CEO Endorsement (CEO) entry ? Full Sized Project ? GEF - 7

Generate PDF

Part I: Project Information

GEF ID

10713

Project Type

FSP

Type of Trust Fund

MTF

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Adapting to climate change and enabling sustainable land management through productive rural communities in Timor-Leste

Countries

Timor Leste

Agency(ies)

UNEP

Other Executing Partner(s)

Directorate of Climate Change ? State Secretary for the Environment

Executing Partner Type

Government

GEF Focal Area

Multi Focal Area

Sector

Mixed & Others

Taxonomy

Focal Areas, Land Degradation, Sustainable Land Management, Restoration and Rehabilitation of Degraded Lands, Sustainable Agriculture, Income Generating Activities, Integrated and Cross-sectoral approach, Community-Based Natural Resource Management, Land Degradation Neutrality, Land Cover and Land cover change, Climate Change, Climate Change Adaptation, Least Developed Countries, Livelihoods, Ecosystem-based Adaptation, Small Island Developing States, Community-based adaptation, Climate resilience, Influencing models, Strengthen institutional capacity and decision-making, Stakeholders, Local Communities, Private Sector, Financial intermediaries and market facilitators, Civil Society, Community Based Organization, Type of Engagement, Participation, Information Dissemination, Communications, Awareness Raising, Education, Gender Equality, Gender results areas, Capacity Development, Access and control over natural resources, Participation and leadership, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Capacity, Knowledge and Research, Knowledge Generation, Training, Workshop, Knowledge Exchange, Enabling Activities

Rio Markers

Climate Change Mitigation

Significant Objective 1

Climate Change Adaptation

Principal Objective 2

Biodiversity

No Contribution 0

Land Degradation

Significant Objective 1

Submission Date

9/25/2020

Expected Implementation Start

1/1/2023

Expected Completion Date

12/31/2028

Duration

72In Months

Agency Fee($)

935,338.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
LD-1-1	Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	GET	2,528,536.00	7,000,000.00
LD-1-4	Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape	GET	750,000.00	2,000,000.00
LD-2-5	Create enabling environments to support scaling up and mainstreaming of SLM and LDN	GET	300,000.00	4,400,000.00
CCA-1	Reduce vulnerability and increased resilience through innovation and technology transfer for climate change adaptation Associated Core Indicators: number of direct beneficiaries; area of land under climate-resilient management	LDCF	3,267,126.00	10,199,996.00
CCA-2	Mainstream climate change adaptation and resilience for systemic impact Associated Core Indicators: number of policies, plans or development frameworks that mainstream climate resilience	LDCF	3,000,000.00	1,700,000.00
		Total Project Cost($)	**9,845,662.00**	**25,299,996.00**

B. Project description summary

Project Objective

To increase climate resilience and reduce land degradation in priority watersheds by strengthening collaborative SLM for increased livelihood resilience and water security of agriculture-based communities an ecosystem-based adaptation (EbA) model.

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: Building the national case and leverage for EbA and addressing land degradation in rural communities through agri-business	Technical Assistance	Outcome 1.1: Developing an enabling environment for EbA, Land Degradation Neutrality (LDN) and climate resilience through improved gender-responsive national policies	Output 1.1.1: Opportunity Assessment of agribusiness developed and presented to relevant national ministries to achieve enhanced socio-economic and EbA outcomes	GET	294,462.00	384,936.00
			Output 1.1.2: Cross-sectoral working group on climate resilience and LDN established and policy revision timeline agreed			
			Output 1.1.3: Policy and communication campaign undertaken to build national- and local-level support for integrated, climate-resilient			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			watershed development			
			Output 1.1.4: Climate risk assessment (CRA) conducted at the national level			
			Output 1.1.5: Gender-responsive revisions to LDN targets and sectoral policies prepared and agreed with the national focal Ministries for UNFCCC and UNCCD, to incorporate climate change risk assessments and expand the scope of LDN strategies			
"	Technical Assistance	"	"	LDCF	343,538.00	575,064.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2: Planning and implementation of EbA to address food and water security at suco level in two priority watersheds	Technical Assistance	Outcome 2.1: *Suco*-level landscape management improved through the development and implementation of climate-resilient integrated watershed development plans (CRIWDPs) in two watersheds	Output 2.1.1: Detailed and gender-specific climate change vulnerability assessments conducted for two watersheds and shared with relevant stakeholders	GET	200,000.00	306,663.00
			Output 2.1.2: CRIWDPs for water and food security, developed and adopted in two priority watersheds			
			Output 2.1.3: Facility Management Groups strengthened and schedule of activities agreed			
			Output 2.1.4: Training conducted for 5,000 people, 50% of whom are women, in sucos within			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			two watersheds to strengthen local governance and implementation of the CRIWDPs			
"	Technical Assistance	"	"	LDCF	500,000.00	613,326.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
"	Investment	Outcome 2.2: Food security of rural communities increased through improved climate-resilient SLM at suco level in two watersheds	Output 2.2.1: 4,500 ha forest restored to increase the climate resilience of rural communities in two priority watersheds	GET	1,333,541.00	1,764,801.00
			Output 2.2.2: 10,500 ha forests and natural ecosystems protected through community agreements and monitoring at suco level			
			Output 2.2.3: 4,000 ha communal grazing land in target *sucos* under improved management to reduce land degradation			
			Output 2.2.4: Provision of ecosystem services and			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			climate-resilient agricultural production enhanced on 1,000 ha communal land through ecosystem and farmland restoration and improved integrated farming systems (LEISA model)			
"	Investment	"	"	LDCF	680,657.00	882,401.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
"	Investment	Outcome 2.3: Water security in climate vulnerability hotspots identified under Output 2.1.1 enhanced through the upgrade of climate-resilient water supply infrastructure and improved water management systems at village level	Output 2.3.1: Water supply and storage systems upgraded to increase climate resilience in ~40 water-insecure sub-villages Output 2.3.2: Community members at village level trained for the sustainable use, operation and maintenance of water supply and storage infrastructure Output 2.3.3: Community members within villages trained and systems established for monitoring and reporting on village-level water use and availability	LDCF	3,000,000.00	3,942,805.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 3: Enabling and piloting of agribusiness development to incentivise the adoption of climate-resilient SLM practices by small-scale farmers in two watersheds	Technical Assistance	Outcome 3.1: Farmer organisations and women?s cooperatives for agri-business development and sustainable value chains access finance to support adoption of climate-resilient SLM	Output 3.1.1: Training conducted for 2,500 members of farmer organisations and women?s cooperatives to develop climate-resilient agribusinesses	GET	600,000.00	3,513,333.00
			Output 3.1.2: Agreements negotiated and incentives created for private sector buyers to invest in traceable and sustainable agricultural commodity production and value chains			
			Output 3.1.3: Portfolio of bankable impact investments developed with capital intermediaries and providers targeting sustainable			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			production of cocoa, vanilla and other commodities			
"	Technical Assistance	"	"	LDCF	200,000.00	1,756,667.00
"	Investment	Outcome 3.2: Increased production of traceable and sustainably grown cocoa and other agribusiness commodities, benefitting 2,000 farmers	Output 3.2.1: 2,200 ha climate-resilient and profitable agroforestry systems developed for growing cocoa and other agribusiness commodities	GET	800,000.00	6,873,578.00
"	Investment	"	"	LDCF	800,000.00	3,241,175.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 4: Knowledge management and monitoring for replication of best practices in other sucos and watersheds	Technical Assistance	Outcome 4.1: Replication enabled in other sucos and watersheds for integrated ecosystem-based adaptation and agri-business development programs.	Output 4.1.1: Project impact and effectiveness measured and lessons communicated through the implementation of a monitoring, evaluation and learning system	GET	132,910.00	130,000.00
			Output 4.1.2: Gender-responsive policy briefs and best-practice guidelines developed and disseminated to facilitate the replication and upscaling of climate-resilient SLM in additional watersheds and municipalities			
			Output 4.1.3: Two watersheds identified and upscaling plans developed for			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			replication of successful project activities			
"	Technical Assistance	"	"	LDCF	200,912.00	130,000.00
Monitoring and Evaluation (M&E)	Technical Assistance			GET	59,640.00	
Monitoring and Evaluation (M&E)	Technical Assistance			LDCF	261,160.00	
			Sub Total ($)		**9,406,820.00**	**24,114,749.00**

Project Management Cost (PMC)

GET	157,983.00	426,689.00
LDCF	280,859.00	758,558.00
Sub Total($)	**438,842.00**	**1,185,247.00**
Total Project Cost($)	**9,845,662.00**	**25,299,996.00**

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	Directorate of Climate Change ? State Secretary for the Environment [LDCF]	In-kind	Recurrent expenditures	1,299,996.00
Donor Agency	EU GCCA+ ? Climate Change and Resilience Building (PACRES)	Grant	Investment mobilized	300,000.00
Donor Agency	GCF Readiness Stage III ? Development of capacity to implement a national climate change plan and strategy in Timor-Leste	Grant	Investment mobilized	400,000.00
Donor Agency	GCF UNDP project [LDCF]	Grant	Investment mobilized	7,000,000.00
Civil Society Organization	Rikolto: Indonesia programme office ? sustainable cocoa programme [GEFTF]	In-kind	Recurrent expenditures	300,000.00
Civil Society Organization	Rikolto: Indonesia programme office ? sustainable cocoa programme [GEFTF]	Grant	Investment mobilized	200,000.00
Civil Society Organization	Progreso Foundation	Loans	Investment mobilized	800,000.00
Civil Society Organization	Progreso Foundation	Grant	Investment mobilized	100,000.00
Civil Society Organization	PT Profil Mitra Abadi (PMA)	Grant	Investment mobilized	10,200,000.00
Civil Society Organization	Sucafina	Grant	Investment mobilized	3,000,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	UNEP [GAN]	In-kind	Recurrent expenditures	200,000.00
Recipient Country Government	Ministry of Agriculture	In-kind	Recurrent expenditures	1,200,000.00
GEF Agency	UNEP (UN Decade of Ecosystem Restoration)	In-kind	Recurrent expenditures	300,000.00
			Total Co-Financing($)	**25,299,996.00**

Describe how any "Investment Mobilized" was identified

Environment Agri-3 (fund) for forest protection and sustainable agriculture (and possibly the Land Degradation Neutrality Fund - Technical Assistance Facility) to develop a bankable portfolio of private investments in sustainable production and sourcing of commodities, especially Cocoa and Vanilla. Any green loans would be carried by corporate partners ? not the government or farmers. Preliminary talks with the global director of the Agri-3 indicated interest to consider Timor-Leste under their special facility for LDCF countries ? notwithstanding its perceived additional investment risk. Talks have also been held by RIKOLTO ,with both sustainable sourcing companies such as OLAM and MARS, as well as commenced exploring possibilities with a Belgium impact investor. The indicated USD 5 million investment is largely based on the volume of targeted sustainable Cocoa yet much less on any feasibility design. The present COVID era will no doubt pose additional challenges with regards bankability and investors willingness; whilst the market of Cocoa and Vanilla remain strong. Talks held by RIKOLTO , with PT. Profil Mitra Abadi, the Progreso Foundation and Sucafina resulted in the indicated USD 14 million investment. This is largely based on the volume of targeted sustainable coffee and cocoa. Any green loans would be carried by corporate partners ? not the government or farmers (Please see Appendix 9 for Co-Finance Commitment Letters). PT PMA have committed to support the purchase of up to 60 tonnes/year or the estimated equivalent up to USD12,000,000. This commitment is estimated to begin in Year 4 of the project and to result in at least a 10% (USD1,200,000), 25% (USD3,000,000) and 50% (6,000,000) fulfilment of this commitment through years 4, 5 and 6 respectively. Sucafina has committed to in excess of 6,000 bags or ~USD1.5 million per annum. This commitment is estimated to begin in Year 4 of the project and to result in at least a 50% (USD750,000), 50% (USD750,000) and 100% (1,500,000) fulfilment of this commitment through years 4, 5 and 6 respectively. Progreso has committed to support Producer Organisations with loans, in the form of trade finance, of USD400,000. It has been estimated that this commitment will target two Producer Organisations from target communities (to be determined through private sector engagements during project implementation).

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($)
UNEP	GET	Timor Leste	Land Degradation	LD STAR Allocation	3,578,536	339,961	3,918,497.00
UNEP	LDCF	Timor Leste	Climate Change	NA	6,267,126	595,377	6,862,503.00
			Total Grant Resources($)		**9,845,662.00**	**935,338.00**	**10,781,000.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

200,000

PPG Agency Fee ($)

19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNEP	GET	Timor Leste	Land Degradation	LD STAR Allocation	74,432	7,071	**81,503.00**
UNEP	LDCF	Timor Leste	Climate Change	NA	125,568	11,929	**137,497.00**
				Total Project Costs($)	**200,000.00**	**19,000.00**	**219,000.00**

Core Indicators

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)
4500.00	5500.00	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)
Rangeland and pasture		1,000.00		

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)
4,500.00	4,500.00		

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)

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)
27200.00	16700.00	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)
10,500.00			

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)
16,700.00	16,700.00		

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)

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
Timor-Leste GEF_UNEP_Annex F_ Core Indicator Worksheet_final	
Timor-Leste GEF_UNEP_Annex F_ Core Indicator Worksheet	

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)	2896517	2896517	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)	2,896,517	2,896,517		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting	2023	2023		
Duration of accounting	20	20		

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?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 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	33,592	33,592		
Male	34,408	34,408		
Total	68000	68000	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

1. Core Indicator 3 (total 5,500 ha), with under indicator 3.2 ? 4,500 ha forest restoration in LD hotspots identified in the two CRIWDPs (output 2.2.1) ? consisting of the full restoration of 2,500 ha low-level-degraded land (baseline), plus 2,000 ha moderately degraded land (baseline) to low level degradation, plus under indicator 3.1 1,000 ha restoration of poorly managed/unproductive farmland or degraded land though applying climate-smart improved agronomic practises on farms through technology transfer, capacity building and applying e.g. LEISA model (output 2.2.4). 2. Core Indicator 4 (total 16,700) consist of (i) 10,500 ha forest protection for watershed functions under output 2.2.2 (with co-benefit BD conservation), where the project will target keeping current degradation levels (as opposed to ?without? scenario where degradation would significantly increase); plus (ii) 4,000 ha communal grazing land in target sucos under improved livestock management to reduce land degradation in grassland and associated woody vegetation (output 2.2.3); as well as (iii) 2,200 ha new or upgraded agro-forest systems (output 3.2.1) moving from annual to perennial crops ? mainly in Cocoa/Vanilla systems (identified as hotspots in CRIWDPs). 3. Core Indicator 6 (total 2,896,517, please see ExAct calculations submitted separately) under indicator 6.1 ? Carbon sequestered or emissions avoided in the AFOLU sector expected to reduce emissions from deforestation by ~585,000 tCO2e and increase carbon sequestration by ~715,000 tCO2e, the protection of 10,500 ha of forest under Output 2.2.2 is expected to reduce emissions from deforestation by ~1,040,000 tCO2e, avoided emissions from improved management of grazing lands under Output 2.2.3 was estimated at ~165,000 tCO2e, the restoration and improved management of 1,000 ha of farmland under Output 2.2.4 is expected to increase carbon sequestration by ~18,000 tCO2e and the establishment of agroforestry systems on 2,200 ha of unsustainably managed farms under Output 3.2.1 is expected to increase carbon sequestration by ~374,000 tCO2e. 4. Core Indicator 11 (total 68,000) consisting of the total population of the Dasidaro (~7,300) and Laclo (~60,700) watersheds who will benefit from the CRIWDP processes undertaken under Output 2.1.2. Additionally, under Outcome 2.3 at least 1,500 households will benefit from the development of water storage infrastructure, under Output 2.2.3 1,000 farmers will benefit from improved livestock management, under Output 2.2.4 at least 1,200 households will benefit from the restoration of 1,000ha of communal land or integrated livestock and crop production and under Output 3.2.1 2,500 members of farmer organisations and women?s cooperatives will

benefit from the development of agroforestry systems. The project will contribute to the following Aichi targets (albeit now outdated): ? Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity ? Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

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). true

---

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

---

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

---

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

---

This Project has an urban focus. false

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

Agriculture	**50.00%**
Natural resources management	**30.00%**
Climate information services	**0.00%**
Coastal zone management	**0.00%**
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 false
Increased climatic variability true
Natural hazards true
Land degradation true
Coastal and/or Coral reef degradation false
Groundwater quality/quantity true

Core Indicators - LDCF

CORE INDICATOR 1

Total
Male
Female
% for Women
Total number of direct beneficiaries
75,000
37,908
37,092
49.46%

CORE INDICATOR 2

Area of land managed for climate resilience (ha)
71,300.00

CORE INDICATOR 3

Total no. of policies/plans that will mainstream climate resilience
5

CORE INDICATOR 4

Male
Female
% for Women
Total number of people trained
8,200
4,100
4,100

50.00%

To calculate the core indicators, please refer to Results Guidance

OBJECTIVE 1

Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaption

OUTCOME 1.1

Technologies and innovative solutions piloted or deployed to reduce climate-related risks and / or enhance resilience

View

OUTCOME 1.2

Innovative financial instruments and investment models enabled or introduced to enhance climate resilience

View

OBJECTIVE 2

Mainstream climate change adaption and resilience for systemic impact

OUTCOME 2.1

Strengthened cross-sectoral mechanisms to mainstream climate adaption and resilience

View

OUTCOME 2.2

Adaptation considerations mainstreamed into investments

View

OUTCOME 2.3

Institutional and human capacities strengthened to identify and implement adaptation measures

View

OBJECTIVE 3

Foster enabling conditions for effective and integrated climate change adaption

OUTCOME 3.1

Climate-resilient planning enabled by stronger climate information decision-support services, and other relevant analysis, as a support to NAP process and/or for enabling activities in response to COP guidance

View

OUTCOME 3.2

Increased ability of country to access and/or manage climate finance or other relevant, largescale, pragmatic investment, as a support to NAP process and/or for enabling activities in response to COP guidance

View

OUTCOME 3.3

Institutional and human capacities strengthened to identify and implement adaptation measures as a support to NAP process and/or for enabling activities in response to COP guidance

View

Part II. Project Justification

1a. Project Description

Problem statement

1. The agricultural sector in Timor-Leste, which predominantly comprises subsistence farmers, has been negatively impacted by a wide range of climatic changes over the past three decades (Figure 1). A longer dry season, a greater number of extreme heat days, and the higher intensity of rainfall during extreme rainfall events have resulted in an erratic hydrological cycle, characterised by alternating extreme wet and dry conditions. These extremes have exacerbated flooding and landslides during the wet season, while the dry season experiences more frequent and intense droughts and wildfires. Within the proposed project?s target regions, these climate change impacts have damaged infrastructure and increased the rate of land degradation in both water catchments and agricultural fields. As a result, the availability of water resources has been reduced and water security has been negatively impacted in many rural villages ? particularly where water supply and storage facilities are limited. Additionally, longer dry seasons and more frequent extreme heat days have been linked to major declines in staple crops, including maize and rice[1]1,[2]2. Declines in agricultural production have been further exacerbated by the loss of fertile topsoils and the sedimentation of low-lying farmlands during landslides and floods.

