressive achievement of biodiversity conservation, SLM, and climate change adaptation targets. 100% of target area Village Development Plans integrate spatial plan objectives, detail BDC, SLM/SFM, CCA indicators, and track achievement. 5 annual monitoring reports documenting progress made towards management plan objectives of new protected area formally established within the spatial plan adopted by the Government of Eritrea covering 15,000 hectares of native forest and grasslands within the target watershed. 12 semi-annual information management summary reports describing progress made towards achievement of CCA, SLM, LDN, and BDC indicators across the project target area with hard copies distributed to MoA, MoLWE, MoMR, FAO, and 4 target sub-Zoba administrations 100% of GEF project emplaced CCA, SLM/SFM, and BD conservation programs on-track to be supported and sustained by national financing as described financing hand-over strategy.

Anticipated Budget	Total: $1,662,750$ GEFTF: 711,000 LDCF: 951,750 Co-Financing, GEF: US$ 2,178,661 Co-Financing, LDCF: US$ 2,178,661

Output 1.1: Mechanisms for improved cross-sectorial coordination of policies, plans and finance/ investments in place at national and subnational level to support mainstreaming of CCA, SLM/SFM and BDC in relevant sectors.

156. By setting in place each of the products described below, the project will help to improve cross-ministerial and cross-sectoral coordination on cross-cutting priorities including climate change actions, SLM/SFM, biodiversity conservation and sustainable use, and their intersection with objectives for food security, poverty alleviation, and job creation. This network of coordination will help to inform and support implementation of project actions assisting to align efforts, increase efficiencies, and promote coordinated responses and investments. In addition, the network will help feed into and reflect the project?s steering committee. The project will reflect lessons learned from examples such as the LDN-TSP and NBSAP formulation process.

157. Regulations and policies will be informed by evaluation and monitoring of project emplaced activities as well as best international principles and practices. This process of adaptive learning and regulatory improvements will be on-going with monitoring protocols and strategies embedded within institutional structures. This will involve increasing the level of attention applied to data collection, information management, and knowledge dissemination. The effort will benefit from the integration of FAO?s regional and global knowledge management and decision-making support tools. In this way, decision-making will more effectively addresses the intersection of increased production and biodiversity conservation, SLM, and CCA. National strategies and programs will reflect more coordinated approaches between conservation and production sectors. Financial incentives, both positive and negative, will be considered, including the role of government and donor institutions to support and maintain mainstreaming of conservation concerns within the productive sector.

158. Each of the coordination and mainstreaming products described below should be fully operational by the project?s mid-term evaluation. By project close, the Government of Eritrea should be fully capable of supporting and advancing these products without further GEF investment.

Assessment, Policy Improvement Recommendations and Reporting

159. During PY1, a national policy assessment will be conducted supported by international and national policy experts. The assessment will include at least four national meetings and four Zoba level meetings for key stakeholders to discuss and identify opportunities to improve coordinated approaches to addressing and mainstreaming CCA, SLM/SF, and BDC concerns across the project area. Mainstreaming will be built upon best international principles and practices.[36][36]

160. During PY3, based upon the results of the gaps assessment, national and Zoba level dialogue and initial project results will be used to inform the amendment and improvement of relevant national, Zoba, and sub-Zoba policies. This will include mechanisms for improved cross-sectorial coordination of policies, plans and finance/ investments in place at national and subnational level to support mainstreaming of CCA, SLM/SFM and BDC in relevant sectors.

161. This will specifically include assisting each target Zoba to mainstream and monitor achievement of SLM/SFM, CCA, BDC objectives within District-level Community Development Plans.

162. The project will sponsor two summary reports, one to be completed prior to the mid-term evaluation and one to be completed prior to the terminal evaluation. Both summary reports will describe recommended mainstreaming and coordination improvements and how or if these improvements were up-taken.

Watershed Conservation Advisory Board

163. The project will facilitate the creation of a watershed advisory board covering the target area. This board will serve as a platform for cross-sectoral dialog, objective setting, monitoring, and information exchange. The advisory board will help to inform, prioritize, support implementation and adaptation of the to be established spatial plans. The board will work closely with Zoba, Sub-Zoba, and Village level decision-makers to help provide a large landscape perspective to help make certain decision-making is supporting and monitoring the achievement of intended conservation and resilience objectives.

164. The advisory board will help to track and inform project implementation, including working to facilitate the capture and dissemination of lessons learned. The project will assist with the formulation of the board, including the drafting of ToR, assisting with secretariat functions, assisting to organize meetings, and other initial functions. The board will ideally grow from and track with the Project Steering Committee. By project close, the board should be fully functional and self-sustaining.

Output 1.2 Comprehensive informed decision-making programming improvements mainstreams BD, SLM/SFM, and CCA

165. Target beneficiaries currently lack consistent access to comprehensive information required to make fully informed and strategic decisions. This limitation un-necessarily results in policy, financing, and production decisions that may not effectively and efficiently address BD, LD, and CC and subsequently expose the target area and associated beneficiaries to climate change risks. During the PPG, the absence of critical information and data required to guide strategic decision-making was apparent. There is a dearth of rigorous information for baseline, assessment, and/or monitoring. This is a lesson learned from past GEF investments.

166. The project will help to alleviate this challenge by assisting government and private sector actors generate and utilize tools required to inform decision-making and drive achievement of resilient and sustainable rural livelihoods.

167. The following products will be generated through project support to enhance informed decision-making. By the project mid-term evaluation, each tool should be operational and feeding into decision-making processes by government and private stakeholders. The informed decision-making structure will be used to help inform progress and achievement towards project indicators, spatial planning objectives, and integrated CCA actions, SLM/SFM and BDC into programming, finance and planning frameworks.

Monitoring and Information Management Strategy

168. Capacity building programs for national and subnational institutions will help to improve information and data systems while strengthening technical and financial capacities for informed decision-making at various levels. During project inception, a comprehensive capacity needs assessment will be conducted. Based upon this assessment, FAO experts will support the Government of Eritrea to design and implement a comprehensive monitoring and information management strategy. This strategy will be directed towards the establishment of a rigorous monitoring and information management program that is integrated, ecosystem-based, and encompasses the entire project area.

169. The strategy will describe in specific terms the capacity building approach the project will take to establish, implement, and sustain informed decision-making improvements.

170. Cohorts of project related staff and stakeholders representing national government field officers will be tasked with supporting assessment and monitoring throughout the project period focused upon relevant sectors. These experts will be trained to apply effective assessment and monitoring protocols that integrate land degradation, climate resilience, and biodiversity conservation concerns. A critical aspect will be making certain protocols are developed help inform LDN target setting and achievement processes.

171. The project will generate an annual report tabulating findings. This will include tracking of key LD, BD, and CC parameters relevant to project implementation and the achievement of intended objectives.

172. At least one-year prior to project close, a complete handover strategy will be generated by the project team describing how the Government of Eritrea will take cover and sustain decision-making support efforts. This will include a full costing analysis.

Data and Information Management System

173. The project will substantially enhance capacity for inter-sectoral generation, management and sharing of information at a watershed level. The project will emplace a rigorous data collection and information management system to facilitate evidence-based practices and decision-making. This system will be linked with and informed by international information and monitoring systems.

174. A key element of the information management system will be community engagement. This includes working directly with private producers across the project area (e.g., via farmer field school models) to generate information, disseminate information, and uptake and apply information. This will be critical to long-term project success in terms of delivering intended impacts.

175. The program will advance improved reduction and lower exposure to climate change risks, including those risks related to land degradation, forest management, biodiversity conservation, agriculture, livestock, and marine resources. During PY1, the project will support the management systems design. This will include describing how information will be generated through a combination of government agencies, farmers, livestock producers, and fisheries. During PY2, the data management system will be fully functional. The data management system will be linked to inputs provided via tools such as TAPE, which relies upon tablet technology to electronically generate information from field-based efforts.

176. The data management system will be linked to and inform other areas of the overall project. This will include integrated policy making and improved BD, LD, and CC mainstreaming, formulation and implementation of spatial planning, design and implementation of improved practices, and knowledge management and communication platforms. The project will strategically support the Government of Eritrea with the supply of technical assistance and hardware required to actuate the information management system. This may include the establishment of class one meteorological stations and other climate information systems along with accompanying infrastructure and capacity. Currently, only one of the four sub-Zobas targeted has an operational hyrdo-met station.

177. The project will assist relevant government agencies with the provisioning of improved GIS capacities to improve geo-referenced programming. The project will also support the Government of Eritrea with remote sensing technologies and associated capacity building. Remote sensing will be supported through FAO. This will be linked to the assessment and monitoring training and tools. These technologies will also be used to support marine and terrestrial spatial planning activities.

178. Any technical and/or equipment support will be determined during PY1 based upon an rigorous assessment conducted by FAO along with GoE of existing capacities and stringent justification of need related to supporting the achievement of the overall project objective.

Resource Management Assessments

179. The project will support completion a series of rapid assessments to create a stronger information baseline to help guide decision-making. Each assessment will be have preliminary findings prepared prior to the close of PY1. During the first half of PY2, initial findings will be presented at a national level workshop engaging relevant government agencies at national, Zoba, and sub-Zoba levels. Based upon feed-back received, the final assessments will be completed, distributed, and made available on the project website by the close of PY2. Each assessment will be used to help inform project actions, including spatial planning and investments in Component 2 actions. The assessments will rely upon a combination of ground-based investigation and remote investigation (e.g., Collect Earth). Each assessment and accompanying recommendations will be completed by a team of national and international experts. The assessments will provide specific recommendations for actions necessary to support achievement of project objectives and indicators. Recommendations will be focused upon best nature-based solutions to climate change resilience, biodiversity conservation, and land degradation challenges. At least the following two assessments will be completed with project support. Additional assessments of livestock management, land degradation and agriculture, and fisheries may be also be required.

180. *Integrated Water Resources and Hydrology Assessment*: A detailed analysis of current water resources, needs, and challenges is required prior to any further investments being made in water harvesting structures such as check dams. The assessment will provide detailed guidance regarding best approaches to address water resources challenges. This will include consideration of climate change impacts. This will include providing specific guidance regarding any technical interventions, e.g., check dams, irrigation improvements, etc. that may be warranted for project investment. This will include specific site and engineering parameters.

181. *Forest Assessment*: A detailed overview of existing forest resources, forest use, and challenges is required, including highlands, desert, and coastal (mangrove) forests, is required to prior to future investments in re-forestation, enclosures, and other efforts related to revitalizing lost and at-risk forest resources. The assessment will review the current system of nurseries and reforestation efforts. The assessment will consider policy issues and the value trade-offs between native and non-native species. The assessment will review existing forest use, including harvest rates and value chains associated with charcoal production. The assessment will consider the role of forests in biodiversity conservation and nature-based solutions to land degradation and climate change resiliency issues. In particular, the assessment will consider the role forests may play in mitigating climate change impacts, reversing land degradation trends and supporting improved water resources management.

Vulnerability Risk Assessment Program

182. Vulnerability assessments will be carried out annually throughout the project cycle. The first assessment should be completed prior to the close of PY1. The project will provide technical training, assessment design, initial data collection, remote sensing, extended forecasting, and information dissemination support. This will link to FAO support, including remote, in-person and targeted international training at Rome, for relevant government agencies.

183. Assessments will consider climate change, LD and BD vulnerability and risk considering climate change impacts, land degradation, loss of biodiversity as well as livelihoods and natural

resource use in the targeted landscape. The assessments will fully engage government and private institutions at the national, Zoba, and sub-Zoba levels. Each assessment will be used as a capacity building mechanism. Assessments will consider climate change, LD and BD vulnerability and risk with climate change impacts, land degradation, loss of biodiversity as well as livelihoods and natural resource use in the targeted land and seascapes.

184. The vulnerability assessments will in part be informed by the Modelling System for Agricultural Impacts of Climate Change (MOSAICC).[37][37] MOSAICC produces medium- to long-term projections based on different climate scenarios. Results provide an evidence base for identifying appropriate adaptation strategies, programs and areas for investment. The MOSAICC approach helps users model the impact of climate change on crops; water and forest resources; and the national economy.

Early Warning System

185. Once fully established, the annual vulnerability assessment process should serve as the basis for an early warning system. The project?s monitoring and assessment work will form the basis for the development of an Early Warning System. An integrated early warning system to assist rural actors to be better informed regarding climate change events will be emplaced. The integrated early warning system will assist rural actors to be better informed regarding climate change events will be emplaced. This will include support for remote sensing, extended forecasting, and information dissemination.

186. This system will be applied and operational for each of the project sties. The system will provide localized and national information and early warning system focused upon food security and agriculture and fisheries-based livelihoods. Data and information generated will be integrated within and inform FAO?s current food security information system in Eritrea. This system strengthens stakeholder capacities to ensure that data collected from district and governorate levels is enhanced and better coordinated in order to improve analysis and to better understand key food insecurity drivers. Data collected and analysed are disaggregated by sex, age and other socio-economic characteristics. The system supports stakeholders with agriculture-specific weather and climate information products, seasonal impact outlooks, pre-seasonal crop selection and drought early warning systems. The system generates and disseminates information products that promote the utilisation of food security and agriculture information systems among line agencies and other stakeholders.

Land Degradation Monitoring and Information Management Program

187. The project will assist the Government of Eritrea to set in place a model land and water monitoring program across the project area. This process will help to inform the achievement of LDN targets. The project will provide technical and initial implementation support for the design of a comprehensive LDN monitoring program for the target area. The monitoring approach will be based

upon best UNCCD practices and methodologies integrating FAO?s global experience and lessons learned and emerging tools such as Collect Earth.[38][38]

Rangeland and Livestock Monitoring and Information Management Program

188. The project will assist the Government of Eritrea to set in place a model livestock monitoring and information management system across the project area. The project will work closely with the Livestock Environmental Assessment and Performance (LEAP) Partnership to design and implement a comprehensive strategy for livestock monitoring across the project area.[39][39] This includes application and use of LEAP?s guidelines for the quantitative assessment of biodiversity and the livestock sector, nutrients monitoring, water foot-printing, and climate change resiliency.

189. The implemented monitoring approach will consider and address livestock disease surveillance to inform disease prevention and control strategies. The program will integrate and reflect issues related to livestock value, including birthweights, milk production, fat content, sale weights and sale prices in order to better understand the nexus between improved herd management, climate change resilience, maintenance of ecosystem services, and profit.

Agriculture Monitoring and Information Management Program

190. FAO?s Tool for Agroecology Performance Evaluation (TAPE) is becoming a go-to mechanism for comprehensive and tailored agriculture monitoring and information generation.[40][40] TAPE is being applied to support numerous GEF initiatives designed to promote integrated LD, CC, and BD objectives at a large landscape level.

191. TAPE establishes a baseline of agricultural sustainability for project design, monitoring and evaluation, and to diagnose and compare the performance of different agricultural systems over time, at farm and territorial levels. TAPE informs public investment towards more sustainable agriculture and food systems. TAPE provides a framework for governments and public actors to adapt and re-design development programs, rural advisory services and extension programs to properly address sustainable agriculture in the context of sustainable agriculture, including LD, BD, and CC issues.

192. During PY1, the FAO TAPE team will support Eritrean counterparts to design and build the capacities required to effectively administer TAPE annually across the project area. The TAPE approach will be tailored specifically for the requirements of this project. The annual evaluation process will be accompanied by a national, Zoba, and sub-Zoba reporting workshop where relevant stakeholders will be informed regarding trends and progress.

Fisheries and Marine Habitat Conservation Monitoring and Information Management Program

193. The project will help build sustainable fisheries management in part through the adoption and implementation of the globally recognized Guidelines for Securing Sustainable Small-Scale Fisheries, assisting local fishing communities to adopt and implement these guidelines to help conservation ecosystem services, promote sustainable fisheries, and secure long term biodiversity conservation benefits.[41][41]

194. The project will support the implementation of these guidelines in part through the design and implementation of a comprehensive program for fisheries and marine habitat monitoring and information management system. The effort will be made in concert with the Ministry of Marine Resources along with participating local fishing households.

195. The project will provide national and international expertise, capacity building and technical inputs required to design, launch and initially implement the monitoring strategy. Monitoring will include catch reports, effort reports, and other issues related to sustainable commercial and subsistence fishing. Monitoring and information management efforts will reach beyond the capture elements of the fishery and monitor and generate information regarding critical habitats, particularly reefs, corals, indicator species, mangroves, and sea grasses.

196. The approach and methodology will be highly inclusive, supported by local community members hired and trained through the project to conduct surveys and reporting. This level of community engagement is critical to building broad based understanding with regards to marine ecology, conservation, and resilient fisheries that integrates local knowledge along with best international approaches. During PY1, the participatory monitoring strategy will be designed and described. Implementation will commence during PY2.

Forest Monitoring and Information Management Program

197. The project will support the implementation of a rigorous program to monitor and improve forest management. Understanding and applying improved practices to forest management is critical to achievement of numerous project results. During the PPG, stakeholders repeatedly stated that intact forests are required to maintain soil, improve conjunctive management (e.g., ground water retention), mitigate climate change through provision of shade, and increase rainfall via very important condensation trapping.

198. Forests in the area are important for livestock production, fuelwood and building materials. They are also under severe threat from climate change and overexploitation, including charcoal production. Meanwhile, the government and others are making investments in ex-closures, nurseries, and reforestation. These investments should be strategically directed based upon improved understanding of forests, ecosystem services, and climate change impacts. Along the coastal zone, mangroves serve important climate change mitigation and resiliency functions. Both native upland forests and mangrove systems are vitally important for biodiversity conservation.

199. During PY1, an tailored methodology for forest monitoring and capacity building will be designed with project support. This methodology along with capacity building will be launched during PY2. Implementation will help to inform and strategically align investments across several portions of this project, including spatial planning and FFS interventions, e.g., reforestation. By project close, the Government of Eritrea ? including Zoba and sub-Zoba administrations ? should be completely self-reliant and capable of supporting advanced forest monitoring.

200. As with other informed decision-making activities, the project will rely upon the recruitment and training of local community members to engage in forest monitoring and capacity building. This will include specific focus upon generating opportunities for women to meaningfully engage.

201. FAO has supported more than 50 countries in their development of robust National Forest Monitoring Systems (NFMS) and assessments, with the goal of developing reliable forest resource information for application in creating national forest policies, planning and sustainable development. Forest monitoring systems include measurement, reporting and verification (MRV) functions and aim to produce high-quality, reliable data on forests, including forest-carbon estimates, that are critical to the battle against climate change caused by among others deforestation and degradation of forests.

202. NFMS components include: satellite land monitoring systems (SLMS) and other data collection providing information for activity data (AD); and, National Forest Inventories (NFI) or other data collection providing information on emission factors (EF).

203. The Open Foris initiative led by FAO Forestry supports multi-purpose forest inventories, data processing and dissemination of results. OF provides a set of free and open-source software tools to facilitate flexible and efficient data collection, analysis, and reporting for field and satellite data. The initiative is a collaborative effort by numerous public and private institutions and hosted by FAO?s Forestry Department. Open Foris provides ideal tools for performing fast, accurate and cost-effective assessments. It is highly customizable for the specific data collection needs and methodologies.

Output 1.3 Spatial planning effectively guides decision-making towards achievement of mainstreamed CCA, SLM/SFM, and BDC objectives

204. The project will support the establishment of ecosystem-based spatial planning accompanied by prioritized strategic action planning covering the project area, inclusive of both terrestrial and marine areas. Spatial planning accompanied by prioritized strategic action planning is critical to identifying conservation and use objectives, defining habitats, prioritizing interventions, monitoring trends, harmonizing approaches, and adapting management and production responses. Eritrea currently has few effective examples of spatial planning designed to fully mainstream BD, LD, and CC concerns to comprehensively address the conservation of ecosystems services required to sustain rural livelihoods.

<u>Methodology</u>

205. During PY1, a methodology for ecosystem-based spatial planning will be developed with technical support provided by the project. The project will design and implement a comprehensive integrated spatial planning capacity building program during PY1 and PY2. Target beneficiaries will include relevant government agencies at national, Zoba, and sub-Zoba levels, representatives of target enterprises, community organizations, and farmer field school groups. However, the primary objective will be to make certain capacities exist at inter-ministerial levels to design, implement, administrate and monitor effective marine and terrestrial spatial planning.

206. The expectation is that by PY2, initial capacities will be built and the process of spatial planning and zonation preparation will commence covering the target areas. The spatial plans ? including protected area management plans ? will be adopted by the Government, Zoba, and sub-Zoba administrations and fully operational prior to the project?s mid-term. This will include identification of enforcement responsibilities and penalties associated with failure to abide by plan directives. By project close, each plan will be assessed and revised as necessary to make certain the plans are supporting long-term delivery of intended project core and results indicators.

207. National government policy, regulatory, and financing frameworks, including those addressed under Output 1.2, will be aligned to support spatial plan priorities and support achievement of intended conservation and resiliency objectives. Village development plans will be aligned with spatial plan and support achievement of intended conservation and resiliency objectives. By-laws, management plans, and other organizational frameworks for cooperatives and producer associations will integrate and reflect spatial plans and support achievement of intended conservation and resiliency objectives.

208. During project implementation, at least 5 annual monitoring reports documenting implementation progress of spatial plan establishing CCA, SLM, and BDC objectives, priorities, indicators, and monitoring across 207,000 hectares of productive landscape and 50,000 hectares of marine and coastal areas formally adopted and implemented by Government of Eritrea, 2 target Zobas, and 4 target Sub-Zobas.

Protected Area Designation and Management

209. Spatial planning will fully incorporate protected area management planning. The absence of gazetted protected areas, management plans, and strategic conservation action is a persistent challenge in Eritrea. This is largely due the to the fact that Eritrea does not have an organic protected areas law. To help address this challenge the project will support the Government to designate protected areas through the land and marine spatial planning process. These spatial plans will delineate protected area boundaries and describe conservation priorities. Management plans for designated conservation areas will be embedded with spatial plans. This will help to make certain that biodiversity conserved as part of a large land/seascape approach to maintaining critical ecosystem-services.

Capacity Building

210. Capacity building will be supported experts with specific knowledge regarding spatial planning related to fisheries, agriculture, and livestock management. Teams will gain understanding, knowledge and expert support for the application of several FAO, GEF and GEF partner planning tools. The

project will build government and private sector capacity at the Zoba and Sub-Zoba levels to enable the creation and administration of conservation oriented spatial planning and zoning. This will include strategically working with government actors and private enterprise to assist them to understand spatial planning processes that provide for mainstreaming of conservation issues across substantial terrestrial and marine areas.

Integrating Lessons Learned

211. The project will learn from and adapt lessons from on-going projects within Eritrea as well as investments such as the Kagera TAMP where land use planning was successfully applied to support SLM, BDC and climate resilience linked to FFS approaches.[42][42] This GEF project includes a component on monitoring, evaluation, and knowledge management that links to spatial planning and the achievement of intended GEBs using a watershed management approach similar to what is proposed in Eritrea.

FAO Spatial Planning Tools	Link
Spatial Planning in the Context of Responsible Governance: E-Learning Course	https://elearning.fao.org/course/view.php?id=276
Marine spatial planning for enhanced fisheries and aquaculture sustainability	https://www.fao.org/3/i6043e/i6043e.pdf
Agro-Ecological Zoning Guidelines	https://www.fao.org/3/W2962E/W2962E00.htm
Land Use Planning	https://knowledge.unccd.int/sites/default/files/2018-06/6.%20Land%2BUse%2BPlanning%2B__G_Metternicht.pdf

Integrated Land Use Planning	https://www.iucn.org/theme/environmental-law/resources/integrated-planning-learning-material
Framework for participatory land use planning	https://chm.cbd.int/api/v2013/documents/6FE95FE4-BB12-0F51-0C3F-7CB651CAD80A/attachments/Best%20Practices%20from%20GEF6%20Annex%204.pdf
A Guide for Participatory Mapping of Ecosystem Services in Multiuse Agricultural Landscapes	https://cgspace.cgiar.org/handle/10568/77762

Informed Project Investments

212. The process of developing spatial plans and implementation will assist to guide the actions of government and private stakeholders, including provision of extension services, more coherent and coordinated approaches regarding the use and prioritization of financial resources and support services and agreed parameters regarding natural resource use. This will include linkages to the GIS and monitoring and information management capacities built.

213. Participation and benefit from project inputs by target beneficiaries particularly under Component 2 and 3 investments will be predicated upon community and private sector actors engagement and support for spatial planning and achievement of associated conservation objectives.

Key Issues to Be Addressed

214. The finalized spatial plan will address the following issues. Critically, the spatial plans and accompanying action planning will integrate and prioritize specific CC, LD, and BD targets and indicators. The spatial plans will describe how they prioritize the achievement of these indicators through prioritized actions.

Priorities Issues to be Covered by Spatial Planning	Description

LDN Targets	Planning will assist with the designation and achievement of LDN Targets.
Project Monitoring	The strategic spatial plan will provide a concrete platform to facilitate decision-makers to track, monitor, and report on the results of funded activities. This will offer decision-makers with a clear understanding of what investments and actions work best to reduced degradation, increase climate change resilience and mitigation, and improve livelihood standards. This approach will generate information and models that can then be sustained within each of the target areas and amplified to increase sustainable production practices and reduce degradation.
Agriculture Planning and Management	Spatial planning will assist stakeholders to improve agriculture management and promote conservation oriented production. This will include identifying the primary degradation issues associated with agriculture management practices and integrating within the approved planning framework incentives to adopt sustainable alternatives. Part of this effort will include mapping and detailed assessment of production practices, productivity and profitability, and relationship with LDN, CC, BD, and SLM impacts.
Rangeland Spatial Planning and Management	Mainstreaming biodiversity conservation along with LD and CCA concerns within rangeland spatial planning frameworks will be important. Spatial plans will be designed to address and reverse current negative trends associated with livestock management. This will include specifically identifying current challenge and designing innovations to reduce issues associated with open access grazing. The plan will integrate tools such as establishment of carrying capacity numbers and permitting. The objective here will be to reduce the negative impacts of livestock management, limiting overall livestock numbers, and improving the health and value of livestock to local communities. The overarching goal of this spatial plan will be to reverse grazing trends that currently degrade lands, harm globally significant biodiversity and increase climate change vulnerability. The planning process will identify and demarcate sustainable grazing areas. This will be accompanied by efforts to establish carrying capacities, emphasize quality of stock over quantity of stock, detail access regimes, and rest/rotation protocols. The planning process will be closely linked to maintaining the ecological integrity of associated protected areas and places with highest biodiversity value.

Marine Spatial Planning and Management	The project will integrate fisheries management plans (FMPs) for a number of species of commercial and/or ecological importance. The FMPs should be both strategic documents for planning and practical guides for achieving particular objectives (e.g. preventing overfishing, protecting fishers? livelihoods) and targets (e.g. target biomass levels, target fishing mortality rates) by specifying the measures required to achieve them (e.g. restrictions on fishing effort, total allowable catch limits, temporal and spatial closures, minimum specimen sizes and restrictions on gear). The project will generate marine spatial planning for productive fishery areas focused upon improving management of commercial and subsistence fishing areas. The project will assist to identify locations of high biodiversity value, e.g. reef systems, and associated protected areas. The planning process will include identification of sustainable take levels, refugia, and monitoring of fish stocks to provide more coherent access that sustains fisheries while providing opportunities for increased valuation and food security. This process will shift current open access fishing management towards more rational, structured management. Work will include supporting participatory diagnostics of the local artisanal fisheries sector and building capacities for fishing cooperatives to engage in and potentially supervise the preparation of fisheries management plans. This will cover the formulation and sustainable financing for initiatives aimed at improving the management of fisheries such as community-based monitoring, data collection, and patrolling.
Marine and Terrestrial Protected Areas	As noted in the PIF, the project is to provide support for identifying and establishing some 15,000 ha of protected area to restore degraded afro-montane forest and provide habitat corridors with the adjacent Semenawi and Debubawi Bahri Green Belts. Activities under this output are expected to include demarcation/PA zoning and assisted natural regeneration augmented by plantation/reforestation as needed. In addition, the spatial plans will establish a system of MPAs inclusive of the Gulf of Zula and gazetting of the island of Dissie. This will secure the conservation and improved management of at least 50,000 hectares high BD value Red Sea marine and coastal habitat targeting coral reefs, mangrove, and sea grass habitats. As noted, the spatial plans will integrate within them management plans for terrestrial, coastal and marine conservation zones identified and gazetted with project support. Management plans will reflect best IUCN and CBD principles and practices, including describing conservation objectives, management mandates, and financing.

Forest Conservation	Spatial planning will help to identify and prioritize locations for aggressive forest conservation. This includes locations prone to higher levels of erosion, locations with increased BD value, forests that are critical to maintaining healthy and sufficient waters supplies, etc. This process will be informed in part by project supported activities designed to improve forest monitoring and assessment. Based upon the spatial plans findings, the project will prioritize forest conservation investments including areas for ex-closures, identification of proper native tree species to support regeneration, reforestation, and need to address invasive species.
Livestock and Agriculture Planning	Spatial planning will help to guide and strategically improve livestock and agricultural management. Planning will support farmers to identify suitable cropping patterns based upon ecosystem parameters. This will include assisting farmers to identify best locations and seed varieties as part of a comprehensive climate change resilient approach, including opportunities for regenerative agriculture. The plan will help to will help to identify and prioritize possibilities to increase the resiliency of livestock management, including the conservation of critical ecosystem services. Water is fundamentally important to both livestock and agricultural production. The planning process will help to prioritized and identify appropriate locations and technologies for water retention mechanisms such as o groundwater recharge and storage structures like check dams, ponds and catchment harvest structures or cisterns. The spatial planning process will help to identify locations, opportunities and recommended technologies for enhancing and introducing soil and water conservation measures including terracing works and afforestation campaigns, and targeted conjunctive management of surface and ground water resources.

Institutional Responsibilities	The plans will specify responsibilities and costs regarding what inputs will be required to make certain the strategic plans are fully operational. This will include a detailing of costs to be covered under the baseline and recurrent costs and resources needed to make certain the plans remain operational and effective after project close. This will include the integration and involvement relevant government agencies to make certain of adequate local and national level allocations and funds.
Monitoring and Reporting	The terrestrial and marine plans will each reflect adaptive management principles, making certain that the plan is regularly updated to reflect emerging issues and remains on-track to deliver CC, BD, LDN, SLM, and SFM objectives. The plans will each incorporate clear targets to measure achievement of proposed objectives. Each objective will be accompanied by impact targets that provide government and private stakeholders with clear goal posts with regarding to strategic processes required to achieve sustainable management targets. The plans will detail how implementation will be monitored and which parties are responsible for monitoring. The plans will detail how often data will be collected and provide for specific reporting requirements. This should link with and inform knowledge management activities. Monitoring should be informed by practice activities with private stakeholders, extension services, etc. contributing information and data to inform plan monitoring and reporting efforts. The project will support the government and private stakeholders to establish and operationalize an assessment monitoring program targeting key drivers of land degradation, biodiversity loss and climate change vulnerability at each site. At each location, the planning guidelines, protocols and capacity building will identify specific environmental concerns and limitations and link these to specific indicators for planning success. These indicators will be identified and generated by producers working with government agencies. Indicators such as biodiversity values, land degradation values, and climate change adaptation risks along with indicators for social and economic well-being will subsequently be integrated within and used to monitor spatial planning effectiveness.

Output 1.4 Financing mechanisms in place to sustain continued mainstreaming and advanced achievement of CCA, SLM/SFM, and BDC objectives

Sustainable Financing Assessment and Strategy

215. Sustaining impact will require financial resources to be generated within Eritrea that strategically maintain and improve BD conservation, SLM, CCA gains. The project will assist the Government of Eritrea at national, Zoba, and sub-Zoba levels to realize this objective.

216. The project will support the generation of a sustainable financing strategy. The project will provide technical support that takes a business planning approach to prioritizing BD conservation, SLM, CCA initiatives and, in particular, maintaining GEF emplaced programming beyond the project period.

217. The project is designed to have a long-running period. This reflects the need to build capacity, slowly and strategically ramp-up interventions, monitor results, and ensure sustainability. A critical element of this will be making certain that institutional and private stakeholder capacity is in place to carry forward advancements. However, equally critical, will be making certain that financing is in place to sustain effort to address climate change, land degradation, and biodiversity conservation concerns.

218. Prior to the project?s mid-term evaluation, the project?s technical team working with key stakeholders will generate a strategy that describes how the project intends to successfully set-in place sustainable conservation financing mechanisms. Many options are built into the project design. The project will recruit technical expertise for the specific purpose of making certain sustainable financing is strategically considered during project implementation and effectively captured to support post-project action.

219. This will look towards ways to increase the ability of the Government of Eritrea to carry forward and improve financial support for mainstreaming BD, LD, and CC concerns and programming across the project area. This will be linked to making certain financing is secured to carry forward critical project success after project close. The project will provide technical support to facilitate the identification of subsidies, taxes, and reprioritization of government budget expenditures to make certain financing is prioritized to maintain critical ecosystem services, build climate resilience, and advance achievement of GEBs. This will include looking at innovative mechanisms for leverage both domestic and international financial support.

220. There are a host of tools and models available for reference and adaption to support this activity.

? Sustainable financing for forest and landscape restoration;[43][43]

? A technical review of select de-risking schemes to promote rural and agricultural finance in sub-Saharan Africa;[44][44]

? Access to finance for forest and farm producer organizations; [45][45]

? UN Food Systems Conference Special Rapporteur Reports;[46][46]

? A Multi-Billion-Dollar Opportunity: Repurposing agricultural support to transform food systems How to repurpose public support for agriculture producers to avoid harmful subsidies and instead promote improved practices; [47][47]

? Protecting livelihoods: Linking agriculture insurance and social protection; [48][48], and,

? Public expenditure analysis for climate change adaptation and mitigation in the agriculture sector.[49][49]

221. The effort will involve working closely and with the full engagement of the Ministry of Financing with specific attention giving to orienting and prioritizing national and subnational financing to support realization of BD, SLM, and CCA objectives, particularly those articulated in the adopted spatial plans. The project will generate a financing hand-over report prior to the midterm evaluation detailing progress towards implementation of the strategic financing recommendations and national financing for project emplaced programming. The project will annually report on progress towards achievement of sustainable financing objectives.

Assessment of Ecosystem Service Value

222. As a subset of activities related to strategic financing, the project will support the Government of Eritrea to complete a model assessment of ecosystem value for the target area, inclusive of terrestrial and marine areas. The purpose of this assessment will be to establish a baseline for decision-making.

Climate Finance

223. Project effort will also cover targeted capacity building for national and subnational governments on accessing, budgeting and managing climate finance and other forms of sustainable investments for implementing prioritized climate actions, SLM/SFM and BCD interventions. The project will support Eritrea to engage in dialog with representatives of the carbon volunteer market.

224. During PY1, technical support will be provided to the project to investigate and capitalize upon potential carbon markets. Voluntary carbon markets are very eager to find off-set opportunities.[50][50] Numerous private entities would be interested in providing ?up-front? support as co-financing.[51][51] For instance, during the PPG, initial discussions were held with South Pole to gauge interest in potential sustainable financing.[52][52]

225. These private entities would handle all carbon market access details in return for reasonable commissions. This approach is highly feasible due to the project?s multiple year life-cycle. The financing is very real and very sustainable. It would go beyond the project cycle.

226. Opportunities linked to the project may stem from avoided deforestation, sea grass and mangrove conservation. During project inception, dialog will again be conducted with South Pole and others to determine the viability of using carbon benefits as a mechanism to support sustainable financing.

Component 2: Promoting ecosystem-based SLM/SFM, CCA and BDC across the landscape and seascape for sustainable and resilient livelihoods

Outcome 2 Effective advisory and supply services for up and out scaling of SLM/SFM, CCA and BDC in the targeted landscape/seascape

	200 extension officers (50% female, 50% male) annually leading field-based training programs covering livestock, forestry, agriculture, and/or fisheries that mainstream SLM/SFM, CCA, BDC
	200 extension officers (50% female, 50% male) annually participating in in-service training programs focused upon building SLM/SFM, CCA, BDC mainstreaming capacity.
	15,000 persons (50% female, 50% male) within the project area participating annually in field-based training programs covering livestock, forestry, agriculture, and/or fisheries that mainstream SLM/SFM, CCA, BDC
	250 fishing vessels agreeing to voluntary guidelines/code of conduct and regular monitoring reporting progressive achievement of BD conservation and CC adaptation targets.
	10,000 persons (50% female, 50% male) within the project area annually reporting improved food security as a direct result of project action
Impact Indicators	5,000 hectares of native forests reported to be under improved conservation management annually with by-laws mandating management targets and oversight responsibilities
	10,000 hectares of rainfed agriculture monitored and reported to have improved production value and reduced CC vulnerability as a result of project capacity building
	3,000 hectares of irrigated agriculture monitored and reported to have improved production value and reduced CC vulnerability as a result of project capacity building
	5,000 hectares of degraded rangeland monitored and reported to have improved production, improved BD conservation value and reduced CC vulnerability as a result of project capacity building
	2,000 head of livestock monitored and reported to have improved production value as a result of project capacity building
	500 hectares of mangrove restored within the project area

Anticipated Budget	Total: $7,723,250 GEFTF: $5,260,000 LDCFL $2,463,250 Co-Financing, GEF: US$ 11,796,689 Co-Financing, LDCF: US$ 3,217,279

Output 2.1 Extension services effectively and efficiently facilitate fisheries, livestock and agriculture capacity building to advance BD conservation, SLM, and CC resilient practices.

Strategic Investment

227. Extension services are the primary mode of capacity building across rural Eritrea. Rural households live in very remote settings with extremely limited access to technology, e.g., internet-based learning opportunities. Unfortunately, the existing system of extension services covering agriculture, livestock, fisheries and forestry is quite lacking. There are too few extension officers. Current staff have very little opportunity to build skill levels. The current modes of information transfer are considered to not be highly effective and are not monitored for effectiveness. The existing system does not integrate innovative BD conservation, SLM, and/or climate change resiliency learning.