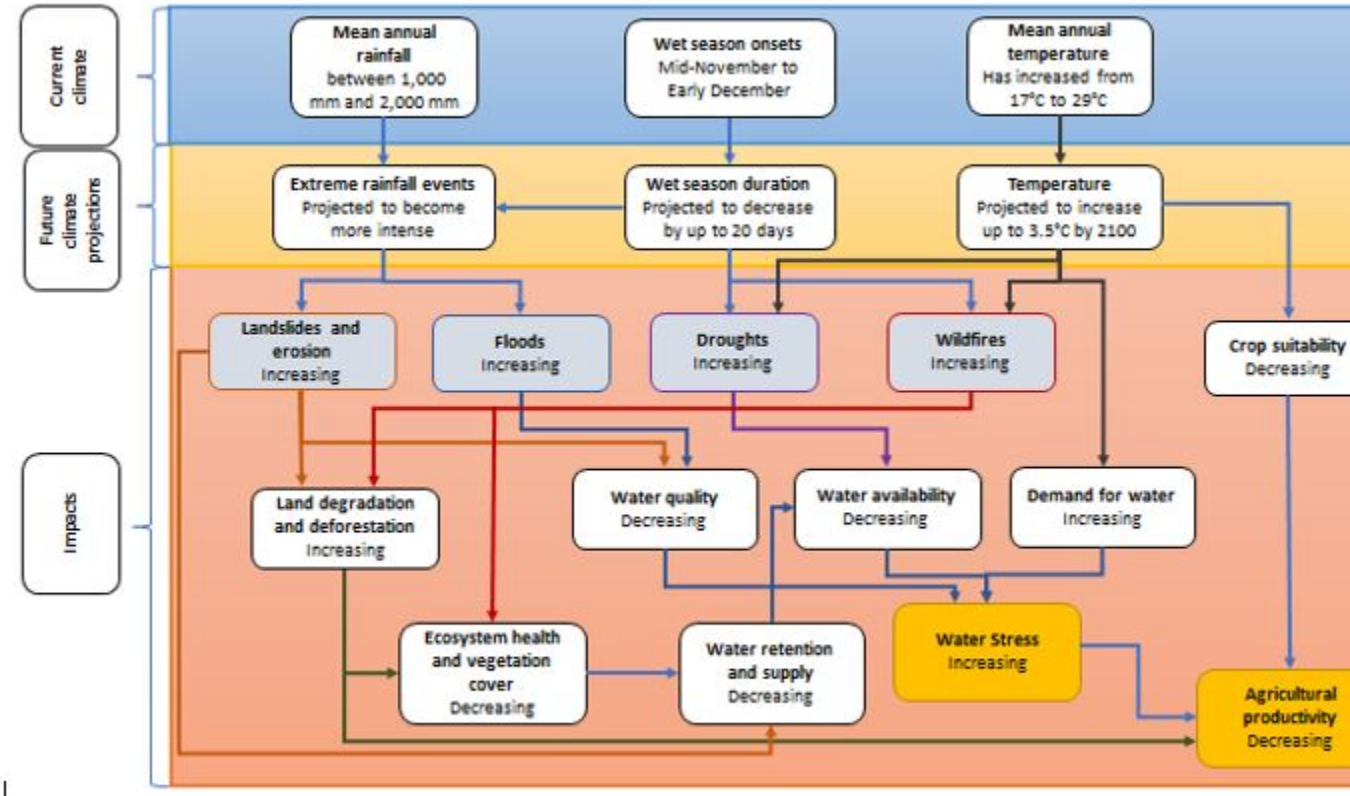


Figure 1. Problem diagram of the current and project climate trends in Timor-Leste, and the related i

Figure 1. Problem diagram of the current and project climate trends in Timor-Leste, and the related impacts.

2. Climate change in Timor-Leste is also greatly compromising water security in several ways. More intense rainfall during extreme rainfall events has increased the frequency and intensity of landslides and floods. As a result, the rate of soil erosion has increased while water availability for agricultural use and domestic consumption has decreased ? mainly as a result of the siltation of dams and a decline in river water quality. Additionally, droughts resulting from a longer dry season and greater number of extreme heat days have contributed to the drying up of many wells, springs and streams and reduced the quality of water in wells[3]3.

3. The abovementioned effects of climate change on the agricultural sector and water security in Timor-Leste are expected to intensify under future climate change conditions in the decades ahead. This prediction is largely informed by the following expectations: i) a decrease in the wet season by up to 20 days per year[4]4; ii) an increase in the number of extreme heat days from the current frequency

of <1 day per year to 4 per year by 2050[5]5; and iii) the increase of intensity of rainfall during extreme rainfall events by 20%[6]6,[7]7.

4. Several baseline conditions in the country promote the unsustainable management of rural landscapes, which compounds the impacts of climate change. Unsustainable forms of land-management practices implemented in the country include: i) overharvesting trees through illegal logging; ii) poor forest fire management; iii) farming on steep, unterraced slopes; iv) overstocking livestock; and v) the expansion of agriculture into forests. The widescale reliance on unsustainable land management is primarily a function of one or more underlying factors, including, *inter alia*: i) easily-erodible soils; ii) limited availability of agricultural land; iii) an increase in population size in rural landscapes; and iv) limited agribusinesses and livelihood opportunities. In addition, large-scale land degradation as a result of unsustainable land-use management and extreme climate change events increases the frequency of destructive landslides, which inhibit road access during extreme rainfall events and limit vulnerable communities? access to markets. Landslides also damage riverbanks, reducing the quality and quantity of water resources available for agriculture and consumption. Combined, the aforementioned factors result in endemic poverty and food insecurity, which, in turn, further promote unsustainable land-use practices to substitute local livelihoods. With limited access to markets and minimal investment options for private sector investors, there is little opportunity to break the cycle of poverty in rural Timor-Leste and the consequent unsustainable use of landscapes.

5. In addition to unsustainable land management, the poor management of water resources is a pressing environmental problem in Timor-Leste. Limitations in the country?s water and sanitation sector include: i) the absence of policies defining government and community responsibilities for the operationalisation and maintenance of rural water systems; ii) inadequate technical support services, accountability and incentives for sustaining services; iii) limited functionality of water supply schemes; and iv) insufficient district-level budgets allocated to water supply initiatives. As a result, the number of households with limited access to water and facing water shortages increases during extreme climate events, particulalry droughts. Moreover, many households are informally connected to water services in the country, which deteriorates water quality within the distribution system because of low water pressure and inadequate water maintenance. The resulting intrusion of contaminated groundwater into pipelines increases the likelihood of waterborne diseases, with detrimental impacts on human health.

Root Causes

6. Direct and indirect factors resulting in land degradation are described in the sections below. Each section includes a description of the unsustainable land-use practice and the social challenges that promote their implementation.

Direct factors

Deforestation

7. Approximately 90% of the forests across Timor-Leste have been cleared or logged, resulting in a patchwork of grasslands, croplands and secondary forests over most of the island. Most of this clearing and logging was undertaken for timber extraction, fuelwood harvesting and agricultural expansion. In addition, forest clearing has caused an increase in the occurrence of forest fires in the remaining patches of forest, with fires now easily able to move from grasslands and croplands (where they occur more readily) to forest patches[8]8.

Unsustainable farming practices

8. Shifting agriculture, which includes the slashing and burning of forests, is a common practice throughout the agricultural sector in Timor-Leste. This form of agriculture rapidly depletes soil nutrients, reduces water infiltration into aquifers, increases soil erosion and leads to an increased occurrence of forest fires.

9. In addition to shifting agriculture, the overstocking of grasslands with livestock, including cattle, goats, horses, buffalo and sheep, is causing the degradation of vegetation and soils across Timor-Leste. These livestock tend to be free-roaming and are often uncontrolled by local community governance structures, resulting in overgrazing of communal lands and soil erosion in watersheds. This limited governance of livestock stocking rates is partly a function of limited availability of land and limited private freehold land tenure.

Indirect factors

Poverty

10. Approximately half of the rural population of Timor-Leste lives below a poverty line defined as US$5 per day of income[9]9. The majority of people living in poverty are small-scale farmers, who often experience multidimensional poverty that is perpetuated by their limited access to finance, farming equipment, fertilisers, improved agricultural technologies, new crop cultivars and markets for cash crops. As a result, most of the rural population of Timor-Leste relies on natural resource extraction to supplement their income streams. This extraction of natural resources is largely done in an unsustainable manner because of limited governance structures in rural areas.

Demography

11. The population of Timor-Leste is currently growing at a rate of ~2% annually and is expected to increase from ~1.3 million to ~1.8 million by 2030. This rapid growth rate, in addition to limited land use planning and unsustainable land management practices, places considerable pressure on the

country?s natural resources. For example, with every year that passes there is a greater volume of fuelwood, meat and crops required from the rural agricultural economy. This results in greater fuelwood harvesting from already-degraded forests, greater stocking of already-overstocked grasslands and an increased area of slash-and-burn agriculture. Models of the effect of population growth in Timor-Leste on the country?s forest resources predict that the rate of deforestation will continue to be ~2% in the decades ahead[10]10.

Adaptation needs of rural communities in Timor-Leste

12. The three main threats from climate change that the rural communities in Timor-Leste need to combat, now and in the future, relate primarily to: i) the shortened wet season, which negatively impacts crop production and reduces water availability from surface water as well as groundwater resources; ii) the greater number of extreme heat days, which damages crops and is a human health risk; and iii) the greater intensity of rainfall in intense rainfall events, which greatly increases soil erosion in degraded watersheds and from topsoils in agricultural fields. Ecosystem-based adaptation (EbA), improved farming practices and the development of agribusiness have the potential to combat these risks. Restoration of forests in catchment areas and agroforestry in agricultural fields will reduce soil erosion, increase infiltration of rainwater into aquifers, and cool micro-climates for improved crop growth under extreme heat conditions. This outcome will increase the climate-resilience of rural communities to the impacts of climate change, namely: i) flooding, by decreasing the amount of surface runoff and increasing infiltration of rainwater; ii) landslides, by reducing soil erosion and binding soils together more effectively; iii) drought, by increasing the availability of groundwater resources through increased infiltration and reducing the impact of extreme heat days by intercropping shade trees with agroforestry crops; and iv) wildfires, by increasing water availability during extreme heat periods thereby decreasing the amount of dry and vulnerable vegetation. Improved management of agricultural fields and grasslands to increase soil organic matter levels will also combat climate change threats by increasing the water holding capacity and aggregating the stability of soils. Additionally, this improved management of agriculture will reduce communities? reliance on slash and burn agriculture, thereby reducing the risk of wildfires. Lastly, the development of agribusiness, and associated agricultural extension services, will enable subsistence farmers to increase their income streams from the production of crops and livestock, providing them with an opportunity to invest in sustainable farming methods appropriate for future climate change conditions, such as irrigation infrastructure and improved crop cultivars.

Barriers to be addressed

13. The GoTL has developed several policies and plans to halt and reverse deforestation and land degradation in the country. However, several barriers to achieving the goals set out in these policies and plans have been identified, including: i) limited community-level planning for land-use and natural resource management; ii) information gaps relating to local-level climate change vulnerability and land degradation; iii) limited institutional and financial capacity in government institutions to implement

existing policies and regulations; and iv) limited institutional capacity for knowledge management and upscaling of EbA[11]11. These four main barriers to the successful implementation of the preferred solution and to the widespread adoption of ecosystem-based adaptation (EbA) and agribusiness in Timor-Leste were identified during the development of the project. These barriers are described below.

Barrier 1. Limited coordination and institutional capacity at the national level for climate change adaptation and Land Degradation Neutrality (LDN)

14. As a relatively newly independent country, the capacity of the GoTL to proactively address land degradation and climate change adaptation is limited[12]12. The institutional and regulatory frameworks for such activities are still under development, resulting in several gaps in legislation, regulations and policies specific to climate change[13]13. In addition, coordination between government institutions at the national level is challenging, as mechanisms for cooperation are limited and have not been embedded into institutional operations. This limited coordination has prevented an integrated approach to address climate change, land degradation, water insecurity and rural poverty. Coordination between the national government and traditional local governance systems (*Tara Bandu)* is also insufficient[14]14, constraining the application of traditional governance systems in the management of natural resources at the landscape level.

15. An additional constraint is insufficient monitoring and access to recent reliable data on land degradation and climate change impacts. Data on the LDN indicators ? which include land cover, land productivity and carbon stocks ? are unavailable at national, subnational and local scales in Timor-Leste. The institutional capacity of the GoTL to address land degradation and implement adequate adaptation measures is hindered by a limited understanding of the causal effects of land degradation and quantitative estimations of the severity of the problem across the country[15]15.

Barrier 2. Inadequate systems for water resource management at village level

16. Water supply and storage infrastructure are limited in rural Timor-Leste, with much of the existing infrastructure having been damaged or poorly maintained. Historical political instability and limited investment in these systems have contributed to the degradation of water infrastructure. The National Directorate for Water Services (DNSA) has limited financial, autonomy and human resources ? technical staff in particular ? to respond to local operational needs[16]16. In 2012, public capital expenditures on water and sanitation represented 1.1% of the national budget, while the necessary expenditures on infrastructure and operation and maintenance are estimated to be 2.4% and 0.4%, respectively[17]17. Moreover, village-level systems for this infrastructure's operation and maintenance

(O&M) are not always in place[18]18. There is consequently a need to develop and build the capacity of community-based organisations responsible for the management and maintenance of water resource infrastructure ? including irrigation infrastructure. The vulnerability of communities to water insecurity will increase without community-based measures in place to efficiently manage water-supply systems and perform sustainable operations and maintenance of existing water supply systems. With limited studies on specific water resources, there is also a need for the development of local systems to promote water conservation and monitor groundwater levels and water use[19]19.

Barrier 3. Limited technical and financial capacity of farmers to shift from subsistence agriculture to agribusiness

17. Many small-scale farmers in Timor-Leste are not economically secure enough to take on the financial risks associated with shifting from subsistence agriculture to agribusiness development. Limited access to capital, markets for commodity crops and risk transfer measures have meant that the economic incentives for the transition to agribusiness and adoption of sustainable agricultural practices are inadequate to drive this transition[20]20. In addition to these financial constraints, small-scale farmers have limited technical capacity for sustainable commodity crop cultivation or the development and operation of agribusinesses. Subsistence farmers, in particular, are currently constrained by low agricultural productivity resulting from limited agricultural support services, such as maintenance of irrigation infrastructure. Insufficient market information (such as pricing or market trends) limited rural road infrastructure and high transportation costs are further barriers to smallholder farmers accessing markets and shifting to agribusiness. The Covid-19 pandemic and the associated lockdowns, movement restrictions and borders closures exacerbated these problems by making market access for agricultural produce more challenging than before[21]21.

18. The capacity of farmers in Timor-Leste to adopt and maintain appropriate technologies and techniques ? such as climate-resilient crops and practices, water storage facilities and on-farm irrigation systems ? is further limited by factors such as limited access to banking and credit facilities[22]22. In addition, previous efforts to support rural development by cash subsidies or providing equipment for mechanisation have had limited success because: i) these interventions were not provided in conjunction with adequate incentivisation for farmers to alter their practices; ii) there is limited capacity among subsistence farmers to adopt sustainable practices; and iii) such interventions did not sufficiently incorporate management of common resources[23]23.

Barrier 4. Limited knowledge generation and management to inform upscaling of EbA and sustainable agricultural practices

19. Historical information on climate variability and projections of future climate change and its impacts are limited in Timor-Leste[24]24. In particular, there is limited detailed information available on vulnerability to climate change at a landscape level and how this is likely to impact agricultural production. In addition, while initiatives to facilitate the adoption of climate-resilient agricultural practices and EbA have been undertaken, knowledge management has been insufficient. As a result, lessons learned from these initiatives have not been systematically collated and validated, with inadequate information available to inform policy development or the upscaling of effective initiatives[25]25.

20. The government of Timor-Leste (GoTL) is aware of this barrier and is currently seeking to address it. The National Adaptation Plan (NAP) identified EbA as a priority and outlined the need to build human and institutional capacities to implement EbA, as well as to incorporate EbA into planning and regulatory frameworks[26]26. In addition, the priorities for the agricultural sector include, *inter alia*: i) improving research and knowledge management capacities to support climate-resilient agriculture and land management; ii) promoting climate-resilient livestock practices; and iii) implementing community-based climate-resilient agriculture and land management programs[27]27.

The baseline scenario and associated baseline projects

Land-use and land degradation

21. The government of Timor-Leste recognises forest loss as the most pressing environmental challenge in the country[28][28]. Between 2003 and 2012, forest cover in Timor-Leste was reduced by nearly 2,000 km2 ? equivalent to ~13% of the country?s total land area. This large-scale deforestation was mainly driven by shifting agriculture, unsustainable farming practices, illegal logging and forest fires[29]29. In particular, the use of unsustainable farming practices across the country?s extensive agricultural network has resulted in widespread, rapidly increasing land degradation[30][30]. Examples of these unsustainable farming practices include: i) slash-and-burn agriculture; ii) cultivating crops on steep slopes; and iii) poor livestock management practices, such as overgrazing. Most concerning of these is slash-and-burn agriculture, which involves the frequent clearing and burning of vegetation for the expansion of agricultural land, thereby exposing the terrain to heavy rainfall and high rates of soil erosion. The consequent loss of topsoil and nutrients required for crop production results in a decline in crop productivity. In addition, the loss of natural vegetation cover associated with slash-and-burn agriculture further increases the risk of floods and landslides and reduces soil moisture and

groundwater reserves ? all of which have negative impacts on crop productivity. As crop productivity declines, farmers clear new land for the expansion of agriculture, thereby perpetuating the cycle of slash-and-burn agriculture as a maladaptive approach to supplementing declining crop productivity.

Water Resources

22. Timor-Leste?s water resources are limited for several reasons, including the: i) steep topography and prevailing hydrological conditions in the country which limit the availability of surface water for domestic or agricultural use; ii) absence of dry season flow in most of the country?s rivers; iii) ineffective irrigation infrastructure in small-scale farming communities; and iv) lack of licensing or monitoring of water usage. These limitations increase the vulnerability of communities to water shortages, with ~21% of rural households travelling for more than 30 minutes to reach the nearest water access point[31]31. In addition, the collection of water for household consumption is generally carried out by women, thereby reducing the ability of women to access training, personal development or capacity-building when these are made available[32]32,[33]33. These challenges are expected to increase under future climate scenarios. For example, longer dry seasons and an increase in the number extreme heat days are expected to increase baseline water access challenges by reducing both the quality and availability of surface water and groundwater resources[34][34].

Agribusiness Baseline

23. Approximately 75% of the population of Timor-Leste comprises small-scale farmers, most of whom practice rainfed subsistence agriculture. The most important food crops in the country are maize, rice, cassava and sweet potato. In addition to these, cash crops such as coffee, cocoa, vanilla and coconut are grown. Of these, coffee represents a significant contribution to the Timor-Leste economy, and constitutes the country?s second-largest export value[35]35.

24. The limited availability of water for agriculture is a constraint on smallholder farmers, and is driven by several existing baseline factors, including: i) poorly developed agricultural infrastructure; ii) inefficient agricultural extension services; iii) a lack of financing and agriculture investments; and iv) limited dry-season rainfall. In addition to limited water availability, the farms surveyed in the livelihoods and value chain analysis (Annex 18) cited a lack of training as an important limitation to the productivity and profitability of their farms. The most prominent training-related limitations included knowledge regarding: i) seedling planting; and ii) grafting, fertilizing and pruning. These

activities were rare among farmers, which was attributed to limited guidance or knowledge among smallholder farmers on how to effectively manage crops.

Socio-economic Context

25. Timor-Leste became a democratic state in 2001. Its 13 municipalities are divided into 67 sub-districts (also known as administrative posts) and 442 *sucos*. The sub-districts are governed by the state, whereas the *sucos* are governed by traditional leaders. Traditional *suco* leaders are supported by community groups such as the Facility Management Groups (GMFs) which engage in activities such as water systems management, water source protection, reforestation and revegetation. GMFs are predominantly comprised of youth membership and are entirely community driven, with no government involvement in their structure or operations.