228. The project will work to enhance the capacity of Eritrea?s extension services to provide rural households with the tools required to address climate change, conserve biodiversity, and realize SLM. This will require substantial time and investment to build in-service training, communications, job performance reviews, and standards. These efforts are critical. Extension services are on the front-lines in terms of rural communications, particularly in a country such as Eritrea with relatively limited access to electronic media. Reaching the project?s intended objective and core indicators will require having a strong and comprehensive cohort of extension officers in place. Maintaining program effectiveness post-project requires that the project create a legacy program where extension services are sustained and enhanced.

229. During PY1, the project?s technical team working with government agencies responsible for water, forestry, fisheries, livestock, biodiversity, and agriculture will design a strategic and cost-effective extension program enhancement strategy. The strategy will assess and detail all aspects of extension improvement including existing capacities and best approaches to cost-effectively address capacity gaps.

Conservation Extension Services Network

230. The project will create an extensive network of government and community conservation extension officers tasked with assisting rural households to engage in agriculture, forestry, livestock, and fisheries practices designed to improve biodiversity conservation, SLM, and climate change resiliency. The network of extension officers will be tasked with working across the project area to build local capacities to identify and adopt practices that mainstream biodiversity conservation, SLM and CC adaptation by maintaining ecosystem services.

231. The cohort of extension officers recruited by the project will support implementation of each of the project?s components and associated activities at the field level. Improved extension services will be closely aligned with and responsible for supporting implementation of the project?s overall efforts to advance informed decision-making, spatial planning, business planning and acumen, knowledge management, communications. Conservation extension officers will be able to support the completion and monitoring of vulnerability assessments. Extension agents will be capable of providing support for the design, implementation and monitoring of spatial planning. Conservation extension officers will be capable of assisting producer groups to effectively organize as associations and/or cooperatives. Extension officers will be fully capable of working directly with farmers, livestock producers, and fishing interests to generate data and information. This will make certain that officers are exchanging information and building a baseline of experience to support and advance improvements.

232. The project will engage each of the approximately 75 government extension officers currently working across the target area. In addition, the project will recruit at least 150 new community-based extension service agents. These persons will primarily be residents within the project area who will be hired through the project to serve as community liaisons and knowledge leaders. The project will further launch a community conservation trainer certification program as part of the field training system. This program will identify and recognize community members who have excelled at training programs and are capable of providing further household to household capacity building assistance.

233. The extension services officers will be organized into cohorts of ten persons with one extension officer tasked with managing and supporting the efforts the cohort. These approximately 20 extension officer leaders will be the primary communication and organizational focal point between the project and the extension field teams.

234. At least 50% of the extension service persons recruited by the project will be female. At least 50% of the ten-person cohort leaders will be female.

235. The project will recruit the network of extension officers during PY1. The project will provide critical materials (e.g., non-motorized or electronic transport, training materials, communication services, tablets, etc.) required to support conservation extension officer efforts.

Field School Curriculum Design

236. The project?s technical team will design and support launch of a field training curriculum. The curriculum?s target audience will be small and medium farmers, livestock producers, and fishing

interests across the project area. Field training materials will build upon existing manuals and tools.[53][53] Field schools will be designed to build capacities required to implement productive sector practices that benefit BD conservation, SLM and CC resiliency. The comprehensive field training program will be designed under Output 2.1 and implemented under Output 2.2.

237. Cross-cutting themes to be covered by the field training course will align with GEF-7?s strategic programming directions. This will include making certain that issues of gender and women?s empowerment are fully integrated within all training programs and materials.

238. During PY1, the project?s technical team will commence preparations of field training manuals and course work. This will be supported by a strategic plan to operational field school extension training to build the capacity of government and community extension officers to support and implement field school training. This will include working closely with organizations such as National Agriculture Research Institute ? NARI and the Hamelmalo College of Agriculture.

Conservation Extension Officer Capacity Building Program

239. The project?s team of international and national experts will provide capacity building services to government and community extension officers tasked with implementing the field training program. The program will build the capacity of extension agents to effectively support farmer, agro-pastoral, and small-scale fisheries field schools to be implemented with project support. All effort will be focused upon building the skills of extension officers necessary to assist the project to achieve intended core and impact indicators.

240. The project will support the Government of Eritrea to operationalize a conservation extension officer classroom training facility. This facility will likely be situated at either the National Agriculture Research Institute ? NARI and/or Hamelmalo College of Agriculture. The facility will be equipped with resources required to initiate and sustain a professional level extension training program. The facility will be used to train project related extension staff. The facility will also be designed to increase the capacity of NARI and the College of Agriculture to provide extension training to undergraduate and in-service training to existing professionals specifically focused upon issues associated with climate change resilience, biodiversity conservation, and sustainable land management.

241. During PY1, the project will complete a strategy for conservation extension officer capacity building. The extension officer training program will commence during PY2. Approximately 20 extension officers will participate in each 4-week intensive training course. By the close of PY2, all 250 targeted government and community extension officers will have benefitted from the initial round of training.

242. During PY3 ? PY4, the project will offer a series of ten (10) refresher and advanced two-week course trainings. Each short-course will engage approximately 10 extension officers or one cohort group. These short courses will again be led by a combination of international and national experts

covering fisheries, livestock, agriculture, forestry and integrated water resources management issues with a focus upon BD conservation, SLM, and CC resilience. These short courses will combine classroom and field study training. By the close of PY4, all 250-target government and community extension officers will have benefitted from the advanced short courses.

243. Throughout the project?s implementation period, the project?s technical team will design and implement a series of short-training courses. This may include remote and in-person learning opportunities with FAO expertise. The project?s technical team will be responsible for generating and supplying technical materials to assist extension officers improve job performance. The project will sponsor a monthly publication to be distributed to all extension officers and recruits in the project area. This publication will help build knowledge, capacity and awareness.

244. Prior to the project?s MTR, a continuation strategy will be designed with project support. This strategy will describe how the project will support transitioning the field school extension training program into a certification training program led by national experts and trainers. The project will provide financial support for this training program to close. The project?s sustainable financing strategy will detail how the operational and support costs for the extension officer training program will be maintained and financed entirely by national funds.

Extension Services Performance Monitoring and Reporting

245. The project will set in place a comprehensive program for extension services job performance monitoring and reporting. At a minimum, all project associated extension officers will submit monthly progress and action reports. These reports will tabulate in comparable data sets the actions of individual extension officers. This will include summaries of field training, progress made towards the project?s core and impact indicators, including progress made towards LDN targets and gender performance.

246. The information provided by the extension officers network will be used to help inform decision-making and effective investment. As such, the information will be fully integrated within Component 1 and Component 4 knowledge management and decision-making framework improvements. The project will closely monitor the effectiveness of extension officers as field-training trainers under Output 2.2. The scale and scope of the proposed intervention is quite ambitious. Success largely depends upon the project being able to build a sizeable cohort of trained trainers to amplify and improve effectiveness annually.

247. In addition, job performance monitoring will assist the Government of Eritrea to identify highly effective extension officers, both government and community, and high-light performance for replication and amplification.

248. During PY1, the project?s technical team will design the job performance monitoring and reporting strategy. The strategy will be discussed during the extension services training program with specific requirements for reporting detailed, e.g., monthly written reports, electronic reporting forms, etc. The job performance and monitoring program will be fully operational prior to the project?s mid-term review. At least 2 years of preliminary job performance monitoring and reporting information

will be available in a professional format suitable prior to the MTR with information being applied to build knowledge and improve implementation effectiveness.

Output 2.2 Field school program established to effectively support mainstreaming of BD conservation, SLM, and CC resilient practices by rural fisheries, livestock and agriculture sectors.

249. The project will support the initiation of a comprehensive field training program across the entire project area, inclusive of marine and terrestrial landscapes. The project capacitated network of government and community extension officers will be tasked with leading field training efforts.

Alignment and Purpose

250. All field school related programming and investment will improve productivity, resilience and ecosystem services in the targeted landscape/seascape that results in CC, BD, and LD benefits. All investments will be directly linked to the achievement of the project?s objective, including core and results indicators.

251. All field-training investments and support will be informed by and support achievement of Component 1 strategic planning and associated conservation objectives, including those covering protected areas. The project will facilitate farm-based mapping and planning aligned with Component 1 outputs. This will include delivery of established LDN and spatial planning objectives. Delivery of these objectives will be closely monitored at the highlands project site. This will include capturing lessons to inform decision making by government managers as well as the private sector.

252. The field training programs (e.g., farmer field schools, agro-pastoralist field schools, small-scale fisheries field schools, etc.) will be used a mechanism to support specific, technical interventions. For instance, Farmer Field School participants will be supported to engage in forest and water conservation projects in the upper elevations of the escarpment. Fisheries field school participants will may support mangrove restoration along the coastal areas. This may include Innovative water harvesting and irrigation systems (e.g. rainwater harvesting) introduced/improved, tested and promoted. Activities to be supported may include community seed banks (stress-tolerant/NUS varieties) and nurseries strengthened/established to support crop/tree diversification efforts on farm.

Knowledge Management

253. The field-training program will be closely aligned with the project?s knowledge management activities. This will include generating a robust knowledge management and learning platform widely accessible and utilized by field-training participants and extension officers. Part of this effort will be to ensure that lesson learned and advances made are sustained, replicated, and amplified post-project. A key element of this will be making certain potential field-training participants are well aware of the benefits associated with engagement, including improved livelihoods, food security, and maintained ecosystem services.

254. Field-training participants effectiveness will be closely monitored throughout the project period. The project will annually monitor all field-training participants to track progress with delivery of social, economic, and environmental benefits. This will include annually conducting TAPE analysis as noted. Field-training participants will be queried periodically throughout the annual training program to make certain skills are effectively transferred. Testing results will be reported within the project?s APR, mid-term, and terminal evaluation.

255. Each year, the results of the field-training program will be reviewed by a team of national and international experts recruited by the project. The experts along with field-training participants will review results, including TAPE monitoring, and determine program effectiveness, offer recommendations for improvement, and adapt field-training approaches as required.

256. The results of this annual monitoring will be summarized and reported in the project?s APRs, mid-term review, and final evaluation. The project will cover multiple growing seasons for initial participants. This will greatly enhance the building of lessons learned, inform the knowledge base, provide for proof of concept, and offer opportunities for adaptive management.

Gender

257. Issues of gender and engagement of women will be critical to the field-training approach. Extension officers will be provided gender sensitivity training to make certain training takes into account such issues. The project will pay close attention to gender equality by ensuring that women are participating equally or taking leading roles in training. Many field-training programs will specifically target women. This will include having ?women only? field-training programs led by female extension officers. On-farm diversification (particularly with the engagement of women and women-led households), which will be demonstrated and scaled up to improve landscape productivity, increase income and improve food security and nutrition. By project mid-term, at least 50% of all FFS participants will be female.

Extension and Training Facilities

258. The project will establish an extension and training facility at each sub-Zoba. Equipped with solar power, these facilities may serve as a centralized location for provision of extension services. These facilities may be used for activities such as community seed distribution and small seed enterprises.

259. The project will likely purchase and distribute climate-smart agricultural kits with quality seeds required to support shifting agricultural practices in line with Component 1 findings and recommendations. This will include programs for the community to share resources for seed management and storage.

260. The project will likely facilitate a cooperative farm implement sharing programs for field-training participants, lending shovels, ploughs, and other farm implements to field-training participants. Offering shared access to implements to participating farmers can increase labor efficiencies without requiring each participating enterprise to make sizeable equipment investments.

This lowers constraints and hesitancy to adopting progressive and innovative practices. These implements will be managed and maintained cooperatively with oversight initially provided by extension agents. Each of these low cost options are efficient and effective at reducing the risks associated with incentivizing alternative crop production practices.

261. The facilities may provide a site for the supply and distribution of veterinary services. The project will support communities again through the FFS program to identify and use seed varieties better suited for local conditions.

262. Climate-resilient storage facilities (including cooling) may be introduced to improve preservation and quality and reduce post-harvest losses. For instance, solar-powered cold storage and solar drying systems could be established to preserve and ensure quality of highly perishable livestock, fisheries and horticulture products (taking into account the projected increase in ambient temperatures) or certain NTFPs while energy saving (biomass based) technologies for fish smoking or teff processing can deliver multiple benefits at landscape level. Processing technologies for selected commodities will be introduced and technology innovations for applications that integrate renewable energy/energy efficient measures, including off-grid solutions, will be sought where possible.

Forestry and Farmer Field Schools

263. Unsustainable forest management is a primary driver of climate risk exposure, land degradation, and biodiversity loss across the project area. As noted, the loss of forests is a direct contributor to water stress, including increased run-off, lowered recharge of ground water, and limited moisture capture via mist or fog.

264. Although cutting native trees is in principle prohibited by law, deforestation continues as invasive or non-native tree species are not adequate to service community needs for fuel wood, charcoal and building materials. Regeneration is often inhibited by over-grazing.

265. As noted, rudimentary tree nurseries exist. However, there is an over-reliance upon introduced tree species rather than native varieties.

266. Communities in the target area, as detailed in the baseline, have had some success with more several hundred hectares of land protected from grazing and deforestation through the establishment of community emplaced ex-closures. This is very cost-effective. Enclosing one hectare of land with stones or other fencing costs approximately US$ 200 using community labour. However, enforcement is an ongoing issue.

267. The project will address this by supporting field-training participants to design, build, and manage reforestation projects based upon the ex-closure concept. This will serve as an incentive for community members to participate in field-training programs. This will include building capacities of local villagers to recognize and maintain rare and endemic species such as *Aloe schoelleri* that require special care and attention for conservation.

268. Field-training (FFS, AFFS) program members supported by project extension officers will be responsible for maintaining forest regeneration sites. This includes making certain sites are monitored and access enforced to sustain maximum growth of native species. As required, the project under Component 1 will support the creation of by-laws describing management responsibilities.

269. Forest recovery zones will be prioritized based upon the spatial planning, data, and information management actions supported by the project. This will specifically focus on areas where ground and surface water are at risk due to heavy land degradation impacts.

270. The project will support agroforestry practices at the farm level designed to improve soils, provide alternative revenue sources, and greatly assist with reducing land degradation and climate shocks. Farmers will be trained to efficiently manage their agricultural technologies on multi-purpose tree planting and manage the natural regeneration, promoting neglected and underutilized varieties and crop species, improving the utilization of the drought resistant crops.[54][54]

271. The project will support the restoration of mangroves along the coastal zone of the Gulf of Zula. As with the uplands area, these efforts will be guided by marine spatial planning, data, and information management. The project will provide the technical and financial support required. Lessons learned from past investments will be applied.[55][55]

272. A portion of the payments for building ex-closures may be placed into a bank account to be cooperatively managed by field-training (FFS, AFFS) program members. The project will assist to design a circle bank or micro-lending program where participating members can utilize financing to improve their farm or livestock production practices to be more resilient and regenerative. Again, the project under Component 1 will assist with making certain required regulatory and management guidelines and by-laws are available.

273. All investments and practices will be guided by the spatial plans supported by the project. All actions will be monitored and reported upon using the project emplaced data and information management system. Lessons learned will be fully captured and presented to support greater amplification.

Agriculture: Farmer Field Schools

274. The project will support the implementation of farmer field schools across the project area. The focus of these schools will be to build farmer capacity to successfully engage in practices that are resilient, promote SLM, and contribute to biodiversity conservation. Programming will emphasize nature-based solutions and regenerative agriculture approaches.

275. FAO has nearly forty years of global experience with the design and implementation of farmer field schools.[56][56] During PY1, project technical staff working with representatives of diverse

national, Zoba, and sub-Zoba agencies will produce a strategy for FFS implementation and needs. The project technical staff will draw upon FAO experience to generate core-curriculum. As noted, extension services staff will be trained to support FFS implementation.

276. A major emphasis of the implemented training program will be agroecological and regenerative agriculture approaches. This will be a focus of the FFS covering technical aspects such as crop rotation and inter-cropping with nitrogen-fixing legumes, crop diversification to enable harvesting throughout the year, mulching, production and use of organic compost, stone bunds, organic amendment and mulching, integrated pest management, terracing on slopes, and potentially crop-livestock integration systems.

277. The FFS will address and build farmer capacity with regards to the production, market, and food security aspects of sustainable farming. This will include technical support to assist individual farmers to assess potential production practices and adopt agroecological approaches best suited to individual farm requirements, e.g., cropping cycles, household and farm size, soil types, labor access, market, and water access. This will include farm diversity, inclusive of alternative production modalities such as honey, agroforestry, and post-harvest management.

278. Small-holder farming households will be supported to improve their capacity to produce a variety of nutritious food for self-consumption and/or to sell in the local markets. This will not only contribute to enhancing food availability and access, reducing acute food insecurity and the recovery of livelihoods and household incomes, but also ensures the nutritional value of the household and community-wide food baskets.

279. The agroecological FFS will integrate approaches will be designed to reduce participant farmer risk exposure and incentivize adoption of improved production practices. Farmers shifting from a known production approach to potentially more sustainable, resilient and diversified production modalities face substantial food security and financial risks. The project will provide agroecological FFS participants with assistance required to bridge that gap between unsustainable production and more climate resilient diversified cropping. The project working with the government and other stakeholders will need to be certain that these risks are minimized.

280. The project will set in place a credit access program for participating farmers. This may include setting aside a small portion of Component 2 financing to assist farmers to bridge growing periods. The project may support and expand effective crop insurance programming. To build capacities to access future investment capital, the project will assist private enterprises to identify investment needs required to support conservation-oriented production and then to work with lenders and government decision-makers to generate innovative funding mechanisms. This will be linked to Component 3 actions.

281. Small-holder farming households will be targeted to receive specialised nutrition training, which will aim to sensitize their households on healthy diets and nutritional practices, as well as support the development of nutritious diet plans. Given the key role played by women in production, preparation and distribution of food, as well as in household reproduction, special attention will be paid

to existing gender and power relations and roles, ensuring equitable participation and benefit of both women and men.

282. The project will explore the use of poultry production as a diversification tool to enable greater resilience. Poultry production is particularly appealing to women in rural Eritrea and can provide economic and nutritional benefits. Challenges with poultry come from availability of stock, knowledge regarding management, and ability to build small infrastructure for layers. The project can help to address each of these if linked to the achievement of the overall objective. This can be done, in party, through innovations linked to the field-training facilities and shared farm tool resource activities.

283. The FFS may be accompanied by the supply of improved seeds and development of FFS shared seed banks. This work will be done in close collaboration with the National Agriculture Research Institute ? NARI.

284. Water harvest and retention techniques will be a focus of the training and support provided to FFS. In line with this and in close collaboration with the IADP, the project may introduce through FFS innovative water harvesting and irrigation systems and/or integrated water supply systems for livestock. This may include limited numbers of check dams and/or rainwater harvesting techniques.

285. The FFS approach will be used to support continued development and strengthening of the bee keeping sector. The project area has a high potential for beekeeping. There are more than 2,180 traditional and 2,668 improved beehives in operation belonging to thousands of beekeepers. Challenges include limited supply of: Improved beehives to replace traditional beehives that are less productive and more labour intensive; Colonies required for producers to initially establish bee colony multiplication centres; and, Apiary equipment and instruments and training for beekeepers. There are also issues related to over-reliance upon insecticides and pesticides that negatively impact apiaries.

286. All programming will build upon lessons learned, such as TerrAfrica?s ?Sustainable Land Management in Practice: Guidelines and Best Practices for Sub-Saharan Africa? [57][57] , FAO?s Climate-Smart Agriculture Knowledge Portal,[58][58] and emerging guidance on nature-based solutions and regenerative agriculture approaches.[59][59] [60][60]

287. All investments and practices will be guided by the spatial plans supported by the project. This includes any water harvest investments. All actions will be monitored and reported upon using the project emplaced data and information management system. Lessons learned will be fully captured and presented to support greater amplification.

Livestock: Agro-Pastoral Field Schools (APFS)

288. The project will support the implementation of Agro-Pastoral Field Schools (APFS) across the project area. As with the FFS, the APFS will focus upon building livestock practices that are resilient, promote SLM, and contribute to biodiversity conservation. Programming will emphasize nature-based solutions and regenerative agriculture approaches.

289. The extension officers will be supported in this effort by FAO technical staff. FAO has over two decades of experience with the design and implementation of APFS programs for small-scale livestock producers.[61][61]

290. The livestock APFS will be designed and developed during PY1 and 2. The APFS will incorporate lessons learned and address critical conservation concerns identified during Component 1?s early implementation stages. The APFS will also provide an opportunity to integrate key elements of monitoring and improvement approaches from Component 1 such as the application LEAP principles and practices.

291. Part of the APFS will include support for enhancing veterinary services. The provision of veterinary services will be an important incentive and value added for participation in herd management improvement. Veterinary services will be important to assist herders to monitor livestock production health. This is needed to provide comparatives analysis of livestock health and value between areas of ?business as usual? overgrazing and areas with improved livestock management practices that promote LDN and biodiversity conservation. The project will design and implement during PY1 and PY2 short courses to designed to enhance veterinary services capacity and ability to engage with and support the project?s conservation efforts. This will include monitoring, diagnostics, and vaccination support linked to participation in APFS training.

292. The project will assist livestock producers to improve breeding practices. Selective breeding results in higher quality, better production and economic value livestock that potentially incentivizes lower livestock numbers and better rangeland management practices. The project will assist herders who engage in livestock management improvements with access to dairy technical and market skills. Increasing the production value of dairy products incentivizes active herd management. The project will assist livestock producers to identify opportunities to de-stock through sale.

293. The project will work with participants to develop simple fodder production sites located near domiciles. Fodder production will use only native species enhanced by improved plot design and soil management, e.g., manure fertilizer.

294. This will build upon and enhance the existing baseline as appropriate. For instance, in Foro approximately 10 livestock producers have started small scale dairy using improved Sudanese Hameria cattle supplied by the MOA. In Segheneiti, Adikeih and Senafe, milk and dairy products are in high demand and fetch commendable prices making it very attractive to producers.

Fisheries: Small-scale Fisheries Field Schools

295. The project?s field training programs related to fisheries will focus upon providing training to support marine monitoring, as mentioned under Component 1, as well as ability for stakeholders to adapt and implement the ?Voluntary Guidelines for Securing Sustainable Small-Fisheries in the Context of Food Security and Poverty Eradication?. [62][62] This program provides a strong foundational basis for shifting fisheries to become more sustainable.

296. During PY1, a two week on-site intensive introductory course to the guidelines will be offered at the field and national level. This will be led by an international expert retained by the project.

297. During PY2, training participants with project expertise support will adapt the voluntary guidelines and adopt these guidelines for application at project site. This will be closely aligned with spatial planning and zoning work and knowledge management and enabling environment efforts conducted under Component 1.

298. The project will support the adaptation and adoption of the Code of Conduct for Responsible Fisheries.[63][63] The code of conduct is based upon the voluntary guidelines and provides specific guidance to shift unsustainable fishing practices to sustainable fishing practices. This includes directions and requirements with regards to conservation of critical habitats.

299. During PY3, the project will support stakeholders at project sites to adapt the code of conduct for each target fishery. The adapted code of conduct will be linked to marine spatial planning, associated harvest requirements, and monitoring and reporting requirements.

300. A critical part of this effort will be to link this code with the improved small vessel licensing, monitoring, and permitting work supported by the project. Prior to the project mid-term evaluation, all vessel licensing and fishing permits at each site will require licensees and permittees to sign the adapted Code of Conduct. This will make code compliance compulsory for all fishing activity in these waters. Alternative solutions will be sought to divert fishing efforts that target sharks and sea cumbers, reducing pressure on these species.

301. The adopted code will align with Component 1 spatial zoning, monitoring and fisheries conservation targets. By the project?s mid-term, at least 50% of all fishing vessel licenses holders and fishing permit holders at both sites will have signed the adapted Code of Conduct. By project close, participation should be 100%.

302. The project will incentivize improved fisheries management by improving all fishery licencing and/or permitting systems. The license and permit systems will integrate a regular renewal provision the duration of which will be determined during project implementation. The system will have a graduated fee system linked to vessel size and waters fished. This will make certain harvest is better controlled while directing benefits from regulated fishery access towards activities that improve fish stock health and community development. The project will provide equipment support to implement

the license and permitting improvements. This will be linked to Component 1 spatial planning, zoning and monitoring.

Component 3: Scaling up adaptation technologies and innovations in selected value chains, improving market access and resilience of supply systems

Outcome 3: Climate and COVID resilient livelihoods through innovations and improved access to technologies, markets and distribution networks.	
Impact Indicators	5,000 male/5,000 female target beneficiaries reporting improved and diversified incomes reducing CC vulnerability as a result of project support. 100 cooperatives established with by-laws mainstreaming BDC, SLM/SFM, and CCA principles and practices. 16 cooperative production facilities operational and engaging at least 1,600 women with annual monitoring reports showing participants with recording reduced CC vulnerability
Anticipated Budget	LDCF: US$ 4,399,077 Co-Financing, LDCF: US$ 11,484,500

Output 3.1 Supply chain network assessed and priorities for strengthening resilience in selected value chains identified in a participatory process.

Value Chain Professional Mapping, Assessment and Opportunity Identification

303. The project will undertake a participatory supply and value chain network mapping. Completed during PY1, the purpose of the mapping exercise will be to identify potential supply chains and prioritize strategic opportunities to test products and approaches that will result in strengthened resilience. As noted,

304. This will be linked to intervention planning and prioritization of adaptation technology using similar approaches as a number of FAO and IFAD led baseline projects. The mapping in this case will link to and identify opportunities that correspond with Component 1 strategic planning and mainstreaming efforts and Component 2 improved practice actions.

305. The mapping exercise and associated strategy will be accompanied by a series of capacity building dialogs between suppliers, producers, post-production facilities, retailers, and relevant government agencies. The purpose of these round table discussions will be to identify opportunities along the supply chain to increase valuation and for produced goods.

Potential Value Chains for Improved Resilience

306. For value chains to increase profitability, capacity must exist to bring additional commodities on-line and/or add substantial value to existing commodities. Second, a market must exist to purchase and value that increase. Neither of these elements exist substantially in Eritrea and particularly in the project area.

307. The highlands ecosystem is heavily exploited and already beyond carrying capacity in terms of population demands, water availability, and soil health. Production amounts and values are incredibly low. Most farmers and livestock producers generated only enough food products for subsistence. The relatively small amount of inventory about this is sold with capital utilized for school fees, family emergencies, and a few sundries such as tea and sugar. There is very little surplus in the commodity chain to capitalize upon in terms of ?increased? value chain and profit realization. Even if production ?surplus? was possible, there is only a limited market to absorb this surplus in Eritrea particularly for cereals, grains, pulse crops, and livestock. More substantial monetary gains may be realized through poultry and honey production.

308. There may be opportunities to introduce and upscale post-harvest technologies to enhance the climate resilience of local supply chain infrastructure and promote innovations through value addition. However, this is not apparent. The coastal areas could benefit from Spate irrigation near Faro. This includes seasonal opportunities for rainwater harvest linked to irrigation diversions as flood waters and sediment cross the coastal plain before dumping into the gulf. However, these attempts have failed as explained due to siltation and upkeep demands that outpaced farmer capacity.

309. The fisheries sector is currently a mostly subsistence endeavor. As many parties have noted, Eritrean waters are not exploited nor polluted. They have abundant and diverse marine life and habitat. Once could increase exploitation of this unique and highly valuable marine ecosystem. Numerous international and national investments have taken place over the years to try and shift this to generate greater commercialization and profitability. This includes investments in small scale processing facilities, ice facilities and even rudimentary driers that now stand abandoned. These investments have universally failed due to a lack of market. There is a small market for fish consumption in the major towns. There is also international demand for sea cucumber and shark fin. However, most importantly, pushing increased exploitation of fisheries without commensurate emplacement of biodiversity conservation safeguards risks the loss of a globally significant resource.

Frankly, as many studies have pointed out, Eritrea could gain remarkable value from fisheries with the development of a sustainable tourism predicated upon ?high end, low impact? visitors.

310. The project may assist target beneficiaries to identify harvest methods and approaches designed to improve fisheries health and value. This will build upon similar programming that FAO has successfully completed in other global fisheries. This will incentivize participation through stabilizing and improving fish stocks, offering technical assistance to create more efficient and effective harvest methods, and helping commercial enterprises to improve the overall value of fisheries.

311. Tourism presents an opportunity along coastal areas that is likely far more valuable than near-coastal fisheries and, if properly approached, can be predicated upon increasing conservation of marine resources. The coastal zone of Eritrea is quite pristine providing strong potential for high end, low impact tourism based upon extremely limited numbers of visitors. There may even be opportunities for catch and release fishing similar to what Sudan has recently successfully introduced. These types of tourism operations require limited infrastructure, but provide strong opportunities for broad based employment and a portion of revenues to be directed towards resource conservation. Excellent models exist in places like Botswana with advance CBNRM programming. There would be a requirement for government support and establishment of carry capacity and other conservation parameters prior to initiation.

312. The PPG process revealed clearly that any efforts to ?climate proof the supply chain through technology interventions along key stages of the chain, including for food preparation (stoves)? as proposed in the PIF should be considered through this lense of realistic expectations. Already, thousands of stoves and other materials have been distributed across the rural Eritrean landscape. However, very little information exists showing causation and linkage between the distribution of these products and improved resiliency and/or ecosystem conservation. The first order of business is to climate proof production so rural persons are not at constant risk of food insecurity and ecosystems are maintained to insulate rural production systems from climate shocks.

313. There is space to introduce and upscale post-harvest technologies to enhance the climate resilience of local supply chain infrastructure and promote innovations through value addition and these avenues should and will be explored by the project. There are also limited opportunities to improve market access and develop more efficient marketing systems for diversification of activities to enhance the climate resilience of local MSMEs, agro-industries and agribusinesses involved in the processing and marketing of crops, livestock and fisheries products.

314. There may be opportunities to improve the honey sector. However, honey has become the ?go to? development tool across the highlands the market may be reaching a saturation point. Almost every major initiatives, including those supported by GEF and government, includes investment in hives and honey expansion.

315. Goat export is a potentially viable value chain that will be fully mapped out. Eritrean goats are in high demand regionally particularly during holiday seasons. Although extremely limited, there is precedent for goat export. Currently, goats across the project are a driver of degradation. Many of the goat herds, for instance, carry heavy parasite loads. This reduces weight gain while the amount of

nutrition demands remains constant and/or increased. The project will work with livestock herders across the project area to assist them to improve herd health, lower herd numbers, decrease ecological impact and therefore climate change exposure, and facilitate increased export opportunities. This will be done in coordination with efforts to build the capacities of cooperatives, livestock extension officers, and government agencies.

316. The project will align with and adopt lessons learned from indicatives such as Inclusive Green Financing Initiative (IGREENFIN).[64][64] This cross-cutting program targeting Great Green Wall countries is designed to enhance access to credit and technical assistance for farmers, farmers? organizations, cooperatives, and micro-sized enterprise to adopt climate-resilient and low-emission agriculture and agroforestry.

317. These will each be the focus of the value chain mapping and strategy process supported by the project through PY2. By PY3, targeted investments in these technologies will take place. Again, these investments will be done to make certain they support the achievement of the projects CC, BD, and SLM objectives and impacts.

318. There are numerous value chain and financing support tools available that will be used to inform this process. For instance, FAO?s Value Chain Analysis Tool (VCA-Tool) allows users to systematically gather, store and manage data for the implementation of cost-benefit and value-added analyses. Users can build different scenarios and analyse the socio-economic impact of various policies ? such as domestic prices liberalization, opening to international trade, new technologies adoption.[65][65]

319. Additional tools and reference materials include the following.

Value Chain Tool	Link
Making Value Chains Work Better for the Poor: A Toolbook for Practitioners of Value Chain Analysis	https://www.fao.org/3/at357e/at357e.pdf
Strengthening sustainable food systems through geographical indications: An analysis of economic impacts	https://www.fao.org/3/i8737en/i8737en.pdf
Guidelines for value chain analysis	https://www.fao.org/3/bq787e/bq787e.pdf
Agricultural Value Chain Finance Innovations and Lessons	https://www.fao.org/3/ca6345en/CA6345EN.pdf
Toolkit for Value Chain Analysis and Market Development Integrating Climate Resilience and Gender Responsiveness	https://www.adaptation-undp.org/sites/default/files/resources/nap-ag_toolkit_for_value_chain_analysis_.pdf

Agricultural Value Chain Finance Tools and Lessons	https://www.fao.org/3/i0846e/i0846e.pdf
Rural women?s access to financial services: Credit, savings and insurance	https://www.fao.org/3/am312e/am312e.pdf
Marketing Tools for FFS and Farmers Produce	https://www.care.org/wp-content/uploads/2020/05/FFBS_3_Marketing_Tools.pdf

Output 3.2: Targeted capacity building for agricultural cooperatives, MSMEs and agro-industries in identified priority areas

Organizational and Institutional Structure Capacity

320. Assistance will be extended to groups of farmers, livestock producers, and fisher folks to help them organize into cooperatives to build economies of scale through shared resources, experience, and improved marketing opportunities. This will specifically include working to develop and strengthen organizations skills around specific resources such as Water Users Associations, Livestock Growers Associations, and community-based forestry management groups.

321. Organizational structure will be designed to assist producers to increase profitability and income diversification while maintain or improving ecosystem services associated with forest cover, fisheries diversity, improved rangeland, and decreased soil loss and erosion. This includes assisting groups of producers to mainstream BD, SLM, and CCA.

322. Efforts under this output will be closely aligned with Component 1?s strategic planning and monitoring and Component 2?s field training and extension programs. This will include making certain that the project?s network of conservation extension officers are fully capacitated to assist and support local beneficiaries to organize into cooperatives for the purpose of building climate change resilience predicated upon pro-ecosystem conservation principles and practices.

323. The project will work through improved extension services to design and introduce model by-laws for adoption by user groups. This will build upon approaches successfully generated through FAO and GEF programming. The project will have model by-laws will be generated prior to the close of PY1. By the close of PY2, the model by-laws will be approved by the MoA and Zoba/Sub-Zoba administrations and rolled out through the field training courses.

324. By the close of PY3 the initial set of cooperatives should be established and operational. These cooperatives or associations will benefit from Output 3.1?s mapping exercise. This will assist cooperatives to identify and pursue with project support viable value chain opportunities designed to strengthen resiliency.

Business and Financial Management Planning

325. The project will work through extension officers and the strengthened cooperative framework to assist individual producers and cooperative members to improve their business planning skills. Currently, the inability of livestock, farming and/or fisheries interests to generate fundable business plans is a major hinderance to access to financing required to escape poverty cycles that lead to increased climate change vulnerability and degradation.

326. The Farmer Business School approach will assist farmers to improve their business planning acumen. FFS (production) and FBS (business) have complementary objectives and should be jointly implemented for farmers to improve farm management decisions. This will be particularly important for women cohorts and others who often fail to maximize profitability due to low market access. The Farmer Business School model is successfully adaptable for agriculture, fisheries, and livestock sectors.

327. The project will provide business and financial management capacity. Association members will be provided with capacity building and advisory services in governance and management, finance and accounting, development and pricing of new services. This may build upon FAO tools such as: ?Business Planning for on Farm Success?[66][66] and ?Developing bankable business plans: A learning guide for forest producers and their organizations?.[67][67] Based upon business plans that rational, the project could design a credit program to finance ?best potential? business plans.

328. The project will assist producers to access markets for their commodities. FAO has developed a number of innovative tools specific to rural value chains that will be used to inform project efforts.[68][68] This will include working with groups of producers to help them coordinate marketing efforts to achieve economies of scale and increase their capacity capture greater returns on marketed commodities.

Output 3.3: Women and youth entrepreneurship strengthened for increased resilience of crop-pastoralist- fishing dependent livelihoods and access to credit and markets improved.

329. Gender cuts across each of the project?s components and activities. Under Output 3.3, the project will specifically focus upon assisting women and youth to innovate and launch entrepreneurial projects. These sectors of rural Eritrean economy are often the most vulnerable to climate change risk. The project will generate a specific strategy for implementation of Output 3.3 during PY1. The efforts will be fully underway with lessons being delivered prior to the project?s mid-term review.

Women Cohort Cooperatives

330. The project will make certain that organizational structures provide for tangible opportunities for women to participate and lead cooperatives. The project will specifically support the creation of

cooperatives designed exclusively for the participation of women targeting resource use and value chain opportunities that are best suited to benefit women in terms of livelihood, resiliency, and empowerment improvement.

331. The project will work closely with the Eritrean Women in Agribusiness Association (EWAA) to build the capacity of this organization to support rural climate resilient enterprises. The project will work with groups of women to support engagement in cooperative production and value chain activities. This will be closely linked to and align with programming under Component 2 (extension and field training). The project will provide the technical and financial assistance required for at least eight women cooperatives (2 in each target sub-Zoba) each engaging at least ten women to launch entrepreneurial projects targeting climate change resilience using nature-based solutions. Investments will be identified through Output 3.1?s mapping and assessment work. Cooperatives will be established through Output 3.2. Extension officers ? and particularly female extension officers ? capacitated through Component 2 will provide needed technical support.

332. As noted, under Component 2, a portion of community payments for activities such as reforestation, ex-closures, etc. will be placed into a bank account to be cooperatively managed by field-training (FFS, AFFS) program members. project under Component 1 will assist with making certain required regulatory and management guidelines and by-laws are available. Potential tools to apply include: Rural Financing On-line Training: Agricultural lending, financing, and accounting.[69][69] At least 50% of all such funding established by the project will be available exclusively to female headed nature-based business cooperatives.

Conservation Entrepreneurs in the Schools

333. The project will develop and sponsor a young entrepreneurs program for 9 ? 12 grade students at the Zoba and Sub-Zoba levels. These programs will be led by project trained extension officers who will assist students to build skills, generate understanding and engage in profitable projects that directly result in nature-based solutions to climate change challenges. Part of the program will involve working with students to create community-gardens associated with each school. The community-garden approach will be used to build food security and generate lessons to build skills and knowledge required to improve small and medium enterprise development by youth once they matriculate.

Cooperative Production

334. The project will support the design and implementation of cooperative production facilities (e.g., community gardens) that specifically target women?s cooperatives. These production facilities will be used as a model to show the potential food security, nutrition, economics, and climate change resilience benefits. The cooperative production facilities will be used to support women to increase their skills in terms of value chain improvements, particularly business planning, financing, and marketing. The sites will provide a platform for women to pool resources and create economies of scale to advance entrepreneurial opportunity. The facilities will be supported through the Component 2 extension services and field training improvements. The project will provide ? based upon structured

and strategic plans - equipment and training required to launch and sustain the facilities. The facilities will be a focus for rural women to learn from women. The efforts will be closely linked to Component 4?s knowledge management and communication work. The effort will provide an opportunity for and site for extension officers to focus attention and training. This will include completing model by-laws and other articles of cooperation for replication.

335. Suitable land for each facility will be provided by the MOLWE and Zoba administrations according to their designated authority. Each facility will have solar power, water access, fencing, and other materials. The facilities will showcase a variety of production approaches, e.g., improved bee keeping, improved poultry, seed varieties, agro-forestry, and soil development and maintenance. In this way, the women?s cooperative production facilities will provide a risk-free environment for women to trial innovative practices designed to specifically address climate risk associated with current production modalities. In Eritrea, requesting that rural households radically shift production modalities to unproven methods can have catastrophic consequences. Existing production modalities are low yield and high environmental impact. However, households have almost no alternative and no buffer allowing them the luxury of waiting several growing seasons to see if an ?improved? modality will work. A cooperative production facility provides a testing and learning ground for these improvements.

336. By project mid-term, at least 2 women cooperative production facilities should be operational at each of the project?s 4 sub-Zobas. At least 100 female members representing local households should be actively engaged and benefiting. By mid-term, the project will have a draft hand-over strategy for financing and management completed. This hand-over strategy will describe how operations and maintenance at each production facility will be supported wholly by government and cooperative members after project close. By project close, the number of women cooperative production facilities should be doubled with 16 operational and 1,600 women engaged.

Component 4: Monitoring & Evaluation, communication and knowledge transfer

Outcome 4: Project monitored and evaluated, lessons learnt and assessment of SLM/SFM, CCA and BDC innovations are disseminated

Impact Indicators	200 persons (50% male/50% female) participating in annual project progress reporting workshops 1,500 monthly users of project established knowledge management website 300 government staff receiving monthly project update electronic newsletters 400 extension officers (50% male/50% female) receiving CC, BD, and SLM mainstreaming capacity building handbooks every six months 10,000 target beneficiaries (5,000 male/5,000 female) receiving annual project ?best practices? CC, BD, and SLM mainstreaming implementation booklets
Anticipated Budget	Total: $1,148,550 ($736,750 + $411,800 M&E budget) GEFTF: $389,215 ($222,415 + $166,800M&E budget) LDCF: $759,335 ($514,335 + $245,000 M&E budget) Co-Financing, GEF: US$ 1,950,000 Co-Financing, LDCF: US$ 1,950,000

Output 4.1. Project M&E system and adaptive learning and management established and implemented.

337. *Monitoring and Reporting:* Monitoring and reporting are integrated within each of the project?s components and primary outputs. The results of this effort will be fully captured and presented within the knowledge platform. This will include the capacity of project stakeholders to track in near to real time the impact and results of project effort. In line with the principles of integrated natural resource management, the project will promote a participatory approach to monitoring, evaluation and learning, involving all relevant stakeholders, including local communities. Importantly, monitoring information will be presented in English, Tigrinya and Arabic to make certain

a wide spectrum of stakeholders and interested parties are able to monitor and track project progress. Results will feed into FAO?s global monitoring of its GEF portfolio, and to contribute to GEF?s global monitoring system.

338. *Gender:* Project monitoring and evaluation will provide the basis to guide adaptive management, and promote the uptake of knowledge, including gender mainstreaming. This will be achieved in part through the project?s Monitoring and Evaluation efforts. Based on the gender analysis and action plans included, the project will ensure that decisions made, and interventions proposed for implementation, consider the potential impacts and outcomes for different groups within society, with particular focus on the roles played by men, women and youth.

339. *Target Setting and Monitoring:* The project under this output will build capacities for monitoring achievement of global environmental benefits. This includes working with government agencies to understand and apply Land Degradation Neutrality (LDN) principles, better monitor and report on biodiversity conservation status, and monitor and identify existing and emerging climate change adaptation risks and needs. As noted, LDN and other critical targets and indicators will be integrated within Component 1 activities. This will include assisting to build capacities for measuring progress towards Sustainable Development Goals and tracking progress towards the achievement of gender equality and women?s empowerment. This will assist to inform not only project monitoring, but also to build more awareness and rigorous mainstreaming of these issues within national policies and development strategies.

340. *Annual Reporting and Technical Advisory Workshops*: At least once per year, the project will conduct a 2-day annual reporting and technical advisory workshop. This workshop will include participation from senior management and technical staff from each of the key government agencies (e.g., MoLWE, MoMR, MoA, etc.), representatives of each of the Zoba and sub-Zoba administrations, and project staff. Critically, both the FAO/FLO and FAO/LTO will attend and participate in this annual workshop. The workshop will include participation of IFAD staff representing each of the key co-financing projects. These workshops will be an opportunity for project staff to report on progress being made towards each of the project?s indicators and activities. This will present an opportunity for technical staff from FAO, Government, IFAD, and other relevant parties to contribute substantively to project action. Each workshop will include at least one day in the field so that participants can engage with stakeholders at the site level.

341. *Mid-Term and Final Evaluation:* The project will support and implement a thorough mid-term review (MTR) and final evaluation (FE). The MTR will be conducted at the project mid-term, not prior or after, regardless of project management perceptions regarding progress. As such, the project with FAO support will recruit and contract the MTR and FE teams no later than 6 months prior than the dedicated evaluation date. This will ensure that highly qualified expertise is available. will identify and recruit

342. *Business Plan and Hand-over:* The project is designed to have a long-running period. This reflects the low capacity levels in Eritrea and the need to build capacity, slowly and strategically ramp-up interventions, monitor results, and ensure sustainability. A critical element of this will be making certain that institutional and private stakeholder capacity is in place to carry forward advancements.

However, equally critical, will be making certain that financing is in place to sustain effort to address climate change, land degradation, and biodiversity conservation concerns. To make certain this happens, the project will provide technical support that takes a business planning approach to continuing program investments beyond the project period. Prior to the project?s mid-term evaluation, the project?s technical team working with key stakeholders will generate a strategy that describes how the project intends to successfully set-in place sustainable conservation financing mechanisms. Many options are built into the project design. The project will recruit technical expertise for the specific purpose of making certain sustainable financing is strategically considered during project implementation and effectively captured to support post-project action.

Output 4.2. Communication and knowledge management strategy developed and implemented.

343. *Project lessons captured and disseminated*: Based upon a comprehensive project communications strategy, best practices and lessons will disseminated using a suite of knowledge management and communication products. The aim will be to make certain lessons gleaned from project activities are fully-unscalable by a larger audience across larger geographic areas. Communication approaches will include development of awareness building materials, generation of electronic and print media publications, and a series of awareness building workshops and other out-reach programs to be implemented regularly throughout the project period.

344. *Communications Strategy:* This project is designed to model and test a number of innovative approaches designed to address the key drivers of land degradation, biodiversity loss, and climate change risk. As such, the capture and dissemination of information and data will be vitally important to engage stakeholders, inform decision-making, monitor and amplify results, and encourage adaptive management.

345. During PY1, a national communications expert will be retained by the project to support and coordinate these efforts. This includes the design and implementation of an effective marketing strategy and knowledge management platform. The expert will be tasked with creating a strategic communications strategy. This will include a ?how to? manual for the systematic documentation of good practices and lessons learnt from implementation of the project, which will be translated into knowledge products and communication outputs. This strategy will aim at capturing best practices generated.

346. This strategy will include specific plans to make certain issues of gender and women empowerment are fully reflected in media and outreach. The strategy will cover the entire project period with process and impact indicators incorporated. The communications expert will be expected to provide semi-annual reports regarding progress and achievements. This will include tabulating the results of training programs, tracking uptake and usage of communications materials, and monitoring/reporting on feedback and utilization of the project?s capacity building endeavours. This will be closely aligned with make certain communications are directed towards the achievement of the

project?s higher-level objectives, inclusive of LDN targets, biodiversity conservation aspirations, and climate change resiliency improvements.

347. The project will initially sponsor the generation of a monthly electronic newsletter to be distributed to all relevant national, Zoba, and sub-Zoba level government agencies. This newsletter will update all parties regarding project activity, progress, and lessons learned. Part of this effort will involve providing information regarding project progress towards the achievement of intended CC, SLM, and BD conservation impacts. This will provide an impetus for stakeholders to make continual progress and offer greater transparency and awareness across a larger audience. In addition, this will serve to incentivize the regular gathering and tabulation of data.

348. *Knowledge Management Platform:* The project will establish a comprehensive knowledge management platform. This platform will be web based with a project website established and operational by the first half of PY1. The platform will provide specific entry points for each of the key private sector targets: agriculture, livestock management, and fisheries.

349. The platform will provide for media that captures training programs and results. This will be linked to innovations including media (e.g., farmers channels), extension services training, and the production of training and awareness materials.

350. The platform will track and report on progress related to Component 1 monitoring and spatial planning efforts. This will specifically include links to maps and other interactive resources designed to provide private sector actors with knowledge required to make informed decisions and to have knowledge of spatial planning and zonation regulations and requirements.

351. The knowledge platform will include distribution of monthly electronic summaries of project activities. These summaries will target government, private, and CSO actors with relevant interest in project activities. Summaries will be distributed in both English, Tigrinya and Arabic to provide for greater international attention and knowledge regarding project actions. These summaries will be distributed to GEF-SEC, FAO, other interested donors, and associated projects/investments. This will encourage engagement by these actors to be able track and provide support for project action.

352. *Annual Reporting Workshop:* The project will organize an annual reporting workshop for government stakeholders, donor agencies, and other interested parties. This workshop will be a series of one-day events held nationally and at each target sub-Zoba. The workshops will provide an opportunity for project staff and concerned stakeholders to gather to learn about project progress and exchange ideas regarding emerging CC, SLM, and BD conservation progress. Participants from established field-training programs will be invited to the annual workshops to provide presentations regarding project progress and impacts.

353. *Hand-in-Hand Initiative:* Hand-in-Hand brings momentum and an innovative way to plan, design and implement evidence- and needs-based responses in the country, based on two key aspects. The first is its potential for evidence-based planning, freely accessible to any development actor in the country. The new GIS Data Platform, which is currently being developed, coupled with the analytical work of the georeferenced Integrated Food Security Phase Classification - IPC and the Resilience Index

Measurement and Analysis (RIMA) will provide all stakeholders with ready-made data to support informed, evidence-based decision-making, and will enable the georeferenced monitoring (connecting geospatial coordinates to datasets, maps, images, etc. that can help to better target areas and track impact) of all investment projects. Hand-in-Hand?s second innovative aspect lies in the inclusive and collaborative approach in planning.

354. Hand-in-Hand proposes a broad sectoral and even cross-sectoral approach and a shared vision, with the ambition to develop local capacities as well as catalyze external partners? interest and investments around SDG 1 and SDG 2. This approach will also result in fostering a stronger Humanitarian ? Development ? Peace nexus, addressing not only the immediate impacts of food crises but also their root causes, and strengthening the path to development, with agri-food value chains as the entry point.

H. Alignment with GEF focal area and/or Impact Program Strategies

LDCF

355. The proposed project is fully aligned with the goal of the LDCF/SCCF Programming Strategy 2018-2022, through its efforts to strengthen resilience and reduce vulnerability of Eritrea?s agro-pastoralist and fisheries communities and ecosystems to adverse impacts of climate change. In response to the enhanced emphasis on private sector engagement in the LDCF strategy, the project is promoting an ecosystem-based and market-driven approach to build resilience in key ecosystems across three ecoregions and to strengthen the adaptive capacities of local private actors and MSMEs. The project?s alignment with the first two objectives of the LDCF strategy and consequent adaptation benefits are outlined below.

LDCF Objective 1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation.

356. LDCF resources will be used in a catalytic and complementary manner to enhance the resilience of the agriculture, forestry and fisheries sectors that contribute to the livelihoods of the targeted communities, women in particular, in a holistic manner. This will be achieved by introducing, testing and adapting selected appropriate technologies and innovative practices as well as associated knowledge, climate information systems and skills to increase the efficiency and profitability of relevant sectors while decreasing pressure and degradation of the landscape/ seascape and vital ecosystem services that communities depend upon. These innovative approaches will create incentives for agro-pastoralists/fishers and MSMEs to engage in climate-resilient practices and in terms of technology transfer, the project will promote a greater uptake of climate technologies which will improve climate resilience, including through energy security across food supply systems. More specifically, the project will reduce vulnerability and increase resilience of 119,000 people and 225,000 ha across the targeted ecoregions.

LDCF Objective 2: Mainstream climate change adaptation and resilience for systemic impact.

357. The project will lead to the mainstreaming of climate resilience and adaptation into sectoral planning and programming in the targeted regions. At national level, the project will strengthen the capacity of national institutions to integrate climate change adaptation into their programming. At the regional and sub-Zoba level, lessons learned from the project will be disseminated via communications material, encouraging uptake of successful practices in other projects. Furthermore, the project will seek to improve a number of enabling conditions for climate change adaptation in the agriculture, forestry and fisheries sectors, including nature/ecosystem-based solutions, and national and sub-national capacities in climate information systems, as well as through diversification strategies. Additionally, the LDCF project will coordinate closely with the planned IGREENFIN child project, which is part of regional GCF-GGW programme, to enhance LDCF-GCF complementarity and efforts on mainstreaming climate resilience for systemic impact.

Biodiversity Conservation

Objective 1. Mainstream biodiversity across sectors as well as landscapes and seascapes

358. Under this objective, the project will mainstream biodiversity considerations within Eritrea?s policies, strategies and practices. The project will assist both public and private actors ? namely the targeted communities, to better conserve and benefit from terrestrial and marine biodiversity and associated ecosystem services, including through the sustainable use of agro-biodiversity. The project focuses upon terrestrial, agricultural and to some extent coastal ecosystems supporting ago-pastoralist and fishing systems in the south-eastern escarpments that extend to the coastal areas. The project has spatial and land-use planning in the forefront to ensure the optimization and sustainable use of terrestrial and marine resources without compromising biodiversity conservation efforts. The planning process will help to define all project activities and assist to generate parameters for terrestrial, agricultural and coastal ecosystem action to ensure support for biodiversity conservation values. Planning will also include efforts to better align agro-pastoralist and fishing practices to support adjacent protected area and habitat connectivity objectives. Technical capacity building and associated financial mechanisms will be structured to incentivize a shift towards more conservation, restoration and resilience-oriented agro-pastoralism and fisheries. Policy and regulatory frameworks will be improved to ensure that positive change is enduring beyond the project.

359. Specifically, the project will generate benefits for globally important biodiversity through activities within the targeted project areas while also supporting biodiversity corridors. The central part of the eastern escarpment contains about 106,000 ha of protected area (Semienawi and Debubawi Bahri) and have fauna species such as greater kudu, waterbuck, leopard and numerous avi-fauna. This area includes the last remaining but degraded afro-montane (*Juniperus procera* and *Olea africana*) forest, which is home for varieties of flora and fauna. Part of the proposed project area is covered by degraded afro-montane forest that contains critically endangered endemic plant species such as the *Aloe schoeleri* and threatened endemic species *Aloe neosteudneri* which deserve conservation attention. The project aims to create 15,000 ha of protected/conserved area to promote assisted natural regeneration of afro-montane forest and develop habitat connectivity between these biodiversity hot spot areas along the eastern escarpment, including as a means to enhance ecosystem services within the targeted area.

360. The proposed project area is also expected to serve as a buffer zone for the African Wild Ass (Equus africanus) range given the proximity to the Bure Irrori (adjacent to the Gulf of Zula), which is home to this critically endangered species. The African Wild Ass play a vital role in the health of the arid ecosystems, characterizing the eastern parts of the project area, and can serve as flagship species for the conservation and maintenance of these important landscapes. In addition, project activities in the coastal areas of the Gulf of Zula aims to benefit biodiversity and restoration of habitats currently under threat such as mangrove forests (mainly *Avicennia marina*), which provide important nursery grounds for a number of fish stocks. Project activities, particularly those pertaining to fisheries, will be designed to ensure that they contribute to the conservation and restoration of key marine habitats for a number of IUCN Red List of Endangered Species. These species include Dugong (*Dugon dugong*), 15 species of cetaceans (7 whales and 8 dolphins) as well as five of the world?s seven turtle species, all which are threatened by global extinction. These are the Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*), Olive ridley (*Lepidochelys olivacea*), Loggerhead (*Caretta caretta*) and Leatherback (*Dermochelys coriacea*) turtles.

Land Degradation

Objective 2. Creating an enabling environment to support voluntary LDN target implementation

361. The project fully integrates the concept of Land Degradation Neutrality and will enhance food security. The project fits with each of the stated LDN objectives related to improve the sustainable delivery of ecosystems services, enhance food security, increase resilience of land and land dependent populations, reinforce responsible/inclusive governance, and synergize social, economic and environmental objectives.

362. The project is also fully aligned with the **Land Degradation** Focal Area and its Objective 2 on creating an enabling environment to support voluntary LDN target implementation. The project focuses upon systems across three ecoregions where crop and livestock management practices define the livelihoods of poor rural Eritrean farmers and pastoralists. These landscapes are highly vulnerable to land degradation, climate change, and water stress along with increasing population pressure and persistent food insecurity. In the Eritrea context, this includes highlands that are highly degraded and areas that are extremely drought prone. Each of these are highlighted concerns for LD investment under GEF-7. The project takes a comprehensive land-use approach, supported by spatial planning covering agro-pastoralist landscapes. The project comprehensively addresses the cumulative impacts of land degradation, climate change, and biodiversity loss upon livelihoods (including in terms of food security) as well as the recent implications of the COVID pandemic. The project seeks to address agriculture and livestock practices that are currently driving land degradation. Through interventions such as improved policy frameworks and cross-sectoral coordination, technical capacity building and financial mechanisms, the project also targets local private sector including MSMEs to stimulate innovations within agriculture and livestock production systems.

363. The project fully integrates the concept of Land Degradation Neutrality (LDN) and will enhance food security and nutrition while promoting durable livelihood opportunities. The project

aligns with each of the stated LDN objectives related to improve the sustainable delivery of ecosystems services, enhance food security, increase resilience of land and land dependent populations, reinforce responsible/inclusive governance, and synergize social, economic and environmental objectives.

Checklist for Land Degradation Neutrality Transformative Projects and Programmes (LDN TPP)

364. This adapted checklist is preliminary and indicative only. During full project development, the check-list and additional information from UNCCD regarding LDN will be used to guide final project design.

A. Features that are fundamental to LDN

?	LDN Guidance	Project Response
?	Use a landscape approach by choosing an area large enough to involve multiple land units of a variety of land types (e.g., within a watershed), sectors and jurisdictions/administrative boundaries that are inclusive of different land tenure governance (communal, private and public land).	The project will cover three ecoregions within a landscape spanning the catchment area of the south-eastern escarpment.
?	Employ fundamental elements of the LDN-SCF: Promote neutrality (i.e., counterbalancing for no net loss) within the project area; Use the response hierarchy through a mosaic of interventions across different land units to avoid > reduce > reverse land degradation; and Present the interventions according to land type for each component of the response hierarchy.	The project addresses each of these fundamental issues, including counterbalancing using a mosaic approach designed to align with each land type.
?	Contribute to (sub)national LDN targets	The project will contribute toward the achievement of subnational LDN targets set for Zoba Debub and Northern Red Sea Region.

?	Select project location considering the countries? priorities identified through their national sustainable development plans and/or land use planning policy/legislation and/or LDN target setting process	This was done through reference to relevant policy documents and based on Government priorities.
?	Include a monitoring system consistent with national LDN targets and Sustainable Development Goal (SDG) targets, particularly SDG 15.3 and its indicator 15.3.1 on LDN	This will be generated under the project?s Component 4.
?	Ensure there are mitigating measures for potential leakage (negative offsite effects as opposed to positive spillover effects) beyond the project area	The project intends to ensure that there will be no leakage from each of the three sub-sectors: livestock, cropping, fisheries.
?	Ensure the commitment to the principle of gender equality throughout the entire process	The project is committed to ensure gender equality and will engage with NUEW throughout the project
?	Apply methods to manage or minimise environmental, economic, social and cultural trade-offs	The project will support community-based approaches to ensure there are no trade-offs or leakage.
?	Ensure methods for gender responsive evaluation and adaptive learning are applied throughout the project cycle	The project document and related activities will each incorporate gender based indicators to be tracked through on-going M&E.
?	Establish a system that involves relevant stakeholders in the regular monitoring and validation of LDN status reporting as well as project implementation outcomes, with a particular attention to gender	The project will engage user groups, community-groups, private sector, etc. in this process.

B. Features that deliver multiple benefits

?	LDN Guidance	Project Response

?	Create linkages to multiple SDGs by designing interventions that generate multiple environmental, economic and social benefits, while minimising trade-offs and maximising synergies and taking into account the different needs and priorities of women and men	This is a highly integrated project.
?	Show a clear pathway to deliver multiple benefits whereby gains in natural capital contribute to improved and more sustainable livelihoods	The project looks to promote multiple benefits for natural capital, including water, land, fisheries, forest, etc.
?	Provide economic incentives that benefit both men and women to improve livelihoods (e.g., creation of green jobs and enhanced access to inclusive credit lines)	The project will support value chain and agribusiness development and other approaches to promote market opportunities.
?	Promote land use decisions based on an assessment approach which takes into account, inter alia: land potential, land condition, resilience; social, cultural and economic factors and their impacts, including consideration of vulnerable groups and gender; participation of relevant stakeholders representing key land uses and land governance systems in the intervention area/landscape; both short and long term sustainability.	Each of these are fully factored within the project design, particularly Component 1 and 2.
?	Identify land-based pathways for improving livelihoods, sustainable food systems and/or inclusive as well as sustainable value chains for current and future generations.	As above, FAO has a strong track record with this globally and within Eritrea.

C. Features that promote responsible and inclusive governance

?	LDN Guidance	Project Response

?	Safeguard land rights of local land users including individual and collective access to land, land tenure and resource rights, inheritance and customary rights.	These rights will be enhanced using community-based approaches.
?	Ensure free, prior and informed consent of indigenous people and local communities for any activities affecting their rights to land, territories and resources.	The project is designed to be highly stakeholder inclusive and driven.
?	Define mechanisms for ensuring gender-responsive engagement of key stakeholders in project design and implementation.	As above.
?	Ensure strong gender equality, inclusiveness, accountability and transparency in land use decisions and planning.	As above.
?	Avoid forced displacement/involuntary resettlement resulting from the intervention.	This is not a concern for this project.
?	Strengthen or develop institutional arrangements through collaboration with the range of actors at multiple administrative levels.	The project will support integration at all levels.
?	Strengthen or develop a grievance redress mechanism.	The project will utilize and strengthen existing tools for grievance.

D. Features that promote the scale out and up of what works

?	LDN Guidance	Project Response
?	Employ science based and local and indigenous knowledge as well as best practices including sustainable land management that contributes to land-based climate change adaptation and mitigation	The project is fundamentally based upon driving informed decision-making through the generation and use of improved data.
?	Apply innovative locally adapted technologies, tools, and techniques that consider context and target group specificities including, for instance, local and indigenous knowledge and traditional practices	The project includes a host of innovative approaches.

?	Capture and disseminate what is learned from the interventions and identify ways to address knowledge gaps through accessing all knowledge forms, and where necessary conducting research	The project has several activities that focus entirely upon information capture, awareness, and upscale.
?	Ensure there is adequate investment in activities designed to scale-up and out best practices	As above. This includes a final project design that will incorporate a hand-over strategy.

E. Features that enhance (sub)national ownership and capacities

?	LDN Guidance	Project Response
?	Identify and employ capacity development mechanisms such as public awareness, education and capacity- building campaigns that are aligned with enduring domestic procedures, tailored to the specific needs and social behaviors of both women and men, and existing national strategies and programmes.	The project will integrate a number of capacity building tools.
?	Identify and employ domestic public and private financing vehicles, including co-financing arrangements that ensure the cost-efficient pursuit of multiple benefits.	Financing opportunities and including improved access to credit will be considered throughout the project, including through its engagement with relevant programmes such as the IADP.
?	Identify and employ strategies which can ensure the positive impact of the intervention beyond the project lifetime.	As noted, ensuring that the project will be self-sufficient after close is critical.

F. Features that leverage innovative finance (especially private sector)

?	LDN Guidance	Project Response

?	Include/prepare for an investment component that leverages private sector mobilization.	Local private sector is the essence of this project, including agriculture and livestock producers and supply/value chain actors.
?	Foster activities that incentivise income generation and job creation for the communities in the project intervention areas.	The project, particularly Component 3, is designed to address this incentive issue.
?	Identify and leverage innovative and sustainable finance mechanisms which create incentives for and/or directly reward land stewardship.	This is linked to the planning and regulatory parts of the project, and integrated into Component 1, 2 and 3.
?	Promote innovative financing (e.g., blended finance, green bonds) from broad range of financing sources (climate finance, development finance, domestic finance ? national forest funds, special taxation scheme, etc.).	This is challenging in the current implementation context. However, the project will be designed to explore and ? as possible ? identify and implement innovative financing tools that could be further scaled up through the planned GCF IGREENFIN project for GGW countries.

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

365. Eritrea is among the least developed countries in the world. Subsistence agriculture and pastoralism together fisheries in coastal areas remain the backbone of the Eritrean economy and the main source of livelihood for the majority of the population living in rural areas. However, traditional subsistence practices along with wood fuel extraction are the main drivers of ecosystem degradation, including deforestation, soil erosion, resource overexploitation and loss of biodiversity, which have resulted in land and seascape degradation and ecological imbalance. The impacts of climate change is compounding this, which all together have severely impacted Eritrea?s landscapes/seascapes, and the agro-pastoralist and fishing communities whose livelihoods depend on the natural resource base and supporting ecosystem services. Furthermore, food supply disruptions due the COVID-pandemic have exposed additional vulnerabilities of the Eritrean population who relies on food imports to meet about half of its food requirements. Necessary enforcement of lockdowns have resulted in disruptions of food supply networks, both to and from the targeted areas of the project. Given that food supply infrastructures, both physical as well as technologies/facilities, were already rudimentary and fragmented, the impacts of the pandemic are likely to further erode the country?s sustainable development aspirations and exacerbate food insecurity, particularly in rural areas.

366. The risk of climate hazards, environmental degradation and loss of biodiversity along with COVID-related socio-economic consequences therefore pose increasingly severe threats to rural communities whose livelihood depends on the agro-pastoralist and fisheries systems, particularly in Eritrea?s south-eastern escarpments and coastal areas. The increasing impacts and exposure of climate-sensitive sectors combined with ecosystem degradation, loss of biodiversity, persistent poverty and low capacities to adapt to climate change along with COVID-related challenges, all add to the precarious situation of vulnerable communities in the targeted ecoregions. Moreover, unsustainable land-use and fishing practices, high dependence on woodfuel and natural resources in general, deforestation and loss of soil quality along with diminishing water resources are eroding the resilience of the land and seascape, leaving the ecosystem extremely vulnerable to climate change impacts.

367. In the absence of alternative livelihoods such as diversification, access to modern energy, markets and inputs, supply chain facilities and income sources and with limited availability of evidence-based knowledge, tools and skills to adopt sustainable and appropriate adaptation practices and technologies, communities are left with little means to implement resilient and sustainable livelihood strategies. Without the GEF-LDCF intervention, Eritrea?s agro-pastoralist and fisheries systems and value chain networks will increasingly suffer under the impacts of climate change while environmental degradation will continue, making sustainable development very challenging under the current scenario. Food systems and livelihoods, particularly the majority of smallholders in rural highlands as well as lowlands and coastal areas, will remain impacted by a variety of climate hazards as well as loss of ecological functioning, impairing or prolonging a COVID recovery response.

368. Without targeted investments and technical inputs, this negative trend is likely to escalate further as climate change impacts continue to increase in intensity and frequency, and while the country grapples with the implications of the COVID pandemic. Moreover, given Eritrea?s LDC status, there is limited public financing available to provide the support needed at community level. In terms of

alternative sources of financing for the project, private investment to support smallholder producers and MSMEs in the forms of technology transfer, market linkages, etc. is currently unlikely due to limited private sector opportunities. Additionally, due to the socio-economic conditions in the south-eastern escarpment, smallholder producers and MSMEs do not have the financial resources nor access to credit to strengthen resilience or sustainability in their practices and supply chains without external support. The proposed project will therefore not take place without the involvement of the GEF and LDCF.

369. The proposed GEF-LDCF project builds on, and is complemented by the efforts of several ongoing baseline initiatives that operates within the targeted scope and regions (see section 1.2). The use of GEF-LDCF funds will target the margin between the current baseline investments and a sustainable and climate-resilient development scenario that promotes SLM/SFM and BDC practices, adaptation technologies, sustainable intensification and incorporates innovative approaches and measures to enhance community and landscape/seascape resilience and sustainability.

Table of Co-financing Allotments

Co-Financing Source	Comp 1	Comp 2	Comp 3	Comp 4	PMC	Total Co-Financing US$
MoLWE (recurrent expenditures through interventions undertaken in Eritrea?s target Zobas, as well as projects and activities contributing to achieve the expected results, and Technical/ logistical backstopping)	3,000,000	500,000	500,000	3,000,000	800,000	7,800,000
MoLG ((recurrent expenditures through interventions undertaken in Eritrea?s target Zobas, as well as projects and activities contributing to achieve the expected results, and Technical/ logistical backstopping)	500,000	10,500,000	5,600,000	650,000	600,000	17,850,000

IFAD (Integrated Agriculture Development Project / IADP)	607,321	3,088,968	4,743,500	-	-	8,439,789
FAO (Ongoing and planned TCP/GCP projects contributing to achieve the expected results over the 2023-2030 period, as well as Technical and logistical backstopping)	250,000	925,000	641,000	250,000	250,000	2,316,000
Totals	4,357,321	15,013,968	11,484,500	3,900,000	1,650,000	36,405,789

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

370. The proposed GEF-LDCF project will provide a range of environmental and adaptation benefits along with other socio-benefits such as improved food security and food self-sufficiency, job creation and gender equality. The table below outlines the specific benefits for biodiversity conservation, SLM/SFM as well as for climate change adaptation and resilience:

BDC Benefits

? 15,000 hectares of protected area to benefit biodiversity conservation and sustainable use.

? 50,000 hectares of marine habitat under improved practices.

The project will identify and establish 15,000 ha of protected area to restore degraded afro-montane forest and provide habitat corridors with the adjacent Semenawi and Debubawi Bahri Green Belts. This will include demarcation/PA zoning and assisted natural regeneration augmented by plantation/reforestation as needed.

Spatial plans will establish a system of MPAs inclusive of the Gulf of Zula and gazetting of the island of Dissie. This will secure the conservation of at least 50,000 hectares high BD value Red Sea marine and coastal habitat targeting coral reefs, mangrove, and sea grass habitats.

Spatial plans will integrate management plans for terrestrial, coastal and marine conservation zones identified and gazetted with project support. Management plans will reflect best IUCN and CBD principles and practices, including describing conservation objectives, management mandates, and financing.

Spatial planning will fully incorporate protected area management planning. The absence of gazetted protected areas, management plans, and strategic conservation action is a persistent challenge in Eritrea. This is largely due the to the fact that Eritrea does not have an organic protected areas law. To help address this challenge the project will support the Government to designate protected areas through the land and marine spatial planning process. These spatial plans will delineate protected area boundaries and describe conservation priorities. Management plans for designated conservation areas will be embedded with spatial plans. This will help to make certain that biodiversity conserved as part of a large land/seascape approach to maintaining critical ecosystem-services.

The project will integrate fisheries management plans (FMPs) for a number of species of commercial and/or ecological importance. The FMPs should be both strategic documents for planning and practical guides for achieving particular objectives (e.g. preventing overfishing, protecting fishers? livelihoods) and targets (e.g. target biomass levels, target fishing mortality rates) by specifying the measures required to achieve them (e.g. restrictions on fishing effort, total allowable catch limits, temporal and spatial closures, minimum specimen sizes and restrictions on gear).

The project will generate marine spatial planning for productive fishery areas focused upon improving management of commercial and subsistence fishing areas. The project will assist to identify locations of high biodiversity value, e.g. reef systems, and associated protected areas. The planning process will include identification of sustainable take levels, refugia, and monitoring of fish stocks to provide more coherent access that sustains fisheries while providing opportunities for increased valuation and food security. This process will shift current open access fishing management towards more rational, structured management.

Work will include supporting participatory diagnostics of the local artisanal fisheries sector and building capacities for fishing cooperatives to engage in and potentially supervise the preparation of fisheries management plans. This will cover the formulation and sustainable financing for initiatives aimed at improving the management of fisheries such as community-based monitoring, data collection, and patrolling.

SLM/SFM Benefits

371. 209,000 hectares of productive landscapes under improved practices for achieving LDN.

372. 15,000 hectares of degraded forest land restored and under improved management (within the PA as above).

Spatial plans will be designed to address and reverse current negative trends associated with livestock management. This will include specifically identifying current challenge and designing innovations to reduce issues associated with open access grazing. The plan will integrate tools such as establishment of carrying capacity numbers and permitting. The objective here will be to reduce the negative impacts of livestock management, limiting overall livestock numbers, and improving the health and value of livestock to local communities.

The overarching goal of this spatial plan will be to reverse grazing trends that currently degrade lands, harm globally significant biodiversity and increase climate change vulnerability. The planning process will identify and demarcate sustainable grazing areas. This will be accompanied by efforts to establish carrying capacities, emphasize quality of stock over quantity of stock, detail access regimes, and rest/rotation protocols. The planning process will be closely linked to maintaining the ecological integrity of associated protected areas and places with highest biodiversity value.

Spatial planning will assist stakeholders to improve agriculture management and promote conservation oriented production. This will include identifying the primary degradation issues associated with agriculture management practices and integrating within the approved planning framework incentives to adopt sustainable alternatives. Part of this effort will include mapping and detailed assessment of production practices, productivity and profitability, and relationship with LDN, CC, BD, and SLM impacts.

Planning will assist with the designation and achievement of LDN Targets. The project will assist the Government of Eritrea to set in place a model land and water monitoring program across the project area. This process will help to inform the achievement of LDN targets. The project will provide technical and initial implementation support for the design of a comprehensive LDN monitoring program for the target area. The monitoring approach will be based upon best UNCCD practices and methodologies integrating FAO?s global experience and lessons learned and emerging tools such as Collect Earth.

All field-training investments and support will be informed by and support achievement of strategic planning and associated conservation objectives, including those covering protected areas. The project will facilitate farm-based mapping and planning aligned with Component 1 outputs. This will include delivery of established LDN and spatial planning objectives. Delivery of these objectives will be closely monitored at the highlands project site. This will include capturing lessons to inform decision making by government managers as well as the private sector.

The project will support the implementation of a rigorous program to monitor and improve forest management. Understanding and applying improved practices to forest management is critical to achievement of numerous project results. The FAO TAPE team will support Eritrean counterparts to design and build the capacities required to effectively administer TAPE annually across the project area. The TAPE approach will be tailored specifically for the requirements of this project. The annual evaluation process will be accompanied by a national, Zoba, and sub-Zoba reporting workshop where relevant stakeholders will be informed regarding trends and progress. The project will assist the Government of Eritrea to set in place a model livestock monitoring and information management system across the project area. The project will work closely with the Livestock Environmental Assessment and Performance (LEAP) Partnership to design and implement a comprehensive strategy for livestock

Socio-economic Benefits

? 57,000 men and 62,000 women in rural areas benefitting directly from GEFTF investment.

The project will create an extensive network of government and community conservation extension officers tasked with assisting rural households to engage in agriculture, forestry, livestock, and fisheries practices designed to improve biodiversity conservation, SLM, and climate change resiliency. The network of extension officers will be tasked with working across the project area to build local capacities to identify and adopt practices that mainstream biodiversity conservation, SLM and CC adaptation by maintaining ecosystem services.

The project?s technical team will design and support launch of a field training curriculum. The curriculum?s target audience will be small and medium farmers, livestock producers, and fishing interests across the project area. The project will support the implementation of farmer field schools across the project area. The focus of these schools will be to build farmer capacity to successfully engage in practices that are resilient, promote SLM, and contribute to biodiversity conservation. Programming will emphasize nature-based solutions and regenerative agriculture approaches.

CCA Benefits

? 224,000 hectares of land under climate resilient management (same landscape as mentioned above).

? 57,000 men and 62,000 women in rural areas directly benefitting from climate change adaptation innovations and technologies.

The project will support private sector actors to identify, adopt and monitor practices that are climate resilient across the project?s target area.

Efforts will be informed by vulnerability assessments to be carried out annually throughout the project cycle. The project will provide technical training, assessment design, initial data collection, remote sensing, extended forecasting, and information dissemination support. This will link to FAO support, including remote, in-person and targeted international training at Rome, for relevant government agencies. Once fully established, the annual vulnerability assessment process should serve as the basis for an early warning system. The project?s monitoring and assessment work will form the basis for the development of an Early Warning System.

Assessments will consider climate change, LD and BD vulnerability and risk considering climate change impacts, land degradation, loss of biodiversity as well as livelihoods and natural resource use in the targeted landscape. The assessments will fully engage government and private institutions at the national, Zoba, and sub-Zoba levels. Each assessment will be used as a capacity building mechanism. Assessments will consider climate change, LD and BD vulnerability and risk with climate change impacts, land degradation, loss of biodiversity as well as livelihoods and natural resource use in the targeted land and seascapes.

The vulnerability assessments will in part be informed by the Modelling System for Agricultural Impacts of Climate Change (MOSAICC). MOSAICC produces medium- to long-term projections based on different climate scenarios. Results provide an evidence base for identifying appropriate adaptation strategies, programs and areas for investment. The MOSAICC approach helps users model the impact of climate change on crops; water and forest resources; and the national economy.