26. Communities in Timor-Leste are traditionally governed by the practice of *tara bandu*, which is an aspect of the cultural norms known as *lisan**[36]***[36]. *Tara bandu* is defined by the UNDP as a ?broad term encompassing local law, social norms and morality, art and rituals, and a system of community leadership and governance?[37][37]. The term has also been defined by communities in the country as ?a traditional and common practice with the means to reduce or prevent community conflict, reduce crime, protect the environment, manage natural resources and improve community welfare?[38][38].

27. Approximately 30% of Timor-Leste?s population of 1.2 million people live in urban areas, with 70% living in rural areas (Table 1). Constraints on Timor-Leste?s economy include: i) a poor road infrastructure; ii) an unskilled workforce; iii) high labour costs; iv) incomplete legal frameworks; v) minimal employment opportunities in the oil and gas sector despite its dominance of the economy; and vi) a strong reliance on imported goods to supplement national food production.

Table 1. Timor-Leste?s demographic profile disaggregated by gender and location[39][39].

Demographic	**National Population**	**Rural Population**	**Urban Population**
Female	582,531 (49%)	412,888 (49%)	169,643 (49%)
Male	601,112 (51%)	421,547 (51%)	179,565 (51%)
Total	1,183,643	834,435 (71%)	349,208 (29%)

Gender

28. Timor-Leste ranks poorly on the UN Gender Inequality Index, having a rank of 111 out of 187 countries. This gender inequality is evident in the country?s employment statistics, with only 27% of women classified as ?economically active? (compared to 56% of men). Despite their low representation in the country?s statistics, women and girls contribute in a substantial way to local rural economies. For example, women are actively engaged in crop production, livestock husbandry, fisheries, housework, child rearing and caring for the elderly.

Climate

29. Mean annual rainfall across Timor-Leste ranges from less than 1000 mm in the northern coastal zones to more than 2000 mm in the southern uplands (Table 2). There is strong seasonality of rainfall ? with May?November considerably drier than the wet months of December?April (Figure 3) ? as a result of the Australian monsoon weather system. The El Ni?o?Southern Oscillation (ENSO) also affects rainfall across the island, with the warm El Ni?o phase creating dry conditions and the cool La Ni?a phase causing increased rainfall. El Ni?o phases have historically been linked to severe droughts, water shortages, forest fires and crop failures across the country. For example, between December 2015 and March 2016, ~78% of households were impacted by El Ni?o-induced drought, with more than 62,000 households experiencing food shortages[40][40]. The effect of the Indian Ocean Dipole (IOD) is similar to that of ENSO, with a positive phase of the dipole (i.e., a relatively warm Indian Ocean) reducing rainfall on the island and a negative phase increasing rainfall. Both ENSO and the IOD have a substantial effect on the duration of the dry season.

Table 2. Agro-climatic zones and annual rainfall in Timor-Leste[41][41].

No.	Zone	Area (%)	Altitude (m.a.s.l)	Annual rainfall (mm)	Months of rain
1	North coast lowlands	10	>100	<1000	4?5
2	Northern slopes	23	100?500	1000?1500	5?6
3	Northern uplands	20	>500	>1500	6?7
4	Southern uplands	15	>500	>2000	9
5	Southern slopes	21	100-500	1500?2000	8
6	South coast lowland	11	<100	<1500	7?8

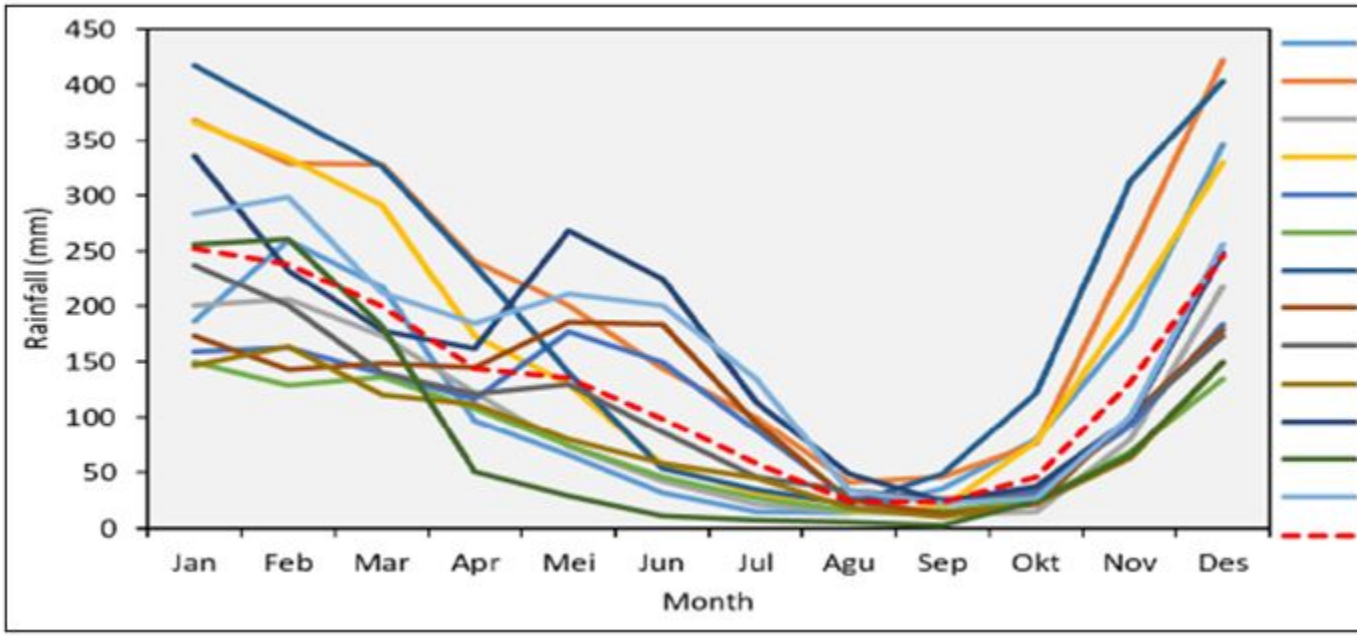


Figure 2. Annual rainfall trends for municipalities in Timor-Leste[42].

30. Air temperatures across Timor-Leste are influenced mainly by topography, with cooler temperatures in the mountains and warmer conditions on the coast. The coldest month is July, with mean monthly temperatures across the 13 municipalities ranging from ~17 to 27?C. The warmest month is December, with mean monthly temperatures of ~21 to 29?C (Figure 4).

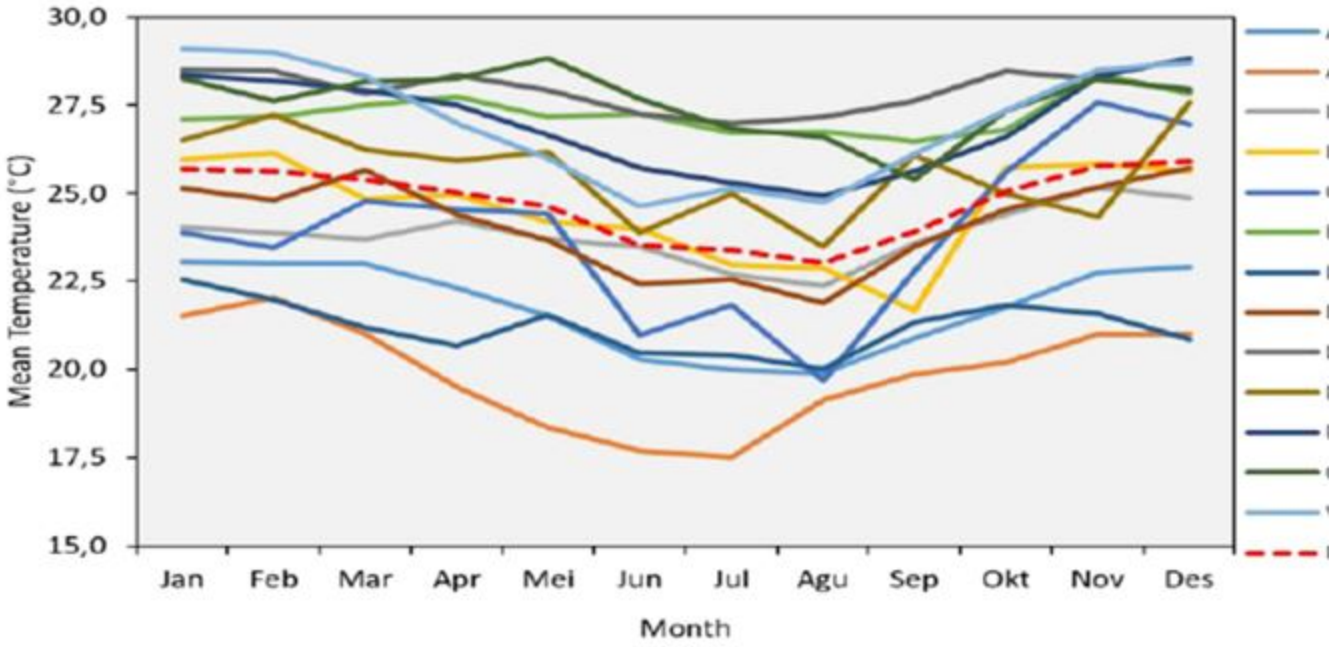


Figure 3. Mean temperature of Timor-Leste based on observation data between 2008 and 2017[43]. The graph shows temperatures for the 13 municipalities of Timor-Leste.

Observed climate

31. Meteorological data for Timor-Leste are limited as a result of inconsistent and erratic data collection over time ? particularly during periods of civil unrest. The historical data available are, therefore, seldomly sufficient to accurately determine historical temperature and rainfall changes.

Temperature

32. Historical temperature data for Timor-Leste are primarily based on reconstructed data and ocean warming trends around the country. Notwithstanding data limitations, temperature records in Timor-Leste show an increase in alignment with regional and global trends. Most datasets show a mean increase in air temperature of ~1?C since the early 20th century, with mountainous regions experiencing the greatest increase (see Figure 6 and Figure 7)[44]. There is some evidence that the rate of warming over the country has increased in the past two decades, particularly in the mean monthly minimum temperatures, as shown in Figure 7, and the annual trends of heat stress days, as shown in Figure 5.

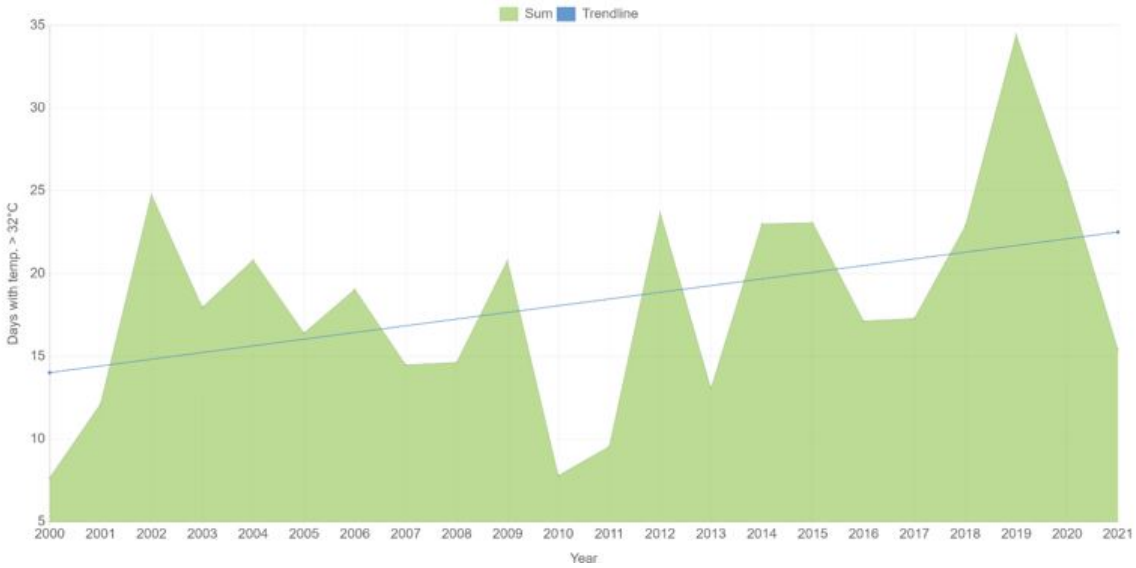


Figure 4. Annual trends of heat stress days, where the maximum temperature exceeded 32?C[45][45].

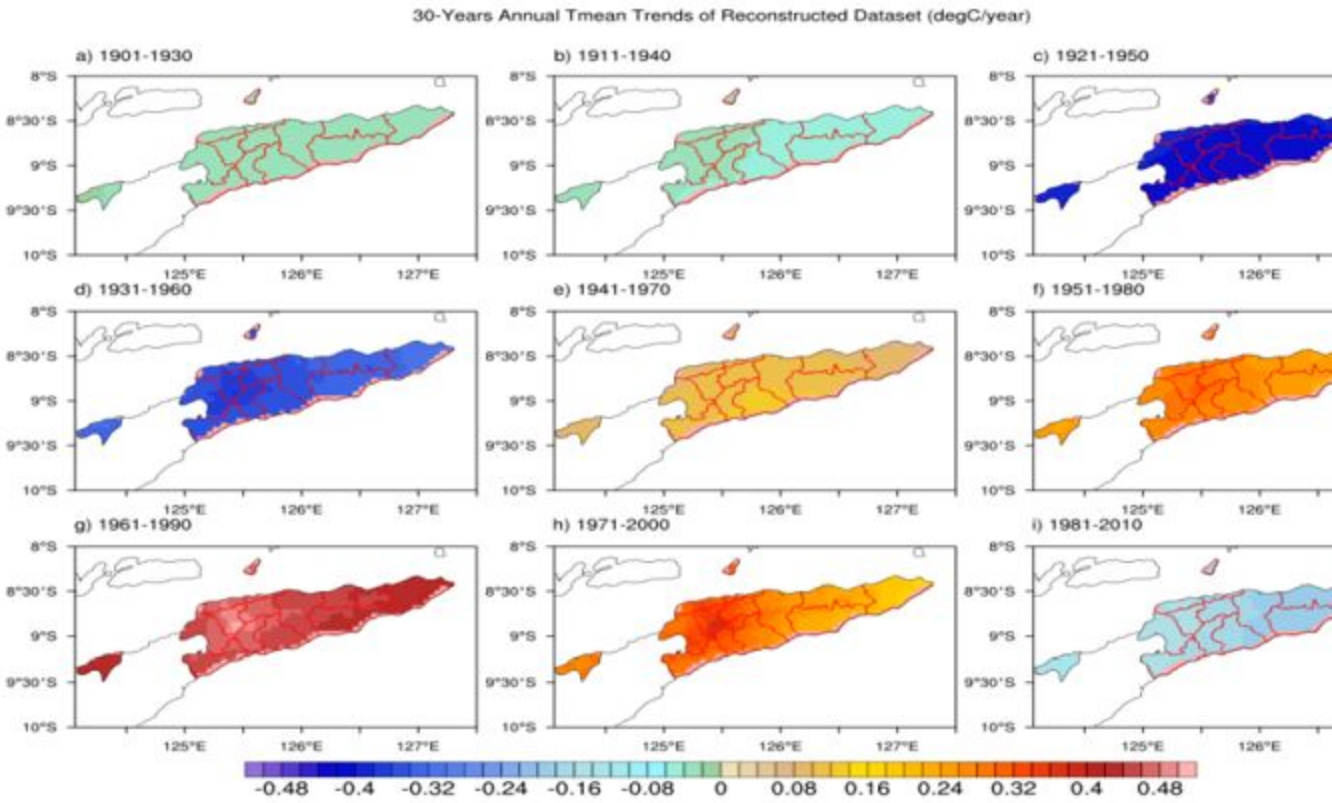


Figure 5. Decadal trends of mean annual temperature, calculated from reconstructed historical data across the island of Timor-Leste[46][46].

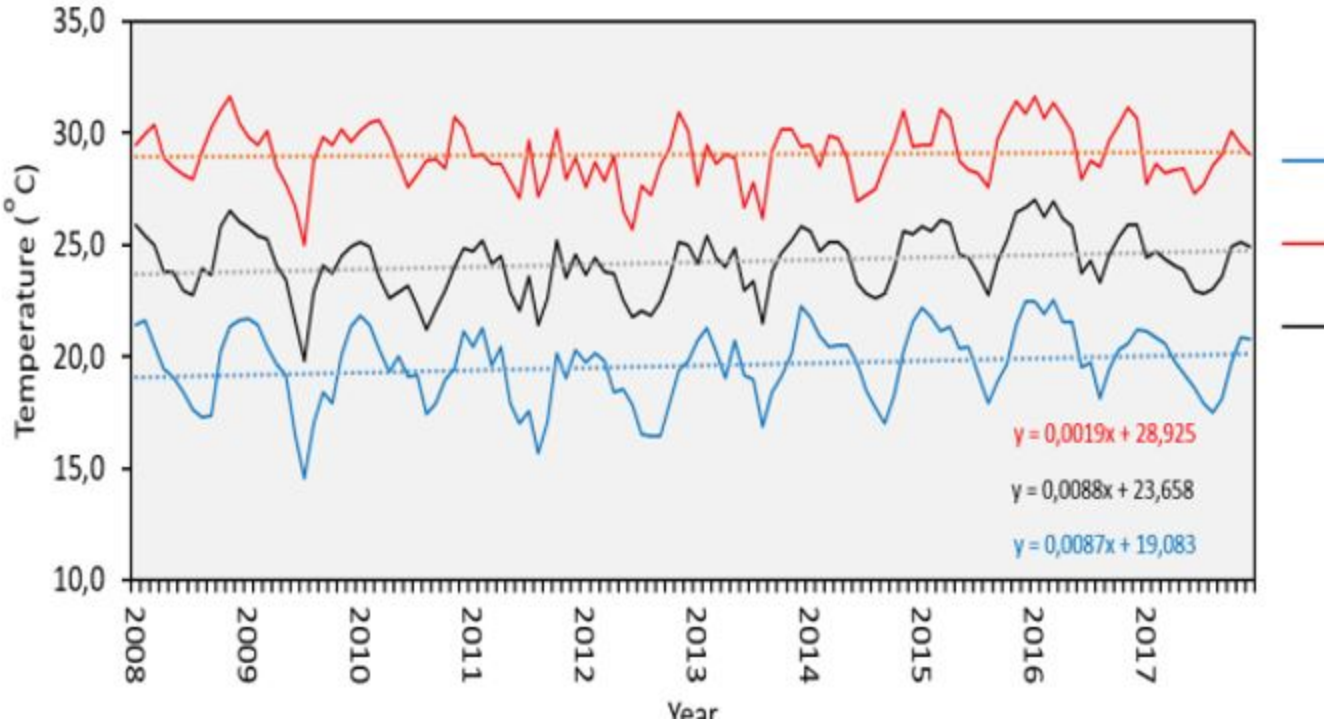


Figure 6. Timeseries of mean monthly air temperatures across Timor-Leste based on observation data from 2008 to 2017[47][47].

Rainfall

33. Mean annual rainfall across Timor-Leste has increased by ~5 mm per year over the past century. However, relative to the total annual rainfall of ~1000 mm (in the drier coastal areas) to ~2000 mm (in the wet mountainous areas), this increase is negligible and of minor consequence to the agricultural or water sectors. By contrast, the observed increasing intensity of rainfall in the wet season and the reduced length of the wet season are considered consequential trends. The historical onsets of the wet and dry seasons are from mid-November to early December and early April to early May, respectively, however the wet season onset is occurring later in the year while the dry season onset is occurring sooner. The effects of these rainfall intensity and wet season length climate changes influence the rates of soil erosion, frequency of landslides and water infiltration into aquifers, and reduce crop yields (see Figure 8, Figure 9, Figure 10, and Table 3)[48][48],[49]49. Consequently, ~450,000 households are impacted annually by forced displacement, diminished water quality, injury and mortality as a result of floods and landslides resulting from extreme rainfall events[50][50].