K. Innovativeness, sustainability, potential for scaling up and capacity development . ?

Innovativeness

373. The project represents a host of ?firsts? for Eritrea. The project will build upon, expand, and adapt a number of successful regional and global innovations.

374. The project will take an innovative approach to spatial planning covering both marine and terrestrial habitats. Spatial planning will incorporate an entire watershed inclusive of marine estuary. This mosaic approach will help to align protected and protected areas. The approach will inform productive sector actions. The approach will incorporate vulnerability assessments and monitoring to

make certain actions are cohesively managed to support the achievement of long-term BD, SLM, and CCA objectives while enhancing livelihoods and reducing climate change vulnerability.

375. The establish program will be supported by a watershed conservation advisory board, representing an innovative governance approach that integrates multiple levels of government representatives along with private sector interests.

376. Decision-making will be supported by an innovative system of comprehensive monitoring and information management targeting each of the critical sectors while taking a holistic, ecosystem-based approach. This will include a host of inventive mechanisms for monitoring and assessment as described in the project framework linked to critical reporting on progress towards global environmental benefits, including both LDN and BD targets. This will include linkages to specific sectoral targets such as rainfed agriculture, livestock, forest, and fisheries management with amalgamated fine-scale knowledge from across the project area providing a clear picture regarding large-scale conservation and adaptation risks and advances.

377. To help drive and promote innovation, the project will help Eritrea to substantially improve the current system of knowledge transfer and capacity building for private sector actors. Under the baseline and without the innovative inputs of this GEF project, the capacity of Eritrea?s extension services to provide critical support to private sector agriculture, livestock, and fisheries interests is extremely limited. The project will address this by taking an innovative pathway to invigorating extension services through an innovative program linking in-service, classroom, and field training. This will be predicated upon innovative approaches to production and conservation for agriculture, livestock and fisheries.

378. The project?s market-driven approach is innovative in terms of climate change adaptation, particularly the activities for identifying and introducing appropriate technologies and practices to support vulnerable communities in accessing market opportunities. The project provides an innovative approach to community-level climate change adaptation, sustainable land management, landscape restoration and biodiversity conservation in Eritrea, particularly through its focus on a systemic approach to enhance resilience and sustainability while reducing vulnerability and ecosystem degradation in production land/seascapes and along supply chains. Much of this work will help to build cooperative approaches with a heavy emphasis upon empowering women to more effectively address important environmental challenges while simultaneously realizing social benefits.

379. The project will assist Eritrea for the first time to complete and implement protected area management plans for both terrestrial and marine MPAs. As noted, the country lacks a framework law for PAs. To address this issue, the project will innovatively apply spatial planning ? which is legally recognized ? to support demarcation and management guidelines for protected areas. This will greatly advance biodiversity conservation as part of an ecosystem-based approach to addressing pressing LD, CCA, and BD concerns.

Sustainability

380. The entire project design and framework is directed towards ensuring sustainability. Obviously, the issues of environmental sustainability are baked into the design through a suite of activities targeting conservation and adaptation challenges.

381. Equally importantly, the project is designed to make certain the government and private sector beneficiaries are fully equipped to carry forward and expand success by project close. This will be ensured through multiple tools integrated within the design. The project will cover a longer than normal timespan to allow ample time for financial, institutional, policy, and technical capacities to be built. The framework requires a series of specific sustainability strategies be considered, designed, and operational prior to close. This includes specific strategies and approaches to make certain financing is in place to continue innovative practices associated with each of the project?s four components. The project?s monitoring and evaluation framework is designed to track and report on progress being made to set in place the pieces required to ensure sustainability. This includes prioritizing and directing the achievement and reporting of particular sustainability fundamentals prior to mid-term and final evaluations.

Scaling up

382. The project will scale up on multiple levels as outlined and highlighted throughout the project framework. The project is designed to take advantage of a host of proven models and approaches that will be adapted to Eritrea and scaled up through project implementation. The project is designed to scale up lessons learned and advance programming across the project area. The project is designed to facilitate amplification across Eritrea and regionally.

383. The project will improve and motivate wider adoption of more refined spatial planning, protected area management, field school training (agriculture, livestock and fisheries), forest improvements, and all other aspects as detailed. This will be achieved through several avenues. With increased capacity, the national government will be capable of applying project success across additional landscapes. This will be particularly relevant for project actions such as productive sector improvements (fisheries, livestock, agriculture), extension services, vulnerability assessments, knowledge management, etc.

384. Scaling up will be facilitated through national policy and governance improvements. As noted, the government?s Savings and Micro-Credit Programme provides opportunity to scale up business development and access to finance for nature-based solutions and climate resilient enterprises.

385. The project is designed to align with and benefit from several large investments including the Fisheries Resources Management Programme (FRMP) and Integrated Agriculture Development Project (IADP). Both of these investments have much larger budgets and geographic scale than the GEF investment. However, both investments lack the primary conservation focus delivered by the proposed GEF project. By delivering this focus, the GEF project will assist investments such as the FRMP and IADP to scale-up critical conservation successes.

386. At the regional and global level, emerging lessons and successful pilots from the proposed GEF-LDCF project are expected to feed into the planned GCF GGW programme (IGREENFIN), thereby using this future investment as a launch pad for scaling up and out.

L. Summary of changes in alignment with the project design with the original PIF

Summary of Alternation	Justification
Project Framework	The project?s components remained the same. Substantial detail was provided across the outputs and activities. This was done in response to PPG findings, GEF comments, and lessons learned. Alterations were made to some of the outputs. Most of these changes were organizational. Particularly under Components 2 and 4 outputs were condensed and aligned to provide a more transparent structure to guide implementation. The PIF divided Component 2 into two separate Outputs: participatory planning and advisory services. The finalized project document places participatory planning activities under Component 1 (Enabling Environment) to better reflect the need to apply participatory spatial planning as a governance and decision-making tool. Component 2 now focuses upon building much needed advisory service and training capacity. The PIF under Component 4 included information and knowledge management. This was shifted to Component 1 to reflect the linkage between improved governance, monitoring, and informed decision-making. In the revised project document, Component 4 now focuses more precisely upon communications, lessons capture, sustainability, and project M&E.
Indicators	The project?s core indicators remained roughly the same and/or expanded to reflect more detailed analysis of the project area and impact. The results framework was dramatically strengthened to provide critical monitoring guidance with regards to intended impacts. Core indicator 5 (marine habitat under improved practices) increased substantially. This was the result of the Government of Eritrea determining that the entire gulf area should be included within the project?s target area. This 50,000 hectare area will deliver a much higher level of GEB than the 1,000 hectares proposed in the PIF and more accurately reflects the scale of habitat, fisheries utilization, and connectivity. The 50,000 hectare area now targeted is the area used by local fishing interests. The included area now captures much more meaningful habitat and species diversity and conservation needs. The area also better reflects connectivity between the upper watershed and estuary.

Co-Financing	Co-financing was improved. This was particularly important with regards to pending investments from IFAD as noted. Working in unison with these investments will greatly enhance the effectiveness of both GEF and IFAD efforts.
Risks	The risks identified remained similar. Risks resulting from Covid-19 have diminished dramatically during the PPG period.

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[65] https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/885654/

[66] https://www.farmlinkmontana.org/resources/planning-for-on-farm-success/

[67] https://www.fao.org/3/cb4520en/cb4520en.pdf

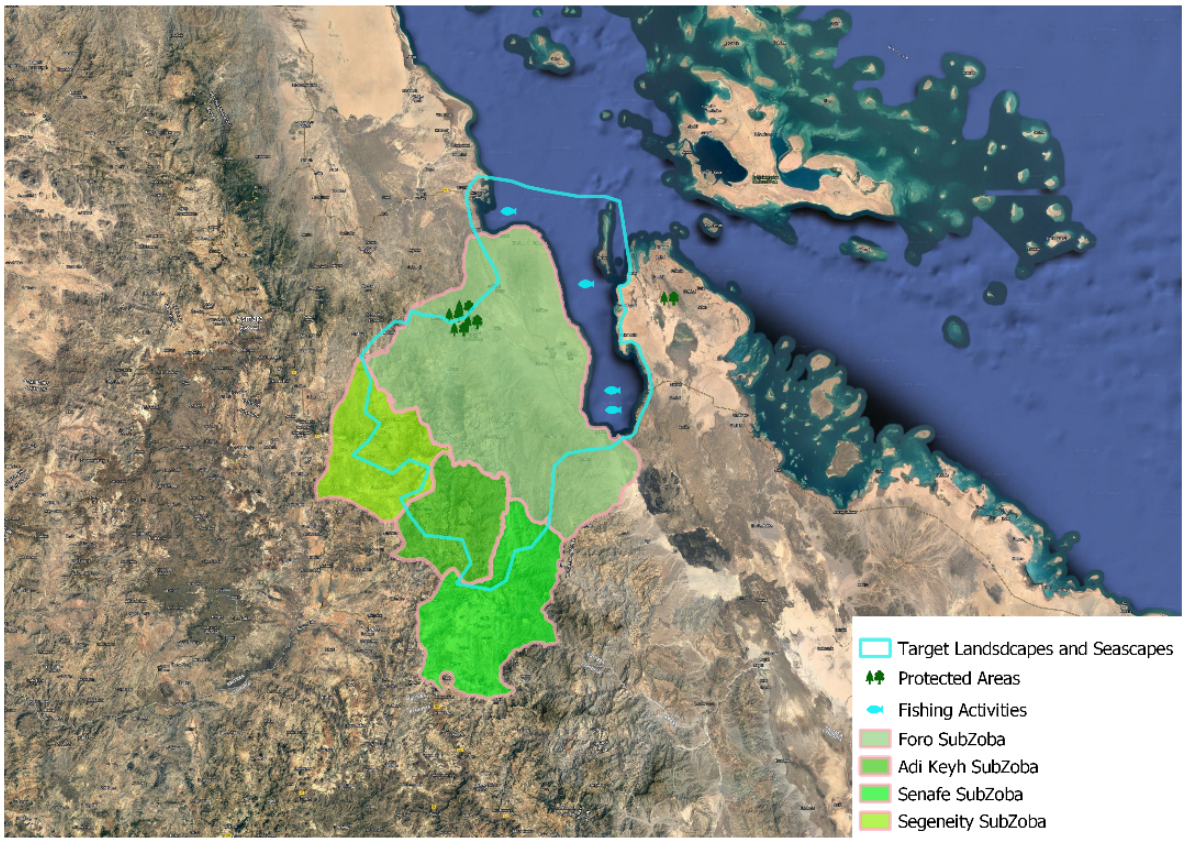
[68] https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1330492/

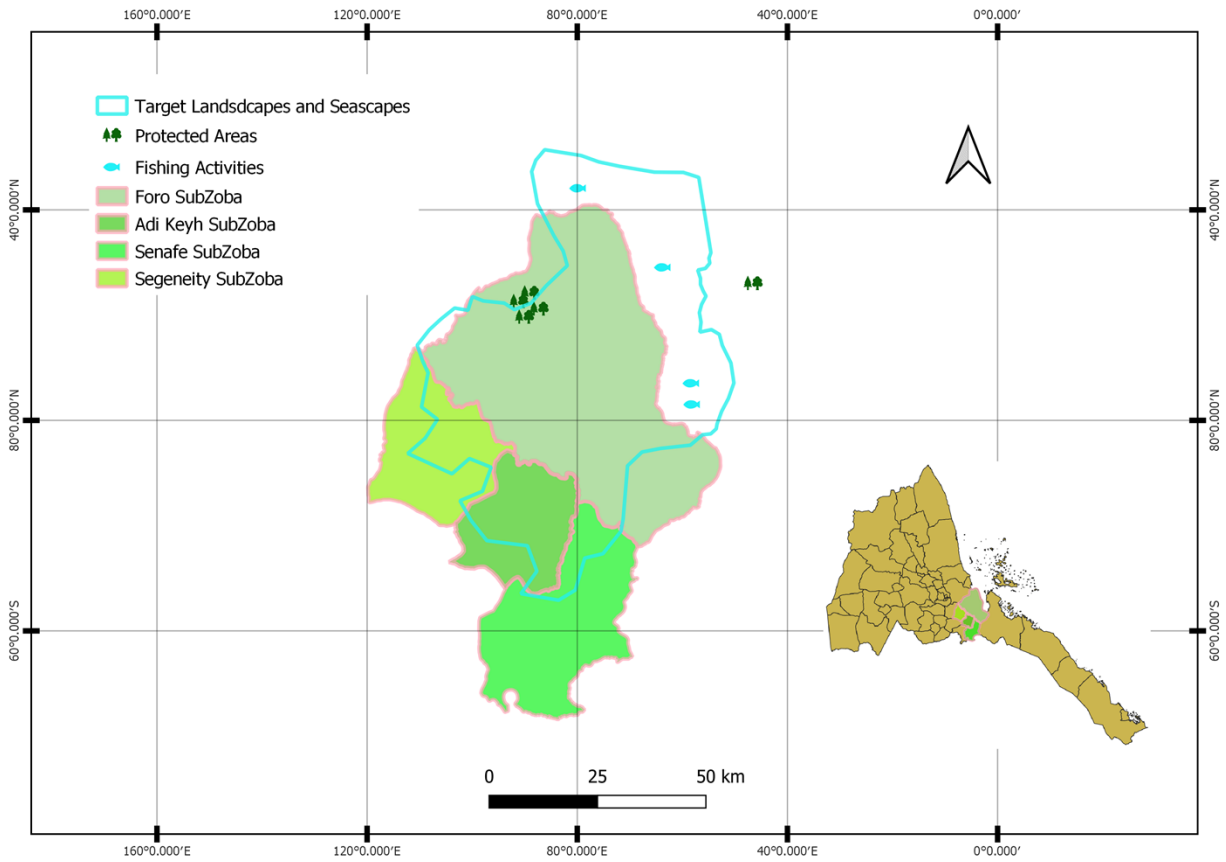
[69] https://www.rfilc.org/learning/

1b. Project Map and Coordinates

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

Please see the Annex for Maps.


Target Landsdcapes and Seascapes
Protected Areas
Fishing Activities
Foro SubZoba
Adi Keyh SubZoba
Senafe SubZoba
Segeneity SubZoba



Proposed Project Site	Coordinates
Eastern Escarpment	N? 14o 23? 53?? E? 39o49?59??

1c. Child Project?

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

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities

If none of the above, please explain why:

Stakeholder Engagement During the PPG

1. The project design process was informed by extensive consultations with stakeholders concerned with building community based integrated and climate resilient natural resources management, and enhancing sustainable livelihoods in the South-Eastern Escarpments and Adjacent Coastal Areas of Eritrea. During the PPG Phase, the project engaged a wide range of stakeholders through workshops, individual meetings and extensive consultations. Besides meetings with key stakeholders in the capital Asmara, the PPG team conducted field visits to the Zobas and Sub-Zobas within which the target landscapes are located, to gather additional data based on field investigations with sub-national administrations and local communities.

2. Key consultations and field work conducted during the PPG Phase

Date	Activity	Description
July 2021-May 2022	Meetings at national level	Various consultations/coordination meetings were conducted with the MoLWE, MoA, MoMR, FWA, MoLG and MoFND.
Jan 18, 2022	Inception workshop	Attended by about 30 representatives of key stakeholders, the inception workshop enabled the PPG team to gather constructive comments, which were essential to orient and guide the PPG investigations and project design.
Feb ? May 2022	Online meetings	Regular meetings were held over this period with the PPG team, key resource persons and FAO technical staff to take stock and support the design phase to deliver a timely ProDoc following an inclusive and participatory process.
Feb 23 ? Mar 04, 2022	Meetings at Zoba level	The first field mission was conducted with the governor of Zoba Debub, followed by consultations in the three sub-Zobas with community members, and experts from the MoA and FWA.
Feb 23 ? Mar 04, 2022	Meetings at the sub-Zoba level	Before starting the field survey, extensive consultations were held with sub-Zoba authorities to discuss issues of selection of villages and other field work arrangements.
Feb 23 ? Mar 04, 2022	Meetings at the village level	Key Informant Interviews (KII) and Focus Group Discussions (FGDs) were conducted in 23 out of the 29 villages surveyed. The discussions were conducted with village administrators, community members, representatives of different institutions in the villages, village elders, women groups and so on. This was essential to secure valid data which complements the information collected through household surveys.

Feb 23 ? Mar 04, 2022	Interviews at the HH level	The household surveys were conducted in 29 villages, interviews were guided by a questionnaire filled by trained enumerators.
May 7-13	Pre-validation meetings with key stakeholders	Extensive consultations were held ahead of the validation workshop with MoLWE, MoLG, MoA, FWA, MoFND, and local administrations in the Segheneiti and Adi Keih sub-Zobas
12 May 2022	Validation workshop	Attended by 40 participants representing the stakeholders involved, the comments and inputs provided were duly captured, addressed and reflected in the latest version of the Project Document.

3. An inception workshop was held on Jan 18, 2022 in Asmara, with the participation of 30 participants representing key project stakeholders. The inputs and comments provided by the stakeholders were taken into consideration to refine the approach and data collection methodology applied throughout the PPG phase.

4. A baseline HH survey was conducted based on a literature review as well as field data gathered between February 23rd and March 4th using key informants? interviews, focus group discussions, field observations and a household survey. Throughout this exercise, various meetings were held at Zoba, sub-Zoba and village levels with different stakeholders including Zoba governors, sub-Soba heads, village administrators, community members, representatives of different institutions in the villages, village elders, and women groups.

5. During the literature review process, various stakeholders were engaged to collect secondary data related to crop and livestock production, soil and water conservation, forestry and wildlife conservation at both national level (including MoLWE, MoA, MoMR, FWA, MoLG and MoFND), as well as the sub-national level (including Zoba and sub-Zoba administrations).

6. The baseline investigations followed a participatory and inclusive process involving key stakeholders. The study area has been delineated in consultation with the MoLWE and the Zoba administrations. The Zoba and sub-Zoba administrations have been actively involved in the determination of the survey sampling taking into consideration the vulnerability of the communities to climate change and accessibility to the villages. Similarly, sub-Zoba and village administrations were involved in the recruitment of the enumerators, and the organization of the Focus Group Discussions.

7. As part of the baseline analysis, additional data was collected from the farmers, village elders, women and youth through household interviews and group discussions. Extensive field work was carried out during the household survey, a questionnaire was developed to cover the baseline needs. A total of 20 enumerators were trained, those were hired from the local communities, to ensure a good knowledge of the local culture and the local Tigrigna, Saho and Tigre languages of the communities interviewed.

8. List of villages covered through the HH surveys

S.No.	Zoba	Sub-Zoba	MimihdarKebabi	MimihidarAdi	#HHs
1	Debub	Adikeih	Abi Ghirat	Abigrat	58
2	Debub	Adikeih	Demhina	Demhina	81
3	Debub	Adikeih	Garbanaba	Aditowzae	48
4	Debub	Adikeih	Hayneba	Hayneba	252
5	Debub	Adikeih	Igila	Adigadiba	65
6	Debub	Adikeih	Karibosa	Karibosa	113
7	Debub	Adikeih	Mesagullozula	Mesagullozula	63
8	Debub	Adikeih	Safira	Adidearu	44
9	Debub	Adikeih	Sibiraso	Adi Laelaysro	40
10	Debub	Segheneiti	Adi kontsi	Mai Ela	164
11	Debub	Segheneiti	Degra Libee	Degra Libee	479
12	Debub	Segheneiti	Halay	Halay	341
13	Debub	Segheneiti	Hebo	Hebo	405
14	Debub	Segheneiti	Maereba	Adi Abeur	257
15	Debub	Segheneiti	Maiseghen	Maiseghen	1253
16	Debub	Senafe	Degogolo	Ased	283
17	Debub	Senafe	Degogolo	Moko	91
18	Debub	Senafe	Golo	Malhadega	180
19	Debub	Senafe	Golo	Merbed	271
20	Debub	Senafe	Nerie	Gheredef	191
21	Debub	Senafe	Nerie	Neire	1751
22	NRS	Foro	Airomale	Umile	138

23	NRS	Foro	Denango	Dengule	146
24	NRS	Foro	Erafaile	Erafaile	292
25	NRS	Foro	Foro	Foro	651
26	NRS	Foro	Mahfid	Mizbir	111
27	NRS	Foro	Malka	AdiEshe	223
28	NRS	Foro	Robrobya	Hidale	276
29	NRS	Foro	Zula	Zula	528

9. Face-to-face interviews were conducted during the HH survey with 435 households (women representing 33% of the total respondents) from 29 villages across the target landscapes in the 4 sub-Zobas namely *Adikeih, Segheneiti, Foro* and *Senafe*. This implies that a total of 29 clusters/villages, nearly 20% (18.5%) of the total of 157 villages in the target area, have been randomly selected for the study. Of these, 6, 9, 6, and 8 villages have been selected from sub-Zobas *Segheneiti, Adikeih, Senafe*, and *Foro* respectively. Despite the difficult access to some of the villages, the PPG team made the necessary efforts to reach all the important sites for the social surveys and technical assessments.

10. A validation workshop was held on May 12th in Asmara with 40 participants representing the stakeholders involved. The comments and inputs provided were duly captured, addressed and reflected in the latest version of the Project Document.

11. Distribution of stakeholders engaged through KII and FGD across 23 villages

Sub-Zoba	Village	Method	M	F	Total
Adikeih	1. Igla (46)	KII	1	0	1
		FGD	1	3	4
	2. Messogelozula	KII	1	0	1
		FGD	0	0	0
	3. Safira (17)	KII	1	0	1
		FGD	11	5	16
	4. Caribosa (7)	KII	0	0	0
		FGD	5	2	7

Sub-Zoba	Village	Method	M	F	Total
	5. Sibiraso (26)	KII	1	0	1
		FGD	6	19	25
	6. Adikeih (9)	KII	0	2	2
		FGD	7	0	7
	7. Abigrat (1)	KII	1	0	1
		FGD	0	0	0
	8. Garnaba (1)	KII	1	0	1
		FGD	0	0	0
	9. Haineba (1)	KII	1	0	1
		FGD	0	0	0
	Sub-Total		**37**	**31**	**68**
Foro	1. Foro (24)	KII	11	0	11
		FGD	11	2	13
	2. Malka (1)	KII	1	0	1
		FGD	0	0	0
	3. Hadish (3)	KII	0	0	0
		FGD	3	0	3
	4. Irafaile (13)	KII	1	2	3
		FGD	8	2	10
	5. Zula (15)	KII	1	0	1
		FGD	12	2	14
	6. Malka/Adi-Eshie (12)	KII	1	0	1
		FGD	11	0	11
	7. Robrobia (9)	KII	1	1	2

Sub-Zoba	Village	Method	M	F	Total
		FGD	2	5	7
	Sub-Total		**63**	**14**	**77**
Segheneiti	1. Segheneiti (24)	KII	1	2	3
		FGD	17	2	19
	2. Halay (45)	KII	0	2	2
		FGD	29	14	43
	3. Hebo (20)	KII	1	0	1
		FGD	13	6	19
	Sub-Total		**61**	**26**	**87**
Senafe	1. Melhidega (25)	KII	0	5	5
		FGD	8	12	20
	2. Senafe (28)	KII	1	0	1
		FGD	20	7	27
	3. Dogogolo (10)	KII	0	0	0
		FGD	9	1	10
	4. Naria (17)	KII	1	0	1
		FGD	10	6	16
	Sub-Total		**49**	**31**	**80**
	TOTAL		210	102	312
	Percentage		**67**	**33**	**100**

Please provide the Stakeholder Engagement Plan or equivalent assessment.

1. Please see the annex for the project?s stakeholder engagement plan.

Stakeholder Table

Stakeholder	**Mandate**	**Project Role**

Central Government		
Ministry of Land, Water and Environment	The MOLWE, established in 1992, is the government?s primary custodian of the country?s natural resources and is entrusted with developing the institutional framework for sustainable use of natural resources. Within the ministry, the Department of Environment (DOE) which was moved from the Ministry of Agriculture to the MOLWE in 1997 is responsible for coordinating environmental actions in Eritrea. The DOE is responsible for coordinating the protection and enhancement of Eritrea?s environment so that rapid social and economic development can be achieved in consonance with the rational and sustainable use of resources for current as well as future generations.	Project Executing Entity Lead for cross sectoral coordination among all relevant Government entities at national and sub-national levels The MoLWE (at national level) will Co-lead the implementation of project outcomes and outputs together with the MoLG (at sub-national and local levels)
Ministry of Local Government	The Ministry of Local Government implements national policies, monitors local affairs and assist local authorities in developing infrastructure, and administering services such as security, healthcare, and education. In charge of the Zoba, sub-Zoba and Kebabi administrations.	Will Co-lead through the Zoba administrations the implementation of project interventions at sub-national and local levels in close coordination with the MoLWE and other relevant entities
Ministry of Agriculture	The Five-year Strategic Agricultural Development Plan 2019-2023 sets the operational targets: (a) to increase the agricultural, horticulture and livestock output; and (b) to earn foreign currency through exports of agricultural and agro-industrial products and substitute imports. The 2019 National Agriculture Development Policy and Strategy covers rural energy, agriculture research, extension, forestry and wildlife, soil and water management, livestock and crop production.	Support project interventions related to rural energy, agriculture research, extension, forestry and wildlife, soil and water management, livestock and crop production (Under the Co-lead of the MoLWE, the MoLG and in cooperation with other entities at national and subnational levels)

Ministry of Marine Resources	The ministry is in charge of 1) Developing fisheries infrastructure to attract domestic and foreign investment; 2) Develop human resource and build adequate technical capacity that meet international standards; 3) Introduce appropriate new equipment and know how to rehabilitate and upgrade existing enterprises; 4) Establish industrial enterprises for value added products; 5) Strengthen the applied research capacity with a view of establishing a sound information system on the marine habitat and resources and for biodiversity conservation; 6) Build flexible institutional capacity that meet supervisory and commercial challenges; Encourage environmentally friendly aquaculture; 8) Organize and build the capacity of the fishing communities to increase their productivity as well as play a key role in the coastal area management; 9) Develop cooperation strategy and modalities that enhances beneficial cooperation with other Red Sea countries and; 10) Promote export marketing.	Support project interventions related to marine resources (Under the Co-lead of the MoLWE, the MoLG and in cooperation with other entities at national and subnational levels)
Forest and Wildlife Authority	Established in 2012, it aims to protect the natural environment and wildlife, and ensure soil and water conservation through active involvement of all partners and a wide participation of communities.	Support project interventions related to Forest and Wildlife (Under the Co-lead of the MoLWE, the MoLG and in cooperation with other entities at national and subnational levels)
Ministry of Finance and National Development	The Ministry of Finance of Eritrea is responsible for the public finance policies, prepares national development plans and sets budgets including for prioritized sectors and sub-sectors.	Support the mainstreaming of CCA, BDC, LD and rural livelihoods considerations into budgeting and planning processes
Ministry of Energy and Mines (MoEM)	The promotion of renewable energy systems is part of the mandate of the Ministry of Energy and Mines.	Support project interventions related to renewable energy (Under the Co-lead of the MoLWE, the MoLG and in cooperation with other entities at national and subnational levels)
Local Government (Zobas and Sub-Zobas)		

Zoba Administration (Debub and SKB)	Zoba administrations ensure a number of interventions, at Zoba level, including the development of infrastructure, and the supply of services such as security, healthcare, and education to the communities.	Will facilitate the implementation and monitoring of project interventions at Zoba and sub-Zoba levels in close coordination with MoLG and MoLWE, and in cooperation with relevant technical departments)
Sub-Zoba Administrations (Segeneiti, Adikeih, Senafe and Foro)	Sub-Zoba administrations ensure a number of interventions, at sub-Zoba level, including the development of infrastructure, and the supply of services such as security, healthcare, and education to the communities.	
International Organization		
FAO	FAO led the project design phase, FAO?s work in Eritrea includes sustainable and integrated management of natural resources and ecosystems, climate change adaptation and mitigation, improved agricultural production, productivity and market access, and resilience building in the face of natural hazards.	GEF Implementing Agency. Will support implementation and provide necessary back-stopping to meet project targets.
UNDP	UNDP has implemented/is implementing several projects in Eritrea including ?Restoring Degraded Forest Landscapes and Promoting Community-based, Sustainable and Integrated Natural Resource Management in the Rora Habab Plateau, Nakfa Sub-Zoba, Northern Red Sea Region of Eritrea?; ?Mainstreaming Climate Risk Considerations in Food Security and IWRM in Tsilima Plains and Upper Catchment Area?; ?Integrated Semenawi and Debubawi Bahri-Buri-Irrori- Hawakil Protected Area System for Conservation of Biodiversity and Mitigation of Land Degradation?; ?Operalisation of the Protected Area System of Eritrea? and; ?Integrating Climate Change Risk into Community-Level Livestock and Water Management in the Northwestern Lowlands?.	Exchange of knowledge and lessons learned to maximize synergies and capitalize on good practices
UNEP	Implemented a number of projects in Eritrea, including ?Development of Minamata Initial Assessment and National Action Plan for Artisanal and Small-Scale Gold Mining in Eritrea?; and ?Support to Eritrea for the Revision of the NBSAPs and Development of Fifth National Report to the Convention on Biological Diversity (CBD)?	Exchange of knowledge and lessons learned to maximize synergies and capitalize on good practices
IFAD	Has implemented/is implementing various projects in Eritrea, including ?SIP: Catchments and Landscape Management?; ?Eritrea Integrated Agriculture Development Project (IADP)?; and ?Fisheries Resources Management Programme (FReMP)?.	Exchange of knowledge and lessons learned to maximize synergies and capitalize on good practices

AfDB	Supported various projects in Eritrea including ?Drought Resilience and Sustainable Livelihoods Programme DRLSP? and the regional ?Desert to Power energy project?.	Exchange of knowledge and lessons learned to maximize synergies and capitalize on good practices
JICA	Supported a number of initiatives including the Project of Coastal Fisheries Development.	Exchange of knowledge and lessons learned to maximize synergies and capitalize on good practices
Academia & research entities		
National Agricultural Research Institute (NARI)	It was established in 2003, under MoA, with the mandates of conducting research in the fields of crop improvement, soil, plant protection, agricultural engineering, livestock and forestry, and also with carrying out vocational training in agriculture. NARI operates regional research stations in Halhale (to fulfill the research needs of the highland and midland regions), Sheib (representing the eastern lowland region), and Goluj (representing the western lowland region).	Cooperation in areas related to research and development, training, and awareness raising in support to project interventions
National Higher Education and Research Institute (NHERI)	Represented through the Hamelmalo College of Agriculture, College of Science ? Department of Marine Science, and College of Engineering and Technology ? Department of Agricultural Engineering and Department of Marine Technology)	Cooperation in areas related to research and development, training, and awareness raising in support to project interventions
Hamelmalo College of Agriculture (HAC)	Located in Hamelmalo, Anseba, its research focus includes crops, livestock, pastures and forages, forestry, agricultural engineering, and off-farm post-harvest.	Cooperation in areas related to research and development, training, and awareness raising in support to project interventions
College of Marine Science and Technology (MCMST)	As a non-profit public higher-education institution located in the city of Massawa, the College of Marine Science and Technology offers courses and programs leading to officially recognized higher education degrees in several areas of study.	Cooperation in areas related to research and development, training, and awareness raising in support to project interventions
CSOs		

National Union of Eritrean Women (NUEW)	NUEW works to empower women by enhancing political, economic, social and cultural participation through various trainings and services. Its interventions include advocacy for the development of women?s confidence in themselves; Laws that protect women?s entitlement rights and other civil laws; Equal access to education and employment opportunities including equal pay for equal work and equal rights to skills development to promotion; Improved access to adequate health care, paid maternity leave, and child care services; The eradication of harmful traditional practices that endanger women?s health and well-being; and The reduction of poverty for Eritrean women and their families.	Consultations and cooperation to mainstream gender into project interventions and deliver the gender action plan
National Union of Eritrean Youth and Students (NUEYS)	NUEYS works to engage youth to actively participate in the political, economic and social sectors. Its interventions include advocacy and lobbying related to youth issues in all spheres and at all levels, ensuring that the youths? concerns and special needs are provided for and that the relevant bodies are well aware of those needs.	Consultations and cooperation to ensure the mobilization and participation of youth into project interventions and deliver the gender action plan
The Associations of Persons living with Disability (PLWD)	Associations that support persons living with disabilities and advocate among other things for their rights, participation and inclusion.	Consultations and cooperation to ensure the mobilization and participation of PLWD into project interventions and deliver the gender action plan
Eritrean Women in Agribusiness Association	Established in 2003 with a vision of creating an export-oriented agribusiness sector, contribute to the food security program of the nation and improve the livelihood of the women engaged in agribusiness.	Consultations and cooperation to mainstream gender into project interventions and deliver the gender action plan
Private Sector		

Cooperatives (agriculture, livestock, fisheries)	Cooperatives enable farmers, livestock producers and fishermen to be structured into private for-profit entities such as cooperatives, which provide their members with different services and defend their interests.	Consultations and cooperation to ensure the mobilization and participation of smallholders into project interventions to deliver the expected results
Private Service providers	These are involved in the procurement and distribution of different goods and services to farmers, livestock herders and fishermen in the landscape, including agricultural inputs and equipment, as well as veterinary products and services.	Consultations and cooperation to support project interventions related to value chains development
Operators of target value chains	A number of initiatives along local value chains are working on adding value to Eritrea?s natural resources such as extracts from endemic aromatic and medicinal plants, production of high-quality honey and other beekeeping by-products, valorization of cactus, etc.	Consultations and cooperation to valorize natural resources locally, structure local value chains and empower smallholders including women and youth to generate alternative sources of income and diversify their livelihoods

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

Stakeholder engagement during project Implementation[1]

1. The project will capitalize on the participatory approach developed during the design stage, which will be mainstreamed into all project interventions. A mapping of key stakeholder groups was conducted to identify those stakeholders who have interest in the project, those expected to be directly or indirectly affected by project interventions, and those who can potentially influence project outcomes. Special attention will be made to facilitate the inclusion of women, youth, persons living with disabilities and elderly, among other vulnerable social categories within the target landscapes.

2. About 80 consultation workshops (20 in each targeted sub-Zoba) will be organized throughout project implementation. Methods such as focus group discussions, face-to-face interview, evaluation workshops and public meetings will be used. Methods that will be used to communicate with stakeholders include; reports, newspapers, radio and television.

3. Engagement of stakeholders throughout the M&E process

M&E and reporting milestones	**How stakeholders will be involved**

PPR	The PPR will be prepared by the PMU, under the lead of the NPC, and the overall oversight of the NPD, by June 30th and December 31st of each implementation year. The PPR will be shared with key relevant stakeholders for their inputs and their comments duly addressed in the final version of the PPRs.
PIR	The PIR will be conducted following an inclusive and participatory approach. At the beginning of each PIR exercise, a participatory workshop will be organized to navigate the requirements and deadlines. Inputs from key relevant stakeholders will be collected by the PMU, in coordination with the NPD/MoLWE, MoLG and GEF OFP/MoLWE.
MTR	During the MTR, extensive consultations will be facilitated by the PMU to enable the external evaluators assess the progress achieved by the project towards meeting its mid-term targets, identify bottleneck and propose potential corrective measures and management responses to put the project on-track to deliver its final targets.
TE	Similar to the MTR, during the TE exercise, extensive consultations will be facilitated by the PMU to enable the external evaluators assess the progress achieved by the project towards meeting its end-targets, identify potential successes and failures, codify lessons learned, and recommend management responses to sustain project achievements and results.

[1] Please include identification and consultations of disadvantage and vulnerable groups/individuals in line with the GEF policy on Stakeholder Engagement and GEF Environmental and Social Safeguard.

Select what role civil society will play in the project:

Consulted only; No

Member of Advisory Body; Contractor; Yes

Co-financier;

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

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

1. Please see a more detailed gender assessment in the annexes (also uploaded).

2. In general terms, Eritrea could be seen as a patriarchal society, which mainly assigns the role of caring for the family to women while men are mainly the breadwinners. Eritrean society highly values marriage and child bearing. The conflict between productive and reproductive roles has for a long time been one of the challenges of women in the country. In rural areas, women used to help their husbands in the farm but recently a number of them engage in farming activities themselves. This is in addition to activities at home, which are considered their exclusive responsibility.

3. The number of female-headed households is significantly increasing, findings of the 2010 Eritrea Population and Health Survey (EPHS) carried out by the National Statistics Office indicate that 47% of households in the country are headed by women (NSO, 2013). As a result, a number of women have started working outside their homes and get income for the family, which has also changed the attitude of husbands towards women.

4. While there is a strong commitment towards empowering women in the country, with multiple efforts made and numerous initiatives deployed towards achieving gender equality, traditional perceptions and attitudes towards women do persist which in return hinders the empowerment of women in Eritrea.

5. The target areas are home to three ethnic groups namely, the Saho, the Tigrigna and the Afar. They have mixed economic system, some live by farming and herding and some live by fishing and trade. Though their environment is naturally endowed with rich resources of high economic value, including perennial rivers that flow from the highlands towards the Red Sea coast as well as vast arable land and rich seacoast, due to different natural and man-made causes, the communities live under sever environmental and economic conditions. Climate change, degrading land and deforestation among other root causes are threatening livelihoods, this is especially the case of women who are household managers and providers of all that the family needs to live.

6. Besides cooking food and providing members of their families with clean home and clothing, women?s daily tasks include going out to fetch water and fire wood, farm work during farming season with other members of the family as well as taking care of the old and the sick. To do all these, they work longer hours than any other member of the household. Life for women can be hard is in these communities especially during pregnancy periods and when taking care of new born babies as well as the elders and members of the family suffering from illness who need close care.

7. Traditionally, women in these ethnic groups have been treated as unequal compared to their male counterparts under the cultural system of their communities, which is led by their respective customary laws. It discriminates women and gives them unequal opportunities. For instance, women may not be allowed to leave home and participate in the communities? life at an equal level. Since independence, the status of women has been gradually changing from one of dependence on the husband to equal participants in economic activities, decision making on family matters, as well as in the communities? socio-economic and political life, including education where the young generation can be observed going to higher levels of academic life and employment compared to the past.

8. The problem of land degradation and deforestation has serious consequence on women who have to travel long distances to find water sources, and carry about 20-30 liters of water for family use. Long distances to health facilities and schools is also a major problem, especially for young children who are at the elementary school level to walk hours to and from school.

9. It is documented in earlier studies that, in Eritrea, women play an important role in environmental issues. Eritrean women in rural areas carry the heaviest burden in providing their households with basic environmental services. When environmental sanitation is inadequate, or indoor air pollution from smoke and soot becomes a health hazard, it is women who are the most affected and so are the ones who suffer most. It is not surprising, therefore, that Eritrean women are willing to take the lead in environmental protection, in ensuring clean water, and in promoting environmentally sound and adequate domestic energy (NEMP, 1995).

10. The environmental problem has similar impact on the youth and children as it is on women?s health. Earlier studies show that, children and youth are negatively impacted by environmental

degradation, poor hygiene, lack of proper nutrition, inadequate and unsafe drinking water (NEMP, 1995:114).

11. Organizations including the NUEW, the NUEYS and the NCEW organize various activities in rural areas to reverse the environmental problem such as planting trees, terracing, and environmental awareness raising campaigns in which communities are trained to raise their awareness on environmental issues and their common responsibility of protecting their land and all environmental resources so as to lead a better life.

12. The impact of land degradation and deforestation on the family life including declining returns from farming and livestock production is a push factor for women to play a major role in facing the threats of climate change, land degradation and shortage of rainfall that affects their living standard severely.

13. The study shows that about 75% of the households consider raising children and taking care of the elderly to be mainly the burden of female. Specifically, 37% of the respondents indicate that taking care of children and elderly is exclusively the burden of female, and about 38% said it is predominantly the burden of female. Similarly, about 79% of the respondents are of the opinion that fetching water is mainly the responsibility of female out of which about 38% of the households indicate that fetching water is exclusively female's responsibility and about 41% noted that women are predominantly responsible to fetch water. Moreover, 16% of the respondents indicated that both women and men are equally responsible.

14. Field data suggest that a significant portion of women's time is consumed in household management, which provides less opportunity for empowering them socially and economically. It also reveals the situation that hinders women from being involved in project activities that will empower them socially and economically. KII with the village administrations and FGDs with the communities indicate that such situation is more pronounced when it comes to persons with disabilities and elderly people.

15. Field data indicates that the perception on the benefits male and female households get from the natural resources is almost similar. With regards to water, 83 percent of communities in the Eastern Escarpments and Adjacent Coastal Areas of Eritrea have access to water resource both for human and livestock. Similarly, about 86% of the respondents indicated that they have equal access to forest, 85% for livestock, 87% for farming input and 96% for capital[1].

16. Field data suggest that husbands (68%) have more control and decide over the livestock of the households as compared to wives (12%). Such control provides better economic power to men as compared to female. Similarly, about 25 percent of the households indicate that husbands have control and make decisions over household capital and about 3 percent said wives have control and decision on issues related to capital. This is highly significant difference between men and women providing better opportunity to males. Results also show that control and decisions over farming input mainly lies with husbands (84%) as compared to wives (11%).

17. Survey results show that about 3/4 of the respondents (53% female, 81% male) indicate that household expenditure is equally the role of male and female or it is predominantly male. This shows that both are involved in such economic decisions although males predominantly make expenditure related decisions for the household. Similarly, about 17 percent of the respondents indicate that buying items for the HH is predominantly the role of males whereas only about 9 percent noted that it is predominantly the role of female. About 58 percent said that both are equally responsible. Thus, from table 6 it can be observed that economic decisions are predominantly the role of male and females have limited participation in economic related decisions. This is an area that needs to be strengthened to enhance empowerment of women in the project area.

18. In all the surveyed villages women respondents affirmed that they enjoy equal rights with men in all opportunities in the communities? life including land rights, education and in socio-economic and political sphere of the village life. Even in villages where polygamy is practiced, i.e., where a man can marry more than one woman, the first and second women are treated equally in that the second wife with children also gets full land plot as the first wife has with her children. This is true among the Saho ethnic group and help women with children to have enough food to feed the young ones. One major problem that women face is, however, particularly in families where the husband is absent, although land right is equal for both men and women, women rarely plough their land themselves. Further investigations are required to determine the underlying gender dynamics hindering women from ploughing their own land. They, therefore, ask a man who may be a relative or a neighbor or any person who can help and who owns ploughing tools, to do the ploughing task. He then takes care of the ploughing and sowing task and the woman who owns the land with her children does the remaining work in the field until harvest. The man who helped plough then takes half of the crop harvested at the end of harvest time. This leaves the woman and household with little returns from the land, not enough to feed her children for the year round.

19. This is a major problem because the mother has to do manual labor on top of her domestic responsibilities, wherever she can get work opportunities so as to get some money to feed the family. Women also make bags as handcrafts from hides, basketry and beads to sell in the market to buy food with the money they earn from it. Since the harvest they get from their land is not enough, women in target areas tend to work under the ?Food for Work? program that the government organizes for them, giving them 3 kgs per day for the work they do either in road maintenance or building terraces and ditches etc. When women were asked ?what support do you believe can help you feed your family when you do not get enough harvest from your land?? they said, ?*We can solve our problem if we can find work opportunities to generate additional income to buy food for our family, all we need is work?.*

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[1] Capital is defined as all household non-livestock assets but predominantly farm implements.

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.

1. As detailed in the project framework, the main beneficiaries and project stakeholders are represented by private sector fisheries, pastoralists and farmers. These private sector actors will be actively engaged in project activities, including implementation. Strengthening the adaptive capacities and sustainability of local private sector, including MSMEs through resilient value chains and agribusiness development is one of the key objectives of the project. The project will focus on introducing/strengthening producer organizations and private sector entities engaging in value chains of key commodities of livestock and fishery products, horticulture and other high value crops.

2. In particular, the project will focus on strengthening the agribusiness skills of women and youth and to engage them in value adding activities to create job opportunities, promote entrepreneurship and enterprise development in the local food system. However, the private sector in Eritrea is still at its infancy stage due infrastructure bottlenecks especially roads and energy, skills deficits and miss-match which constrain enterprise growth. At the same time, Eritrea has youthful population and about 70 percent of the population are under 35 years old. There is a large and growing population of Eritrean youth who require relevant job skills and training to match the labour market especially in the agriculture subsectors.

3. The need to build skills for youth is a priority both for the formal and informal sectors, including entrepreneurship skills to facilitate the start-up of small businesses and support women entrepreneurs. The project will engage with both National Union of Eritrean Youth and Students (NUEYS) and the National Union of Eritrean Women (NUEW) as active stakeholders in project to identify, pilot and upscale agribusiness and MSME opportunities in the targeted areas to support local private sector development. Furthermore, through activities under Component 2 and 3, the project will support the establishment and strengthening of producer associations and cooperatives, including by collaborating and complementing ongoing efforts such as with the IFAD-funded IADP and AfDBs DRSLP.

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):

Section A: Risks to the Project

Risk Table

The following risks have been identified with preliminary mitigation measures. Risks will be reviewed comprehensively, and mitigation measures will be strengthened during the PPG phase.

Risk	**Impact/Probability Rating (Low: 1 to High: 5)**	**Management Strategy**
Natural resource constraints ? including climate change, drought, and food security - impact project ability to achieve intended results.	Impact: 3 Probability: 4	The project is designed to address and alleviate the current exposure of rural Eritreans to natural resource risks, including those related to climate change, drought and food insecurity. Each of the project activities is directed to take an integrated approach to these issues, shifting current unsustainable management/production regimes to sustainable management/production. This includes enhancing the ability of highland producers to move away from current unsustainable crops to more integrated cropping patterns the provide cash and food security through farmstead diversification. This will directly alleviate impacts related to climate change and, particularly, water scarcity. Likewise, similar approaches will be applied to fisheries and livestock sectors. The project will assist producers to approach these sectors using practices designed to improve marine and land scape management and production to enhance CC resilience, reduce drought exposure, and improve long-term food security. In addition, the project?s final results framework to be designed during the PPG will integrate these specific natural resource risks. This will include monitoring progress against improvements to CC resilience/ adaptation, exposure to drought risks, and improvements to food security and nutrition.
Limited cross-sectoral coordination among concerned ministries and local government authorities	Impact: 4 Probability: 3	Clear cross-sectoral arrangements for implementing project and pilot activities that specify the roles and responsibilities of the relevant organization will be maintained throughout the project. The project will further ensure effective inter-agency collaboration and coordination in the project activities.

Weak community engagement: Community interest may decline if tangible benefits are not immediately forthcoming and community commitment to being involved in monitoring may diminish	Impact: 3 Probability: 3	The project is designed to align with the needs and demands of target stakeholders. Stakeholder engagement was strong during the PPG. Rural Eritreans have a long and established tradition of working together to solve land degradation and other issues. The project is designed to continue to support and respond to perceived needs. . Community are supposed to be central part in decision making on the proposed intervention through bottom up approach. Stakeholder engagement will likely not be an issue.
Extreme events during the project implementation period could undo environmental benefits and alternative climate-resilient livelihoods	Impact: 3 Probability: 3	The nature of the project is to ensure resilience under the projected future climate conditions, and thus all activities, should be sustainable given exposure to such conditions, and indeed the occurrence of droughts would be a good test of their climate resilience. However, extreme events may divert government attention (at the subZoba, Zoba and national levels) to dealing with emergency situations and thus may risk the planned implementation of the project.
SLM/SFM, BDC and Climate change adaptation priorities undermined by national emergencies	Impact: 3 Probability: 3	The project design phase, and the project management team, will keep abreast of national events and politics to plan contingency activities when/if necessary.
Project activities are delayed	Impact: 4 Probability: 3	This is very real risk in Eritrea and one that has undermined several past GEF projects. This particular project is designed with these issues in mind and contains safeguards to reduce this risk. The project purposefully takes a longer than normal project window. The project document details specific activities that must be completed in a prioritized fashion. The project document details that certain activities must be completed prior to specific project years and prior to the project?s mid-term evaluation. The project document requires that a strategic implementation strategy be drafted during inception covering the entire project implementation period. The project document requires that project progress is reported annually against this strategy to a core group of FAO, Government and other stakeholders. Additional safeguards are detailed throughout the project document.

Limited technical capacity to conduct preliminary studies and design the implementation of activities.	Impact: 3 Probability: 3	As detailed in the project, international expertise and local expertise will be twinned throughout project implementation to make certain capacity is being built to identify and adopt effective practices.
Limited uptake of climate and environmental vulnerability information by relevant stakeholders	Impact: 3 Probability: 3	The climate and environmental vulnerability information generated by the project will be designed through a consultative process to respond to the specific needs of the different stakeholders while also ensuring user-friendliness of the different outputs to the specific audience/stakeholders.
Lack of investment after project may reduce sustainability of project outcomes	Impact: 3 Probability: 3	The project will pay particular attention to the key factors of success in the dissemination and adoption of adaptation technologies/nature-based solutions elsewhere in the country. The project will assess potential for replication of best practices and lessons learned, develop an up-scaling strategy, a mainstreaming strategy, and a financing strategy that will consider all possible future sources. In this regard, it is expected that future investments into Eritrea?s productive sectors as well as tourism will increase substantially from its current baseline, which provides a relatively optimistic investment outlook for post-project durability. In addition, given that there is a large, untapped potential for ecotourism development in Eritrea and particularly within the proposed project site, the project will also integrate ecotourism considerations as an opportunity for attracting post-project investment to sustain project activities. As part of the project?s financing strategy, support will be provided to identify external investment opportunities as well as national budget allocations to ensure durability beyond project closure.
Limited capital available to commercialize and scale up SLM/SFM, BDC and adaptation solutions	Impact: 3 Probability: 3	The project will engage with a number of financial institutions (including IFAD and AfDB) to increase the availability of capital and other forms of finance needed to ensure the uptake of appropriate technologies for product commercialization, identified by the project.

Covid-19

1. As of early 2022, Eritrea had effectively controlled the spread of Covid-19 with a total of approximately 2,500 cases and less than twenty recorded deaths. The successful approaches was the result of strong coordination at all government levels.[1] The national and global lockdowns did cause disruption and socio-economic impacts resulting from prolonged containment measures did negatively impact Eritrea. However, during the PPG, all project activities including field work continued with only minor disruptions. International FAO support staff were able to visit the country and some of the field sites in May of 2022 without issue.

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[1] UNDP, 2021

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.

Executing Agency

1. The MoLWE will have the overall executing and technical responsibility for the project, with FAO providing oversight as GEF Agency as described below. MoLWE will act as the lead executing agency and will be responsible for the day-to-day management of project results entrusted to it in full compliance with all terms and conditions of the Operational Partnership Agreement signed with FAO[1]. As Executing Agency of the project, MoLWE is responsible and accountable to FAO for the timely implementation of the agreed project results, operational oversight of implementation activities, timely reporting, and for effective use of GEF resources for the intended purposes and in line with FAO and GEF policy requirements.

2. According to the Proclamation for the Establishment of Regional Administration (PERA) No. 86/1996, the Zoba administrations are implementers of development projects. The Zoba administration is responsible for the overall implementation of development projects in the Zoba. This entails working in collaboration with the MoLWE, to support project implementation at the subnational level.

Coordination

3. FAO is one of the most active and effective development agencies currently working in Eritrea. FAO has a full-time office in Asmara and has maintained a strong track record of project delivery. FAO enjoys very strong and on-going coordination efforts with all relevant agencies. This same coordination approach will be applied to the implementation of this project.

4. The project will actively coordinate with relevant Government Ministries, Departments and Agencies, UN Agencies, and other development partners as well as CBOs, private enterprises and research institutions to facilitate synergies and avoid duplication of efforts. Coordination will take place through

established mechanisms including Project Steering Committee, sharing of reports and ad hoc meetings. This will be supported by a technically strong management unit.

5. At the national level, MoLWE will ensure coordination with all national stakeholders involved towards delivering the expected results from the project. At the subnational level, the Zoba administrations will ensure coordination with all stakeholders involved at Zoba, sub-Zoba, *Kebabi* and village level. FAO, as GEF Agency, will be responsible for ensuring coordination with internationally supported initiatives, including those financed by the GEF.

6. In each of the 4 targeted sub-Zobas, executive committees will be housed in the sub-Zoba administration offices. These field units will engage and work jointly with local representatives of the departments responsible for fisheries, livestock, agriculture and related sectors relevant to project interventions.

National Project Director

The Government will designate a National Project Director (NPD). Located in MoLWE offices in Asmara. The NPD will be responsible for coordinating the activities with all the national bodies related to the different project components, as well as with the project partners. S/he will also be responsible for supervising and guiding the Project Coordinator (see below) on the government policies and priorities.

Project Steering Committee (PSC)

7. The NPD will chair the Project Steering Committee which will be the main governing body of the project. The PSC will approve Annual Work Plans and Budgets on a yearly basis and will provide strategic guidance to the Project Management Team and to all executing partners. The PSC will be comprised of representatives from the Ministry of Land, Water and Environment, Ministry of Local Government, Ministry of Finance and National Development, Ministry of Agriculture, Ministry of Marine Resources, Forestry and Wildlife Authority, as well as representatives of the regional administrations in targeted Zobas and Sub-Zobas, cooperatives, academia, civil society stakeholders and FAO.

8. The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each key institution. As Focal Points in their agency, the concerned PSC members will: (i) technically oversee activities in their sector; (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project; (iii) facilitate coordination and links between the project activities and the work plan of their agency; and (iv) facilitate the provision of co-financing to the project.

9. The National Project Steering Committee (NPSC) will act as the central decision-making organ of the project, as well as guide the project from a technical viewpoint. The National Project Coordinator (see below) will be the Secretary to the PSC. The PSC will meet at least twice per year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes relevant to the project; iii) Timely availability and effectiveness of co-financing support; iv) Sustainability of key project outcomes, including up-scaling and replication; v) Effective coordination of government partner work under this project; vi) Approval of the six-monthly Project

Progress and Financial Reports, the Annual Work Plan and Budget; vii) Making by consensus, management decisions when guidance is required by the National Project Coordinator of the PMU.

Project Management Units

10. A National Project Management Unit (NPMU) will be co-funded by the GEF and established within the Executing Agency?s central offices in Asmara. It will report to the Ministry of Land, Water and Environment and FAO. The main functions of the NPMU, following the guidance of the Project Steering Committee, are to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). The NPMU will be composed of a National Project Coordinator (NPC) who will work full-time for the project lifetime. S/he will be supported by a technical and operational team comprising centrally located and decentralised experts.

11. Responsibilities of the NPMU will include project implementation planning, budgeting, preparation of bidding documents for all services to be procured, awarding contracts, engaging consultants, assuring quality assurance for all project-financed activities, disbursement of funds, assuring compliance with due diligence, liaising with relevant ministries and their provincial agencies, establishing project performance and financial management systems, and assuring regular progress reporting to provincial and national authorities as well as financing institutions. The NPMU will appoint incremental staff to assist in day-to-day project management activities.

12. Regional Project Coordination Units (RPCU) will be established in each of the 2 targeted Zobas in both Zoba Debub and Zoba. The RPCUs will be chaired by the Zoba Administration office.

13. Local Project Executive Committees (LPEC) will be established in each of the 4 targeted sub-Zobas namely *Adi Keih, Foro, Seghneiti and Senafe*. This reflects the locally based and decentralized approach taken by the project. Each LPEC will help to make certain stakeholders are engaged and supporting project implementation. The precise composition of these committees will be determined during project inception. The LPEC will be chaired by a sub-Zoba Coordinator from the local Sub-Zoba Administration Office.

14. The RPCU and LPEC Members ? though to be confirmed during project inception ? will include representatives of Zoba and sub-Zoba administrations, relevant Ministries (e.g., agriculture, livestock, fisheries, wildlife), Targeted Associations and cooperatives (e.g., fisheries, livestock, agriculture), Local Women?s CSOs, Local Environmental CSOs.

15. Proposed National Project Coordination Unit

Proposed NPMU

Position	Responsibilities
National Project Coordinator	Daily implementation, management, administration and technical supervision of the project, on behalf of MoLWE and within the framework delineated by the PSC
Senior Advisor	Provides technical advice to the project and facilitation of knowledge building and management for strengthening environmental governance, resource mobilization and strategic partnerships.
Administrative and Financial Managers	Responsible for the budget planning, and supports the National Project Management Unit (at national level) as well as the Regional Project Coordination Units (At Zoba level) by offering insights and financial advice that will allow them to avoid over expenditure.
Technical Field Assistants	Work closely with the NPC for the fulfilment of the results and outputs indicated in the project document, by ensuring smooth functioning of the project field work in coordination with the regional project coordination units at Zoba level in Massawa and Mendefera, and the executive field units (LPECs) at sub-Zoba level in AdiKeih, Foro, Seghneiti and Senafe.
Knowledge Management and Monitoring Expert	Design monitoring and reporting tools, support implementation of project?s M&E system and ensuring that indicators are monitored and reported
Technical Experts, including: Gender Expert, Stakeholder engagement Expert; Spatial Planning Expert; Livestock Expert; Fisheries Expert; Agriculture Expert.	Provides the technical guidance in her/his technical area of expertise, collaborates with ad hoc contracted national/international expertise, coordinates with relevant technical institutes, liaises with FAO expertise, amongst others.

National Project Coordinator

16. The National Project Coordinator (NPC) will be in charge of daily implementation, management, administration and technical supervision of the project, on behalf of MoLWE and FAO.

17. The NPC will be generally responsible for:

- Coordinating the project with relevant baseline initiatives;

- Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;

- Ensuring compliance with all OPA provisions during the implementation, including on timely reporting and financial management;

- Coordinating and monitoring closely the implementation of project activities;

- Tracking the project?s progress and ensuring timely delivery of inputs and outputs;

- Providing technical support and assessing the outputs of the project national consultants hired with GEF funds, as well as the products generated in the implementation of the project;

- Approve and manage requests for provision of financial resources using provided format in OPA annexes;

- Monitoring financial resources and accounting to ensure accuracy and reliability of financial reports;

- Ensuring timely preparation and submission of requests for funds, financial and progress reports to FAO as per OPA reporting requirements;

- Maintaining documentation and evidence that describes the proper and prudent use of project resources as per OPA provisions, including making available this supporting documentation to FAO and designated auditors when requested;

- Implementing and managing the project?s monitoring and communications plans;

- Organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan;

- Submitting the six-monthly Project Progress Reports (PPRs) with the AWP/B to the PSC and FAO;

- Preparing the first draft of the Project Implementation Review (PIR);

- Supporting the organization of the mid-term and final evaluations in close coordination with the FAO Budget Holder and the FAO Independent Office of Evaluation (OED);

- Submitting the OP six-monthly technical and financial reports to FAO and facilitate the information exchange between the OP and FAO, if needed;

- Inform the PSC and FAO of any delays and difficulties as they arise during the implementation to ensure timely corrective measure and support.

Decentralized Project Coordination

18. The NPCU will be supported by national and international technical experts and technical support teams as described in the project framework. These experts will be recruited through the NPCU. The project?s team of experts will be expected to work at various field sites. Specific job descriptions and requirements will be determined during project inception.

FAO Implementation

19. The Food and Agriculture Organization (FAO) will be the GEF Implementing Agency (IA) for the Project, providing project cycle management and support services as established in the GEF Policy. As the GEF IA, FAO holds overall accountability and responsibility to the GEF for delivery of the results. In the IA role, FAO will utilise the GEF fees to deploy three different actors within the organization to support the project (see Annex J for details):

Position	Description	Contact Information
Budget Holder	Usually the most decentralised FAO office, will provide oversight of day to day project execution	FAO Representative in Eritrea MR BANCIE, SAEED ABUBAKAR
Lead Technical Officer(s	Drawn from across FAO will provide oversight/support to the projects technical work in coordination with government representatives participating in the Project Steering Committee	Ager, Martin (FAOSFE)
Funding Liaison Officer(s)	Within FAO will monitor and support the project cycle to ensure that the project is being carried out and reporting done in accordance with agreed standards and requirements	Bergigui, Mohamed (OCBD) Dirkmaat, Chris (OCB)

20. As the GEF agency FAO responsibilities will generally include:

- Administrate funds from GEF in accordance with the rules and procedures of FAO;

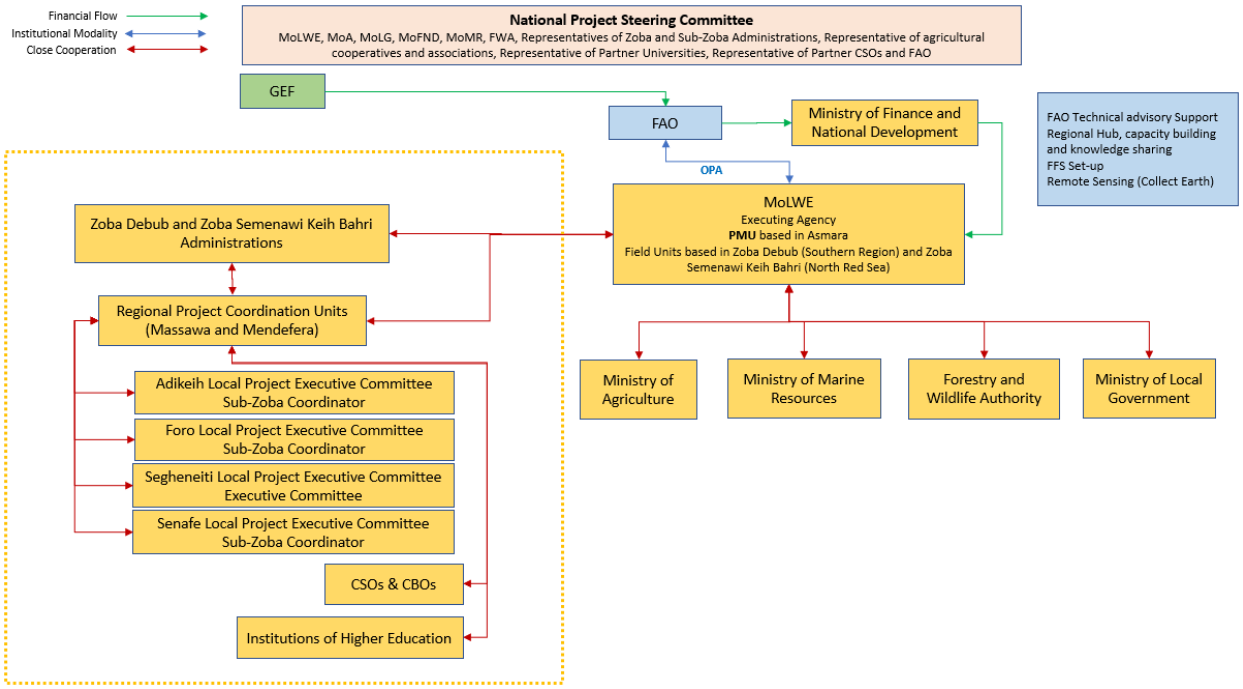
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, Operational Partners Agreement(s) and other rules and procedures of FAO;

- Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;

- Conduct at least one supervision mission per year;

- Report to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, the Mid Term Review, the Terminal Evaluation and the Project Closure Report on project progress; and

- Ensure financial reporting to the GEF Trustee


Financial Flow
Institutional Modality
Close Cooperation
National Project Steering Committee
MoLWE, MoA, MoLG, MoFND, MoMR, FWA, Representatives of Zoba and Sub-Zoba Administrations, Representative of agricultural cooperatives and associations, Representative of Partner Universities, Representative of Partner CSOs and FAO
GEF
FAO
Ministry of Finance and National Development
FAO Technical advisory Support
Regional Hub, capacity building and knowledge sharing
FFS Set-up
Remote Sensing (Collect Earth)
OPA
MoLWE
Executing Agency
PMU based in Asmara
Field Units based in Zoba Debub (Southern Region) and Zoba Semenawi Keih Bahri (North Red Sea)
Zoba Debub and Zoba Semenawi Keih Bahri Administrations
Regional Project Coordination Units (Massawa and Mendefera)
Adikeih Local Project Executive Committee Sub-Zoba Coordinator
Foro Local Project Executive Committee Sub-Zoba Coordinator
Segheneiti Local Project Executive Committee Executive Committee
Senafe Local Project Executive Committee Sub-Zoba Coordinator
CSOs & CBOs
Institutions of Higher Education
Ministry of Agriculture
Ministry of Marine Resources
Forestry and Wildlife Authority
Ministry of Local Government

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

21. A number of on-going and recently completed GEF investments are relevant to this proposed project. The lessons learned from these projects are integrated and reflected in this project?s design. FAO/Eritrea works extremely closely with UNEP, IFAD and UNDP.

22. FAO/Eritrea maintains regular and nearly constant contact with each of these agencies as well as relevant government counterparts. This coordination will be continued throughout the implementation of the proposed project. This will include generating a coordination strategy during the PPG phase with full-integration with on-going/potential GEF and other relevant investments. This strategy will detail how each of these projects will work together to share lessons, upscale investments, and make certain that all aspects of implementation are extremely well-coordinated.

23. Coordination will make certain that other GEF projects are engaged through invitation to participate in appropriate capacity building efforts and the provision of outputs and knowledge products. Coordination will also include regular meetings and discussions to be facilitated by this proposed project between executing agencies responsible for implementation of the various GEF financed initiatives. The specific coordination mechanisms will be reflected in the final project document?s management description and reflected in the stakeholder engagement strategy.

24. *Quarterly GEF Portfolio Manager Meetings*: To make certain that the proposed project is well-aligned with recently completed and on-going GEF investments, FAO will propose that quarterly meetings take place that involve the project managers and coordinators for each of the relevant GEF projects. This will serve as an opportunity for these parties to exchange information and updates and to build additional synergies across the GEF platform.

25. *Project Engagement*: The FAO/GEF project will invite representatives from each of the relevant GEF projects to engage as appropriate in workshops, meetings, and other activities associated with the on-going FAO/GEF project. The FAO/GEF project will also add relevant stakeholders associated with the on-going GEF portfolio to mailing lists (e.g., monthly reports) and provide access to knowledge management and communications platforms. This will include encouraging other projects within the GEF project portfolio to actively contribute to relevant knowledge management and communications tools. This will help to ensure alignment, reduced duplication of efforts, efficient use of GEF resources, and build amplification of responses to degradation across higher levels.

26. Following are the primary GEF projects that the FAO/GEF project with which the proposed FAO/GEF project will closely align.

? The GEF-6 Restoring Degraded Forest Landscapes and Promoting Community?based, Sustainable and Integrated Natural Resource Management in the Rora Habab Plateau, Nakfa Sub-Zoba, Northern Red Sea Region of Eritrea funded by the and implemented by UNDP. This project aims to promote landscape restoration and mainstream sustainable land management, forestry and biodiversity conservation into land-use planning and agricultural production practices in the Rora Habab Plateau in Eritrea. The project will demonstrate how agricultural development, landscape and ecosystem restoration/rehabilitation and sustainable forest management can be simultaneously achieved with tangible benefits for both the

environment and local communities. It will strengthen institutional capacity and enabling framework for integrated landscape management in over 80,000 ha in the Nakfa sub-Zoba and support implementation of on-the-ground interventions to reduce land degradation and pressure on forests and increase agricultural productivity. The GEF-LDCF project will capture lessons learnt and build upon best practices for improving landscape management.

? Mainstreaming Climate Risk Considerations in Food Security and IWRM in Tsilima Plains and Upper Catchment Area funded by the LDCF (GEF-6). This project currently under implementation aims to integrate adaptation measures into ecosystem restoration and agricultural production systems to address climate change in Eritrea and secure the benefits of the National Food Security Strategy and IWRM Action Plan. Activities are focusing on putting incentives in place leading to adoption of long-term measures for watershed rehabilitation, groundwater recharge, climate smart agricultural and livestock production practices. The GEF-LDCF will ensure close coordination with UNDP to maximize synergies build upon and transfer lessons learnt.

? The Integrated Semenawi and Debubawi Bahri-Buri-Irrori-Hawakil Protected Area System for Conservation of Biodiversity and Mitigation of Land Degradation GEF project currently under implementation is creating policy and institutional conditions for the operationalization of the Protected Area System in Eritrea. The project is establishing a National PA system in Eritrea and aims to enhance management effectiveness within a sample of restricted use system of protected areas (IUCN category I, II and IVPAs), operating under co-management agreements with local communities and the private sector. The project is applying SLM practices to reduce threats to a managed resource use PA (IUCN Category VI) with capacity for effective co-management with communities. Project outcomes will be duly considered and integrated into the GEF-LDCF project design.

? SIP PROGRAM: Strategic Investment Program for SLM in Sub-Saharan Africa (SIP) funded by the GEF (GEF-4) and implemented by IFAD (Catchments and Landscape Management) and UNDP (Sustainable Land Management Pilot Project). These country-level projects focused on the promotion of the SLM approach at national, regional and local levels as well as to develop and apply the SLM model to reduce land degradation. The proposed project will build upon and integrate best practices and successful outcomes of the SIP program.

? GEF SGP 7th Operational Phase - Strategic Implementation using STAR Resources mainly in LDCs and SIDS (Part 3) funded by the GEF (GEF-7) and implemented by UNDP. The Small Grants Programme (SGP) aims to promote and support innovative and scalable initiatives, and foster multistakeholder partnerships at the local level to tackle global environmental issues in priority landscapes and seascapes. The SGP covers activities to be implemented in Eritrea.

27. In addition to the GEF and LDCF projects described in the above, the project will also ensure close coordination with following initiatives to be funded by the GCF:

? IGREENFIN project and GCF Umbrella Program for the Great Green Wall Initiative. Inclusive Green Financing for Climate Resilient and Low Emission Smallholder Agriculture (IGREENFIN) and the umbrella program for the GGWI provide a regional approach to enable a market for investments on adaptation, mitigation practices and climate technologies by removing the financial and technical barriers

faced by Local Public Development Banks (LPDBs) particularly agricultural banks. This initiative will support the establishment of green lines of credit and the capacity building of both supply (banks) and demand (small holder farmers) and their alignment on the Nationally Determined Contributions (NDCs). The program will be rolled out into two phases with Eritrea covered under the IGREENFIN phase 2.

28. Strengthening Climate Information Systems for Climate Change Adaptation in the Greater Horn of Africa through regional cooperation. This GCF regional programme, currently at concept note stage, will be executed by the Intergovernmental Authority on Development (IGAD) and implemented by UNDP. The programme aims to strengthen the climate resilience of Eritrea and 7 other targeted countries (all members of IGAD) to the climate change impacts of extreme rainfall events, extreme droughts and floods that can be of transboundary nature and impact several countries at the same time. Through the establishment of improved early warning and climate information dissemination systems at the regional level and its integration with the already existing national climate information systems, the proposed programme will build climate resilience of the vulnerable communities in the Greater Horn of Africa region.

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[1] 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 of this funding proposal.

7. Consistency with National Priorities

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

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

1. The project is consistent with the following national strategies and plans, and reports to relevant international conventions.

2. Eritrea is a signatory to a number of global conventions and protocols, including the CBD, the UNFCCC, and the United Nations Convention to Combat Desertification (UNCCD). Eritrea?s participation in the implementation of national and regional environmental programs and projects reflects the extent to which the country views itself vulnerable to the vagaries of climate change and biodiversity depletion, and other environmental hazards. The international conventions and protocols on climate change provide a forum for the country to express issues and grievances, as well as access to technical and financial resources to support implementation of programs and projects.

Strategy	Alignment

National Indicative Development Plan	Eritrea?s development agenda is guided by the country?s National Indicative Development Plan (NIDP) 2014-2018, which outlines the overarching goals for economic growth and poverty reduction which is partly driven through the development of a modern irrigation-based commercial agriculture. The GEF-LDCF project is aligned with this and is directly contributing to one of the three strategic pillars of the NIPD, which focuses on food security and the development of cash crops.
The National Bio-safety Framework (NBF), 2007	Eritrea has been acceded the Cartagena protocol on Bio-safety under the CBD in March 2005. Under this protocol, a National framework was prepared in 2007, which includes among others guidelines on: 1) Risk assessment of genetically modified organisms (GMOs); and 2) Public awareness and participation in biotechnology/bio-safety. Two trainings were also conducted in 2008 and 2009 to relevant stakeholders. Further, the 2nd National Report was submitted in 2012 and the Strategy and Action Plan for the Implementation of the NBF document was developed.
The Eritrea?s Five Year Action Plan for the Great Green Wall Initiative (2011-2015) - Draft	The action plan which was developed by the MoLWE in 2011 describes the initiative on the Great Green Wall that focuses on combatting desertification for countries bordering along the Sahara Desert (Burkina Faso, Chad, Djibouti, Eritrea, Ethiopia, Mali, Mauritania, Niger, Nigeria, Senegal, and Sudan). It aims at fighting the advancement of the Sahara desertification.

UNFCCC	Eritrea has complied with the reporting requirement of the United Nations Framework Convention on Climate Change (UNFCCC). The SNC contains information required by the UNFCCC provides comprehensive information of the climate and climate change. Eritrea has submitted both its Initial and Second National Communication (INC, SNC) to the UNFCCC in 2001 and 2012, respectively, highlighting how elevated climate risks and hazards, namely droughts and desertification are increasing ecosystem and livelihood vulnerability and outlines adaptation measures for two priority sectors: Agriculture and water. The project is in line with adaptation options and measures outlined in the INC and SNC to reduce vulnerability and increase resilience of food production under a changing climate. The project is also in alignment with Eritrea?s submissions under the UNFCCC. Its? Nationally Determined Contribution (NDC) submitted in 2018, outlines in the increasing impacts from climate change on Eritrea?s food production systems and rural agrarian populations and prioritizes adaptation actions in the agriculture, forestry, water, land-use marine sectors. This project will contribute toward the achievement of adaptation goals for 2030 outlined in the NDC, including targets for Climate Smart Agriculture, rehabilitation of degraded agricultural lands, SLM as well as livestock, fisheries and crop productivity increases.
National Agriculture Development Policy and Strategy	At the sectoral level, the project will contribute towards the implementation of priority areas specified in Eritrea?s National Agriculture Development Policy and Strategy (2019) as well as the Five-year Strategic Agricultural Development Plan 2019-2023. Furthermore, project activities will help to obtain the objectives under the Small and Medium Commercial Farmers Strategy (SMCFS) which aims to create farm enterprises that are engaged in productive, profitable agriculture value chains, linked to domestic and international markets.
National Environmental Management Plan	The project is fully aligned with Eritrea?s National Environmental Management Plan (NEMP, 1995), which constitute the overarching policy document for the country?s environmental resources and forms the basis for action on conservation activities. The NEMP aims to ensure that human activities in both terrestrial and marine areas would result in long-lasting global environmental benefits and recognizes the loss of biodiversity, climate change and desertification, along with degradation of farmlands, deforestation and overgrazing as fundamental environmental challenges in Eritrea. The GEF-LDCF project is therefore designed to respond to those challenges and help deliver on the NEMP?s objectives for Eritrea?s environmental well-being.

National Adaptation Programme of Action	The project responds directly to the Eritrea?s National Adaptation Programme of Action (NAPA, 2012), which identifies the priority adaptation activities for building climate-resilient livelihoods among vulnerable communities. More specifically, the NAPA process, which was linked to the government?s strategies to reduce poverty, prioritizes a range of adaptation projects across four top ranking sectors (1. Agriculture; 2. Livestock; 3. Forestry; 4. Water resources). This project will contribute directly to a number of those key adaptation needs/activities such as ?breeding drought and disease resistant crops?, ?introducing community based pilot rangeland improvement and management in selected agro-ecological areas?, ?conservation and management of highland forest ecosystem?, ?introduction and expansion of irrigated agriculture? etc.
Technology Needs Assessment	The GEF-LDCF project is also aligned with the priority sectors and adaptation technologies identified as part of Eritrea?s Technology Needs Assessment (TNA) process, which is currently ongoing.