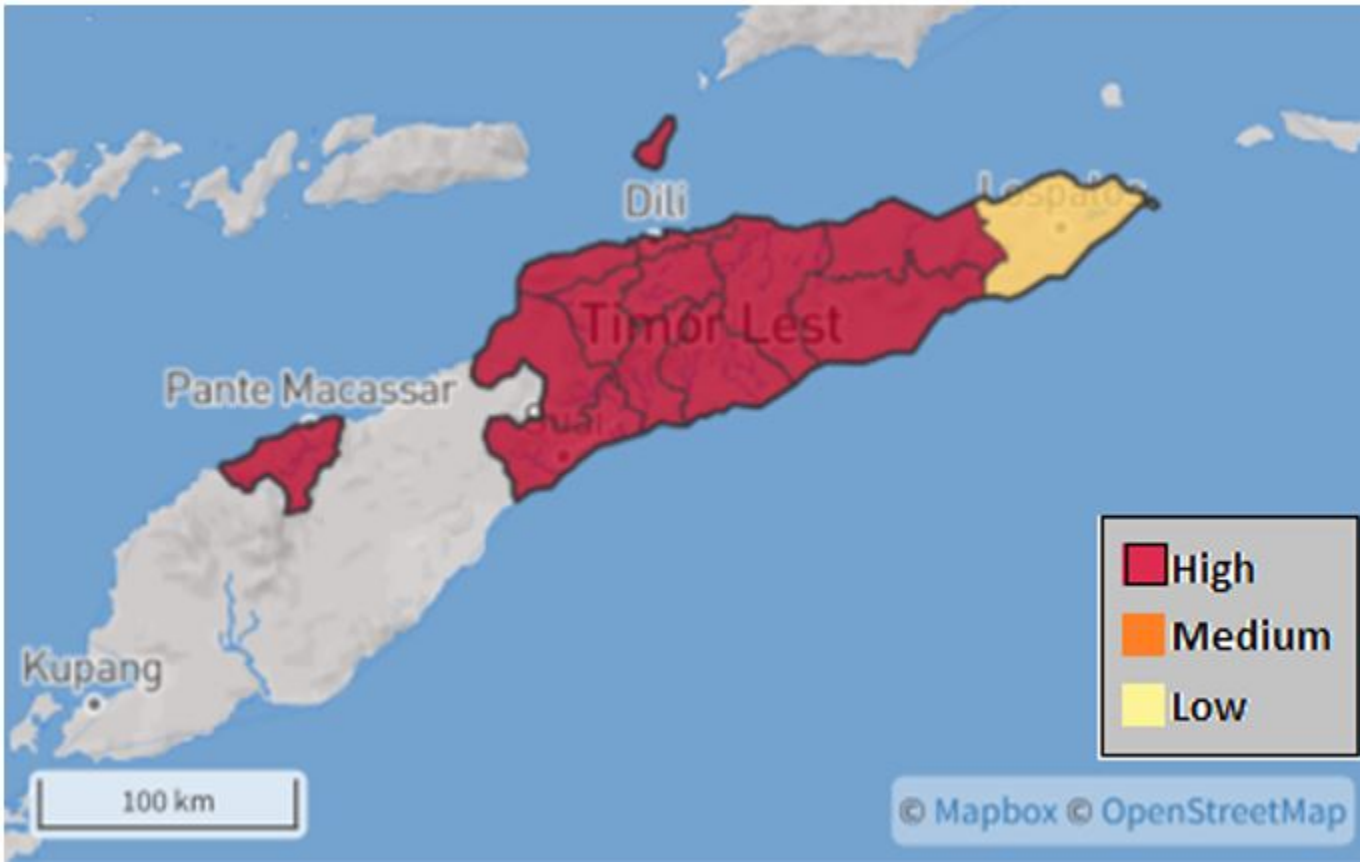


Figure 7. Landslide hazard rating for Timor-Leste[51][51].

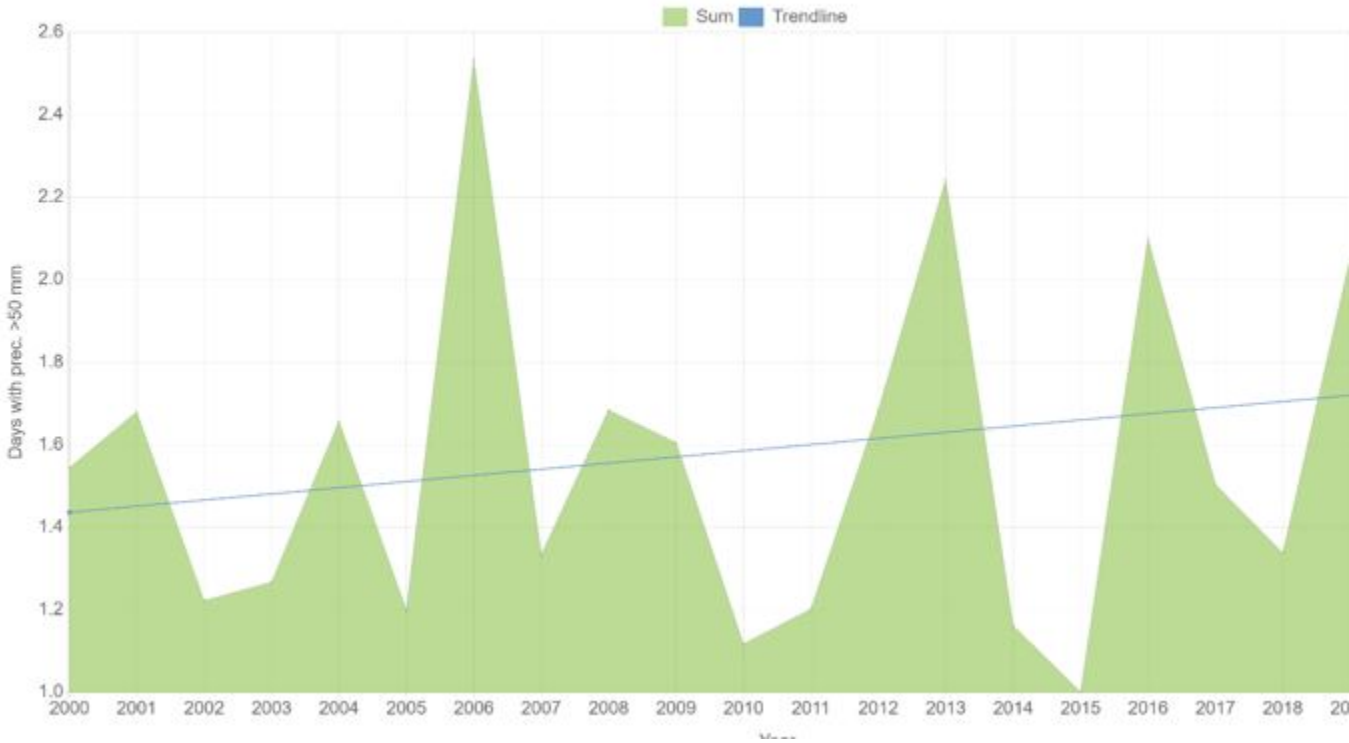


Figure 8. Annual trends of extreme rainfall, where measured precipitation exceeded 55 mm[52][52].

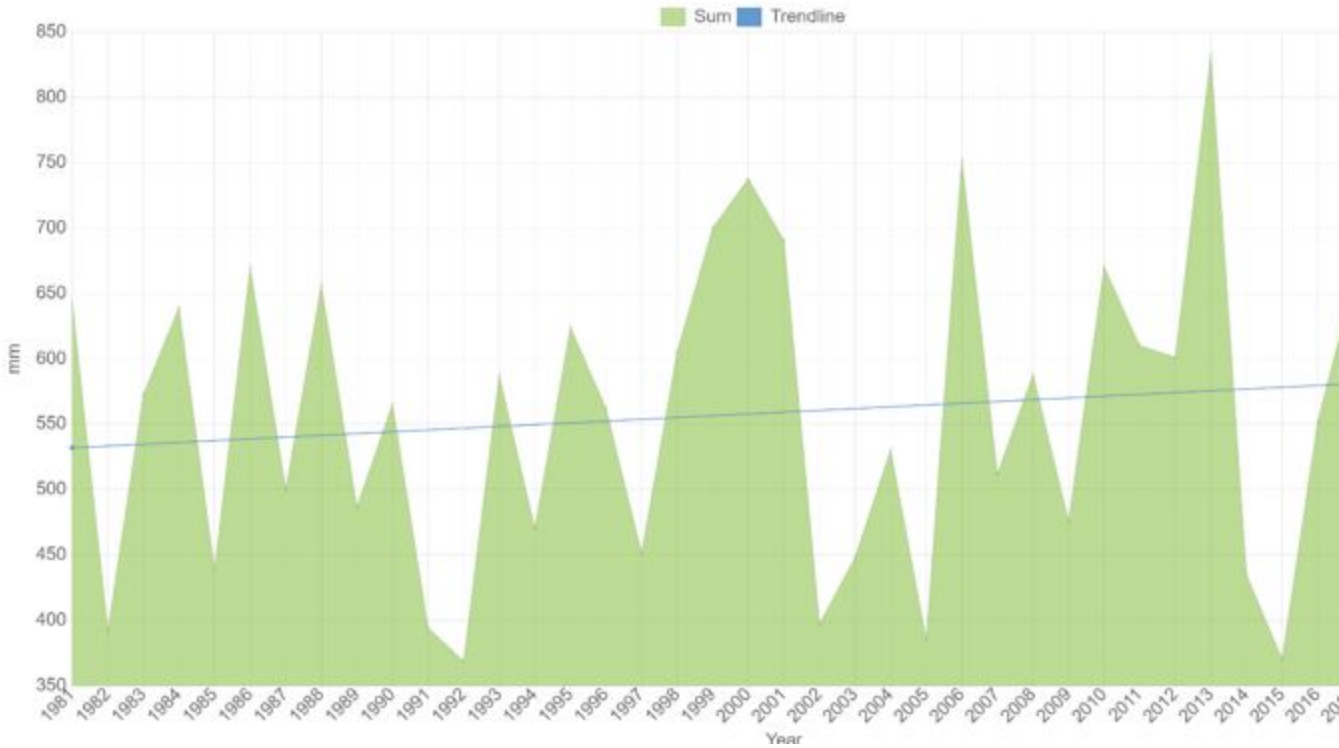


Figure 9. Annual trends of precipitation runoff from 1981?2021[53][53].

Extreme climate event impacts

34. Within the proposed project?s target regions, community members identified four main climate impact areas: floods, landslides, droughts and wildfires (Appendix 13). Observations made during stakeholder consultations regarding these climate impacts are presented below.

Floods

35. Flooding during extreme rainfall events has been observed in both the Laclo and Dasidaro watersheds. Within the Laclo watershed, stakeholders in the villages of Iliheu and Uma Caduak have reported frequent flooding. In Uma Caduak most flooding has occurred within the residential area of Aldeia Conrad, where flood levels have reportedly exceeded head height. Within the Dasidaro watershed, flooding has mainly been observed in lowland and coastal areas. For example, during stakeholder consultations, community members in the villages of Ililai and Euquesi reported at least one flooding event per year along the coast and in rice fields bordering the Dasidaro River. Moreover, stakeholders have indicated that high rates of sedimentation resulting from soil erosion and landslides exacerbate flooding during heavy rainfall events, particularly along riverbeds and in farmlands.

Landslides

36. High-intensity rainfall during extreme climatic events increases the risk of landslides within the proposed project?s target regions. In the steeper parts of Timor-Leste, unstable soils and rocks, including schists, shales and melange, are highly susceptible to erosion and landslides[54][54]. Most landslides occur down the centre of the island in areas with high rainfall and steep topography, although they are also known to occur in areas characterised by weak shale rock formations. Several landslides approach or exceed 1 km2 in areal extent (Figure 11).

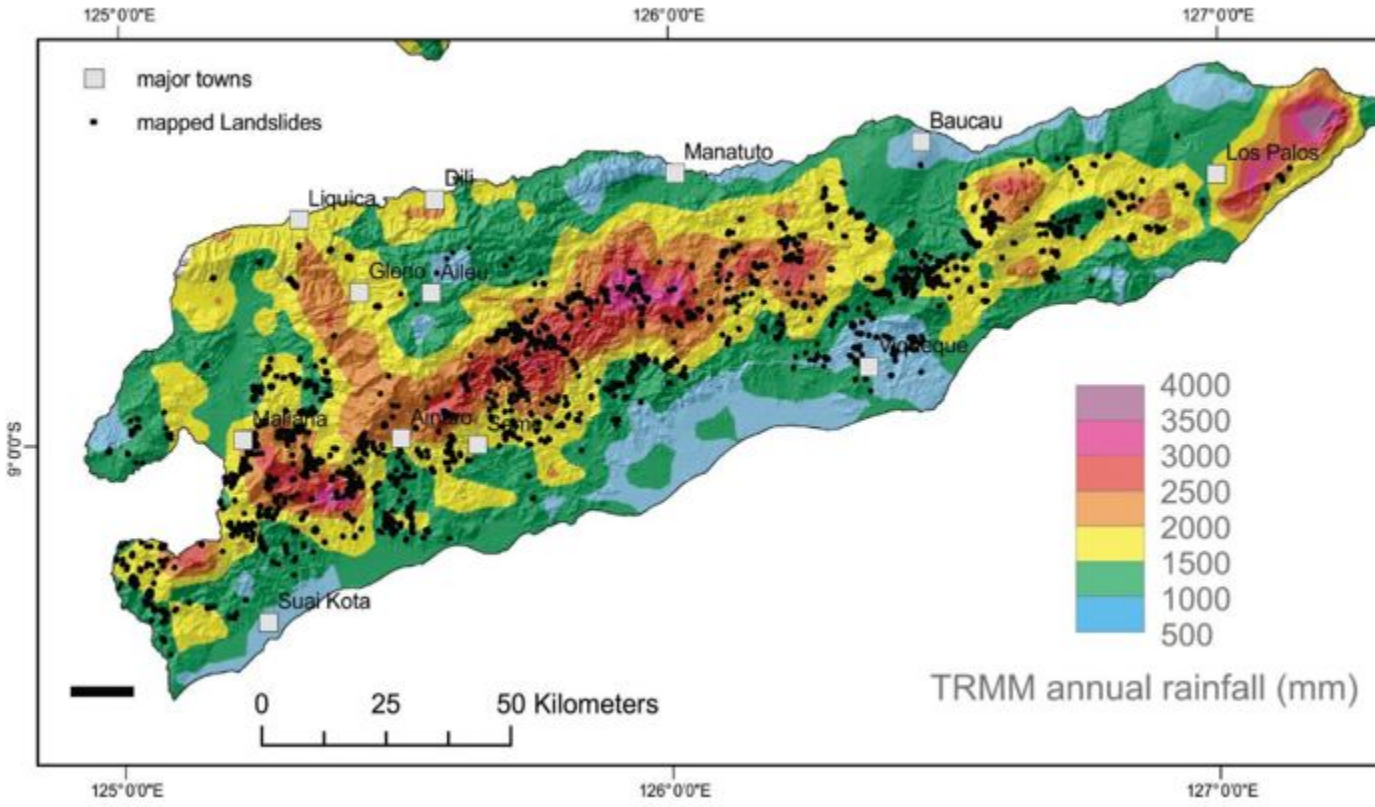


Figure 10. Tropical Rainfall Monitoring Mission (TRMM) annual rainfall data for Timor-Leste, overlain by landslide distribution. Note the strong correlation between rainfall and high topography, and how land-slides generally occur in high topography regions with mean annual rainfall amounts exceeding 1500 mm/yr[55][55].

37. Landslides generally occur on mountain slopes, in the villages of Uma Caduak and Iliheu (Laclo watershed), although they also occur in upland and flat areas along the riverbed. Within the Laco watershed, frequent landslides have also been reported in the villages of Kribas and Sana Nain. The

village of Kribas, and the main local road, are situated on the bank of the Laclo River, exposing them to fast-moving water and sediment. Within the Dasidaro watershed, the conversion of upland forests into farmlands contributes to soil erosion and increases the risk of landslides during extreme rainfall events. High sedimentation rates resulting from soil erosion and landslides exacerbate flooding during heavy rainfall events ? particularly along riverbeds and rice fields ? and cause damage to infrastructure and agricultural pastures.

Droughts

38. Drought is considered one of the main drivers of land degradation in Timor-Leste. When combined with extreme heat days, droughts increase the rate at which crops become dehydrated and fail, resulting in decreased crop yields and reduced forage for livestock. Within the villages of Kribas and Sana Nain (Laclo watershed), longer dry seasons have contributed to crop failure and a reduction in the availability of drinking water. In 2018, an unusually-long dry season in *suco* Kribas resulted in the loss of a nearby spring, which community members relied on to supply piped drinking water. The spring has remained dry since this event, and the village now depends on river water for drinking ? the quantity and quality of which are uncertain. Within the Dasidaro watershed, long dry seasons have resulted in an intense drought, which has impacted almost all water resources in the region, affecting the villages of Ililai and Euquesi. Most springs and streams have dried up in the upland areas, with many families having to walk ~2?3 km to reach their nearest clean water. During the 2015 drought, community members in the Likidiga commune travelled up to ~11 km to access drinking water. In lowland coastal areas, families typically access clean water via well points; however, a decrease in the availability of water has been reported, with some families? wells drying up completely.

Wildfires

39. Across Timor-Leste, the hazard level for wildfire is considered ?high? (Figure 12), meaning that there is a greater than 50% chance of encountering weather that could enable a substantial wildfire, during which the loss of life and property is likely[56][56]. Fire is one of the main drivers of land degradation in Timor-Leste. Wildfires and droughts generally occur concurrently, with fires breaking out at the peak of the dry season when dry grasses and shrubs readily burn. The villages of Ililai, Euquesi, Fahiria and Liurai (Dasidaro watershed) reported the frequent occurrence of droughts and fires (at least once per year). According to community members within the villages of Ililai and Euquesi, wildfires limit reforestation attempts, reducing the rate of seedling survival.

40. Fire damage occurs through direct exposure to flames and radiation, as well as via ember storms and low-level surface fires. Additionally, intense wildfires can generate their own localised weather conditions. Extreme fire weather is often associated with strong winds, which weaken the integrity of infrastructure. Within the Dasidaro watershed, some farmers have constructed garden houses ? in which they store their agricultural products ? to reduce the exposure of produce to sunlight, rainfall and extreme heat. As a result, farmers? agricultural yields are generally concentratedconfined to small, confined spaces, which makes them vulnerable to loss during fast-spreading wildfires. Additionally, wildfires increase the risk of livestock injury or death.