	The project is in full alignment with the Eritrea?s commitments under the UNCCD. Through the Land Degradation Neutrality (LDN) Target Setting Programme, Eritrea has set its LDN targets and the Government is committed to achieving LDN by 2030 as it underpins the ecological functioning of land-based natural resources for the sustainable socio-economic development. The GEF-LDCF project will directly contribute towards achieving the LDN targets, both at national level and specifically those targets set for the Zobas where project interventions are planned. Furthermore, the project is expected to contribute to the areas outlined in the Final Country Report of the LDN Target Setting Programme in Eritrea under the most important long-term action concepts: 1. Land classification/land distribution, 2. Renewable Energy, 3. Promotion of dry land products through sustainable land management and enhanced market access and trade, 4. Role of Private Sector, 5. Community Empowerment and Capacity Building, and 6. Financial Sustainability.
UNCCD	The Government is committed to achieving Land Degradation Neutrality (LDN) as it underpins the ecological functioning of terrestrial resources for the sustainable socio-economic development. As part the LDN Target Setting Process (LDN TSP), critical intervention areas to be addressed were identified and LDN targets have been defined for national and sub-national levels. Furthermore, in response to the UNCCD 10-Year strategic plan and framework (The Strategy), Eritrea has developed its National Action Program (NAP, 2002) to Combat Desertification and Mitigate the Effects of Drought. The NAP identifies factors contributing to desertification and practical measures necessary to combat desertification and mitigate the effect of drought. The actions under NAP have entailed both policy and institutional measures to facilitate the establishment of an enabling environment at the national level for sustainable resource use, as well as local level development activities to preserve and/or restore the resource base and improve livelihood security of the affected populations. Furthermore, in relation to biodiversity conservation and sustainable use, NAP has identified key concerns and threats to flora and fauna; emphasized the need for creation of protected area system (in situ conservation) and identified four priority areas for conservation of biodiversity (The Semenawi Bahri, North of the river Setit, riverine habitat along the Gash and Barka Rivers and the Buri Peninsula); proposed actions that make effective enough the traditional practices and customary laws in conserving and sustainable use of the natural flora and fauna of Eritrea; and identified actions required to improve, conserve and use sustainably the agricultural, livestock, rangeland and forest resources of the country.

National Action Program (NAP)	In response to the UNCCD 10-Year strategic plan and framework (The Strategy), Eritrea has developed its National Action Program (NAP) 2008-2018 to combat desertification, land degradation and mitigate the effects of drought, along with an implementation strategy to integrate LDN in the selected national policies and commitment. The NAP Action Plan recognized five important steps or priority actions. These are: the improvement of the knowledge base on land degradation; empowering people to take action, initially coping with drought and desertification and eventually in taking measures to arrest land degradation; take concerted action to address the concerns of vulnerable groups affected by land degradation, particularly women and pastoralists; the reduction of poverty through income generating activities; and activities related to arresting land degradation particularly degradation of productive agricultural land. The activities of GEF-LDCF project will directly address each of these five priority actions
Great Green Wall Initiative	The project is expected to contribute to the objectives and priority areas set forth in Eritrea?s Five Year Action Plan for the Great Green Wall Initiative (2011-2015) (Draft). Formulated by MoLWE, the five year action plan focuses on activities that help in mitigating land degradation, reducing desertification, adapting climate change, increasing agricultural products so as to improve the livelihood of the people. This action plan includes implementation of sustainable natural resources management (land, water, forest and wildlife) in the six zones (Maekel, Debub, Anseba, Gash-Barka, NRS & SRS) through afforestation, soil and water conservation, establishment and management of enclosures as well as promotion and establishment of nursery sites. The action plan also included the establishment of protected areas such as; Semenawi and Debubawi Bahri (129,000 ha), Buri-Irrori-Hawakil Islands (867,000 ha), Bara?soli (13,600 ha), including Riverine habitat along Gash and Barka Rivers (195,024 ha), and Nakfa Reserves (16,390 ha).
Action Plan for Integrated Water Resources Management	The project will be aligned to the Eritrea?s Action Plan for Integrated Water Resources Management (IWRM) (2009-2016), which covers a range of management actions that are important to establish knowledge on effective control of the country?s water resources management and development. The action plan elaborate the approaches and set out specific objectives, strategies, actions and activities that would be taken to support IWRM for the sustainable economic development of Eritrea, all of which will be considered and integrated into project activities.

National Biodiversity Strategy and Action Plan	The is in full alignment with the National Biodiversity Strategy and Action Plan (NBSAP) for Eritrea (2014-2020) and its strategic objectives for maintaining the global biodiversity conservation significance of Eritrea as a primary and secondary centre of diversity for a number of cultivated crops. Protecting and ensuring the genetic diversity of these crops is directly linked to the landscape restoration objectives while also providing a key livelihood strategy for farmers, especially in the context of climate change adaptation. The project activities are designed to be aligned with the overall objectives of terrestrial, marine and agricultural biodiversity and to contribute to specific Aichi targets defined in Eritrea?s NBSAP as outlined below. Eritrea?s National Biodiversity Strategic Action Plan (NBSAP) 2010-2020 provides a strategy for maintaining the global biodiversity conservation significance of Eritrea, including both its terrestrial and marine biodiversity, and as a primary and secondary centre of diversity for a number of cultivated crops and their wild relatives. Protecting and ensuring the genetic diversity of these crops is directly linked to the landscape restoration objectives while also providing a key livelihood strategy for farmers, especially in the context of climate change adaptation.
The Macro policy (1994)	The macro policy provides a background for the country?s national economic growth strategy and states the guiding principles for human centred, efficient, sustainable and equitable development. This document clearly states the need for environmental impact assessments to determine the potential environmental consequences of major investment decisions.
The Proclamation for the Establishment of Local Governments No. 86/1996	This Proclamation is an important part of the GoSE?s legislation with regard to regional decentralisation of administration. It has an implication on the control and implementation of development programs related to climate resilient NRM and enhancing sustainable livelihood of communities. This Proclamation contains responsibilities of NRM at the regional level.
The Renewable Energy Sub-Sector Policy (1997):	The objectives of the Renewable Energy Sub-Sector Policy of 1997 include promotion of sustainable biomass fuels and appropriate alternatives, and to exploit renewable energy potential. It is essential to assess its level of implementation as it has implication on implementing climate resilient NRM projects.

The National Action Program (2002) to Combat Desertification and Mitigate the Effects of Drought:	The GoSE in pursuant to Article 5 of the convention to the UNCCD, have prepared a National Action Program (NAP) that identifies factors contributing to desertification and practical measures necessary to combat it and mitigate the effect of drought. In relation to NRM, NAP has identified threats to flora and fauna; emphasized the need for creation of protected area system and identified four priority areas for conservation of biodiversity (The Semenawi Bahri, North of the river Setit, riverine habitat along the Gash and Barka Rivers and the Buri Peninsula). This is essential for the current project as lessons learned could also be used in the current project to be implemented in the South Eastern escarpment and adjacent costal areas.
The National Agricultural Development Strategy and Policy document (2005	This policy provides strategic and policy issues on how to develop and manage agriculture without adversely impacting the environment. It also recommends expansion of forest enclosures and provide villages forest tenure rights; undertake programs to educate villagers on the benefits of better forest management; establish corridors for livestock grazing and access for water in land concession agreements. These recommendations are also pertinent to the current project on climate resilient NRM.
The Forestry and Wildlife Conservation and Development Proclamation No 155/2006:	This Proclamation, in addition to the regulations for the issuance forestry permits (Legal Notice 111/2006) and regulations for the issuance of wildlife permits (Legal Notice 112/2006) provides the framework for the conservation and development of forests and wildlife resources of the country. The proclamation contains articles related to the conservation of natural resources. Some of the main ones include: (i) Mandates establishment of protected areas for the conservation of natural resources; (ii) Secures tree tenure to a person who plants trees on any land which that person has a legal right to use (Article-23); and (iii) prohibits unauthorized exploitation, transporting and processing of wood products for commercial purposes, cutting live trees for domestic use and clearing land for agriculture and other purposes (Article-21). Implementation of this proclamation is vital for the successful implementation of the recommendations provided in the BLS in relation to climate resilient NRM and sustainable livelihood.
The National Action Plan for the Conservation of Marine Turtles and their Habitats in Eritrea (2006) - Draft	Eritrea is signatory of the Memorandum of Understanding (MoU) on the Conservation and Management of Marine Turtles of the Indian Ocean and South-East Asia (MOU IOSEA) under the auspices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). Accordingly, it has developed National Action Plan for protecting the Marine Turtles, other marine species and their habitats. Finalizing the NAP is essential for the for the conservation of marine resources in the project area.
The Proclamation to Establish an Integrated Coastal Area Management (ICAM) (2007) - Draft:	ICAM focuses on avoiding and mitigating environmental damage through coordinated planning and implementation of activities. It enables conservation of marine resources by managing coastal development activities. ICAM will be instrumental in the identification of locations for investment in the sustainable development of the coastal areas. The PRODOC could also work towards finalizing and implementation of the drafted ICAM as it contributes to the conservation of marine resources in the coastal area of the project.

The Proclamation to Establish the Eritrean Coastal Authority (2007) - Draft:	Establishment of the Eritrean Coastal Authority is essential for the establishment of an inter- sectoral Coastal Area Management Board (composed of representatives of 13 stakeholder members appointed by line Ministries or administrative agencies), which shall be responsible for the conservation and management of the coastal resources. This is institutional set-up is of high significance in the implementation of the PRO-DOC.
Country Report of the LDN Target Setting program in Eritrea (MoA, Mar 2018):	The Government joined Land Degradation Neutrality Target Setting Programme (LDN TSP) voluntarily because it forms part of its continued efforts for sustainable land management. Therefore, the Government of Eritrea will build upon and consolidate the past co-operation with development partners with the overall objective to create an enabling environment for increased financing and investments into SLM/LDN.
The National Adaptation Program of Action (2007):	Eritrea?s NAPA has identified highest priority actions/ projects (102 adaptation projects) that are urgently needed to Adapt to climate change. For addressing the challenges, each priority project need financial support from development partners and effective implementation capacity.

3. *FAO Strategic Objective:* The project will be designed to fit FAO Strategic Objective (SO) 5 ?Increase the resilience of livelihoods from disaster? and SO 2 ?Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner?.

4. *FAO?s Country Programming Framework:* The project fits well within FAO?s CPF. The outcome of FAO?s technical support is to be ?combating the food and nutrition insecurity through the establishment of an enabling development policy and strengthened regulatory framework for improved management and conservation of the natural resource base and its sustainable use to increase agricultural and fisheries production and productivity and to alleviate rural unemployment and poverty?.

5. The CPF outcome is to supported by five immediate objectives: (1) Support strategic planning and design of enabling development policy and strengthening agricultural information systems; (2) Increase agricultural and fishery production through effective agricultural research and extension programs and facilitate utilization of improved inputs and practices that would contribute to raising productivity and increased self-reliance in basic food commodities; (3) Support development, conservation, sustainable management and optimal use of the available natural agricultural and marine resources with due regard to climate change mitigation and adaptation to its impacts; (4) Provide appropriate conditions for promoting value addition, agro-processing, marketing and trade and for enhancing and expanding sphere of activities of the private sector in agricultural development; and, (5) Support improved livelihood and enhanced food and nutrition security for vulnerable farming and rural communities through generation of rural employment and sustainable increase in rural households? incomes and through disaster risk reduction and emergency management.

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.

Knowledge Management Approach

1. Knowledge management is an integral part of this proposed project. The project will develop and record lessons learned, elaborate cutting-edge training modules to train relevant government and civil society organizations, private sector, farmers/pastoralists, and other partner organizations and local community and user groups, to use and transfer resilient and sustainable livelihood, technology, and innovative practices, to develop ?how-to? guidelines for use by farmers and to monitor and record project results.

2. The project will also take initiatives to disseminate best practices and lessons learned, training, and knowledge materials and guiding document through workshop, seminar, conference, and electronic and print media for the wider impact. Institutional and human capacity building through comprehensive training will be an important part of this project?s components which will foster knowledge-based development and vulnerability reduction in the targeted areas. Learning platform/forums will be established. The platforms will be used for sharing of CCA, SLM and biodiversity conservation evidence based knowledge. The best practices will be scaled out, disseminated, and replicated to other areas within and outside Eritrea.

3. Finally, the project will enable stakeholders at the national, regional and local level to have access to improved knowledge and data through development of mechanisms for inter-regional knowledge sharing (including in terms of best practices for catalyzing private sector investments), peer-to-peer learning, systematic long-term approaches to capacity building, as well as the collection, management and dissemination of useful information.

Communication Strategy

4. Please see Component 4 for a full description of the project?s communications strategy. As stated, this strategy will integrate innovative tools designed to engage and inform stakeholders at many levels. The communications strategy will incorporate within it specific monitoring tools to make certain that target audiences are reached, that target audiences are engaged and contributing, and that communications are actually resulting in improved practices and positive impacts. Progress on this communication strategy and the aligned knowledge management approach will be monitored and reported upon throughout the project period. As with all project investments, the project will make certain through the handover strategy that advances made in terms of knowledge management and communication are sustained and enduring.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

1. Project supervision will be carried out by the Project Steering Committee (PSC) and FAO.

2. Supervision will ensure that: (a) project products are produced in accordance with the project results framework and lead to the achievement of project results; (b) the results of the project lead to the achievement of the project objective; (c) the risks are continuously identified and monitored, and appropriate mitigation strategies are applied; and (d) the agreed global environmental benefits of the project are being delivered.

3. FAO will monitor the activities, products and results financed by the GEF to a large extent through annual project implementation reports (PIR), and periodic support and supervision missions.

4. The daily monitoring of the project will be carried out by the Project Management Unit (PMU) and the person responsible for the FAO budget.

5. Project performance will be monitored using the project results matrix, including indicators (baseline and goals), and annual work plans and budgets. At the beginning, the results matrix will be reviewed to finalize the identification of: i) products ii) indicators; and iii) lack of baseline information and goals.

6. A Monitoring and Evaluation (M&E) specialist will develop a detailed M&E plan, which is based on the results matrix and defines the specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc.).

7. The project will design a strategic implementation strategy detailing steps and benchmarks for deliverables covering the entire project period. This implementation strategy will be completed prior to the inception workshop and will be used to guide and monitor implementation progress in parallel with project impact monitoring and evaluation. The implementation strategy will prioritize and detail implementation actions. This will include firm timelines for the professional completion of deliverables required to realize the intended project objective and associated GEBs.

8. **Project Inception Report**. After FAO internal approval of the project, an inception workshop will be held. Immediately after the workshop, the NPC will prepare a project inception report in consultation with the MoLWE, FAO Representation in Eritrea and other project partners. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B and the M&E Matrix. The draft inception report will be circulated to the PSC and for review and comments before its finalization, no later than three months after project start-up. The report will be cleared by the FAO BH, LTO and the FAO/GEF Coordination Unit. The BH will upload it in FPMIS.

9. **Annual Work Plan and Budget(s) (AWP/Bs).** The NPC will present a draft AWP/B to the PSC no later than 10 December of each year. The AWP/B should include detailed activities to be implemented by project Outcomes and Outputs (including from the Gender Action Plan) and divided into monthly timeframes and targets and milestone dates for Output and Outcome indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The AWP/B will be reviewed by the PSC and the NPMU will incorporate any comments. The final AWP/B will be sent to the PSC for approval. The BH will upload the AWP/Bs in FPMIS.

10. **Project Progress Reports (PPR)**. The PPRs are used to identify constraints, problems or bottlenecks that impede timely implementation and take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Framework (Annex A), AWP/B and M&E Plan. Each semester the NPC will prepare a draft PPR, and will collect and consolidate any comments from the FAO PTF. The NPC will submit the final PPRs to the FAO Representation in Eritrea every six months, prior to 10 June (covering the period between January and June) and before 10 December (covering the period between July and December). The July-December report should be accompanied by the updated AWP/B for the following Project Year (PY) for review and receive no-objection by the FAO PTF. The Budget Holder has the responsibility to coordinate the preparation and finalization of the PPR, in consultation with the PMU, LTO and the FLO. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

11. **Annual Project Implementation Review (PIR)**. The NPC, under the supervision of the LTO and BH and in coordination with the national project partners, will prepare a draft annual PIR report covering the period July (the previous year) through June (current year) no later than July 1st every year. The LTO will finalize the PIR and will submit it to the FAO-GEF Coordination Unit for review by July 10th. The FAO-GEF Coordination Unit, the LTO, and the BH will discuss the PIR and the ratings. The LTO is responsible for conducting the final review and providing the technical clearance to the PIR(s). The LTO will submit the final version of the PIR to the FAO-GEF Coordination Unit for final approval. The FAO-GEF Coordination Unit will then submit the PIR(s) to the GEF Secretariat and the GEF Independent Evaluation Office as part of the Annual Monitoring Review of the FAO-GEF portfolio. The PIR will be uploaded to FPMIS by the FAO-GEF Coordination Unit.

12. **Co-financing reports**. The NPC will be responsible for collecting the required information and reporting on in-kind and cash co-financing provided by all the project co-financiers and eventual other new partners not foreseen in the Project Document. Every year, the NPC will submit the report to the FAO Representation in Eritrea before July 10th covering the period July (the previous year) through June (current year). This information will be used in the PIRs.

13. **Core Indicators worksheet**. In compliance with GEF policies and procedures, at project mid-term and completion, Agencies report achieved results against the core indicators and sub-indicators used at CEO Endorsement/ Approval.

14. A **Mid-Term Review (MTR)** will be carried out in the 1st quarter of project Year 4. The FAO BH will arrange an independent MTR in consultation with the PSC, PMU, LTO, FAO-GEF Coordination Unit. The MTR will be conducted to review progress and effectiveness of implementation in terms of achieving project outputs, outcomes and objective. The MTR will allow mid-course corrective actions, as needed. It will also provide a systematic analysis of the information on project progress in the achievement of expected results against budget expenditures by referring 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 suggest mitigation actions to be discussed by the PSC, LTO, FAO-GEF Coordination Unit.

15. **Terminal Evaluation.** 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. The BH 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. 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 CU. Results from the TAPE analysis will be utilized as inputs for both the Mid-Term and Terminal Evaluations.

16. **Final Report**. Within two months prior to the project?s completion date, the NPC will submit to the PSC and FAO Representation in Eritrea a draft final report. The main purpose of the final report is to give guidance to authorities (ministerial or senior government level) on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilized. Therefore, the terminal report is a concise account of the main products, results, conclusions and recommendations of the Project, without unnecessary background, narrative or technical details. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for ensuring sustainability of project results. Work is assessed, lessons learned are summarized, and recommendations are expressed in terms of their application to the integrated landscape management in the three pilot sites, as well as in practical execution terms. This report will specifically include the findings of the final evaluation. A project evaluation meeting will be held to discuss the draft final report with the PSC before completion by the Project Coordinator and approval by the BH, LTO, and FAO-GEF Coordination Unit.

Budgeted M&E Plan

M&E activities	Responsible	Time frame	Budget, USD
Initial Workshops	NPC with NFP support FAO Representation in Eritrea	Within three (3) months after the signature of the project document by the country	$10,000
Initial Workshop report	NPC with NFP support	Within two (2) weeks following the Initial Workshop	NPC and NFP
Inception Support	Inception Support Expert	Inception phase	$10,000
Inception, Mid-term and Final Technical Design Workshops	M&E Expert	At Inception, mid-term and terminal phasese	$10,000
Annual Work Plan and Budget (AWP/B)	Prepares NPC with support from the LTO, and the BH with support from the National Budget and Operations Officer PMU and Interinstitutional Technical Team contributions PSC approval	Annual; at the beginning of the project and subsequently, every calendar year	National counterpart, NPC and Agency Fee
M&E Support and supervision visits	LTO, PMU	At least once a year	PMU, Agency Fee and specific activities
	M&E Expert	Throughout the project lifespan, site-level monitoring, evaluation and reporting.	$225,000
Project Progress Report (PPR)	NPC, LTO, BH	Every six (6) months (June and December)	NPC and Agency Fee

M&E activities	Responsible	Time frame	Budget, USD
Project Implementation Report (PIR)	Prepares NPC with PMU inputs LTO and BH supervision Approval and submission to the GEF by PSC	Annual	National counterpart, NPC and Agency Fee
Co-financing Report	PMU	Annual (with the PIR)	PMU
Mid-Term Review	NPC and PMU; FAO Representation in Eritrea; FAO-GEF; FAO technical staff not participating in project implementation	Midpoint of year 4 of project	$80,000
Final Evaluation	The BH 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 FAO?s OED.	To be launched 6 months prior to terminal review meeting	$80,000
Final Project Report	NPC; FAO (FAO Representation in Eritrea, LTO, FAO-GEF Coordination Unit, Business Development and Resource Mobilization (PSR) Reporting Unit)	Within two months prior to the project?s completion date	$6,800
Specific project budget for M&E activities			$411,8000

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)?

1. The project will directly benefit approximately 57,000 male and 62,000 female rural producers. The livelihoods of these producers are currently challenged due in large part to the inability to address degradation challenges and the loss of critical ecosystem services leading to deteriorating living conditions and wellbeing of local communities. The project will reverse this trend by providing rural agriculturalists, herders, and fisheries interests with the opportunities to access knowledge, information, capacity and experience to adopt improved practices. This will be comprehensively applying best practices to the entire value chain, starting from resource management to market. This will include providing residents to access to greater profitability through sustained production methods and ability to better realize gains from existing and new markets. These practices will result in GEBs and the achievement of LDNs, but also increased the standards of living, food security, and climate change resiliency of these at-risk rural dwellers.

2. Rural communities will be engaged equitably with clear consideration given to cultural norms and practices. The project will work collaboratively with these stakeholders to assist them with the design and implementation of management regimes that build knowledge for informed decision-making and provide opportunities to regulate industry through planning, by-laws, and improved practices.

3. The project will closely monitor and track benefit delivery. This will be done to make certain that target beneficiaries are meaningfully increasing livelihood security, reducing climate risk exposure through the adoption of pro-conservation SLM and BD conservation approaches.

4. Employment is an on-going challenge in rural Eritrea. By improving these practices, increased livelihoods, and income the project is expected to have knock-on impacts in terms of economic development and associated increases in employment opportunity.

5. At the governance level, national benefits will accrue to a variety of agencies particularly at the local level where resource concerns are greatest and management capacity most needed. This will include the ability to more efficiently and effectively address degradation issues. The results of more strategic and collaborative approaches to degradation will also increase the cost-effectiveness of current divergent investments. Working in partnership with community-based resource users associations will generate greater collaboration and buy-in. These investments and associated human resources will be harmonized to directly address degradation and increase synergistic responses. This will include capacity building, limited supply of better equipment, and access to knowledge and capacity based upon best international and regional principles and practices.

6. The project will pay special attention to these issues with regards to women empowerment and gender equity. These concepts are woven throughout the project framework and reflected in the results

framework. The project will assist women to engage meaningfully in decision-making and capacity building. The project will help build skills and empower women to realize more equity and greater economic security. This will be evinced through field training approaches that are designed for and with women.

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
Low	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.

Section B: Environmental and Social risks from the project ? ESM Plan

A detailed Environmental and Social Risk Management Plan (ESMP) will be developed during project inception prior to starting implementation of project interventions. Specific budget lines were allocated in the project budget to prepare a full ESMP ($30,000 to $50,000) and to hire a safeguards specialist for the preparation and implementation of the Grievance Redress Mechanism and the Stakeholder Engagement Plan ($20,000).

Risk identified	Risk Classification	Mitigation Action (s)	Indicator / Mean(s) of Verification	Progress on mitigation action

SAFEGUARD 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS 2.1 Would this project be implemented within a legally designated protected area or its buffer zone?	Moderate	At the time of conducting this PPG, there are no gazetted protected areas in Eritrea. The project areas are located between two potential protected areas namely Semenawi Bahri National Park and the Buri Peninsula, although not legally designated as protected areas there is ongoing work for these areas to be demarcated and gazetted. The project will address the current state of overexploitation of resources in protected areas, which are being exploited for livestock production, wood collection, and fisheries. Project interventions will restore environmental assets in targeted landscapes and seascapes. These include capacitation and equipment of FWA staff and relevant extension services, spatial planning will strengthen policies and regulations in protected areas, support connectivity through migratory corridors and buffer zones to increase climate change resilience; forest regeneration and rehabilitation of degraded areas of mangrove). Project interventions will support the creation of 15,000ha of protected areas, the restoration of 2,000ha of land, improve practices within 207,000 of landscape, and improve the practices within 1,000ha of marine habitat.	Total area under improved management expanded.	NA

SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE 3.2 Would this project Introduce crops and varieties previously not grown?	Moderate	Yes. Potential project interventions may include the introduction of early-maturing and draught-resilient crop varieties. Phytosanitary protocols in line with IPPC will be observed.	% of endemic and locally adapted seeds and planting materials used in agro-sylvo-pastoral demonstration practices in the target landscapes	NA
SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE 3.4 Would this project establish or manage planted forests?	Moderate	Yes. Potential project interventions may include the establishment of tree nurseries and tree belts within target landscapes. All the recommendations under moderate risk will be followed to mitigate risk.	% of forestry-related interventions in line with principles 9, 10, 11 and 12 of the Voluntary Guidelines on Planted Forests	NA
SAFEGUARD 7 DECENT WORK 7.2 Would this project operate in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels ?working poverty??	Low	Yes. Action will be taken to anticipate the likely risk of perpetuating poverty and inequality in socially unsustainable agriculture and food systems. Specific measures and mechanisms will be introduced to empower in particular the most vulnerable /disadvantaged categories of rural workers, with a special attention to women and youth.	Number of smallholders and vulnerable social groups benefiting from project interventions and reporting improved livelihoods	NA

SAFEGUARD 7 DECENT WORK 7.3 Would this project operate in situations where youth work mostly as unpaid contributing family workers, lack access to decent jobs and are increasingly abandoning agriculture and rural areas?	Low	Yes. Action will be taken to support youth empowerment and employment in agriculture. Complementary measures will be introduced aiming at training youth, engaging them in the value chain, facilitating their access to productive resources, credit and markets.	Number of youth benefiting from project interventions and reporting improved livelihoods	NA
SAFEGUARD 7 DECENT WORK 7.4 Would this project operate in situations where major gender inequality in the labour market prevails? (e.g. where women tend to work predominantly as unpaid contributing family members or subsistence farmers, have lower skills and qualifications, lower productivity and wages, less representation and voice in producers? and workers? organizations, more precarious contracts and higher informality rates, etc.)	Low	Yes, Action will be taken to promote rural women?s social and economic empowerment in line with the project?s Gender Action Plan.	Percentages of women and men benefiting from project interventions and reporting improved livelihoods	NA

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Risk Certification Updated LDCF Portion	**CEO Endorsement ESS**	
Risk Certification Updated GEF Portion	**CEO Endorsement ESS**	
ERI902PLDF904PGFF ESS Screening Checklist Updated June 6th FINAL	**CEO Endorsement ESS**	
FAO ES Screening Checklist_Eritrea	**Project PIF ESS**	
Risk certification GEFTF	**Project PIF ESS**	
Risk certification LDCF	**Project PIF 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).

Annex A1: Project Results Framework[1]

Result Chain	Indicators	Baseline	Mid-Term Milestone	Targets	Means of Verification
Project Objective: Enhance resilience of vulnerable agro-pastoralist and fishing communities along degraded landscapes and seascapes in the south-eastern escarpments and adjacent coastal areas of Eritrea through an integrated ecosystem-based and market-driven approach.	Number of hectares of terrestrial protected areas created or under improved management for conservation and sustainable use	0 Hectares	7,500 hectares	15,000 hectares	Project evaluations and reports Project emplaced monitoring and assessment tools National strategies and reports Local Government reports, including financial Spatial planning and monitoring results
	Hectares of land restored	0 hectares	7,500 hectares	15,000 hectares	
	Hectares of landscapes under improved practices (excluding protected areas)	0 hectares	112,000 hectares	224,000 hectares	
	Hectares of marine habitat under improved practices (excluding protected areas)	0 hectares	25,000 hectares	50,000 hectares	

	Metric tons of CO2e Greenhouse Gas Emissions Mitigated	0 metric tons of CO2e	-975,123 metric tons of CO2e	-2,437,808 metric tons of CO2e	Remote sensing analysis Fisheries, livestock, and agriculture monitoring reports TAPE assessment (household surveys) B-INTACT assessment
	Metric tons of globally over-exploited marine fisheries moved to more sustainable levels	0 metric tons	100 metric tons	200 metric tons	
	Number of direct beneficiaries as co-benefit of GEF investment	0 female 0 male	30,000 female 30,000 male	62,000 female 57,000 men	
Outcome 1: Strengthened policy, planning and finance frameworks for CCA, SLM/SFM & BDC at national and community-level	Number of monitoring reports (mid-term and final) detailing how and what government policies, plans and finance frameworks effectively mainstream CCA, SLM/SFM and BDC as a result of this GEF investment.	0 monitoring report	1 monitoring report	2 monitoring reports	Project evaluations and reports Project emplaced monitoring and assessment tools National strategies and reports

	Number of annual CC vulnerability assessment reports covering each of the four target sub-Zobas distributed each year to national and sub-national stakeholders.	0 annual CC vulnerability assessment reports	3 annual CC vulnerability assessment reports	6 annual CC vulnerability assessment reports	Local Government reports, including financial Spatial planning and monitoring results
	Number of meeting reports from cross-sectoral watershed coordination mechanism established to support achievement of integrated CCA, SLM/SFM and BD conservation objectives with members representing MoA, MoLWE, MoMR, MoLG, and 4 sub-Zoba administrations.	0 meeting reports	6 meeting reports	12 meeting reports	Remote sensing analysis Fisheries, livestock, and agriculture monitoring reports TAPE assessment B-INTACT

	274,000 hectares of productive land and marine area covered by spatial plans monitored annually and reporting progressive achievement of biodiversity conservation, SLM, and climate change adaptation targets.	0 hectares of productive terrestrial 0 hectares productive marine	112,000 hectares of productive terrestrial 25,000 hectares productive marine	224,000 hectares of productive terrestrial 50,000 hectares productive marine	assessment
	Percentage of target area Village Development Plans integrate spatial plan objectives, detail BDC, SLM/SFM, CCA indicators, and track achievement.	0% of target area Village Development Plans	50% of target area Village Development Plans	100% of target area Village Development Plans	

	Number of annual monitoring reports documenting progress made towards management plan objectives of new protected area formally established within the spatial plan adopted by the Government of Eritrea covering 15,000 hectares of native forest and grasslands within the target watershed.	0 annual PA monitoring reports	2 annual PA monitoring reports	5 annual PA monitoring reports	
	Number of semi-annual information management summary reports describing progress made towards achievement of CCA, SLM, LDN, and BDC indicators across the project target area with hard copies distributed to MoA, MoLWE, MoMR, FAO, and 4 target sub-Zoba administrations	0 semi-annual information management summary reports	5 semi-annual information management summary reports	12 semi-annual information management summary reports	

	100% of GEF project emplaced CCA, SLM/SFM, and BD conservation programs on-track to be supported and sustained by national financing as described financing hand-over strategy.	0% of programs on-track to be fully financed	50% of programs on-track to be fully financed	100% of programs on-track to be fully financed	
1.1 Mechanisms for improved cross-sectorial coordination of policies, plans and finance/ investments in place at national and subnational level to support mainstreaming of CCA, SLM/SFM and BDC in relevant sectors. 1.2 Comprehensive informed decision-making programming improvements mainstreams BD, SLM/SFM, and CCA 1.3 Spatial planning effectively guides decision-making towards achievement of mainstreamed CCA, SLM/SFM, and BDC objectives 1.4 Financing mechanisms in place to sustain continued mainstreaming and advanced achievement of CCA, SLM/SFM, and BDC objectives					
Result Chain	Indicators	Baseline	Mid-term Milestones	Targets	Means of Verification

Outcome 2 Effective advisory and supply services for up and out scaling of SLM/SFM, CCA and BDC in the targeted landscape/seascape	Number of extension officers (50% female, 50% male) annually leading field-based training programs covering livestock, forestry, agriculture, and/or fisheries that mainstream SLM/SFM, CCA, BDC	0 extension officers (50% female, 50% male)	200 extension officers (50% female, 50% male)	200 extension officers (50% female, 50% male)	Project evaluations and reports Project emplaced monitoring and assessment tools National strategies and reports Local Government reports, including financial Spatial planning and monitoring results Remote sensing analysis Fisheries, livestock, and agriculture monitoring reports TAPE
	Number of extension officers (50% female, 50% male) annually participating in in-service training programs focused upon building SLM/SFM, CCA, BDC mainstreaming capacity.	0 extension officers (50% female, 50% male)	200 extension officers (50% female, 50% male)	200 extension officers (50% female, 50% male)	
	Number of persons (50% female, 50% male) within the project area participating annually in field-based training programs covering livestock, forestry, agriculture, and/or fisheries that mainstream SLM/SFM, CCA, BDC	0 persons (50% female, 50% male)	15,000 persons (50% female, 50% male)	15,000 persons (50% female, 50% male)	

	Number of fishing vessels agreeing to voluntary guidelines/code of conduct and regular monitoring reporting progressive achievement of BD conservation and CC adaptation targets.	0 fishing vessels	125 fishing vessels	250 fishing vessels	assessment B-INTACT assessment
	Number of persons (50% female, 50% male) within the project area annually reporting improved food security as a direct result of project action	0 persons (50% female, 50% male)	5,000 persons (50% female, 50% male)	10,000 persons (50% female, 50% male)	
	Hectares of native forests reported to be under improved conservation management annually with by-laws mandating management targets and oversight responsibilities	0 hectares of native forests	3,500 hectares of native forests	5,000 hectares of native forests	

	Hectares of rainfed agriculture monitored and reported to have improved production value and reduced CC vulnerability as a result of project capacity building	0 hectares of rainfed agriculture	5,000 hectares of rainfed agriculture	10,000 hectares of rainfed agriculture	
	Hectares of irrigated agriculture monitored and reported to have improved production value and reduced CC vulnerability as a result of project capacity building	0 hectares of irrigated agriculture	3,000 hectares of irrigated agriculture	3,000 hectares of irrigated agriculture	
	Hectares of degraded rangeland monitored and reported to have improved production, improved BD conservation value and reduced CC vulnerability as a result of project capacity building	0 hectares of degraded rangeland monitored	5,000 hectares of degraded rangeland monitored	5,000 hectares of degraded rangeland monitored	

	Head of livestock monitored and reported to have improved production value as a result of project capacity building	0 head of livestock monitored	2,000 head of livestock monitored	2,000 head of livestock monitored	
	Hectares of mangrove restored within the project area	0 hectares	0 hectares	500 hectares	
	100% of established extension services capacity supported through increased Government of Eritrea annual budget lines	0% of established extension services capacity supported	0% of established extension services capacity supported	100% of established extension services capacity supported	
2.1 Extension services effectively and efficiently facilitate fisheries, livestock and agriculture capacity building to advance BD conservation, SLM, and CC resilient practices. 2.2 Field school program established to effectively support mainstreaming of BD conservation, SLM, and CC resilient practices by rural fisheries, livestock and agriculture sectors.					

Outcome 3: Climate and COVID resilient livelihoods through innovations and improved access to technologies, markets and distribution networks.	Number of target beneficiaries reporting improved and diversified incomes reducing CC vulnerability as a result of project support.	0 male 0 female	2,500 male 2,500 female	5,000 male 5,000 female	Project evaluations and reports Project emplaced monitoring and assessment tools
	Number of cooperatives established with by-laws mainstreaming BDC, SLM/SFM, and CCA principles and practices.	0 cooperatives established	50 cooperatives established	100 cooperatives established	National strategies and reports Local Government reports,

	Number of cooperative production facilities operational and engaging at least 1,600 women with annual monitoring reports showing participants with recording reduced CC vulnerability	0 cooperative production facilities	8 cooperative production facilities	16 cooperative production facilities	including financial Spatial planning and monitoring results Remote sensing analysis Fisheries, livestock, and agriculture monitoring reports TAPE assessment B-INTACT assessment
3.1 Supply chain network assessed and priorities for strengthening resilience in selected value chains identified in a participatory process. 3.2 Targeted capacity building for agricultural cooperatives, MSMEs and agro-industries in identified priority areas 3.3 Women and youth entrepreneurship strengthened for increased resilience of crop-pastoralist-fishing dependent livelihoods and access to credit and markets improved.					

Outcome 4: Monitoring & Evaluation, communication and knowledge transfer	Number of persons participating in annual project progress reporting workshops	100 male 100 female	100 male 100 female	100 male 100 female	Project evaluations and reports
	Number of monthly users of project established knowledge management website	0 monthly users	1,500 monthly users	1,500 monthly users	Project emplaced monitoring and assessment tools
	Number of government staff receiving monthly project update electronic newsletters	0 government staff	100 government staff	300 government staff	National strategies and reports
	Number of extension officers (50% male/50% female) receiving CC, BD, and SLM mainstreaming capacity building handbooks every six months	0 male 0 female	100 male 100 female	200 male 200 female	Local Government reports, including financial Spatial planning and monitoring results Remote sensing analysis
	Number of target beneficiaries receiving annual project ?best practices? CC, BD, and SLM mainstreaming implementation booklets	0 male 0 female	2,500 male 2,500 female	5,000 male 5,000 female	Fisheries, livestock, and agriculture monitoring reports TAPE

	Number of government resource management agencies reporting capacity and budget increases adequate to continue and advance project emplaced programming as detailed in the project handover strategy.	0 MoLWE 0 MoA 0 MoMR 0 Zobas 0 Sub-Zobas	0 MoLWE 0 MoA 0 MoMR 0 Zobas 0 Sub-Zobas	1 MoLWE 1 MoA 1 MoMR 2 Zobas 4 Sub-Zobas	assessment B-INTACT assessment
4.1 Project M&E system and adaptive learning and management established and implemented. 4.2. Communication and knowledge management strategy developed and implemented.					

[1] Please note that output based indicators are not mandatory as long as the targets for each output are well defined.

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).

STAP Review

Part 1: Project Information	**Response**		
GEF ID	10789		
Project Title	Building Community Based Integrated and Climate Resilient Natural Resources Management and Enhancing Sustainable Livelihood in the South-Eastern Escarpments and Adjacent Coastal Areas of Eritrea		
Date of Screening	May 27, 2021		
STAP member screener	Edward Carr		
STAP secretariat screener	Guadalupe Dur?n		
STAP Overall Assessment and Rating	**STAP finding**	**STAP Response/Comment**	**Agency Response at Time of CEO Endorsement**

	Minor issues to be considered during project design	STAP acknowledges FAO?s proposal ?Building Community Based Integrated and Climate Resilient Natural Resources Management and Enhancing Sustainable Livelihood in the South-Eastern Escarpments and Adjacent Coastal Areas of Eritrea?. The project seeks to enhance the resilience of agro-pastoralist and fishing communities in the target areas through integrated approaches. The project also aims to strengthen value chains to incentivize sustainable land management, and improve livelihoods. The project focuses on three sectors: agriculture, livestock and fisheries. As the project is developed, STAP recommends detailing further these three social-ecological systems by specifying the connections and feedbacks between the biophysical (terrestrial and marine), socio-cultural and economic variables; and, the barriers, risks, and assumptions underlying the success of each outcome.	Noted.

		With a more detailed description of the socio-ecological systems, the interconnections between variables can be more easily identified, measured and monitored that underlie the resilience of each system. Furthermore, trade-offs between benefits can be analyzed, and interventions prioritized.	This observation is now integrated within the design and will be further elaborated particularly via Component 1 efforts.
		These connections and feedbacks between variables can be further refined in the theory of change provided in the PIF, which STAP welcomes. In addition, STAP suggests embedding scenario planning for climate adaptation within the theory of change, and decision-making processes.	Scenario planning is embedded and fully emphasized within Compoment 1 vulnerability assessments, spatial planning, monitoring, and informed decision-making.
		The project mentions the use of spatial planning and vulnerability assessments as approaches to reaching the expected outcomes on climate adaptation, biodiversity conservation and sustainable land management. STAP encourages the project developers to specify these methods, and metrics further. STAP provides further advice below on these issues.	Much appreciated. Details now provided within the project document framework.

Part I: Project Information **B. Indicative Project Description Summary**	**What STAP looks for**	**STAP Response/Comment**	**Agency Response at Time of CEO Endorsement**
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes, the objective is clearly defined.	Noted.
Project components	A brief description of the planned activities. Do these support the project?s objectives?	Yes, the components support the project objective.	Noted.
Outcomes	A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits/adaptation benefits?	Yes, the outcomes focus on global environmental and adaptation outcomes.	Noted.
	Are the global environmental benefits/adaptation benefits likely to be generated?	Possibly, with good monitoring of the outcomes progress and impact.	Monitoring approach/design substantially enhanced during PPG and reflected in framework.
Outputs	A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?	Possibly, with close monitoring of outcomes, and application of iterative learning and adaptive management.	As above.

Part II: Project justification	A simple narrative explaining the project?s logic, i.e. a theory of change.		
1. Project description. Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)	Is the problem statement well-defined?	Yes, the problem is defined. Agricultural production and marine ecosystems (coral reefs and fisheries) are being affected by rainfall and temperature variability, leading to drought and floods. Droughts and increasing rainfall variability are also affecting pastoralism through reduced animal feed and water availability. Unsustainable practices are also driving land and forest degradation, overgrazing, and biodiversity loss (terrestrial and marine ? overfishing).	Noted.

	Are the barriers and threats well described, and substantiated by data and references?	Yes, the barriers and threats are well described. They include lack of capacity to mainstream biodiversity, sustainable land and forest manage and climate adaptation into land use plans; low capacities to adopt sustainable practices; lack of post-harvest technology; STAP suggests that at the PPG stage the project team consider STAP guidance on behavioral change, as addressing Barrier 2 (Low capacities to adopt and sustain CCA, BDC, and SL/SFM practices and technologies at the community level) will require understanding the opportunities for and barriers to the adoption of these technologies and practices found in the social and cultural context. STAP appreciates the well-articulated description of threats, including the use of multiple climate scenarios, to illustrate those threats.	Noted.

	For multiple focal area projects: does the problem statement and analysis identify the drivers of environmental degradation which need to be addressed through multiple focal areas; and is the objective well-defined, and can it only be supported by integrating two, or more focal areas objectives or programs?	Yes, the problem analysis identified multiple drivers that need to be addressed by combining biodiversity, sustainable land management, and climate adaptation efforts. STAP appreciates the systems thinking that marks this PIF and the connections it draws between these different drivers and specific challenges to be addressed.	Noted.
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	Policies and baseline projects (fisheries, food security, land management, climate resilience, climate adaptation) are described as a baseline narrative.	Noted.
	Does it provide a feasible basis for quantifying the project?s benefits?	Not yet ? for land degradation, suggest using soil organic carbon as an indicator and baseline for land as identified in Eritrea?s LDN target report. Suggest quantifying the baseline for biodiversity.	Soil organic carbon data was not available during PPG. This will require capacity building which is considered withing the project framework, particularly Component 1 with linkages to interventions and knowledge management under Components 2, 3, and 4.

		For climate change, the two climate future projections (RCP2.6 and RCP8.5) described in the PIF are useful. The project might want to consider consolidating the climate model forecasts into two plausible future climate scenarios, and then use them for the purposes of anticipating and managing risks, and for selecting and designing specific interventions to ensure they produce robust results across a range of plausible futures.	A revised assessment was completed during PPG and integrated/reflected within design.
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Yes, once the baselines for biodiversity, land degradation, and climate change have been defined.	Noted.
	For multiple focal area projects:		
	are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators;	See above.	Noted.

	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	Yes ? however, further details on how the lessons will be used to inform the design of this project would be valuable.	This suggestion much appreciated. The Project Document now reflects lessons learned, including references to evaluation findings and practical concerns related to existing and past GEF investments.
	how did these lessons inform the design of this project?	See above.	Noted.

3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	The project?s theory of change can be described as: ?The project aims to reduce livelihood and unsustainable land/sea change through crop and income diversification, improving the enabling environment, and mainstreaming climate change adaptation, biodiversity conservation, and sustainable land and forest management into priority sectors, including food system-related sector investment plans. The project will promote adaptation technologies and ecosystem-based solutions to strengthen rehabilitation, restoration and resilience in ecosystems and reduce environmental degradation and vulnerability to climate risks and hazards. Further, the project will promote a market-based approach to improve climate resilience through the local private sector, scaling up agribusinesses and MSMEs. A comprehensive figure of the theory of change also is provided, which is welcomed by STAP	Noted.
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	See above.	Noted.

	What is the set of linked activities, outputs, and outcomes to address the project?s objectives?	See above.	Noted.
	Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	Yes, assumptions are defined in the theory of change figure. As the theory of change is applied, suggest testing the assumptions, and adapting interventions to reflect this learning.	Noted.
	Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	Partly. Adaptive management is recognized as potential strategy for the project. Recommend adding scenario planning as described above for climate adaptation in the theory of change to identify opportunities for adaptation, or transformational change.	Please see comments above.
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co-financing	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	Yes, with good monitoring and evaluation of progress towards reaching the outcomes. As part of this monitoring and evaluation process, suggest identifying indicators for biodiversity and land change that complement the core indicators. As indicated above, suggest using Eritrea?s LDN?s soil organic carbon indicator and baseline for global environmental benefits on land.	Please see comments above.

	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	Yes, with good monitoring and evaluation of progress toward outcomes. STAP suggests some of these benefits could be quantified if the project adopts the climate scenarios suggested above.	Please see comments above.
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits/adaptation benefits, and are they measurable?	Yes, the benefits are valid. Suggest identifying metrics that complement the core indicators to measure and track change along the impact pathway.	Please see comments above.
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Possibly, with good monitoring and evaluation ? including testing of assumptions and adapting theory of change based on learning.	Please see comments above.
	Are the global environmental benefits/adaptation benefits explicitly defined?	Yes, the benefits are defined, including the expected socioeconomic benefits.	Noted.

	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?	No. The project proposes to use spatial planning and vulnerability assessments to target biodiversity, climate adaptation, and land management interventions. Suggest defining the approaches in greater detail in the complete project, including indicators (biophysical, economic, social) the approaches/methods will be monitoring ? and at what scale ? for example, household, community, watershed levels.	This recommendation was advanced in the final project design with substantial detailing within the Componentry as well as clarification/objectives established in the results framework.
	What activities will be implemented to increase the project?s resilience to climate change?	Diversification of value chains, and investments in post-harvest technologies and practices, will be considered as strategies for increasing agro-pastoralists? and fisherfolks? resilience to climate.	Noted.
7) innovative, sustainability and potential for scaling-up	Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?	The project is innovative in its own context ? that is, the project strives to integrate sectors and policies that generate multiple benefits for land and biodiversity while enhancing climate adaptation.	Noted.
		The project is also strengthening value chains for crops, fisheries, and livestock ? while using learning and knowledge to scale up impact within this project and other initiatives (e.g. IGREENFIN). Post-harvest technologies also will be upscaled.	Noted.

		STAP recommends developing a separate theory of change on scaling. Scaling will depend on the alignment of: 1) improved technology and business models proposed in component 3; 2) institutional arrangements developed within the stakeholder groups; and, 3) cultural rules and values characterizing the stakeholders. Paying close attention to these three aspects and to the barriers of scaling is needed to achieve scaling. Refer to STAP?s transformation brief, STAP?s advice on behavioral change, and to the Theory of Change primer.	This recommendation was considered and is now reflected in the descriptive theory of change, componentry, and results framework.
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	See above.	Noted.

	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	The project?s proposed outcomes are largely incremental but taken together and in the context of continuing drivers of change from root causes beyond the country?s borders, these outcomes may catalyze more transformative changes, for example in the character of agribusiness in the country. Both incremental and transformational change will likely be needed to achieve the project?s goals of sustainable and resilient food systems and sustainable healthy landscapes and seascapes.	Noted.
		STAP recommends monitoring progress toward the outcomes, and adapting the impact pathways accordingly ? while identifying opportunities for adaptation and, or, transformational change. This process entails assessing for resilience of the targeted systems (agricultural, livestock, fisheries). Resilience tools that can be applied to this project include: RAPTA, Wayfinder; and, STAP?s theory of change.	Please see comments above.
1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		Two maps are included in the PIF, which detail the project sites and land uses. As the project is designed, the project team may wish to refer to STAP?s advice on project geo-location.	Noted.
2. Stakeholders. Select the stakeholders that have participated	Have all the key relevant stakeholders been identified to cover	Stakeholders were consulted to the extent possible during the pandemic lockdown.	Noted.

in consultations during the project identification phase: Indigenous people and local communities; Civil society organizations; Private sector entities. If none of the above, please explain why. In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.	the complexity of the problem, and project implementation barriers?	As the project is developed and implemented, STAP suggests revisiting the stakeholders being consulted to ensure appropriate actors are engaged.	This was fully taken on board during PPG and will be carried forward during implementation.
		In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.	Please see above.
	What are the stakeholders? roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?	As the project is designed, STAP suggests the project team describe stakeholders? roles and describe how their combined roles will contribute to achieving the outcomes. This information is possibly best captured in a table format.	Please see above.

3. Gender Equality and Women?s Empowerment. Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis). Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes/no/ tbd. If possible, indicate in which results area(s) the project is expected to contribute to gender equality: access to and control over resources; participation and decision-making; and/or economic benefits or services. Will the project?s results framework or logical framework include gender- sensitive indicators? yes/no /tbd	Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?	A gender assessment of roles and relations will be carried out during the PPG. Suggest paying attention to cultural norms and values, and power dynamics (within the household level, community, and stakeholder groups) when carrying out the assessment. Recommend refining the components based on the gender assessment outcomes.	The PPG phase benefitted from extensive consultation and conseration of gender issues. These are now fully reflected in the final project design, including Components and activities that are primarily focused upon issues of gender and a Gender Action Plan.

	Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	Recommend assessing whether gender considerations will hinder the full participation of an important stakeholder group. For example, do assumptions about women?s roles in agriculture, an attitude that women are a homogenous group, or a perception that women may be more vulnerable to risks (climate and non-climate) hinder the participation of men in some way? Defining gender assumptions in the theory of change and testing these assumptions will avoid unintended and counterproductive gender consequences. Refer to the following paper on addressing gender assumptions in practice: Lau, Jacqueline D., et al. "Gender equality in climate policy and practice hindered by assumptions." *Nature Climate Change* 11.3 (2021): 186-192.	See above.

5. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design	Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project?s control? Are there social and environmental risks which could affect the project? For climate risk, and climate resilience measures: ? How will the project?s objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? ? Has the sensitivity to climate change, and its impacts, been assessed? ? Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with? ? What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	Yes, the risks are comprehensive. Recommend detailing these risks in the theory of change, so they can be dealt with in a logical manner. For climate risks, suggest developing alternative pathways that address the two climate scenarios proposed in the PIF. This planning will assist the project deal with the uncertain impacts of climate change; thus, make the project outcomes more enduring amidst climate change. This scenario planning could be included as part of the theory of change ? so that it is an iterative, systems thinking, consultative planning process.	Please see comments above.

6. Coordination. Outline the coordination with other relevant GEF-financed and other related initiatives	Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?	Yes. Suggest revisiting list of initiatives when designing the project.	Noted and please see comments above.
	Is there adequate recognition of previous projects and the learning derived from them?	Partly ? suggest specifying lessons from each of the projects listed in the coordination section, and describing how the lessons will influence this initiative.	Noted and please see comments above.
	Have specific lessons learned from previous projects been cited?	See above.	Noted.
	How have these lessons informed the project?s formulation?	See above.	Noted.
	Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?	Yes, component 4 and the theory of change.	Noted.

8. Knowledge management. Outline the ?Knowledge Management Approach? for the project, and how it will contribute to the project?s overall impact, including plans to learn from relevant projects, initiatives and evaluations.	What overall approach will be taken, and what knowledge management indicators and metrics will be used?	The project will rely on component 4 to monitor, evaluate and uptake learning and knowledge that evolves during the project implementation. Suggest using component 4 to adapt the impact pathways in the theory of change according to learning as implementation proceeds.	This is now reflected in both Component 1 and Component 4.
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	The project will disseminate best practices and knowledge materials through workshops, learning platforms, and other fora. On scaling, suggest considering advice described above.	Noted.
STAP advisory response	**Brief explanation of advisory response and action proposed**		
1. Concur	STAP acknowledges that on scientific or technical grounds the concept has merit. The proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.		
	* In cases where the STAP acknowledges the project has merit on scientific and technical grounds, the STAP will recognize this in the screen by stating that ***?STAP is satisfied with the scientific and technical quality of the proposal and encourages the proponent to develop it with same rigor. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design.?***		
2. Minor issues to be considered during project design	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to:		

	(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised;	
	(ii) Set a review point at an early stage during project development, and possibly agreeing to terms of reference for an independent expert to be appointed to conduct this review.	
	The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.	
3. Major issues to be considered during project design	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be provided. The proponent is strongly encouraged to:	
	(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development including an independent expert as required. The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.	

Council Comments

COUNCIL MEMBER	COMMENTS	AGENCY RESPONSE

Canada	Canada believes that caution is needed to demonstrate that this will promote native species, be sustainable and also yield positive biodiversity outcomes. Additionally, the project could include a focus on ?nature-based solutions? along with ecosystem-based and market-driven approaches.	This observation is very well appreciated. During the PPG phase, focus and priority was given to biodiversity conservation. ALL investments will only support native and endemic species. This is particularly critical for reforestation efforts. The field school programs outlined in the Project Framework will emphasize and rely upon nature-based solutions, including regenerative agriculture, forestry, livestock and fisheries.

Germany	Germany approves the following PIF in the work program but asks that the following comments are taken into account:	The project is designed to align with and add conservation value to the FRMP. As noted in the Project Document, the current FRMP would benefit from increased emphasis upon the emplacement of conservation safeguards. The Eritrean Red Sea is a highly significant biodiversity sanctuary. Any investment designed to increase exploitation of this globally important resource must be accompanied by clear use parameters.
	? Germany welcomes this proposal, specifically, in the context of a German BMZ contribution to the IFAD ?Fisheries Resource Management Project (2017-2023)? in Eritrea, that is also mentioned in the PIF document, as a relevant baseline project. Suggestions for improvements to be made during the drafting of the final project proposal:	
	? Germany welcomes the integration of seascapes, fishing communities and fishery value chains in the proposal. Although mostly land(degradation)-centred, it is positive to include these ecosystems and value chains into the project design. In particular it is helpful to anticipate possible movements of individuals who use fisheries as the ?last resort? because of pressure from climate change or other factors on the agricultural sector.	The critical importance of fisheries, as noted by the German member, was increasingly emphasized during the PPG. For this reason, the project expanded the total marine area and fisheries focused investments. Much appreciated.
	? The ambition regarding the gender equity dimension within the project is not specifically high. We consider it extremely important to reach the project?s goals in the long run. On page 64 of the PIF document the question for a gender-sensitive indicator is answered with ?TBD?. This might be adequate for this stage of the process but should be followed up.	The PPG phase was used to target and more fully address issues of gender. This is now reflected within the project framework, results framework, and gender action plan.
	? The cultural differences between the agricultural and fisheries sector/communities are expected to be huge. Therefore, analyses should take a differentiated approach to cover specific situations on the ground.	In general, differentiated approaches were described and will be explored during project inception to ensure project interventions are tailored to the specific needs of the target communities in the highlands, escarpments and coastal areas. Although coastal families engaged in fisheries are quite often also engaged in agriculture and livestock, differences do exist and merit consideration. Where differences were noted, required adaptive approaches where considered and integrated.

GEFSEC Review Sheet

GEF ID10789

Countries Eritrea

Project Title: Building Community Based Integrated and Climate Resilient Natural Resources Management and Enhancing Sustainable Livelihood in the South-Eastern Escarpments and Adjacent Coastal Areas of Eritrea

GEF Agency(ies): FAO

Agency ID

GEF Focal Area(s): Multi Focal Area

Program Manager: Jason Spensley

Part I ? Project Information	GEFSEC 29March2021:	GEFSEC 26April2021:	Agency Response
1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?	Yes		

2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?	As conveyed in Question 1 of Part 2, the outcomes and outputs would be sharpened by greater articulation of the climate adaptation problem that is trying to be solved. Please provide further analysis of the current and anticipated impacts of specific climate change hazards to be addressed through this project. In doing so, please refer to at least two climate scenarios regarding the extent of these anticipated impacts, using best available information. Please consider opportunities to strengthen early warning technologies, infrastructure and capacity to use them through this project, as away to address the impacts of droughts, floods and extreme heat on agriculture and fisheries production and post-production. In doing so, please consider opportunities for more explicit references particularly in components 2 or 3, and possible budgetary implications. With regards to Output 2.2.5, please provide a definition of what specifically is referred to by ?stress tolerant/NUS varieties. In doing so, please also confirm if GMO varieties will be considered or not. With regards to Output 3.4 on post-harvest technologies, please ensure to maximize opportunities for private sector engagement, investment and cost sharing, given the income generation potential of these facilities. With regards to component 4, the level of budget dedicated to knowledge management seems relatively high ($2.5 million), without proposing a clear strategy and explanation. Please reduce the budget or provide a thorough description of why this level of funding is required and the impact it will produce. Please consider opportunity for partnerships for inclusive finance institutions or others to provide accessible credit to smallholder farmers, herder, or SMES related to pre or post-harvest activates in these sectors. Please see further information on this consideration with regards to the private sector engagement question in section 2.	Cleared	- Climate scenario assessments have now been included in the PIF ? see Part II section 1 under climate trends and impacts. - References to climate information systems have been included under the Comp 2 and 3 (see yellow highlights in the revised PIF in the RoadMap section) and budgetary resources have been reallocated from Comp. 4, which will also to cover the establishment of meteorological stations in the targeted area (under Output 2.2.2). A thorough climate risk assessment and opportunities for enhancing climate information systems (vertically and horizontally) will also be undertaken during PPG. - As for Output 2.2.5 GMO varieties are currently not considered. Furthermore, the Government?s reply to this is as follows: In relation to GMO, we are not in favor of that at this point in time, but by making intensive risk assessment, we may consider such varieties, provided that no detrimental effect on human health and the environment. - Output 3.4 on post-harvest technologies is an important element of the project in terms of strengthening community resilience by improving food preservation and

Co-financing 3. Are the indicative expected amounts, sources and types of co- financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?	GEFSEC 29March2021: The level of co- financing from partners other than the Government of Eritrea seems quite low. Please consider opportunities to increase from a range of partners. Moreover, we note the indication that "FAO has initiated discussions with a number of key investments being initiated in the country and it is expected that some of these initiatives will augment the project's co-financing, including the investment mobilized. Additional co financing will be further explored during PPG." It is preferable that at least some of this co-financing is indicated at the PIF stage	GEFSEC 26April2021: Cleared as adequate at this stage. However, we understand co-financing will be actively sought to be significantly increased at PPG stage prior to consideration for CEO Endorsement, including in addition to sources from the partners other than the Government of Eretria.	Agency Response - We are con??dent that the project will receive co- financing from a few relevant donor-supported initiatives that are under development (yet to be approved such as the IADP)/being initiated in the country (IFAD, AfDB, EU). A meeting with the Government is also scheduled during the week of 26-30 April to discuss this further and we are waiting to hear back from potential co-financiers.

4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):	Please note the Agency Fee amount is missing at the top of the PIF. Please complete. We note there is not proportionality in the co- financing contribution to PMC. Please amend the financing of PMC to increase the portion covered by co- financing. In tables D and E, there has been a mixed up between what is stipulated in the Letter of Endorsement and the portal. Please review carefully and amend accordingly.	GEFSEC 26April2021: With regards to table D and E: there is still a mix up between what is stipulated in the Letter of Endorsement and the portal. The amounts allocated to Land Degradation in LoE are allocated to Climate Change in Portal, while those allocated to Climate Change in LoE are allocated to Land Degradation in Portal. Please amend. GEFSEC 30April2021: Cleared	We confirm that the information in table D and E in the Portal is correct and the LoE has now been revised accordingly and uploaded with this submission. The Agency Fee has now been included. - PMC co- finance has been increased. - Please note that the only difference between tables D and E, and the LoE is with respect to the Agency Fee column. The table in the LoE combines the Agency Fee (project financing + PPG) for each focal area whereas the tables D and E list the agency fee separately for project financing and PPG.
The STAR allocation?	Yes		
The focal area allocation?	Yes		

The LDCF under the principle of equitable access?	Yes		
The SCCF (Adaptation or Technology Transfer)?	N/A		
Focal area set-aside?	Yes		
Impact Program Incentive?			
Secretariat Comment at PIF/Work Program Inclusion	Yes		
Project Preparation Grant 5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)	Yes		

Core indicators 6. Are the identified core indicators in Table F calculated using the methodology included in the corresponding Guidelines?(GEF/C.54/11/ Rev.01)	We take note of the selected core indicators and targets. Please provide explanation on how the targets were calculated, and in particular for the following Trust Fund indicators: 3.1: 1,000 ha of agricultural lands restored; 3.2: 1.000 ha of forest and forest lands restored; 4.1:15,000 ha of terrestrial landscapes under better management for BD; 4.3 222,000 ha of terrestrial landscapes under SLM; and 5: 1,000 ha of marine areas under improved management. As per GEF guidance for multi-trust fund projects, the targets for GEF Core Indicators should be inclusive of the LDCF financing. As such target for hectares under ?land managed for climate resilience? (LDCF/SCCF Core indicator 2) should be included also under GEF Core Indicator 4.; and similarly for Core Indicator 11 for beneficiaries (LDCF/SCCF Core indicator 1).	Cleared	- We have consulted with the government on this and the targets at this stage are indicative but refer to the total area covered by the proposed project as well as the interventions planned within the targeted landscape. - We have adjusted the GEF and LDCF Core Indicators accordingly.
Project/Program taxonomy 7. Is the project/program properly tagged with the appropriate keywords as requested in Table G?	Yes		
Part II ? Project Justification			

1. Has the project/program described the global environmental/adaptation problems, including the root causes and barriers that need to be addressed?	The climate adaptation problems are reasonably clearly articulated. including in the section on "Climate Trends and Impacts". In particular, we note the articulation of types of hazards and types of impacts from these hazards. However, the PIF would be strengthened by more in-depth analysis and articulation of these hazards and their impacts. Based on best available information, please provide more specific information in terms of figures and visuals to sharpen understanding of the current and anticipated impacts of specific climate hazards on key economic activities in the target areas, including agriculture and fisheries. Please provide an indication of the number of people living in the target areas, based on best available information, in order to gain a clearer sense of the reasonable impact potential in terms of numbers of people.	Cleared	- A climate scenario analysis has been added to the Climate Trends and Impacts subsection. Please also note that we aim to undertake an in-depth climate risk assessment during PPG. - The population within the project area has now been included in section on ?Project targeted areas? (estimated population of 218,915,covering more than 330 villages).

2. Is the baseline scenario or any associated baseline projects appropriately described?	There is a long list of projects considered in the baseline. However, some of these projects are relatively old (SIP project from GEF4 for instance) and other will be closed at the beginning of the projects (several projects closing in 2021 or 2022). We suggest including a synthesis of lessons and best practices in the text and include the list of projects that will not be active at the beginning of this project in annex. See notably the strong IFAD portfolio. (Incorporated)There is a long list of projects considered in the baseline. However, some of these projects are relatively old (SIP project from GEF4 for instance) and other will be closed at the beginning of the projects (several projects closing in 2021 or 2022). We suggest including a synthesis of lessons and best practices in the text and include the list of projects that will not be active at the beginning of this project in annex. See notably the strong IFAD portfolio. Please consider referencing the following GEF LDCF supported project and its complementarity: Mainstreaming Climate Risk Considerations in Food Security and IUWRM in Trilemma Plains and Upper Catchment Area(https://gefportal.worldbank.org/App/#/pif/detail/ee95fc3f-df7c-e811-8124-3863bb2e1360/view). The notion of vulnerability (of communities) to multiple threats is indeed not well defined. Please do so. Theory of Change: we appreciate the presence of a ToC with explanation of the pathways for change.	Cleared	- Well noted. The GEF funded-projects that are not expected to be active at the time of implementation of the proposed project are now only listed in section 6 of the PIF. As suggested, we have included additional IFAD and EU investments, also given their relevance as potential co- financing. - The above-mentioned LDCF project is already referenced in the PIF (see section 6). - Community vulnerability has been further elaborated in the subsection ?Project target areas? (revisions are highlighted in yellow in the PIF uploaded in the Roadmap section).

3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?	Yes		
4. Is the project/program aligned with focal area and/or Impact Program strategies?	The justification for the Biodiversity strategy is rather weak. The benefits for globally important biodiversity are not described. We cannot see which biodiversity of global importance is taken into account. Please complete these considerations, with reference to aspects such as KBAs, NBSAP, national strategy on protected areas, etc.). It is important to either demonstrate the project will bene??t biodiversity of global importance, or you can use the marginal adjustment to transfer the resources to Land Degradation. As the PIF is currently designed, the project seems very Land Degradation oriented; with a lesser focus on climate change adaptation, and very little on biodiversity. With regards to Land Degradation Neutrality (LDN), the LDN targets are mentioned, but are not use to justify the interventions and the selected landscapes. To be revised.	Cleared	- The section on BD has been further elaborated and an output on PAs (Output 2.1.4) has been added. The section on CCA has also been further detailed. - The link between LDN targets and project interventions have been revised.
5. Is the incremental/additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?	Yes		
6. Are the project?s/program?s indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?	Yes		

7. Is there potential for innovation, sustainability and scaling up in this project?	While we appreciate challenges with the limited nature of the commercial finance sector in the country, please consider potential to create or partner with emerging commercial Equity Funds or other investment vehicle in nature-based solutions and/or climate resilient enterprises. Examples of equity funds and other investment vehicles to consider exploring collaboration with that currently being supported by the GEF including with the Global Resilience Partnership and UNDP. https://www.thegef.org/project/resilience-peace-stability-food-and-water-security-innovation-grant-program; with Conservation International and the Light Smith Group: https://www.thegef.org/project/structuring-and-launching-craft-rst-private-sector-climate-resilience-adaptation-fund and https://www.thegef.org/project/adaptation-sme-accelerator-project-asap; and/or with the South Pole Group and WWF: https://www.thegef.org/project/investment-readiness-landscape-resilience-fund. Of course, others exist beyond just these three examples that may merit consideration for collaboration through this project.	Cleared as sufficient at this stage. During PPG and prior to CEO Endorsement, please advance and strengthen elements related to innovation and private sector engagement as commented below and elsewhere in this review sheet.	- Well noted and the initiatives referenced above will be taken into consideration as opportunities for scaling up investments in the interventions proposed by the project. Particularly the UNDP and GRP-implemented "Resilience for Peace & Stability, Food and Water Security Innovation Grant Program" is of key relevance as it also includes Eritrea as a potential target country. We will reach out to UNDP/GRP in the early stages of the PPG phase to explore opportunities for collaboration. We also note that while the business environment and commercial governance sector have been constrained, there are a number of initiatives under development in Eritrea that aim to address barriers for private sector development/commercialization and in which the proposed project will collaborate with and seek synergies ? a sentence has been added to section 7 under scaling up (highlighted in yellow).

Project/Program Map and Coordinates Is there a preliminary geo-reference to the project?s/program?s intended location?	Yes		

Stakeholders Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?	Please provide the date of meetings held with stakeholders and the main outcomes. To the extent available, please also provide the number of participants. We note the box has been checked indicating that civil society organizations were consulted during the project identification phase. However, the descriptive text indicates that due to the pandemic, consultations were limited and only government actors was consulted. Please clarify, and if relevant, uncheck the mark regarding consultations with Civil Society.	Cleared There is still no description of any consultations with civil society organizations in the project identification. It still mentions consultations with only government entities: ?from Ministry of Land, Water and Environment, Ministry of Local Government, Ministry of Agriculture and the Forestry and Wildlife Authority. ? Consultations with communities and civil society will be keyin a project of this nature with the objective to ?enhance resilience of vulnerable agro-pastoralist and	We have unchecked the box and provided a short justification in the PIF. - Information on stakeholder meetings (dates, number of participants and outcomes) has been included in section 2. - The box has been unchecked. As noted in the PIF, consultations were constrained by the ongoing pandemic and country-wide lock downs during PIF formulation.

Gender Equality and Women?s Empowerment Is the articulation of gender context and indicative information on the importance and need to promote gender equality andthe empowerment of women, adequate?	It is well noted that this project plans to carry out a gender analysis and assessment during the PPG phase and that it is planning to engage with Eritrea?s National Union of Eritrean Women (NUEW), as a key partner, to ensure that gender equality and women?s empowerment is integrated into project activities. The submission, however, includes only very limited information on gender, especially related to the project components. Please as Agency to provide further information on gender dimensions related to the project objective and components.	Cleared	Duly noted. Ensuring gender equality and women?s empowerment is a critical element of the project and gender dimensions have been further detailed in the description of project components/activities (see yellow highlights in the revised PIF in the Roadmap section).

Private Sector Engagement Is the case made for private sector engagement consistent with the proposed approach?	In order to address the challenge of smallholder farmers and MSMEs to access credit for investing in climate resilient practices, land degradation neutrality, and provision of climate adaptation goods and services, please consider opportunities to partner with equity funds or/and financial institutions accessible capital, For example, please consider if there is potential to partner with micro-finance institutions by guaranteeing a line of credit for lending products targeting nature-based solutions climate resilience. In doing so, please see here for example: https://www.thegef.org/project/blended-nance-facility-climate-resilience-coffee-and-cacao-value-chains-cc-blend)?	Cleared as sufficient at PIF stage. As indicated in the Agency response below, please continue to advance and include opportunities to strengthen opportunities to improve access to finance for investing in climate resilient solutions with the private sector.	-This is well noted. However, the current business environment still poses some challenges to the development of MSMEs such as limited access to finance and difficulties in accessing markets. Nevertheless, a number of government and donor-supported initiatives aim to address those challenges and the proposed project will collaborate with those (such as the IGREENFIN, SMCP, EU project, IAPD, etc.) to strengthen lending and credit opportunities for small-scale agribusinesses. During PPG, the project will explore opportunities, for instance through the Government?s Savings and Micro-credit Program or the IGREENFIN and perhaps in collaboration with the Commercial Bank of Eritrea, to understand the feasibility for establishing credit lines to innovative and sustainable/climate resilient enterprises.

Risks to Achieving Project Objectives Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?	Please provide greater analysis about the risks and mitigation measures for a lack of post-project investments and the challenges to financial sustainability. For example, beyond external funds, please include a review of public expenses on agriculture, planning, etc., to also include the solutions at domestic level, including but not limited to PES.	Cleared	We have expanded on the mitigation measures to address the above under the risk ?Lack of investment after project may reduce sustainability of project outcomes? ? please refer to the text in the risk table highlighted in yellow (PIF in Roadmap section).
Coordination Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined? Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?	Please clarify where the Project Management Unit and the Project Implementation Unit will be based. We note national ministries and government agencies are identified as main executing partners. We note national ministries and government agencies are identified as the main executing partners. During the PPG phase, please conduct and a deeper analysis of stakeholders to consider their involvement in project implementation, including NGOs, farmer organizations, private sector. As a strong example, please see the IFAD project under the GEF6 Resilient Food Systems Program).	Cleared as adequate at PIF stage. Please note comment below in yellow highlight to be addressed during PPG.	- The exact location of the PMU and PIU will be determined during PPG. - In-depth stakeholder consultations will be undertaken during PPG, as noted in the PIF. In a meeting to discuss this review, the Government reiterated the critical importance of a wider and deeper stakeholder analysis during PPG, particularly at the community/project site-level, which unfortunately was not possible during the PIF preparation due to COVID-related lockdown and restrictions.

Consistency with National Priorities Has the project/program cited alignment with any of the recipient country?s national strategies and plans or reports and assessments under relevant conventions?	Yes		
Knowledge Management Is the proposed ?knowledge management (KM) approach? in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project?s/program?s overall impact ands ustainability?	Please see the comment in response to question 2 in section 1. We note with appreciation that that section 8 of the PIF on Knowledge Management (pages 76-78) elaborates on knowledge management activities, including ?dissemination of best practices and lessons learned, training and knowledge materials and guiding document through workshop, seminar, conference, and electronic and print media for the wider impact?, establishment of Learning platform/forums, and ?development of mechanisms for inter-regional knowledge sharing (including in terms of best practices for catalyzing private sector investments), peer-to-peer learning, systematic long-term approaches to capacity building, and dissemination of useful information?. Please ensure these activities are adequately incorporated and reflected in the Outcome and Outputs of Component 4.	Cleared	The activities under Component 4 have been further detailed (changes are highlighted in yellow in the PIF document int he Roadmap section).

Environmental and Social Safeguard (ESS) Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?	We note the project overall ESS risk is rated as low risk and FAO has attached the Project Risk Certification. The submission, however, does not include a ESS risk screening document. Considering that there is a potential risk regarding conflicts over land use and access to natural resources particularly related to vulnerable local communities/indigenous peoples, women and youth, please submit the ESS risk screening document.	Cleared	- The ESS screening document has been uploaded in the Roadmap section.
Part III ? Country Endorsements			
Has the project/program been endorsed by the country?s GEF Operational Focal Point and has the name and position been checked against the GEF data base?	Yes		

Term sheet, review table and agency capacity in NGI Projects			
Does the project provide sufficient detail in Annex A (indicative term sheet) to take a decision on the following selection criteria: co-financing, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed review table in Annex B to assess the project capacity of generating reviews? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.	N/A		

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?		There are two remaining specific comments to be addressed by the Agency. All comments are deemed to be cleared by the PM and this project is recommended for technical clearance.	

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.	As indicated in response to the question on coordination above, during the PPG phase: -We understand co-financing will be actively sought to be significantly increased at PPG stage prior to consideration for CEO Endorsement, including in addition to sources from the partners other than the Government of Eretria. - Please conduct and a deeper analysis of stakeholders to consider their involvement in project implementation, including NGOs, farmer organizations, private sector. As a strong example, please see the IFAD project under the GEF6 Resilient Food Systems Program). - Please advance and strengthen elements related to innovation and private sector engagement as commented below and elsewhere in this review sheet. - Please continue to advance and include opportunities to strengthen opportunities to improve access to finance for investing in climate resilient solutions with the private sector.		