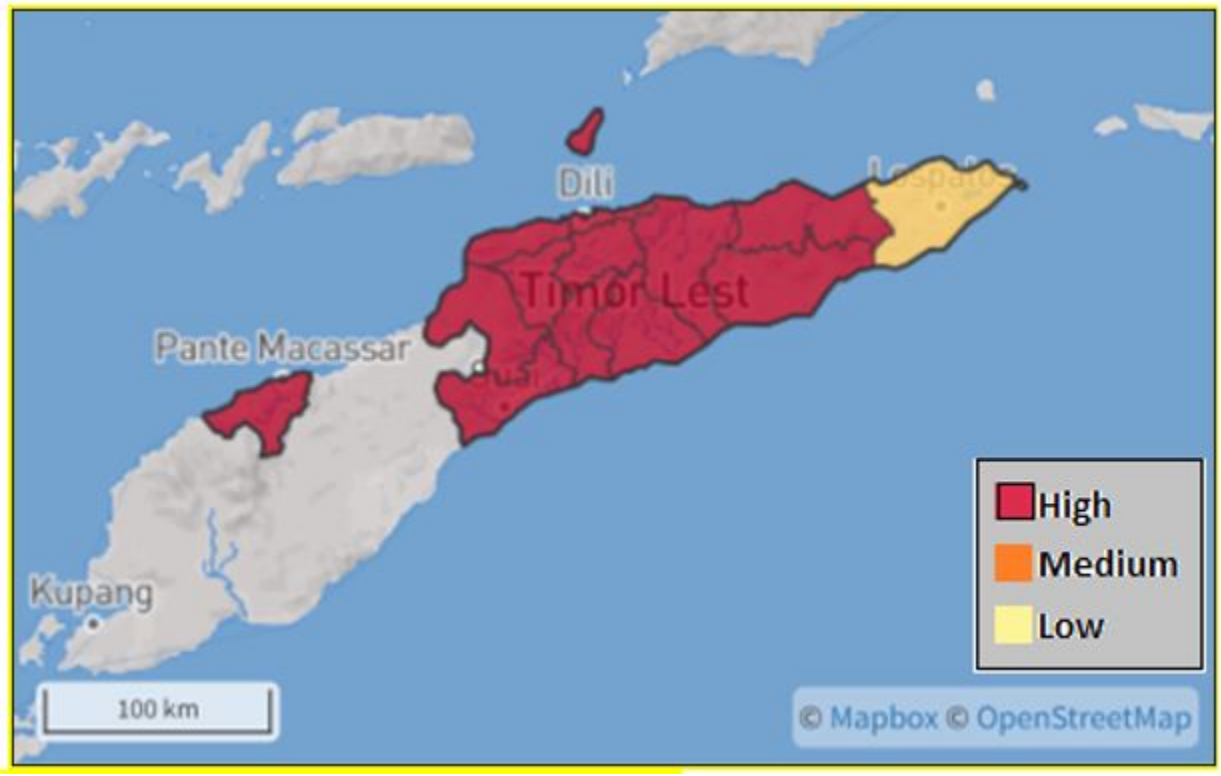


Figure 11. Estimated fire hazard levels across Timor-Leste[57].

Climate Change Projections

Temperature

41. The mean annual temperature across Timor-Leste is expected to increase by 1.5?3.5?C (Figure 13) depending on the IPCC emissions scenario considered. Although this general temperature increase is

relevant for climate change adaptation planning, the increased frequency of extreme heat days is likely to have the greatest effect on the country. The reason for this outcome is because extreme heat days tend to reduce crop yields and pose a major health risk, particularly for the elderly.

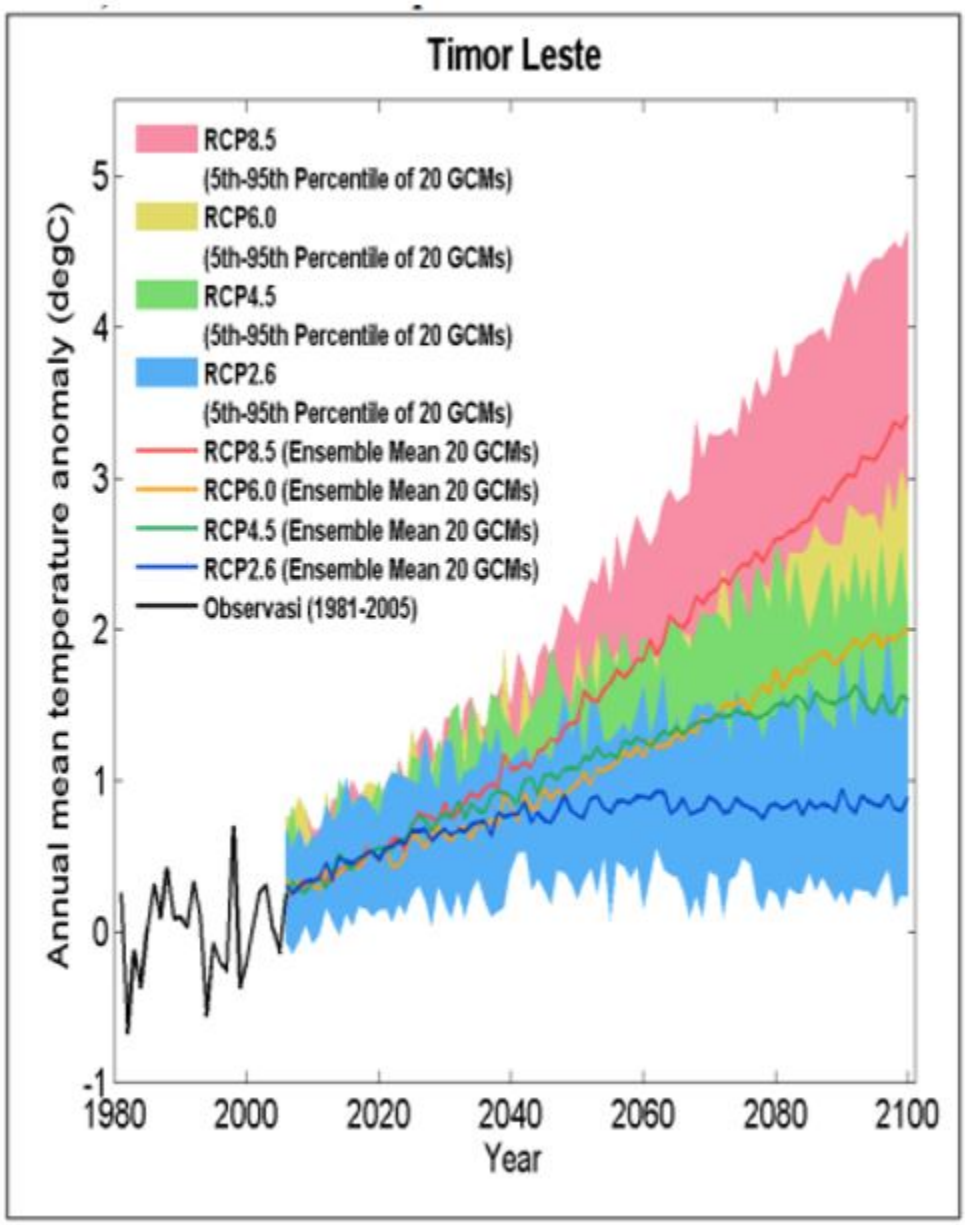
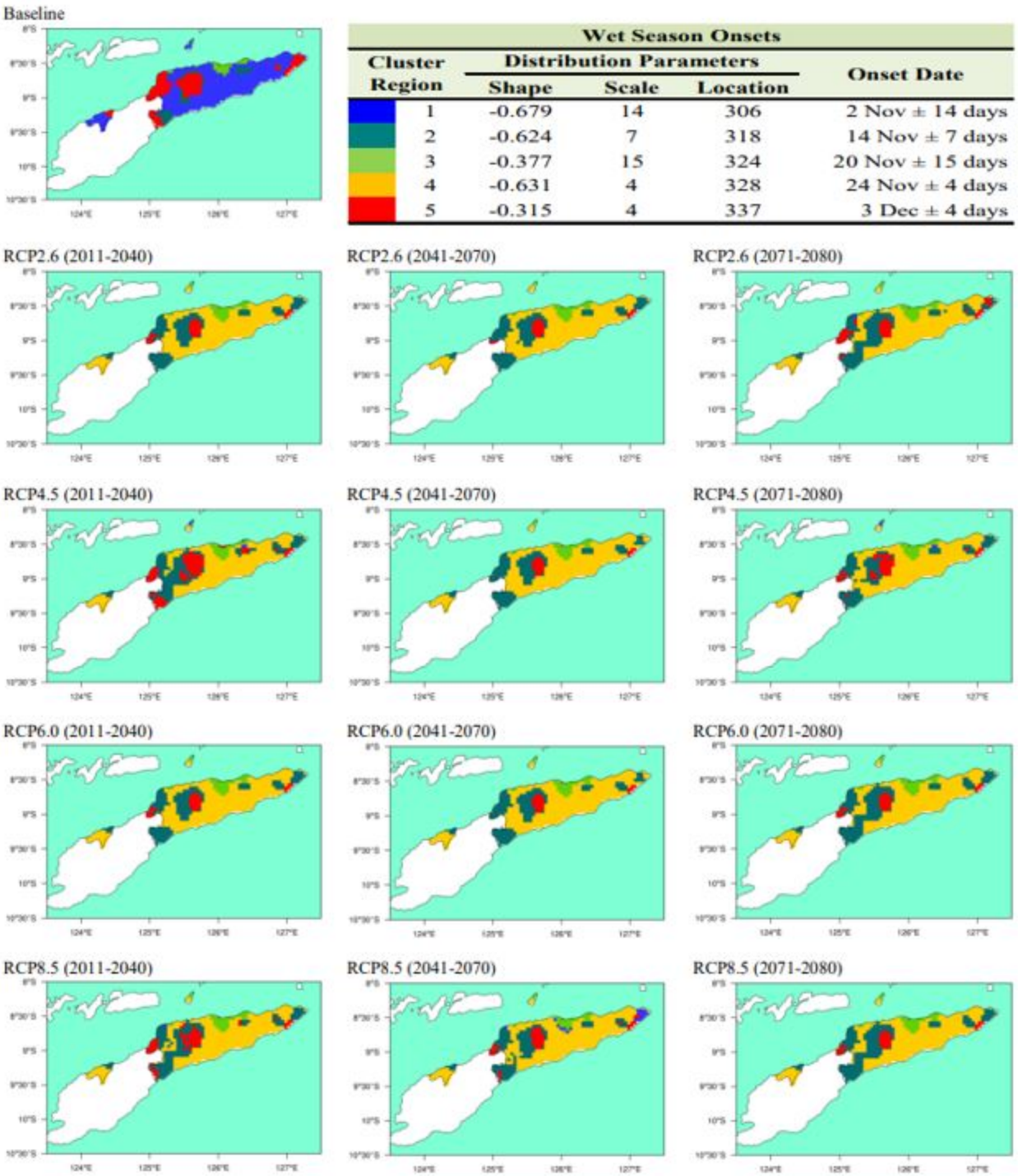


Figure 12. Projected annual mean temperature anomaly in Timor-Leste based on the ensemble mean of 20 GCMs. The uncertainty range of each scenario was calculated based on the range of the 5th to 95th percentiles of the models[58][58].

Rainfall

42. Rainfall patterns in Timor-Leste are projected to change temporally, as well as in their intensity. The wet season is projected to shorten in duration, decreasing by an expected ~9 days by 2070[59]59. This poses a food securityThis reduction causes risk to the country as a result of decreased crop yields caused by a shortened wet season. Rainfall is also expected to increase in intensity during extreme events, which will increase the rate of soil erosion. Details of the expected changes in duration and seasonality of the wet and dry seasons over different parts of Timor-Leste are presented in Figure 14Figure 14 and Figure 15. Theis increased intensity of rainfall over the ensuing decades in Timor-Leste has been predicted with a high degree of confidence by climate modellers in the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO)[60]60.



Wet Season Onsets				
Cluster Region	Distribution Parameters			Onset Date
	Shape	Scale	Location	
1	-0.679	14	306	2 Nov ± 14 days
2	-0.624	7	318	14 Nov ± 7 days
3	-0.377	15	324	20 Nov ± 15 days
4	-0.631	4	328	24 Nov ± 4 days
5	-0.315	4	337	3 Dec ± 4 days

Figure 13. Projected changes of wet season onsets in Timor-Leste from an ensemble of 20 Coupled Model Intercomparison Project 5 (CMIP5) General Circulation Models (GCMs)[61][61].

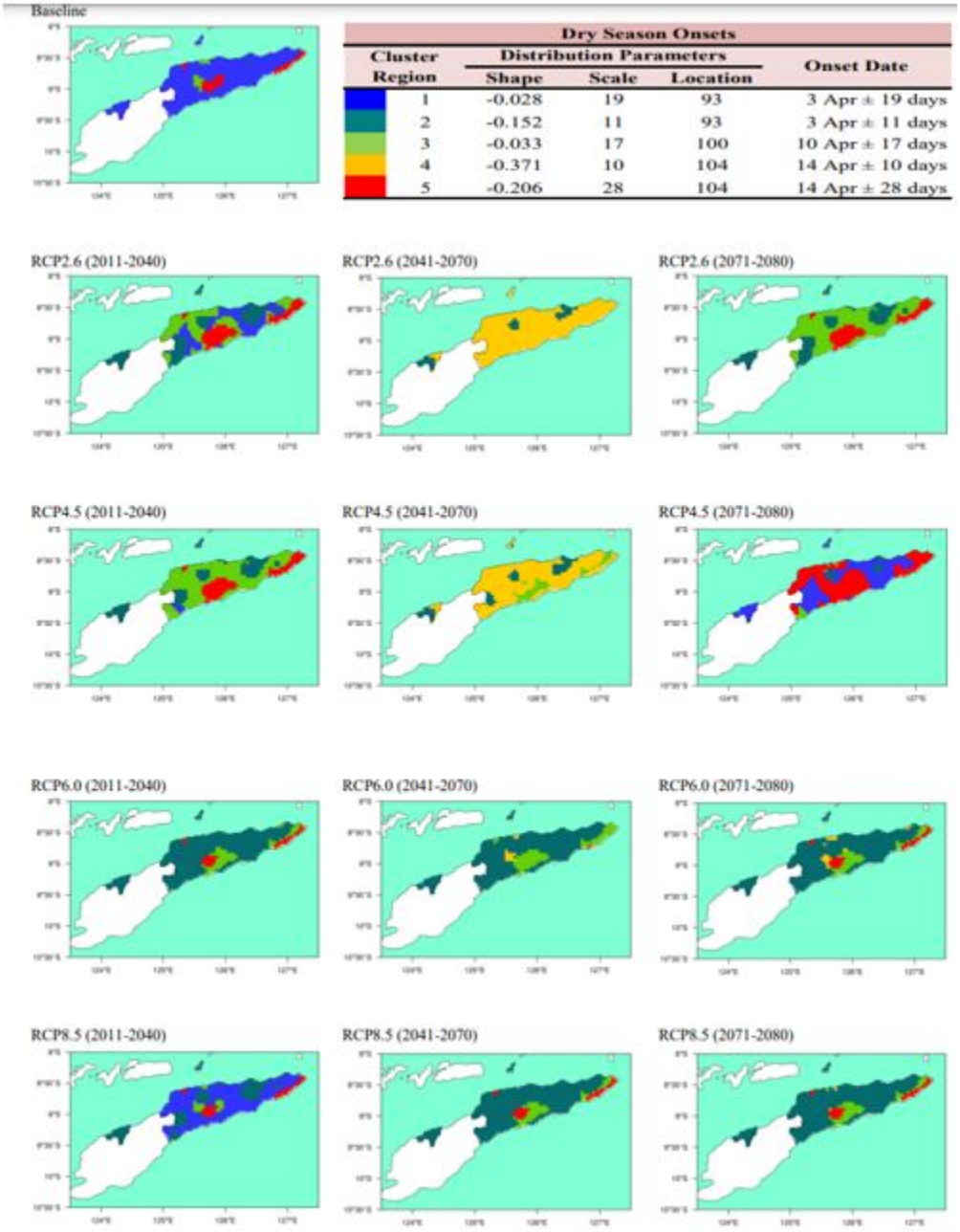


Figure 14. Projected changes of dry season onsets in Timor-Leste from an ensemble of 20 CMIP5 GCMs[62][62].

Extreme climate event impacts

43. Under future climate scenarios, longer dry seasons and a greater number of extreme heat days are likely to influence the frequency and intensity of droughts and wildfires in Timor-Leste. Although there is high variability in model projections, the current drought hazard level is expected to increase, with

important implications for water availability and agricultural productivity across the country[63][63]. Model projections also indicate that weather conditions conducive to wildfires ? low humidity, high temperatures and moderate to high wind speeds ? are likely to occur more frequently across the island. In areas already impacted by wildfires, the duration of the fire season and the severity of fires will increase. Moreover, areas where the risk of wildfire is currently low will see an increase in fire hazard levels, with climate projections indicating an expansion of the wildfire hazard zone[64][64].

44. A greater intensity of rainfall during extreme rainfall events is likely to increase the frequency and severity of flooding and landslides; however, the availability of model projections for these impact areas is limited. By 2030, the number of individuals affected by river flooding in Timor-Leste is expected to rise by ~111 people per year under the RCP8.5 emissions scenario. Moreover, the annual cost of damages caused by urban flooding is expected to increase from ~US1.4 million to ~US3.9 million. Land and mudslides are strongly linked to incidents of intense rainfall; therefore, the risk of both is also expected to increase under projected climate change[65][65].

Impacts of current and future climate change on the agricultural and water sectors

45. The agricultural sector in Timor-Leste has been negatively impacted by a wide range of climatic changes over the past three decades, including: i) a shorter wet season, which is the main crop growing season; ii) a greater number of extreme heat days; and iii) a greater intensity of rainfall during extreme rainfall events. The shorter wet season and greater number of extreme heat days have been linked to major declines in yields of staple crops, such as maize[66][66],[67]67. Projected climate change conditions are expected to result in even greater declines. For example, modelling of the yields of non-irrigated maize crops shows that yields are likely to decrease by one-fifth as a result of a shorter wet season[68][68]. Climate change is therefore expected to markedly increase food insecurity across the country as a result of negative impacts on the yields of staple crops.

46. The greater intensity of rainfall during extreme events also poses a major threat to the agricultural sector. Not only has this change in rainfall intensity increased the frequency of landslides on mountain slopes, but it has also markedly increased the rate of soil erosion from agricultural fields and in water catchments[69][69],[70]70,[71]71. This large-scale soil erosion across the country is resulting in considerable loss of nutrients from topsoils in agricultural fields and causing further marked declines in crop productivity.

47. Climate change in Timor-Leste is also greatly compromising water security in several ways. The soil erosion linked to greater intensity of rainfall is resulting in a reduced availability of water for agricultural use and for domestic consumption because of siltation of dams and a decline in water quality in rivers[72]72,[73]73,[74]74. The longer dry season and the increased evapotranspiration as a result of an increased annual average temperature of ~1?C, have contributed to the drying up of many wells and reduced quality of water in the wells[75][75],[76]76. Additionally, increased runoff as a result of increased rainfall intensity during the wet season will result in decreased groundwater recharge, further reducing the amount of water available for domestic and agricultural purposes and increasing the sensitivity of available water resources to climate change (Figure 16). The greater temperatures and shorter wet season also increase the demand for water in the agricultural and domestic sectors[77][77]. For example, greater volumes of water are required for irrigating crops, for watering livestock and for domestic consumption[78][78].