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: **172,230**

GCP/ERI/902P/LDF

Project Preparation Activities Implemented	***GETF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
(5011) Salaries Professional	4,730		4,730
(5013) Consultants	126,100	44,694	11,127
(5014) Contracts		67,650	
(5021) Travel	31,400		19,920
(5023) Training	10,000	5,072	4,928
(5024) Expendable Procurement			
(5028) General Operating Expenses		11,480	0
Total	**172,230**	**128,896**	**40,705**

PPG Grant Approved at PIF: **127,770**

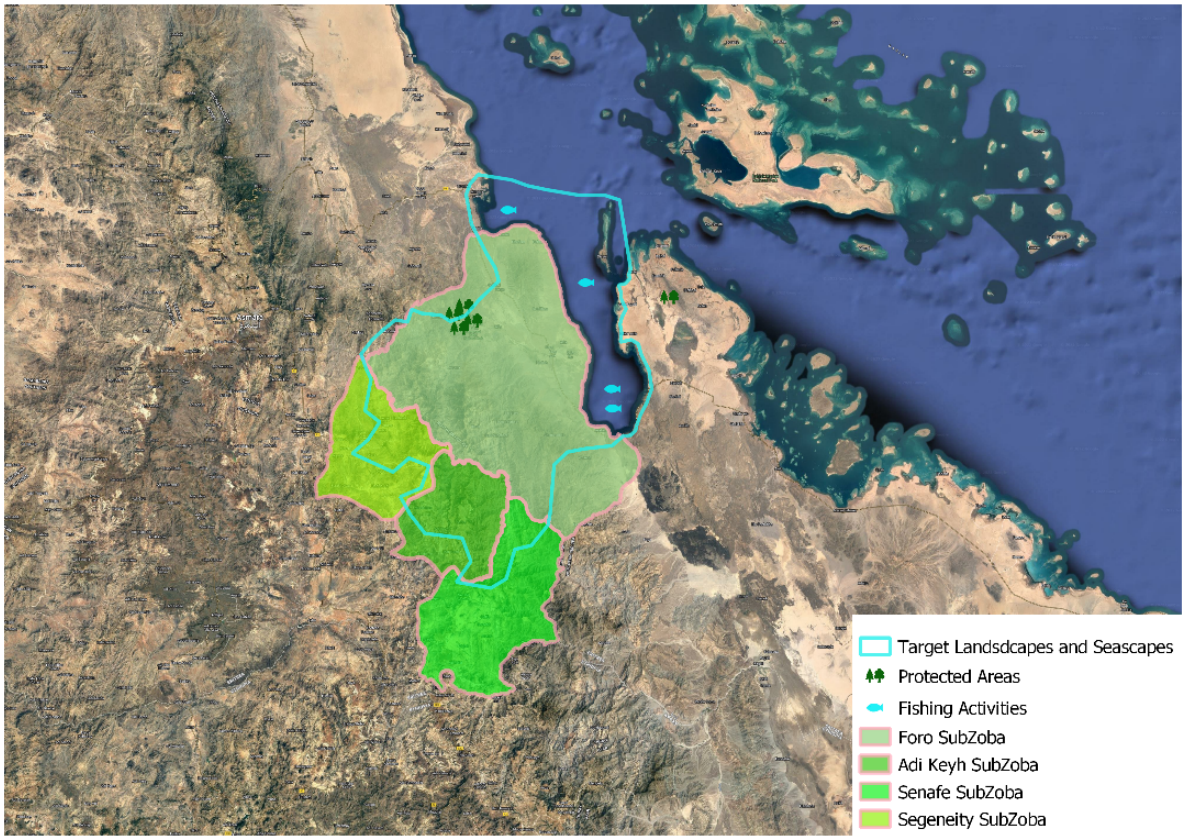
GCP/ERI/904P/GFF

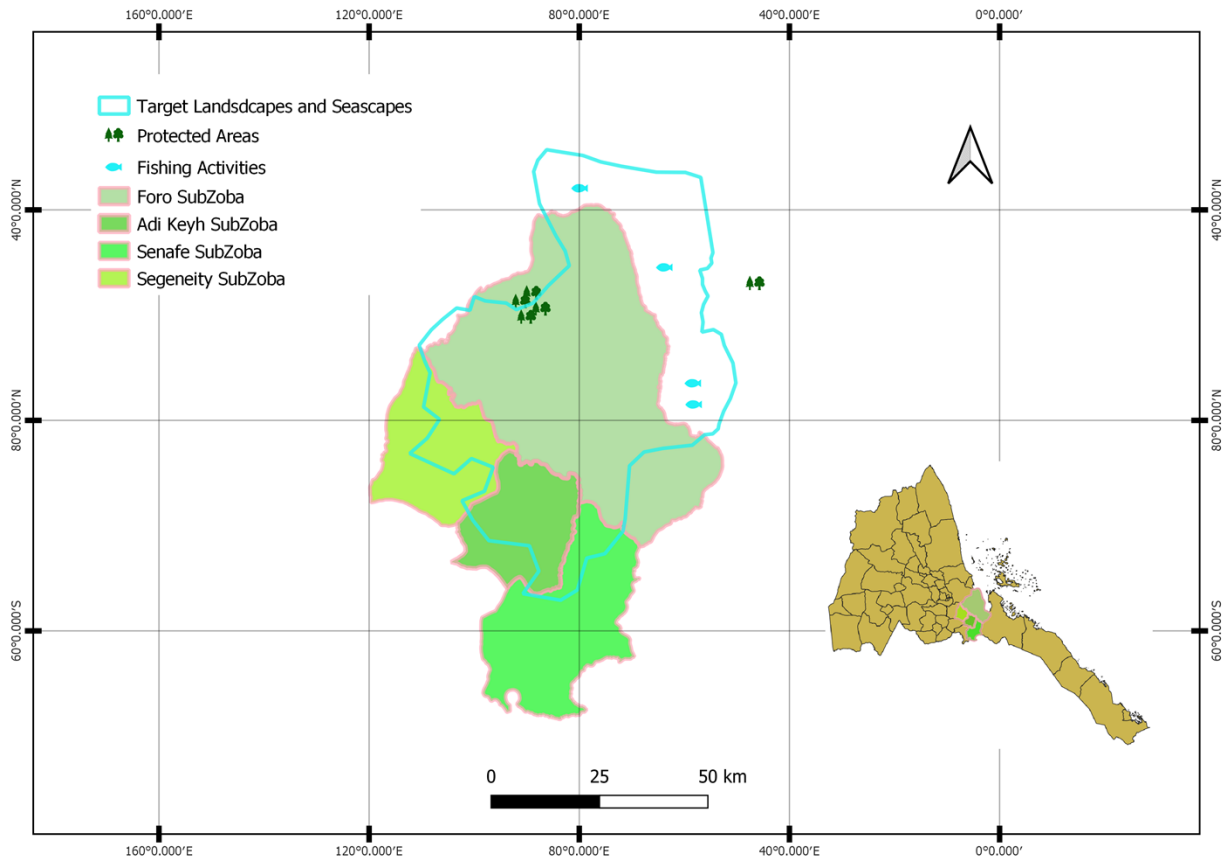
Project Preparation Activities Implemented	***GETF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
(5011) Salaries Professional	270		
(5013) Consultants	82,000	52,031	
(5014) Contracts	25,500	67,650	
(5021) Travel	20,000	2,716	
(5023) Training			
(5024) Expendable Procurement			

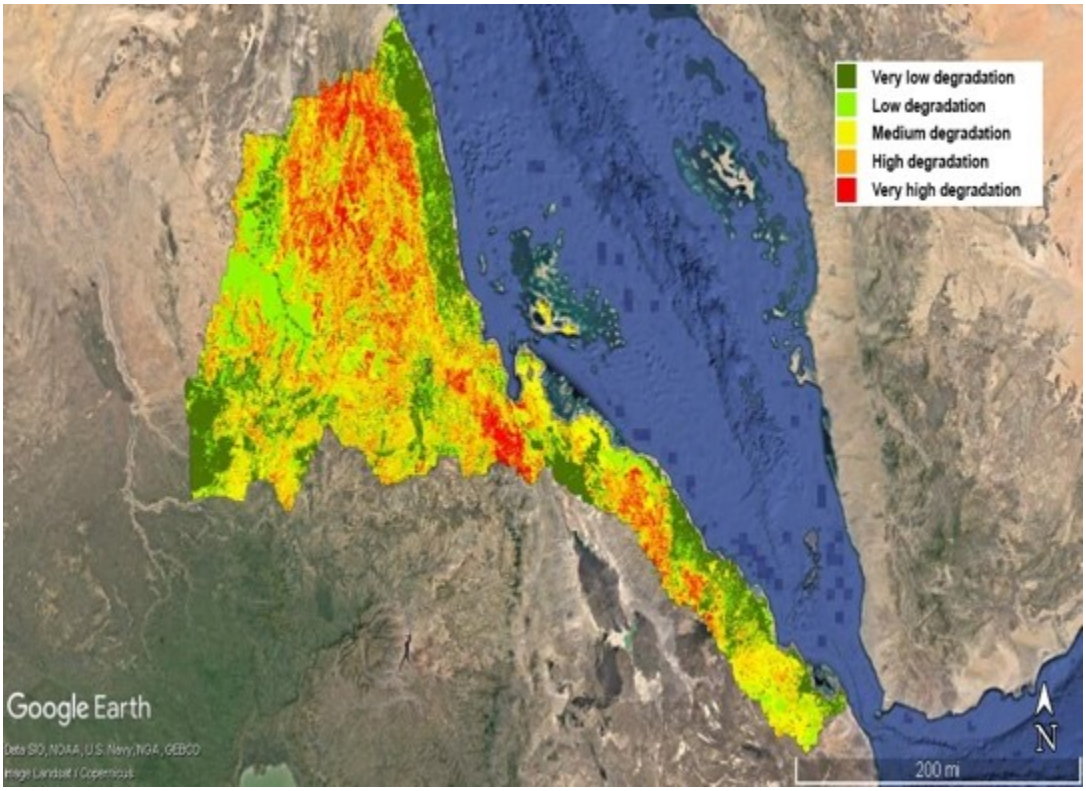
(5028) General Operating Expenses		8,002	-2,629
Total	**127,770**	**130,399**	**-2,629**

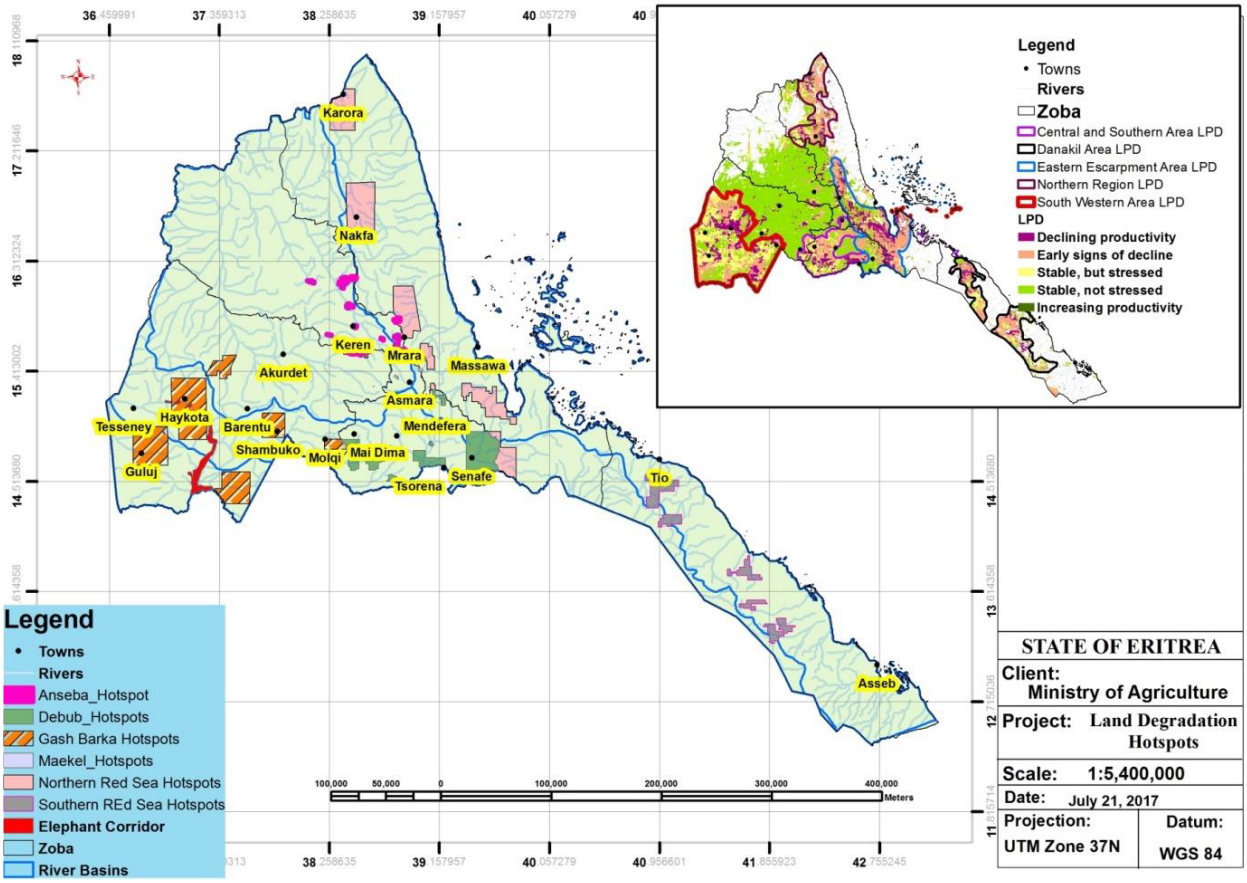
ANNEX D: Project Map(s) and Coordinates

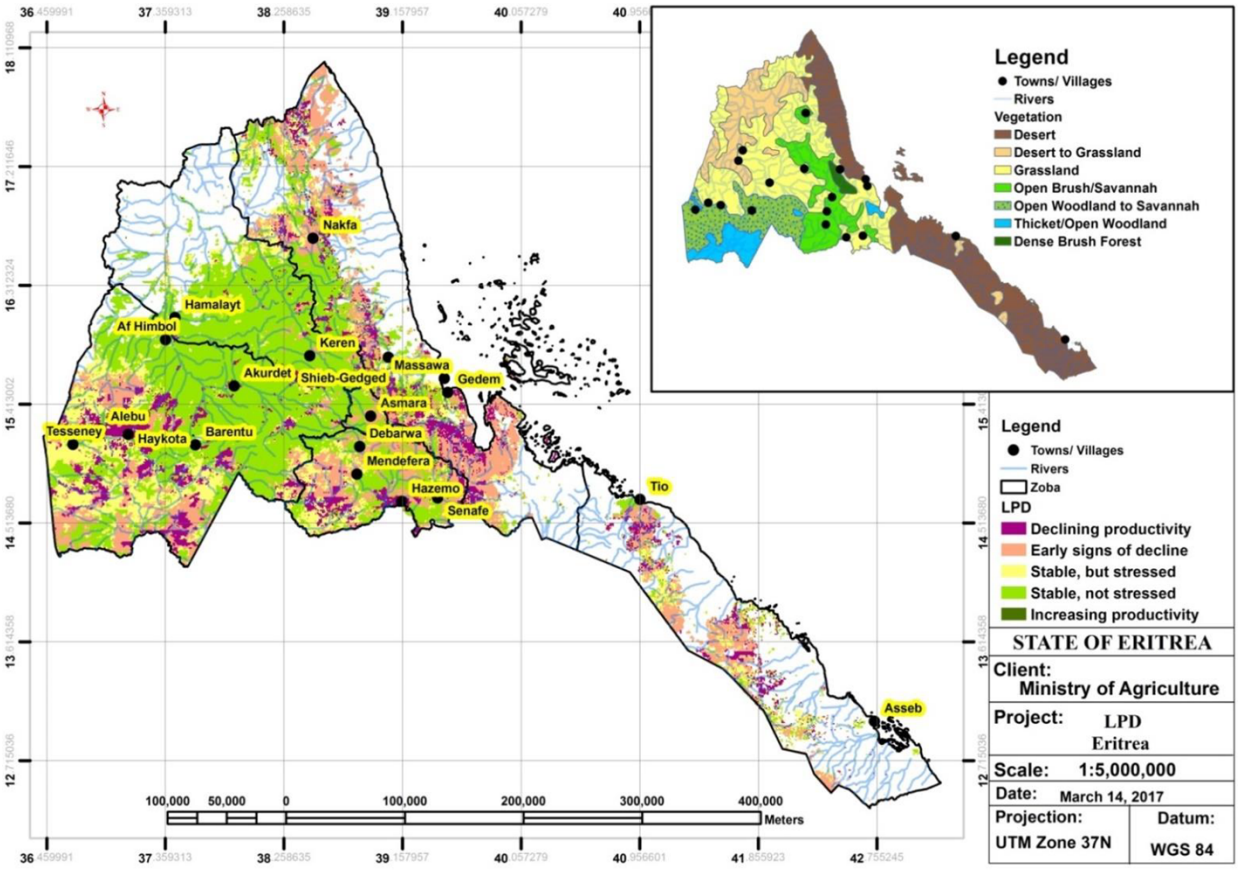
Please attach the geographical location of the project area, if possible.

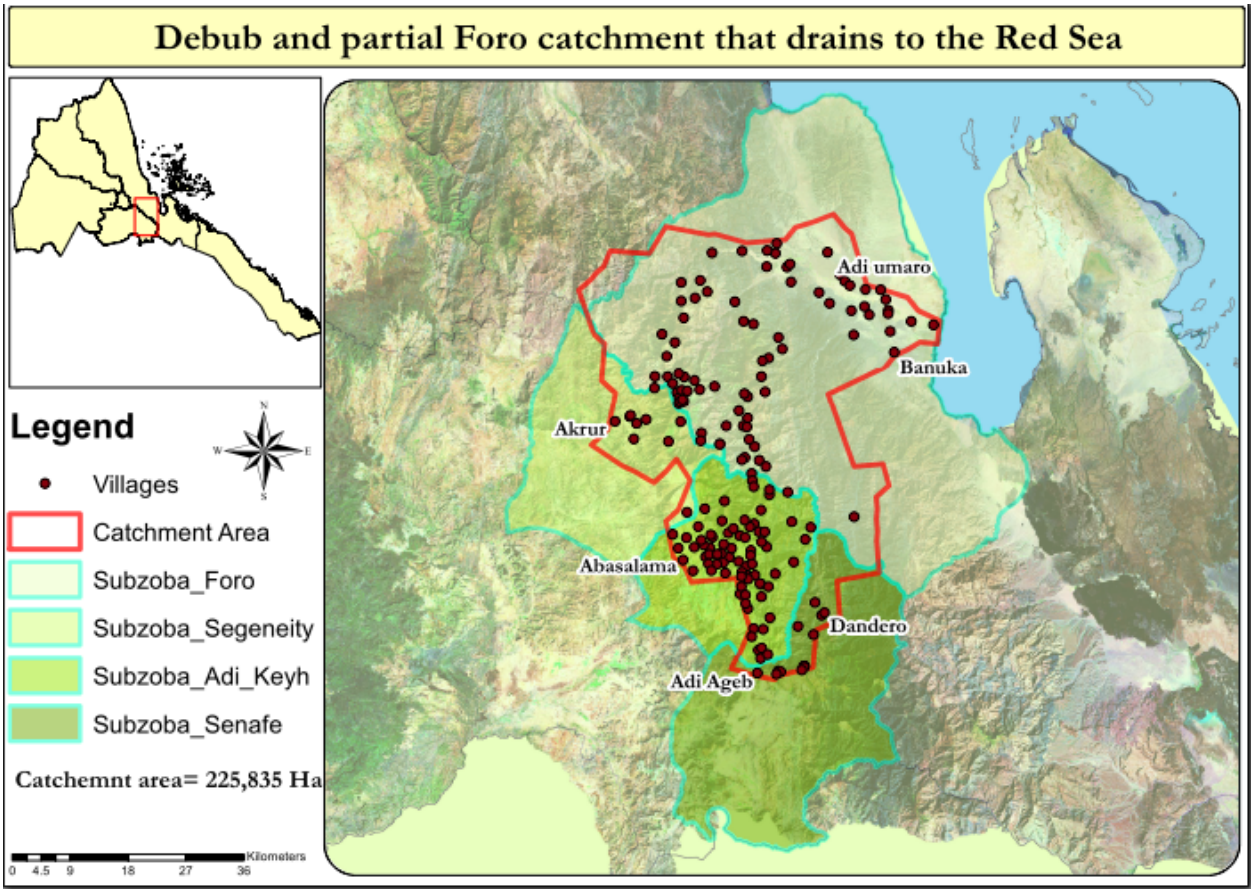


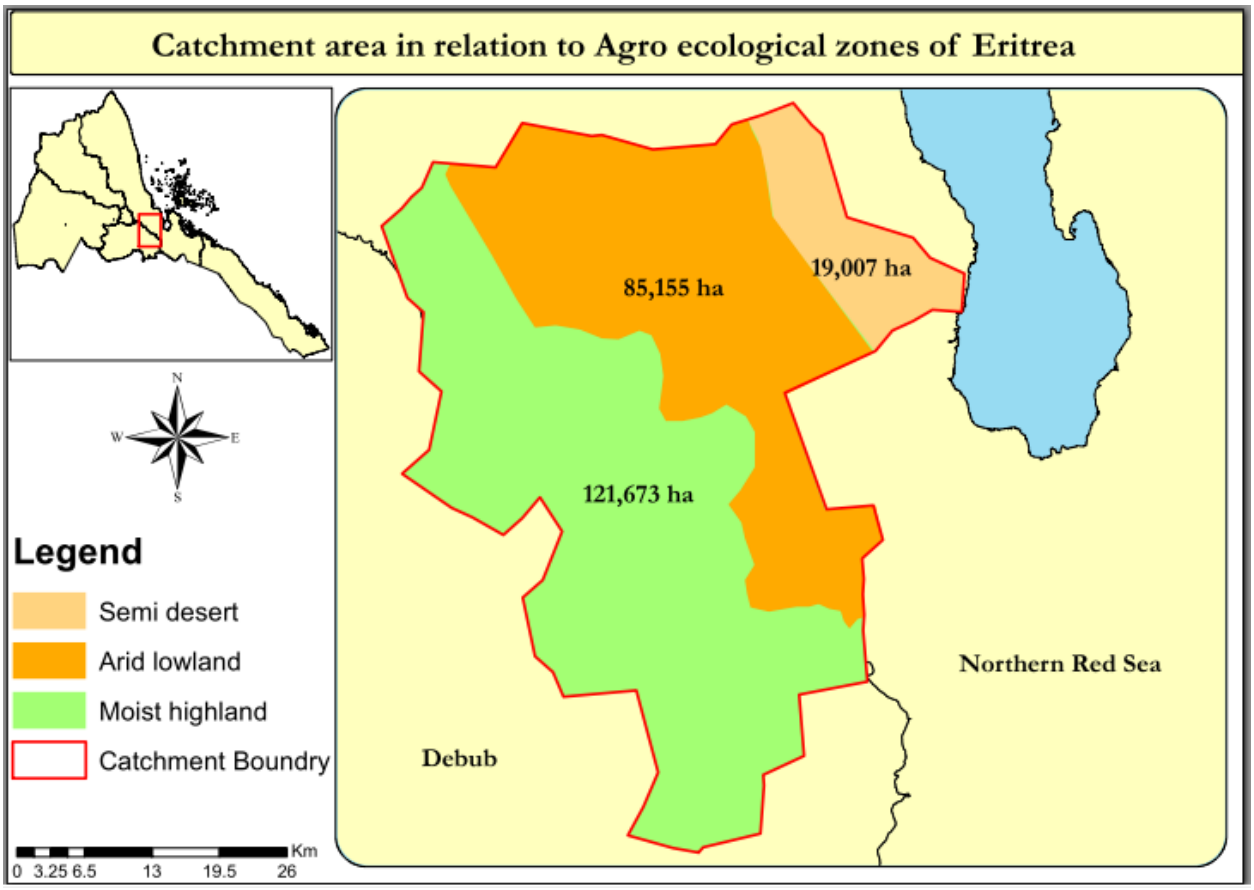

160°0.000'E
120°0.000'E
80°0.000'E
40°0.000'E
0°0.000'
40°0.000'N
80°0.000'N
60°0.000'S
Target Landsdcapes and Seascapes
Protected Areas
Fishing Activities
Foro SubZoba
Adi Keyh SubZoba
Senafe SubZoba
Segeneity SubZoba
0
25
50 km

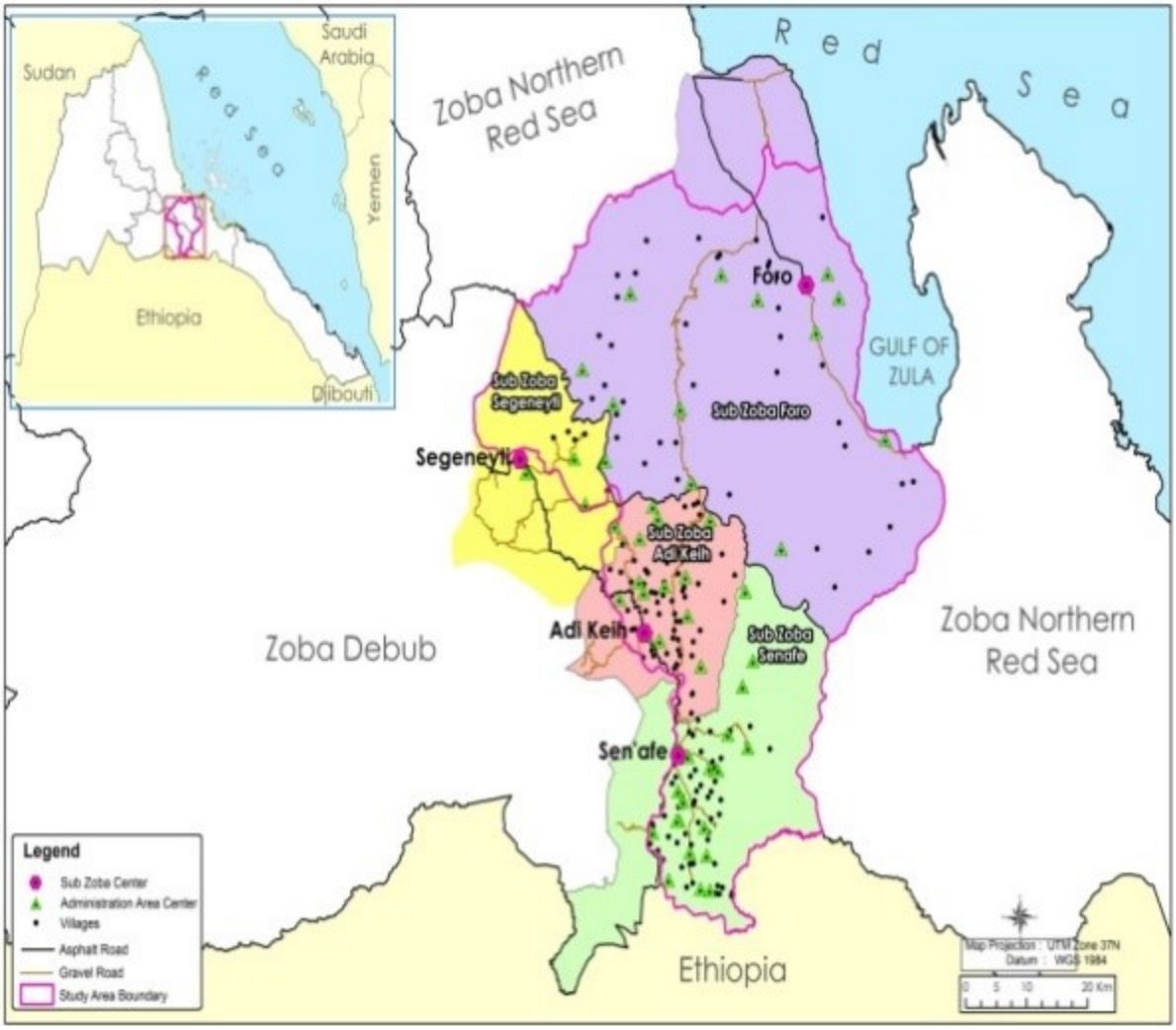

Very low degradation
Low degradation
Medium degradation
High degradation
Very high degradation
Google Earth
200 mi
N

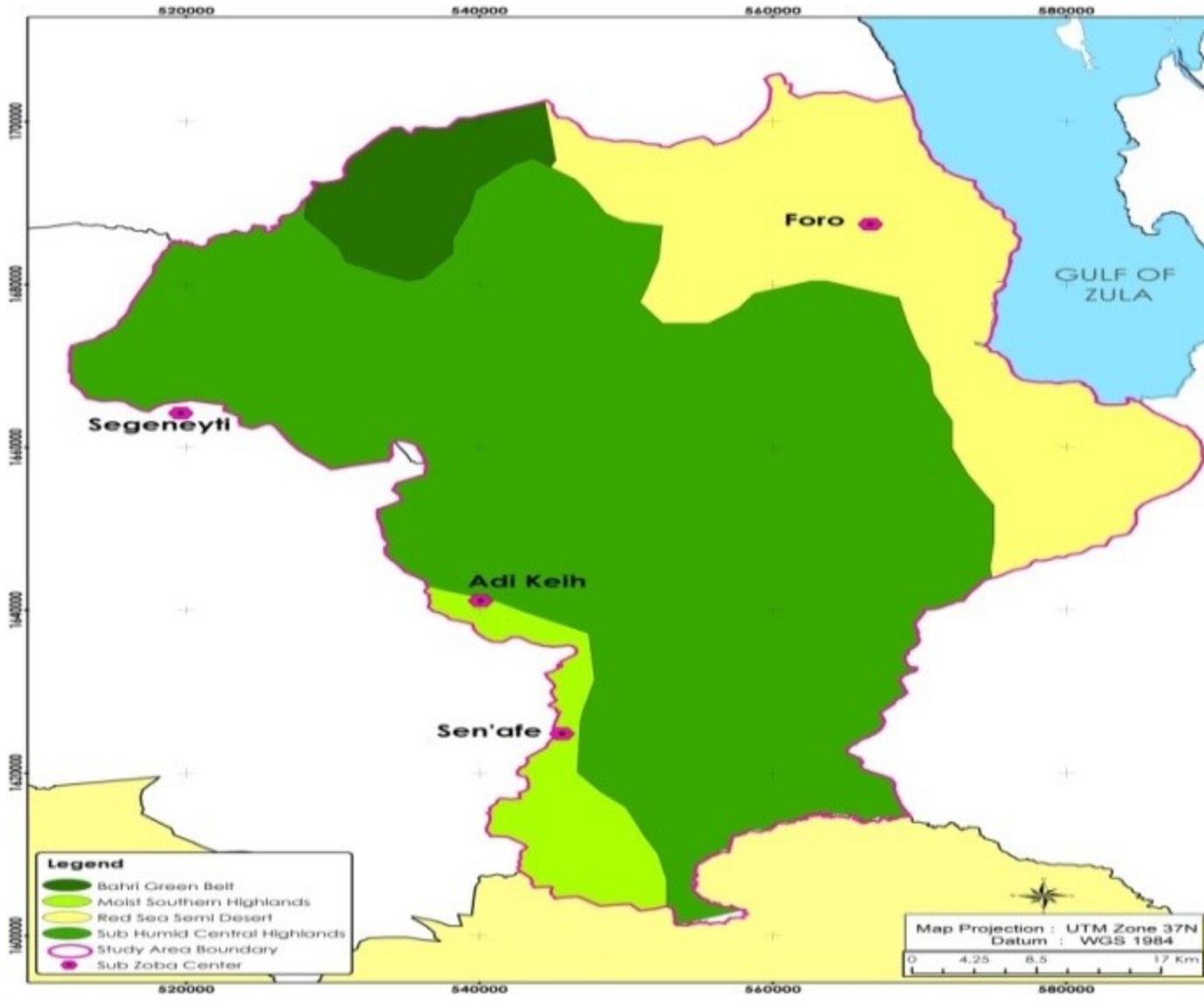

Karora
Nakfa
Keren
Mrara
Massawa
Akurdet
Asmara
Haykota
Tesseney
Barentu
Mendefera
Shambuko
Molqi
Mai Dima
Senafe
Guluj
Tsorena
Tio
Asseb
Legend
Towns
Rivers
Zoba
Central and Southern Area LPD
Danakil Area LPD
Eastern Escarpment Area LPD
Northern Region LPD
South Western Area LPD
LPD
Declining productivity
Early signs of decline
Stable, but stressed
Stable, not stressed
Increasing productivity
Legend
Towns
Rivers
Anseba_Hotspot
Debub_Hotspots
Gash Barka Hotspots
Maekel_Hotspots
Northern Red Sea Hotspots
Southern REd Sea Hotspots
Elephant Corridor
Zoba
River Basins
100,000 50,000 0 100,000 200,000 300,000 400,000
Meters
STATE OF ERITREA
Client:
Ministry of Agriculture
Project: Land Degradation Hotspots
Scale: 1:5,400,000
Date: July 21, 2017
Projection:
UTM Zone 37N
Datum:
WGS 84

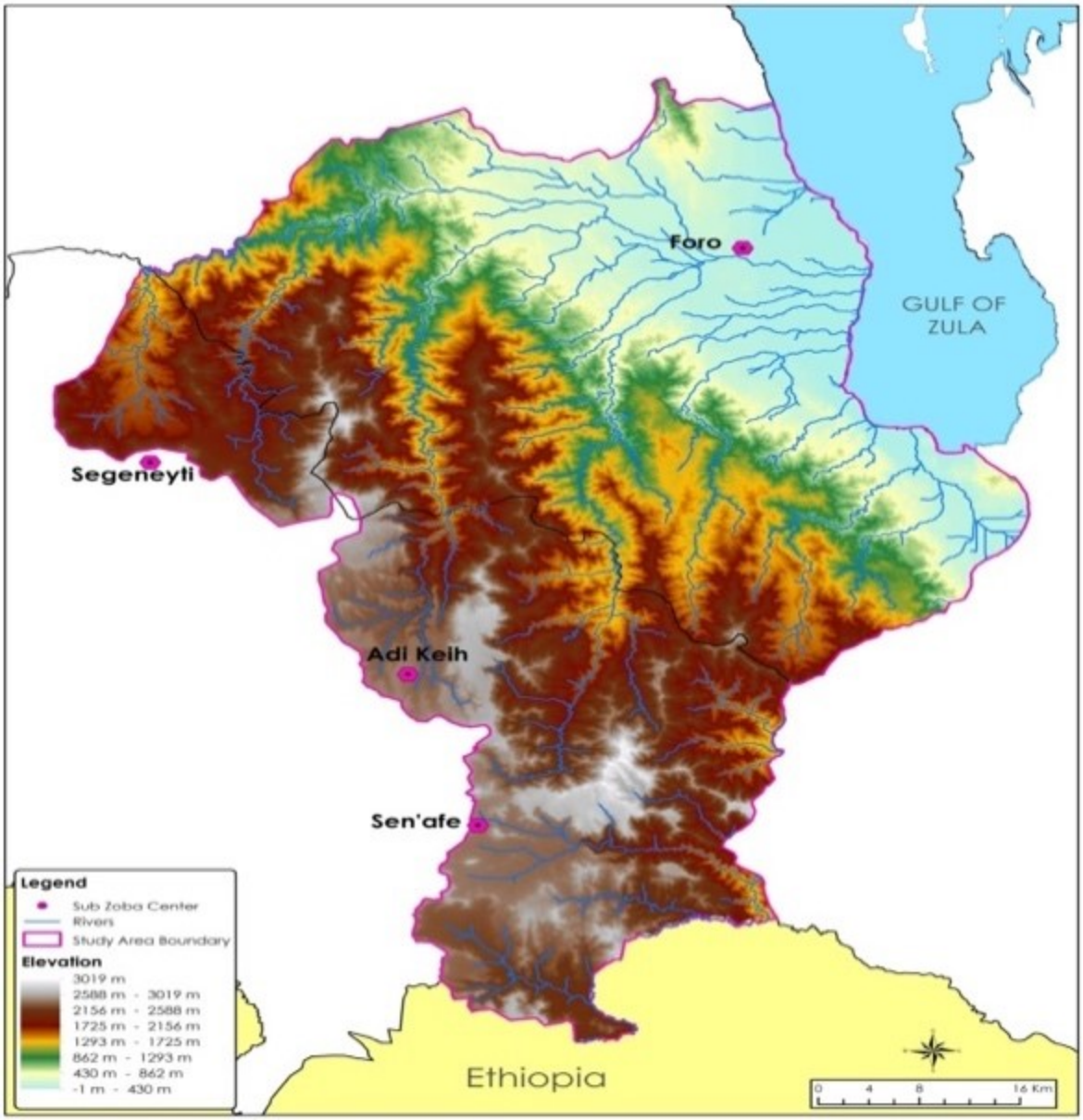

Legend
Towns/ Villages
Rivers
Vegetation
Desert
Desert to Grassland
Grassland
Open Brush/Savannah
Open Woodland to Savannah
Thicket/Open Woodland
Dense Brush Forest
Nakfa
Hamalayt
Af Himbol
Keren
Akurdet
Shieb-Gedged
Massawa
Gedem
Asmara
Alebu
Tesseney
Haykota
Barentu
Debarwa
Mendefera
Hazemo
Senafe
Tio
Asseb
100,000 50,000 0 100,000 200,000 300,000 400,000
Meters
Legend
Towns/ Villages
Rivers
Zoba
LPD
Declining productivity
Early signs of decline
Stable, but stressed
Stable, not stressed
Increasing productivity
STATE OF ERITREA
Client:
Ministry of Agriculture
Project:
LPD
Eritrea
Scale:
1:5,000,000
Date:
March 14, 2017
Projection:
UTM Zone 37N
Datum:
WGS 84


Debub and partial Foro catchment that drains to the Red Sea
Legend
Villages
Catchment Area
Subzoba_Foro
Subzoba_Segeneity
Subzoba_Adi_Keyh
Subzoba_Senafe
Catchemnt area= 225,835 Ha
Kilometers
0 4.5 9 18 27 36
Adi umaro
Banuka
Akrur
Abasalama
Dandero
Adi Ageb


Catchment area in relation to Agro ecological zones of Eritrea
N
W
E
S
Legend
Semi desert
Arid lowland
Moist highland
Catchment Boundry
Km
0 3.25 6.5 13 19.5 26
85,155 ha
19,007 ha
121,673 ha
Northern Red Sea
Debub


Sudan
Saudi Arabia
Yemen
Ethiopia
Djibouti
Red Sea
Zoba Northern Red Sea
Foro
GULF OF ZULA
Sub Zoba Segeneyti
Segeneyti
Sub Zoba Foro
Sub Zoba Adi Keih
Adi Keih
Sub Zoba Senafe
Sen'afe
Zoba Debub
Zoba Northern Red Sea
Ethiopia
Legend
Sub Zoba Center
Administration Area Center
Villages
Asphalt Road
Gravel Road
Study Area Boundary
Map Projection : UTM Zone 37N
Datum : WGS 1984
0 5 10 20 Km


520000
540000
560000
580000
1700000
1680000
1660000
1640000
1620000
1600000
Foro
GULF OF ZULA
Segeneyti
Adi Keih
Sen'afe
Legend
Bahri Green Belt
Moist Southern Highlands
Red Sea Semi Desert
Sub Humid Central Highlands
Study Area Boundary
Sub Zoba Center
Map Projection : UTM Zone 37N
Datum : WGS 1984
0 4.25 8.5 17 Km



ANNEX E: Project Budget Table

Please attach a project budget table.

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.

NA

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 Agencys 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.

NA

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).

NA