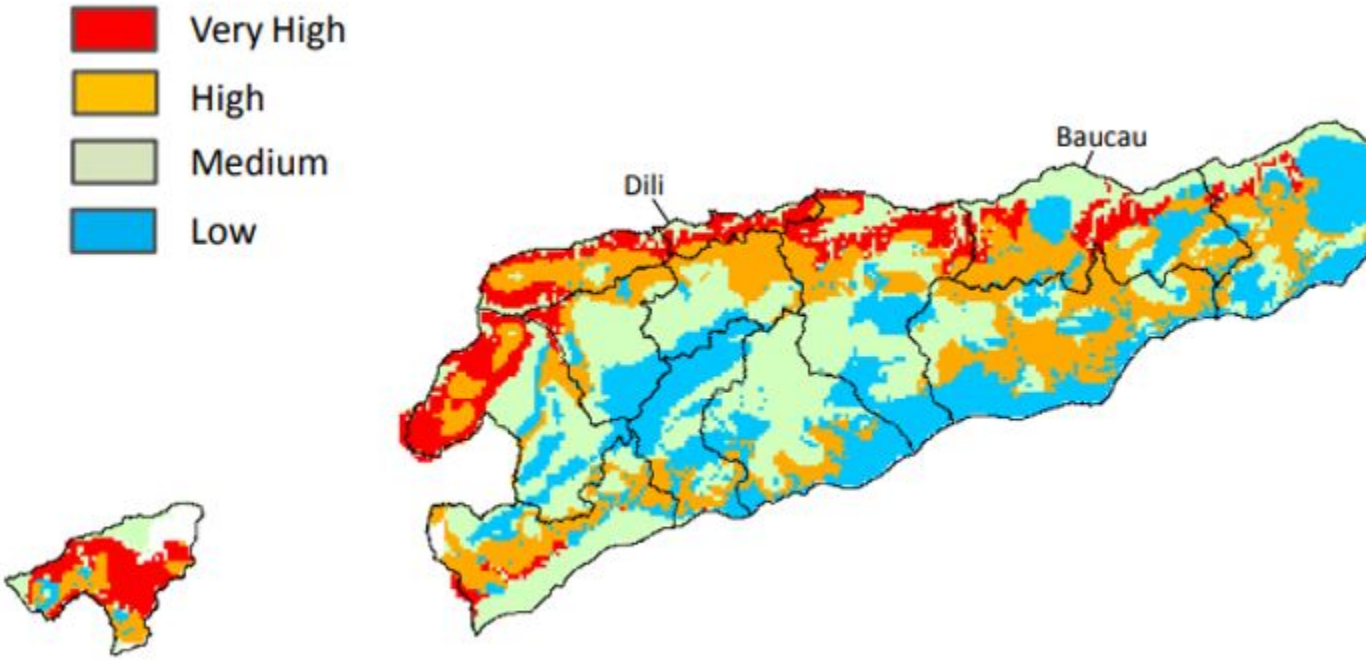


Figure 15. Predicted sensitivity to reduced water availability[79][79].

Table 3. A summary of the climate change impacts on livelihoods in Timor-Leste, extracted from: USAID (2017) Climate Risk Profile: Timor-Leste and Red Cross Red Crescent (2021) Climate Change Impacts on Health and Livelihoods: Timor-Leste Assessment.

Climate Change Trends	**Physical Impact**	**Livelihoods Impact**
Projected rainfall trends in Timor-Leste include a: ? increase in the duration of the dry season; ? decrease in dry season rainfall; ? increase in wet season rainfall; and a ? marginal increase in average annual rainfall.	? An increase in the duration of the dry season and a decrease in dry season rainfall are expected to result in longer dry periods with a likely increase in the occurrence of droughts, particularly in the northern part of the country.	? Timor-Leste?s northern communities are heavily reliant on a single harvesting season, and this increases the vulnerability of these communities to the impacts of droughts. ? Longer dry seasons will reduce water security, which is likely to reduce the ability of farmers to work for their subsistence and produce crops for sale. ? Conversely, in the central highlands of Timor-Leste, the combination of samtuco trees (*Falcataria sp.*) and coffee plantations reduces the sensitivity of agriculture to climate impacts.The tall samtuco trees provide shade from the sun and protect crops from intense rainfall.
? An increase in the frequency and intensity of heavy rainfall events is expected in Timor-Leste.	? This is expected to increase the frequency and intensity of flash floods, riverine floods and landslides. ? An increase in the intensity of rainfall is expected to reduce infiltration and increase rates of surface-water runoff, thereby increasing the rates of soil erosion.	? An increase in flooding and landslides is expected to result in death, injury, and damage to infrastructure and agricultural land in Timor-Leste. ? An increased level of flood-related disturbance is likely to increase the proliferation of invasive species and pollution, reducing the quality and quantity of potable water. ? In addition, an increase in the rates of surface runoff will remove topsoil from agricultural land, making the land less fertile and reducing agricultural productivity.

Climate Change Trends	Physical Impact	Livelihoods Impact
Projected temperature changes in Timor-Leste include: ? an increase in average air temperature; and ? an increase in the number of hot days and hot nights.	This is expected to result in: ? an increase in the duration and intensity of heatwaves; and ? increased rates of evapotranspiration.	? Increased heat is expected to increase the rates of evapotranspiration in crops, causing dehydration and heat stress and reducing crop productivity. ? Increased rates of evaporation will reduce the availability of water for crops and potable water for drinking. ? Increased evaporation of surface water reduces the availability of water for domestic, agricultural and industrial demands.
Cyclone projections for Timor-Leste indicate: ? a reduction in the frequency of tropical cyclones in Timor-Leste; and ? an increase in the intensity of cyclones.	This is expected to result in: ? higher wind speeds and increased short-duration rainfall intensity.	The livelihood impacts of an increased intensity of tropical cyclones include: ? wind and flood damage to crops and infrastructure; and ? increased disruption of supply chains, resulting in reduced opportunities for income-generation.

Baseline projects

48. Several projects in Timor-Leste focus on land degradation, climate change adaptation and agribusiness development; these are aligned with interventions under the proposed project (Tables 4 and 5 below). The aligned projects provide opportunities for linkages and knowledge exchange with the proposed project, with the lessons and best practices learned from these projects having been integrated into the design of the proposed project. Acknowledging these lessons in the proposed project?s design will ensure the sustainability of interventions in the proposed project and prevent the duplication of efforts or resources. To further ensure the sustainability and effectiveness of the proposed interventions, the cross sectoral working group (CSWG) (Output 1.1.2) will continue to incorporate the best practices and lessons learned from these aligned projects throughout the proposed project?s implementation. This adaptive management approach is highly effective in streamlining adaptation projects and enables the CSWG to maximise project effectiveness through the incorporation of knowledge advances[80][80]. Details of the GEF and non-GEF projects that are in alignment with the proposed project at the time of writing are presented in the tables below:

Table 4. Relevant baseline GEF projects in Timor-Leste and their linkages to the proposed project.

Project	Project objective	Linkage with the proposed project
Strengthening Targeted National Capacities to Improve Decision-making and Mainstreaming Global Environmental Obligations into National Development Priorities (Cross-Cutting Capacity Development Project) (CCCD) (2018?2023) UNDP **GEF grant:** USD 1.45 million	The CCCD assists the GoTL to achieve the national priorities of the National Strategic Development Plan (2011?2030) by building the capacity of agencies to effectively engage over issues relating to sustainable development and the environment. This is done by the: i) improved use of data and information for informed decision making; ii) coordination of technical directorates; iii) incorporation of global environmental obligations into sectoral policies, legislation, plans and programmes; and iv) implementation of an adaptive and collaborative management approach to enhance awareness of the global environment.	The proposed project was developed using outputs from the CCCD, including the National Adaptation Plan of Timor-Leste, which was developed with support from the CCCD. The proposed project will continue to coordinate with The UNDP and the project management team of the CCCD to ensure that linkages relating to policy, decision-making and knowledge management are harmonised.
Securing the Long-term Conservation of Timor-Leste?s Biodiversity and Ecosystem Services through the Establishment of a Functioning National Protected Area System and the Improvement of Natural Resource Management in Priority Catchment Corridors (2018?2021) Conservation International (CI) **GEF Grant**: USD 3.4 million	This project aims to establish a functioning National Protected Area system as well as address land and forest degradation through community-based natural resource management (CBNRM) and restoration of degraded lands in priority catchments.	The proposed project acknowledges a close alignment between the two projects, and especially an alignment of the activities related to the restoration of priority catchment areas. As a result, and to avoid any overlap of project interventions, the sites chosen for the proposed project are different to those of this previous GEF project. In addition, the mechanisms of community engagement in natural resource management and the methods for catchment reforestation have been compared for relevant lessons, and these will contribute to ensuring the efficiency and effectiveness of the proposed project?s interventions.

Strengthening the Resilience of Small Scale Rural Infrastructure and Local Government Systems to Climatic Variability and Risk (2013?2018) UNDP **LDCF Grant**: USD 4.6 million	The aim of this project was to safeguard development benefits for rural communities from future climate-change-induced threats by introducing small scale rural infrastructure that was climate resilient and implemented through a participatory approach.	The proposed project acknowledges a close alignment between the two projects, particularly an alignment of the activities related to the implementation of small-scale rural infrastructure. As a result, and to avoid any overlap of project interventions, the sites chosen for the proposed project are different to those of this previous LDCF project.
Strengthening Community Resilience to Climate-induced Disasters in the Dili to Ainaro Road Development Corridor, Timor Leste (2014?2018)[81][81] UNDP **LDCF Grant**: USD 5.25 million	The aim of this project was to develop and strengthen an enabling environment, through the identification of legal constraints and the required intervention points at the regulatory level, to mainstream disaster management in national development planning. Additionally, the project aimed to engage with local governments and communities to generate awareness among local officials and communities to i) strengthen their knowledge and adaptive capacity; ii) make them aware of the benefits of using climate information or manage ecosystems sustainably; and iii) provide support for mitigation activities including sustainable agro-forestry, economic development of communities and addressing landslides and the flood risks.	The proposed project has been developed around similar focus areas to this project and will seek to apply the lessons learned by this project to the implementation of interventions related to the development of an enabling environment for national development planning and engagement with local communities for the implementation of project activities related to ecosystem restoration, sustainable land management and agribusiness development.

Table 5. Relevant baseline non-GEF projects in Timor-Leste and their linkages to the proposed project.

Project title	Project objective	Linkage with the LDCF project
Enhancing Early Warning Systems to Build Greater Resilience to Hydro-meteorological Hazards in Timor-Leste (2021?present) UNEP **GCF Grant:** USD 20.9 million	The objective of this GCF project is to expand and upgrade Timor-Leste?s early warning systems and disaster risk reduction mechanisms, with the aim of enhancing: i) disaster risk knowledge; ii) the detection, monitoring, analysis and forecasting of hazards and the possible consequences hazards; iii) warning dissemination and communication; and iv) preparedness and response capabilities.	The integrated climate information and multi-hazard warning system implemented under Outcome 2 of the GCF project is useful for the development of the climate risk assessments (Component 1) and CRIWPDs (Component 2) of the proposed project. In addition, the early warning systems established by the GCF will provide foundational advancements in Timor-Leste?s climate change response, thereby increasing the impact potential of the proposed project.

Project title	Project objective	Linkage with the LDCF project
Safeguarding Rural Communities and their Physical and Economic Assets from Climate Induced Disasters in Timor-Leste (2020?2026) UNDP **GCF Grant:** USD 22.3 million	This GCF project will implement climate risk reduction and climate-proofing measures in six vulnerable municipalities in Timor-Leste to increase the resilience of infrastructure and services to the impacts of climate change. In addition, the project aims to develop, monitor and integrate climate risk information into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management.	The proposed project will build on the high-resolution information available from the GCF project. This will include expanding vulnerability mapping to the Ainaro, Manatuto and Manufahi municipalities, and incorporating existing and potential land degradation risks into vulnerability assessments. Additionally, the proposed project will expand activities to restore landscapes and improve the delivery of ecosystem goods and services through *uco*-level participatory land-use planning to other areas, including the Dasidaro and Laclo watersheds. Facilitating the implementation of climate-resilient SLM at a farm-level will complement the *suco*-level EbA interventions undertaken through the GCF project and improve the sustainability of ecosystem restoration interventions by linking these to enhanced livelihoods.

Project title	Project objective	Linkage with the LDCF project
Enhancing Human Resources, Systems, Procedures in Timor-Leste to Effectively Engage with the Green Climate Fund (GCF) (2020?2022) UNDP	The programme builds on the country?s initial 2017?2018 GCF Readiness Programme, which included the: i) establishment of communication and consultation processes; ii) development of a set of national climate investment priorities and a manual to guide GCF project development; and iii) finalisation of a national GCF project development manual. The programme aims to: i) communicate the important outcomes of the initial project to a comprehensive range of stakeholders; ii) elaborate a national monitoring and evaluation system based on the initial scoping work; iii) develop a range of financing strategies; iv) build on initial scoping work to develop a	The vulnerability assessments undertaken under Component 2 of the proposed project will build on the improved modelling and mapping of climate change impacts under Outcome 1 of the GCF Readiness Programme. In addition, the proposed project will benefit from Outcome 1 of the GCF Readiness Programme, which increased the national capacity for climate change adaptation in Timor-Leste. The project will be further aligned with the adaptation and climate finance strategy development undertaken in Outcome 4 of the GCF Readiness Programme. Additional areas in which the proposed project is aligned with the GCF Readiness Programme include: i) Component 3 of the proposed project, where specific work on developing private sector partnerships to support the financing of climate change adaptation will be undertaken; and, ii) Components 1 and 4 of the proposed project, which will build upon on the ongoing GCF Readiness Programme by contributing to national monitoring and evaluation and developing the country?s climate-resilient agricultural knowledge base.

Project title	Project objective	Linkage with the LDCF project
	national accredited entity; and v) develop a set of projects based on the national climate investment priorities identified in the initial programme.	

Project title	Project objective	Linkage with the LDCF project
Pacific Adaptation to Climate Change and Resilience Building (PACRES) (EU Global Climate Change Alliance Plus (GCCA+)) (2018?2022) Secretariat of the Pacific Regional Environment Programme (SPREP); The Pacific Community; The Pacific Islands Forum Secretariat (PIFS); and The University of the South Pacific **European Union:** USD 14 million	PACRES aims to ensure better regional and national adaptation and mitigation responses to the climate change challenges that are faced in 15 Pacific countries, including Timor-Leste. The objectives outlined by the project are to: i) strengthen support for climate negotiations; ii) enhance regional and national climate change strategies; and iii) upscale climate change adaptation pilots with a focus on ecosystem-based solutions. Intra-ACP GCCA+ PACRES interventions include: i) improving information sharing and the development of national capacity to address climate change and build disaster resilience through training, studies	The proposed project will build on the activities of PACRES by increasing the resilience of local communities to climate change. This will be achieved through the introduction of agroforestry in the Dasidaro and Laclo watersheds. In addition, Component 1 of the proposed project will develop national government capacity for climate change adaptation, and Component 4 will improve knowledge management and information sharing. Together, these components will complement the focus of the PACRES interventions, especially improving information sharing and developing capacity for climate change adaptation. To complement these, Component 2 will improve awareness of gender-specific climate change vulnerability. Finally, the proposed project?s focus on developing climate-resilient agricultural business models under Component 3 links to activities under PACRES to engage the private sector over the issue of climate change and to build disaster resilience in Timor-Leste.

Project title	Project objective	Linkage with the LDCF project
	and research opportunities; ii) strengthening regional networks and enhancing knowledge sharing amongst ACP regions; and iii) engaging the private sector to address climate change and build disaster resilience.	

Project title	Project objective	Linkage with the LDCF project
Ai ba Futuru? Partnership for Sustainable Agroforestry (2017?2022) Deutsche Gesellschaft f?r Internationale Zusammenarbeit (GIZ) **EU, GIZ:** USD 34.1 million	The objective of this partnership is to enhance peace and improve nutrition through employment and income-generating opportunities in agroforestry value chains in rural Timor-Leste. This will be done through improved access to employment opportunities in agroforestry, and improved market access and value chains for agroforestry products. Interventions under the project include: i) supporting the establishment of new agroforestry systems; ii) training farmers and extension officers; iii) supporting the development of small businesses; iv) participatory land-use planning; and v) policy development.	The proposed project will build on the ongoing activities of the Partnership for Sustainable Agroforestry in several ways. Firstly, under Component 2 and 3, the proposed project will extend the agroforestry approach to additional districts in the Dasidaro and Laclo watersheds. Secondly, under Component 3, the proposed project will adapt the training materials and community engagement methodologies implemented by the Partnership for Sustainable Agroforestry and extend this training to additional farmers organisations and women?s cooperatives. Thirdly, under Component 3, the proposed project will extend support to small business development by creating incentives for private sector buyers to invest in sustainable agriculture and by developing a portfolio of bankable impact investments. Finally, under Component 2, the proposed project will further the participatory land-use planning objective of the Partnership for Sustainable Agroforestry through the strengthening of climate-resilient watershed development planning.

Project title	Project objective	Linkage with the LDCF project
USDA East Timor Agribusiness Development Project (2013?2019) National Cooperative Business Association CLUSA International; and Cooperative Caf? Timor (CCT) **USDA:** USD 9.2 million	The aim of this project was to link smallholder farmers in lowland areas of Timor?Leste with international markets, thereby contributing to increased trade and rural income.	The proposed project will build on the lessons learned from the USDA East Timor Agribusiness Development Project, and especially those relating to engaging with the private sector. This will improve the effectiveness of the proposed project when supporting agribusiness development in Timor-Leste. A specific lesson from this project is the importance of engaging with entire value chains when designing sustainable agribusiness projects. This lesson has informed the design of interventions under Component 3 of the proposed project.
IA4RA Raumoco watershed project (2016?2019) Timor-Leste Ministry of Agriculture and Fisheries (MAF); Hivos[82]82 **EU, GIZ:** USD 500,000	The objective of the project was to contribute to the sustained adoption and upscaling of sustainable food, water and energy-efficient technologies for 500 vulnerable households in six villages in the Raumoco watershed of Timor-Leste.	The proposed project will use the lessons learned from this project to inform detailed design, specifically relating to: i) the introduction of context-appropriate agroforestry; ii) rainwater harvesting and collection; and iii) the planting of trees in agricultural landscapes to improve ecosystem service provision. The agricultural extension system capacitated during this project will also provide a blueprint for the incorporation of extension services into the proposed project.
Coffee and Cocoa Agribusiness Opportunities (CACAO) Project (2015?2020) National Cooperative Business Association, New Zealand Ministry of Foreign Affairs and Trade **Government of New Zealand**: USD 10.5 million	The project invested in training farmers and providing inputs to support the cultivation of coffee and cocoa in partnership with CCT.	The proposed project will build on the agribusiness model implemented under the CACAO project to: i) engage further with private sector partners; ii) improve access to markets and finance for small-scale farmers growing other commodities; and iii) ensure the long-term resilience of small-scale farmers to the impacts of climate change.

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

49. The proposed project advocates ecosystem-based adaptation (EbA) as the preferred solution to the dual problem of climate change and unsustainable land management in the rural landscapes of Timor-Leste. This approach includes improved national and sub-national adaptation planning, ecosystem restoration in water catchments, adoption of climate-resilient sustainable land management (SLM) in rural landscapes, developing and implementing agricultural management systems, provision of water to rural communities, integration of local-ecological knowledge with modern SLM practices and expanding a climate-smart agribusiness sector.

50. Improved national and sub-national adaptation planning will enable the government of Timor-Leste to assess climate change risks ? for example, shortened crop growing seasons, a greater frequency of extreme heat days and a greater intensity of rainfall in extreme rainfall events ? across all economic sectors and implement plans to neutralise or minimise vulnerability to these risks by strengthening technical and institutional capacity and investing in water infrastructure and agribusiness development. Ecosystem restoration, SLM and improved agricultural management systems will then reduce exposure to the risk of floods, landslides and wildfires by reducing soil erosion, increasing flow of waters into aquifers, reducing the reliance of communities on slash and burn agriculture and assisting in maintaining productivity of crops and livestock despite climate change conditions. These interventions will also provide localised cooling of air temperatures, especially adjacent to restored forests and in agroforestry landscapes, which will increase the climate resilience of these landscapes to droughts. Other benefits of planting trees in restored forest landscapes and in agroforestry settings include an increased supply of fuelwood, timber for construction and other non-timber forest products such as fruit, honey, fibre and fodder for livestock.

51. Climate change-resilient water infrastructure will ensure that water quality is maintained even during intense rainfall events, which currently cause siltation of rivers and damage to infrastructure as a result of floods and landslides. Lastly, the development of a climate-smart agribusiness sector will enable subsistence farmers to access new markets, finance and private sector engagement, enabling them to invest in their farming operations to manage future climate change conditions. Such investments would include irrigation infrastructure, crop cultivars and livestock breeds that manage a high frequency of extreme heat days, soil management practices that increase soil organic matter, terracing on steep slopes, tree planting to protect crops from wind and extreme heat, and appropriate fertiliser regimes to maximise crop productivity. These investments will also reduce the risk of climate change impacts such as floods, droughts, landslides and wildfires. Private sector engagement and investment will be encouraged through the identification and development of a traceability system, which will enable smallholder producers to acquire sustainability certification, and will also enable the

shortening of the market chain of intermediaries from smallholder producers to large traders and markets, thereby facilitating an increased income from commodity crops for smallholder producers.

Theory of Change

52. The proposed project interventions will strengthen the technical capacity of government and local communities in Timor-Leste to identify, design, implement and maintain EbA interventions. At an institutional level, developing an agribusiness opportunity assessment and a cross-sectoral working group will enable revisions of national policies and targets for relevant sectors. These policy revisions will inform and guide the implementation of local scale EbA interventions that will improve climate resilience ? particularly in regard to food and water security ? while reducing land degradation in the two priority watersheds (Component 2) and enabling the adoption of farm-level SLM through the implementation of an agribusiness model (Component 3). Monitoring and evaluation of Components 2 and 3 ? conducted as part of Component 4 ? will contribute to the replication and upscaling of project interventions throughout Timor-Leste.

53. The proposed project was designed in consultation with both the national government and community stakeholders (please see Section 5 for details on stakeholder engagement). These consultations ensured that the proposed project activities align with national priorities and local plans and strategies (please see Section 3.6 for an overview of these priorities). Ensuring local community and municipality engagement in the design, implementation and maintenance of project interventions will promote local ownership, which will in turn support the replication and upscaling of project interventions beyond the project's lifespan.

54. Project activities will follow a complementary approach, with each Component creating a foundation for the following one to build on. Under this approach, Component 1 will strengthen the technical and institutional capacity of relevant institutions and lay the groundwork to plan and implement EbA interventions under Component 2. These EbA interventions will be supported through the development of agribusinesses, which will incentivise the adoption of climate-resilient SLM practices under Component 3. Component 4 will monitor project interventions and manage the knowledge generated through their implementation for replication and upscaling. Training stakeholders to independently develop and implement climate-resilient watershed development plans as well as create and maximise agribusiness opportunities (Components 2 and 3) will ensure the sustainability of project interventions beyond the project?s life span and support its replication and upscaling to other watersheds across Timor-Leste.

55. All project activities are either considered ?low regret? or ?no regret? options because they have been designed to provide benefits to the target communities regardless of the impacts of climate change. For example, activities under Component 1 will develop policy and community support for improved agribusiness opportunities, while activities under Component 2 will strengthen the technical and human capacity of local communities to implement development plans (Outcome 2.1) while also

restoring degraded landscapes within the target watersheds (Outcome 2.2). In addition, activities under Component 3 will enable and pilot the development of agribusiness opportunities that will incentivise the adoption of SLM practices. In this way, communities? baseline concerns will be addressed even if there are no increased impacts of climate change.

56. The successful implementation of project interventions is reliant on a number of assumptions for the project implementation period. These assumptions have been informed by the design and lessons learned from similar projects conducted in Timor-Leste (please see Table 4 and Table 5 for lessons learned from similar projects) and are listed below.

? Cross-sectoral support for EbA and agribusiness approach;

? The design of interventions will be able to be effectively implemented in the target watersheds;

? Project implementation will not result in major problems for communities and minor problems which may arise will be able to be resolved quickly and effectively;

? Community support for and participation in CRIWDP development and implementation;

? Women and other marginalised groups are able to meaningfully engage with project interventions;

? The implementation of project interventions does not negatively impact women and members of other marginalised groups;

? Women and members of other marginalised groups are empowered to engage in improved agricultural practices and agribusiness beyond the project lifespan;

? Project interventions will not prioritise women?s empowerment over the needs of other marginalised groups;

? Community cooperation in implementing and maintaining sustainable practices;

? Ongoing maintenance and operation of water supply and storage infrastructure;

? Private sector willingness to partner and invest in the project and in small-scale farmers and farmer organisations;

? Farmers are able and willing to take risks by adopting agribusiness;

? Agribusiness will not negatively impact food security; and

? Sufficiently sized agricultural commodity market to support upscaling of agribusiness.

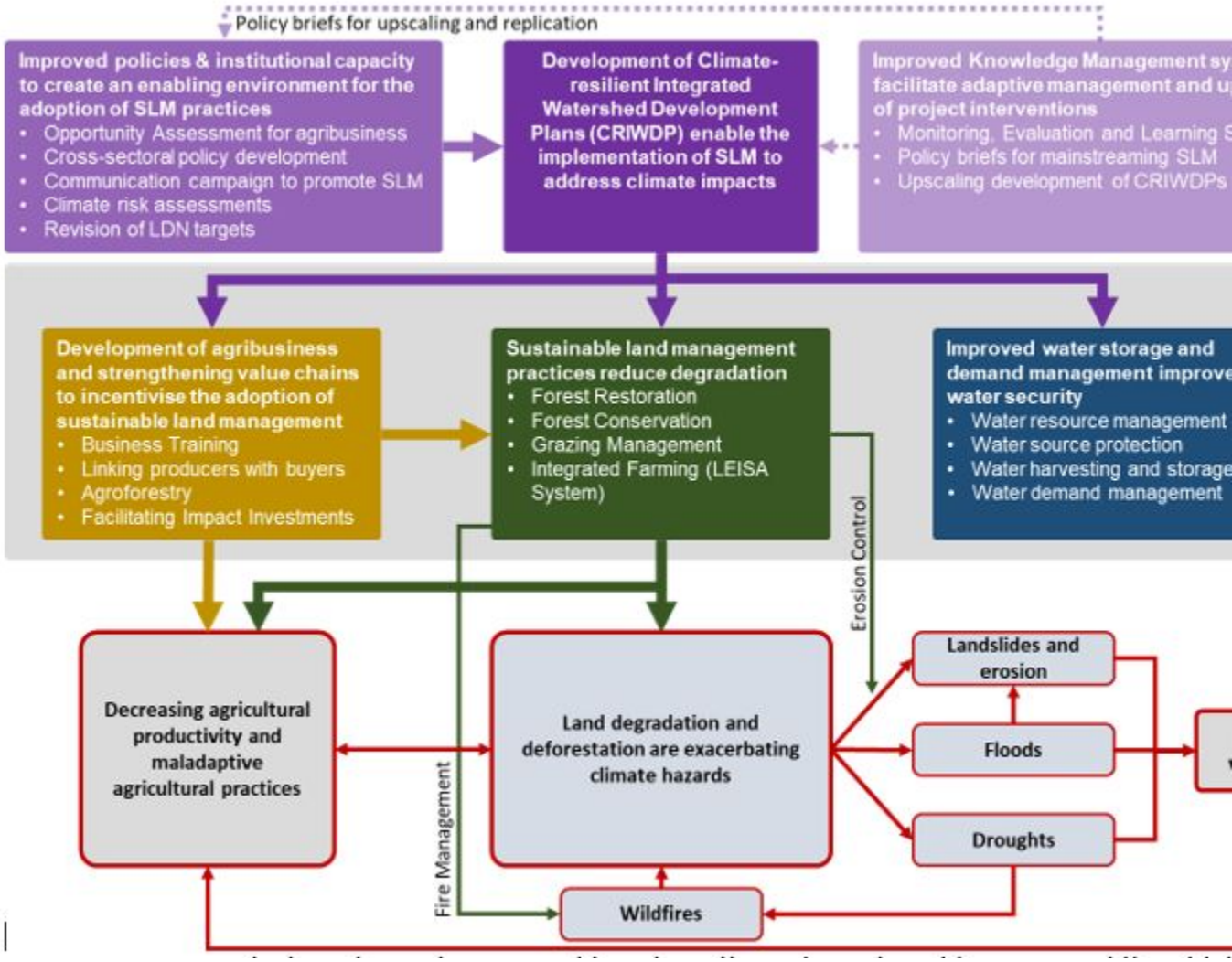


Figure 16. Proposed adaptation pathways to address key climate hazards and impacts. Red lines highlight key causal pathways between climate hazards and impacts being addressed by the project.

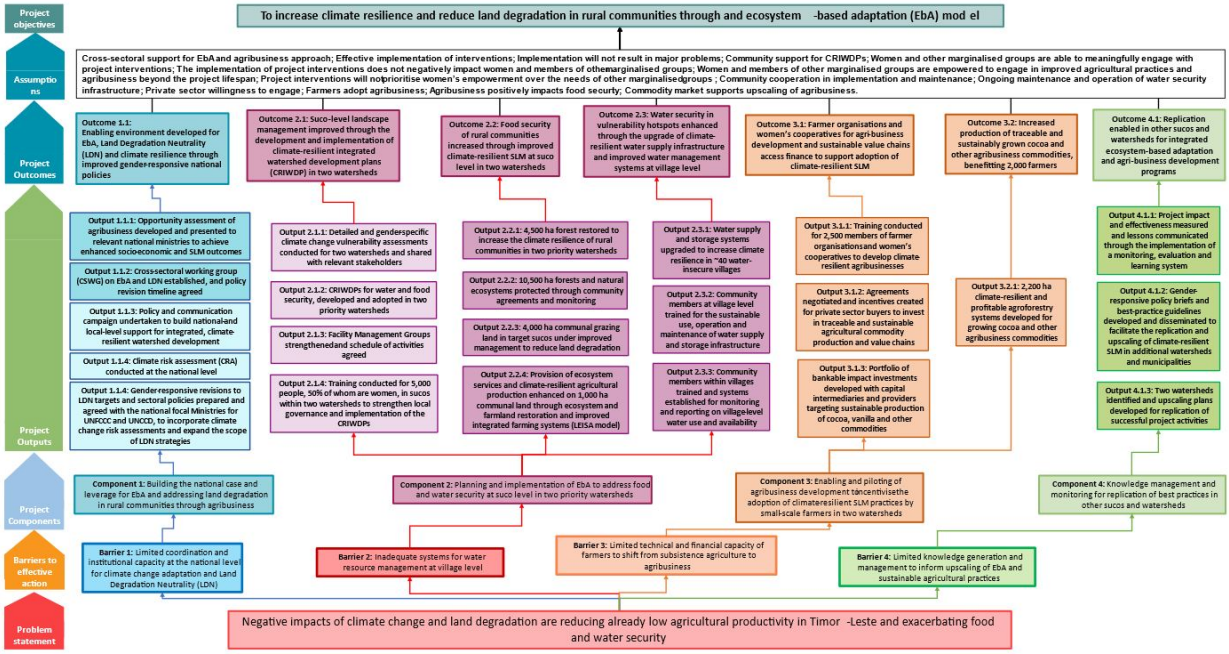

Project objectives
To increase climate resilience and reduce land degradation in rural communities through and ecosystem -based adaptation (EbA) mod el
Assumptions
Cross-sectoral support for EbA and agribusiness approach; Effective implementation of interventions; Implementation will not result in major problems; Community support for CRIWDPs; Women and other marginalised groups are able to meaningfully engage with project interventions; The implementation of project interventions does not negatively impact women and members of otherma rginalised groups; Women and members of other marginalised groups are empowered to engage in improved agricultural practices and agribusiness beyond the project lifespan; Project interventions will noprioritise women's empowerment over the needs of other marginalisedgroups ; Community cooperation in implementation and maintenance; Ongoing maintenance and operation of water security infrastructure; Private sector willingness to engage; Farmers adopt agribusiness; Agribusiness positively impacts food security; Commodity market supports upscaling of agribusiness.
Project Outcomes
Outcome 1.1: Enabling environment developed for EbA, Land Degradation Neutrality (LDN) and climate resilience through improved gender-responsive national policies
Outcome 2.1: Suco-level landscape management improved through the development and implementation of climate-resilient integrated watershed development plans (CRIWDP) in two watersheds
Outcome 2.2: Food security of rural communities increased through improved climate-resilient SLM at suco level in two watersheds
Outcome 2.3: Water security in vulnerability hotspots enhanced through the upgrade of climate-resilient water supply infrastructure and improved water management systems at village level
Outcome 3.1: Farmer organisations and women's cooperatives for agri-business development and sustainable value chains access finance to support adoption of climate-resilient SLM
Outcome 3.2: Increased production of traceable and sustainably grown cocoa and other agribusiness commodities, benefitting 2,000 farmers
Outcome 4.1: Replication enabled in other sucos and watersheds for integrated ecosystem-based adaptation and agri-business development programs
Project Outputs
Output 1.1.1: Opportunity assessment of agribusiness developed and presented to relevant national ministries to achieve enhanced socioeconomic and SLM outcomes
Output 1.1.2: Cross-sectoral working group (CSWG) on EbA and LDN established, and policy revision timeline agreed
Output 1.1.3: Policy and communication campaign undertaken to build national-and local-level support for integrated, climate-resilient watershed development
Output 1.1.4: Climate risk assessment (CRA) conducted at the national level
Output 1.1.4: Gender-responsive revisions to LDN targets and sectoral policies prepared and agreed with the national focal Ministries for UNFCCC and UNCCD, to incorporate climate change risk assessments and expand the scope of LDN strategies
Output 2.1.1: Detailed and genderspecific climate change vulnerability assessments conducted for two watersheds and shared with relevant stakeholders
Output 2.1.2: CRIWDPs for water and food security, developed and adopted in two priority watersheds
Output 2.1.3: Facility Management Groups strengthenedand schedule of activities agreed
Output 2.1.4: Training conducted for 5,000 people, 50% of whom are women, in sucos within two watersheds to strengthen local governance and implementation of the CRIWDPs
Output 2.2.1: 4,500 ha forest restored to increase the climate resilience of rural communities in two priority watersheds
Output 2.2.2: 10,500 ha forests and natural ecosystems protected through community agreements and monitoring
Output 2.2.3: 4,000 ha communal grazing land in target sucos under improved management to reduce land degradation
Output 2.2.4: Provision of ecosystem services and climate-resilient agricultural production enhanced on 1,000 ha communal land through ecosystem and farmland restoration and improved integrated farming systems (LEISA model)
Output 2.3.1: Water supply and storage systems upgraded to increase climate resilience in ~40 water-insecure villages
Output 2.3.2: Community members at village level trained for the sustainable use, operation and maintenance of water supply and storage infrastructure
Output 2.3.3: Community members within villages trained and systems established for monitoring and reporting on village-level water use and availability
Output 3.1.1: Training conducted for 2,500 members of farmer organisationsand women's cooperatives to develop climate-resilient agribusinesses
Output 3.1.2: Agreements negotiated and incentives created for private sector buyers to invest in traceable and sustainable agricultural commodity production and value chains
Output 3.1.3: Portfolio of bankable impact investments developed with capital intermediaries and providers targeting sustainable production of cocoa, vanilla and other commodities
Output 3.2.1: 2,200 ha climate-resilient and profitable agroforestry systems developed for growing cocoa and other agribusiness commodities
Output 4.1.1: Project impact and effectiveness measured and lessons communicated through the implementation of a monitoring, evaluation and learning system
Output 4.1.2: Gender-responsive policy briefs and best-practice guidelines developed and disseminated to facilitate the replication and upscaling of climate-resilient SLM in additional watersheds and municipalities
Output 4.1.3: Two watersheds identified and upscaling plans developed for replication of successful project activities
Project Components
Component 1: Building the national case and leverage for EbA and addressing land degradation in rural communities through agribusiness
Component 2: Planning and implementation of EbA to address food and water security at suco level in two priority watersheds
Component 3: Enabling and piloting of agribusiness development toincentivisethe adoption of climateresilient SLM practices by smallscale farmers in two watersheds
Component 4: Knowledge management and monitoring for replication of best practices in other sucos and watersheds
Barriers to effective action
Barrier 1: Limited coordination and institutional capacity at the national level for climate change adaptation and Land Degradation Neutrality (LDN)
Barrier 2: Inadequate systems for water resource management at village level
Barrier 3: Limited technical and financial capacity of farmers to shift from subsistence agriculture to agribusiness
Barrier 4: Limited knowledge generation and management to inform upscaling of EbA and sustainable agricultural practices
Problem statement
Negative impacts of climate change and land degradation are reducing already low agricultural productivity in Timor -Leste and exacerbating food and water security

Figure 17. Theory of Change diagram.

Project components and expected outcomes

Component 1: Building the national case and leverage for EbA and addressing land degradation in rural communities through agribusiness

57. The GoTL acknowledges the importance of EbA for climate change adaptation, and mentions the potential benefits of an integrated agroforestry and watershed management system in Timor-Leste?s NAPA[83][83]. Central to achieving this is the establishment of an enabling environment for the adoption of EbA interventions. The enabling environment should promote: i) incentives for small-scale farmers to overcome barriers relating to the transition to sustainable land-management systems; ii) national programs and policies that are supportive of EbA activities; and iii) information sharing, training, and community engagement that enhances the ability for communities to uptake EbA interventions. Component 1 aims to address these considerations, and it therefore includes: i) an opportunities assessment of the potential for agribusiness development in Timor-Leste; ii) the establishment of a cross-sectoral working group (CSWG) that is responsible for the integration of climate resilience and LDN into national plans and policies; iii) an information-dissemination campaign on the EbA approach and the potential benefits of agroforestry; and, iv) the development and incorporation of a gender-responsive climate risk assessment into national planning.

58. The outcomes and outputs related to Component 1 are described below.

Outcome 1.1: Developing an enabling environment for EbA, Land Degradation Neutrality (LDN) and climate resilience through 3 improved gender-responsive national policies

59. Under this outcome, an enabling environment will be developed for the adoption of EbA, LDN and climate resilience in Timor-Leste. This enabling environment will enable opportunities for the development of agribusinesses in the Dasidaro and Laclo watersheds, and nationally, to be assessed. In addition, a business case for the adoption of EbA through the implementation of climate smart agriculture will be established through the implementation of a policy and communications campaign.

60. National decision-makers will be able to use the business case for climate-smart agriculture to support the incorporation of LDN and EbA into national policies through the establishment of a CSWG and a communication campaign to establish local and national support for integrated and climate-resilient watershed development. Specific opportunities for mainstreaming of LDN and EbA into national policies will be achieved assessed through Output 1.1.1, which will set the foundation for

integrating high value commodity crops into current agricultural systems through the creation of robust business cases. The investments opportunities linked to these business cases will then be presented to a cross-sectoral working group (CSWG; Output 1.1.2) who will in turn integrate the concepts of EbA and LDN into national policies to help establish an enabling environment for the development of programmes which facilitate the uptake and scaling of EbA activities on the ground across Timor Leste.

Output 1.1.1: Opportunity Assessment of agribusiness developed and presented to relevant national ministries to achieve enhanced socio-economic and EbA outcomes

61. A study will be undertaken (hereafter referred to as an ?Opportunity Assessment?) to assess the potential for integrating high value commodity crops (specifically cocoa and vanilla) into current agricultural systems to enhance the profitability of small-scale agriculture. Private project partners, PT PMA, Sucafine and Progreso, will support this assessment by providing expertise on agri-business development and commodification This Opportunity Assessment will include: i) market and value chain assessments of selected commodity crops; ii) a spatial assessment of the suitability of cocoa and vanilla to different areas and the potential impacts of climate change on these crops; iii) an assessment on the potential impacts of climate change on value chains for cocoa and vanilla crops; iv) an analysis of the potential for the integration of agribusiness into LDN targets; and v) an assessment of the opportunities for impact investment and private sector partnerships for agribusiness development and opportunities for government-led initiatives and government grant support for blended financing of agribusiness investments in collaboration with corporate partners.

62. The opportunity assessment will be presented to the CSWG established under Output 1.1.2. The CSWG will use the assessment to promote community welfare, resilience and willingness to participate in SLM and EbA programmes through agribusiness development as part of a strategy to address land degradation and promote climate change adaptation through programmes and initiatives, with a specific focus on the applying of LEISA principles in agriculture, and the empowerment of women in small-scale agricultural systems. In addition, the results of the Opportunity Assessment will be used to inform the policy and communication campaign undertaken in Output 1.1.3. These results will continue to be consulted when revising policies and targets under Output 1.1.4 and will inform the activities under Outcome 3.1. A particular focus will be placed, during Component 3, on enabling women as agri-entrepreneurs and piloting women?s cooperatives to develop climate-resilient agri-businesses, including through initiating the establishment of government-led programmes where necessary. Through their work, the CSWG will stimulate partnerships with the private sector to de-rink investments in climate-resilient agribusinesses, establishing active markets for sustainably produced goods and enhancing trade financing through local banks and agriculture finance institutions. Several partnership opportunities have already been negotiated through the establishment of this project, including with Profil Mitra Abadi, the Progreso Foundation and Sucafina, who together will invest a total of US$14 million in loans and grants for human development and agriculture development (see Section 5 for more details). Similarly, the lessons learned from Output 3.1.3 will create a blueprint for future instruments.

63. Activities:

? Conduct market and value chain assessments of selected commodity crops.

? Conduct a spatial assessment of the suitability of cocoa and vanilla in different areas and the potential impacts of climate change on these crops.

? Assess the potential impacts of climate change on value chains for cocoa and vanilla crops.

? Conduct an analysis of the potential for the integration of the agribusiness approach into national LDN targets.

? Assess the opportunities for impact investment and private sector partnerships for agribusiness development.

? Collate data into an Opportunity Assessment.

? Host a validation workshop for the Opportunity Assessment.

Output 1.1.2: Cross-sectoral working group (CSWG) on EbA and LDN established, and policy revision timeline agreed

64. A cross-sectoral working group (CSWG) will be established, comprising representatives of relevant ministries, including The Centre for Integrated Disaster Management, The State Secretary for the Environment, The Ministry of Agriculture and Fisheries, and The Ministry of Social Solidarity and Inclusion. To ensure gender equality in the CSWG, it is important that there is strong participation by women, and the CSWG should comprise at least 50% women[84][84]. The responsibility of the CSWG will be to integrate climate change resilience through EbA into national policies and plans and address barriers to LDN and climate change adaptation. This will be facilitated by collaborative workshops, wherein a mandate and workplan for the CSWG will be developed. These workshops will assist with facilitating ongoing coordination across sectors and supporting the realisation of climate change adaptation and LDN goals[85][85]. Moreover, these workshops will enable and facilitate cross-sectoral coordination for proposed and active EbA and LDN programmes, thereby promoting increased collaboration between ministries for the implementation of EbA and LDN interventions. Policies and targets in each sector that need to be revised, including LDN targets, will be identified and a timeline for their revisions will be prepared to inform Output 1.1.4. All policy revisions will lead to policy designs that are considerate of gender equality in their design. Additionally, policies will be assessed for entry points to introduce concrete pathways for the effective and sustainable management of EbA interventions beyond the grant period of the project. This will include developing financial plans ? including budget plans, fund allocations and fund leveraging ? that will mobilise addition government funding for EbA and sustainable agriculture development. Moreover, provision will be introduced into

policies for the continued design, testing, establishment and application of innovative instruments to establish sustainable agribusiness partnerships and investments. This national level financial planning will be conducted in tandem with the financial and programmatic training activities under Output 1.1.3. In addition, the CSWG will engage with the Project Management Unit (PMU) to monitor and adaptively manage unforeseen risks to the project and will support the PMU in identifying responses to these.

65. Activities:

? Establish the CSWG.

? Host an inception workshop to define the CSWG mandate and develop a work plan.

? Facilitate regular collaborative meetings and workshops of the CSWG.

? Host engagement workshop to identify policies and targets that require revision and establish a timeline for revisions.

? Host an annual engagement workshop to assess and revise financial plans.

Output 1.1.3: Policy and communication campaign undertaken to train 200 government staff and build national- and local-level support for integrated, climate-resilient watershed development

66. Under this Output, information products will be developed and disseminated on the EbA approach and agribusiness opportunities to develop a business case which can be presented to national and local stakeholders. This information will be targeted at national and municipal government stakeholders ? as well as private sector partners, relevant NGOs, *suco* councils, farmer organisations and women?s cooperatives ? and will be presented at annual engagement workshops to present the business case for an EbA approach and agri-business. This campaign will target at least 200 government staff, 50% of whom will be women, to increase support for the EbA and climate-resilient agri-business approach. The communications campaign developed during the first year of the project will involve educating relevant stakeholders on the benefits and need for the EbA approach and agribusiness opportunities. Additionally, the baseline communications campaign will inform stakeholders on: i) the environmental impacts of the country?s existing agricultural systems; and ii) the effects of these environmental impacts on crop production.

67. The communications campaign will be presented at the engagement workshop in Year 1 of the project, while every succeeding workshop will present the communication materials that have been informed by the project outputs recorded by the monitoring, evaluation and learning system (MEL) developed under Output 4.1.1. Additionally, through targeted engagements with the CSWG established under Output 1.1.2, feedback from the communication campaign will be provided to the CSWG to refine and further focus the communication campaign on national policy- and decision-makers. The

engagements with the CSWG will include sharing information on EbA and agribusiness opportunities as well as training members of the CSWG on the integration of these approaches into policies and plans. CSWG members will also receive training on programme and budget planning, fund allocation and leveraging funds for climate change adaptation and to reduce land degradation, at the national, municipal and *suco* council levels. This information will be shared between governance levels so that the effectiveness of financial planning is increased holistically, aligning with national aims for fiscal decentralisation. The distribution of this information across levels of governance will also ensure that there is support for the planning and implementation of programmes, across these different governance levels. Moreover, the combination of training and information sharing under this output will facilitate the upskilling of national and municipal government stakeholders for delivering improved internal training, especially training related to the development and implementation of EbA programmes and the financing and funding related to these types of programmes.

68. Activities:

? Develop a communications campaign to inform stakeholders on the benefits of and need for the project?s EbA approach and proposed agribusiness opportunities.

? Host engagement workshops with representatives from municipal government stakeholders, private sector partners, relevant NGOs, farmer organisations and cooperatives.

? Ensure continued and targeted engagement with the CSWG to facilitate information sharing and training.

Output 1.1.4: Climate risk assessment (CRA) conducted at the national level

69. A climate risk assessment (CRA) will be conducted at the national level to identify the potential impacts of climate change at country and sectoral level. The assessment will include a desktop study and screening of exposure to both the observed and predicted impacts of climate change, building on the climate vulnerability assessment conducted during the PPG phase (see Appendix 13). The CRA will also assess the extent to which the country and sectors are equipped to adapt to these impacts. The assessment will inform policy updates under Output 1.1.5, as well as providing the framing for climate change vulnerability assessments undertaken in output 2.1, and the agri-business assessment under Output 1.1.1. Finally, the CRA will feed into the *suco* level climate change vulnerability assessments (CCVAs) conducted under Output 2.1.1. and will be used to inform the upscaling of project interventions to additional *sucos.*

70. Activities:

? Conduct gap assessment of climate vulnerability assessment conducted at PPG phase

? Conduct national climate risk assessment (CRA)

? Identify climate risks for communities and sectors

? Host workshop to validate the outcomes of the CRA

Output 1.1.5: Gender-responsive revisions to LDN targets and sectoral policies prepared and agreed with the national focal Ministries for UNFCCC and UNCCD, to incorporate climate change risk assessments and expand the scope of LDN strategies

71. Under Output 1.1.5, the CSWG (Output 1.1.2) will work with the GoTL focal points for the UNCCD and UNFCCC as well as other relevant stakeholders to propose revisions to the LDN targets and policies. These revisions will include strategies to reduce the risks of climate change to food and water security, as identified in Output 1.1.2. In addition, revisions to the LDN targets[86][86] for Timor-Leste will be proposed, and these will aim to incorporate livestock management, water resource management and agri-business development in the targets. These revisions will be based on lessons learned from the climate risk assessments on food and water security (Output 1.1.4) and the Climate-Resilient Integrated Watershed Development Planning (CRIWDP) process (under Component 2 of the proposed project) undertaken in two watersheds (covering areas of six municipalities).

72. As set out in the workplan developed under Output 1.1.2, the CSWG will also review sector-specific policies, plans and targets from represented line ministries and propose revisions to these to incorporate: i) EbA and climate resilience; ii) LDN; and iii) agri-business development in support of poverty alleviation. The CSWG will prepare a detailed action plan with assigned responsibilities for validating and incorporating all proposed revisions to ensure the proposed revisions are applied. The activities under this Output will be done in coordination with the project management team for the GEF project ?*Strengthening targeted national capacities to improve decision-making and mainstreaming global environmental obligations into national development priorities*?, to maximise the synergy between the two projects and to prevent duplication of effort.

73. Activities:

? Conduct GAP assessment to identify entry points for policy and target revisions.

? Host workshops to develop and propose revisions to policies and targets.

? Prepare a detailed action plan for the validation and incorporation of proposed revisions.

? Host engagement workshops with the project management team of the GEF project ?Strengthening targeted national capacities to improve decision-making and mainstreaming global environmental obligations into national development priorities? GEF project.

? Draft revised policy briefs based on the outcomes of the above-mentioned workshops.

Component 2: Planning and implementation of EbA to address food and water security at *suco* level in two priority watersheds

74. This component will facilitate the adoption of an EbA model that improves climate resilience and reduces land degradation in target *sucos* in two priority watersheds. As a first step, Climate-Resilient Integrated Watershed Development Plans (CRIWDPs) will be generated through a participatory process, informed by climate change vulnerability assessments (CCVAs) of the priority watersheds. Both the CCVAs and the CRIWDPs will take into consideration: i) the links between climate change and land degradation; and ii) gender-differentiated vulnerability to climate change[87][87]. The capacity for implementing these CRIWDPs will be developed among local communities by strengthening Facility Management Groups (GMFs) and training community members. Context-appropriate EbA measures to reduce vulnerability to climate change will include, *inter alia*: i) protecting and restoring forests; and ii) improving crop and livestock management.

75. Under this component, communities vulnerable to the effects of climate change on water resources will be identified. Once identified, innovative water supply, storage and management solutions with be implemented within the communities to improve climate resilience. The land and water resource management systems implemented under this component will build on traditional technologies and systems[88][88], and their impact and cost-effectiveness will be measured (see Output 4.1). Overall, this component will reduce the vulnerability of rural communities in line with the LDCF objectives (CCA-1) and create an enabling environment for the achievement of LDN targets, in line with GEFTF Objective LD-2-5.

76. Outcomes and outputs within this component are described below.

Outcome 2.1: Suco-*level landscape management improved through the development and implementation of Climate-Resilient Integrated Watershed Development Plans (CRIWDPs) in two watersheds*

77. Under this outcome, the project will generate Climate-Resilient Integrated Watershed Development Plans (CRIWDPs) through a participatory process, informed by: i) climate change vulnerability assessments (CCVAs) of the priority watersheds, land degradation and climate vulnerability hotspots; and ii) the opportunity assessment for agribusiness development conducted under Output 1.1.1, specifically related to agro-ecological and arable land. Additionally, the project will strengthen local governance and develop the capacity of communities for implementing the

CRIWDPs through the review and expansion of Facility Management Groups (GMFs) and the training of 5,000 community members in CRIWDPs implementation.

Output 2.1.1: 4 detailed and gender-specific climate change vulnerability assessments conducted for two watersheds and shared with relevant stakeholders

78. Four detailed climate change vulnerability assessments (CCVAs) will be conducted for each of the two targeted watersheds ? *Sungai* Dasidaro and *Sungai* Laclo. The CCVAs will specifically focus on: i) gender-differentiated vulnerability to climate change; ii) local and regional hydrology and water availability; iii) domestic and agricultural water use and requirements; iv) land-use and land degradation; and v) agricultural activities and agricultural potential (including COVID-19 related risks and opportunities for green recovery). The development of the CCVAs will build on the climate risk information made available through the GCF project, entitled ?*Safeguarding rural communities and their physical and economic assets from climate-induced disasters in Timor-Leste*?. Information from the CCVAs will be made available and accessible to local communities to inform participatory planning undertaken under Output 2.1.2 for: i) optimising land-use and restoring vulnerable ecosystems; ii) improving farming practices; and iii) enhancing water resource management. Specifically, the CCVA will identify ?hotspots? of climate vulnerability as well as requirements for natural resource protection and restoration to support improved food and water security. The CCVAs will also consider flood risk as one of the indicators for identifying climate vulnerability hotspots, which will inform the watershed planning under Output 2.1.2.

79. Activities:

- ? Conduct gender-differentiated vulnerability to climate change assessment
- ? Conduct local and regional hydrology and water availability assessment
- ? Conduct domestic and agricultural water use and requirements assessment
- ? Conduct land-use and land degradation assessment
- ? Conduct agricultural activities and agricultural potential assessment
- ? Compile Climate Change Vulnerability Assessment
- ? Disseminate information from CCVAs to local communities through a validation workshop

Output 2.1.2: CRIWDPs for water and food security, developed and adopted for 71,300 ha in two priority watersheds

80. Under this Output, CRIWDPs will be developed for a total of 71,300 ha of land ? 15,700 ha in the Dasidaro watershed and 55,600 ha in the Laclo watershed[89][89]. These plans will be informed by the high-resolution CCVAs prepared under Output 2.1.1 as well as the opportunity assessment for agribusiness development conducted under Output 1.1.1, specifically related to agro-ecological and arable land. An enhanced participatory land-use planning (PLUP) process will be used, informed by traditional *tara bandu* and *lisan**[90]*[90] governance practices and the principles of Community-Based Natural Resource Management (CBNRM)[91]91. This process will build on the extensive baseline of former watershed planning programmes strengthened through a climate change lens within the framework of the CCVA and on lessons learned from community engagement and catchment management initiatives under the GCF project *?Safeguarding rural communities and their physical and economic assets from climate induced disasters in Timor-Leste?*. The CRIWDP process will include: i) identifying areas of high water insecurity to inform Outcome 2.3 and developing watershed-level adaptation plans for water resource management; ii) mapping agro-ecological sub-zones and arable land based on agreed criteria ? specifically related to ensuring land use that is appropriate to local topography, soil and water availability; iii) identifying potential sites for agribusiness development to inform Output 3.2.1; iv) mapping important ecosystem services and landscape elements; v) defining targets and locations for forest restoration (Output 2.2.1) and protection (Output 2.2.2), modified integrated farming systems (Output 2.2.4) and improved livestock management systems (Output 2.2.3); vi) developing preparation and response plans for climate hazards; and vii) identifying flood risks to inform the identification of sites for the implementation of EbA interventions under Outcome 2.2. The CRIWDPs will be validated by local communities, *suco* leadership and government stakeholders and will align with existing municipal development plans. Responsibilities for implementing and overseeing the CRIWDPs will be negotiated between communities and local government, considering the willingness to collaborate on EbA both on-farm as well as off-farm on communal land in the watersheds.

81. Activities:

? Identify areas of high water insecurity to inform Outcome 2.3. and develop watershed-level adaptation plans for water resource management

? Map agro-ecological sub-zones and arable land based on agreed criteria ? specifically related to ensuring land use that is appropriate to local topography, soil conditions and water availability

? Identify potential sites for agribusiness development to inform Output 3.2.1

? Map important ecosystem services and landscape elements

? Define targets and locations for forest restoration (Output 2.2.1) and protection (Output 2.2.2), modified integrated farming systems (Output 2.2.4) and improved livestock management systems (Output 2.2.3)

? Develop preparation and response plans for climate hazards

? Compile Climate-Resilient Integrated Watershed Development Plans (CRIWDPs) for two priority watersheds

? Host a validation workshop for CRIWDPS

? Establish responsibilities for the implementation and oversight of CRIWDPS

Output 2.1.3 Facility Management Groups strengthened and schedule of activities agreed

82. *Suco*-level governance of the CRIWDPs developed under Output 2.1.2 will be enhanced, in alignment with national programmes for promoting decentralisation and the Municipality Economic Development Plans. Facility Management Groups (65s) in target *sucos* will be reviewed and expanded to ensure strong links to *suco* leadership and to ensure that GMFs comprise youth representatives and at least 50% women. Representation for people with disabilities and members of the LGBT+ community in the GMFs will also be ensured. New and additional GMF members will be selected through appropriate *suco* council processes in light of each *suco* council?s pivotal role in *suco* governance.

83. The GMF?s will strengthen local implementation of the CRIWDPs and coordinate EbA interventions at *suco* level. On each GMF, members will be selected to represent and coordinate with the groups responsible for implementing and monitoring the: i) forest conservation agreements (Output 2.2.2); ii) livestock management plans (Output 2.2.3); and iii) water resource management systems (Output 2.3.2). A schedule of activities, including training under Output 2.1.4, will be developed collaboratively with each GMF. In addition to coordinating *suco*-level implementation of project activities, the GMFs will assist the Project Management Unit in formal project monitoring through data collection and collating lessons learned (Output 4.1.1).

84. To ensure the funds necessary for the GMFs to fulfil their roles and ensure consistent membership is available beyond the project period, sustainable finance sources will be established. This will be done through improved financial planning for watershed management under Outcome 1.1, as well as fund-generating activities ? including training and agribusiness development ? under Outcome 3.1.

85. Activities:

? Host engagement workshops in target *sucos* to review GMF membership and identify new and additional members and review and update GMF mandate and responsibilities as needed.

? Host engagement workshop to develop a schedule of activities with each GMF to support the implementation of EbA, SLM and agribusiness activities in target sucos

? Facilitate regular coordination meetings between GMFs and PMU to collect lessons and ensure the effective monitoring of project activities.

? Train GMFs on the implementation of the MEL system for monitoring project activities developed under Output 4.1.1.

Output 2.1.4: Training conducted for 7,000 people, 50% of whom are women, in sucos within two watersheds to strengthen local governance and implementation of the CRIWDPs

86. Venues that are able to function as community learning hubs will be identified in each of the target *sucos* and will be used as venues for training and educational activities, including training on water demand management systems developed under Output 2.3.2 and capacity building for entrepreneurship and agribusiness development under Output 3.1.1. Using these venues and other relevant mechanisms (e.g. community radio), the GMFs will be trained to conduct and oversee training and education sessions on the implementation of CRIWDPs at community and small-scale farming level for at least 7,000 community members (~390 people per target *suco*), using a training-of-trainers (ToT) approach, at least 50% of whom will be women.

87. The training programme, including the modalities, content, venue and times, will be planned to accommodate the needs of men and women separately and at least 50% of the community members trained will be women. The training will also include people with disabilities and members of the LGBT+ community and will be developed to ensure that people from these and other marginalised groups are included in the implementation and decision-making related to the CRIWDPs. Training materials will consist of sections such as the adaptive management of gender-differentiated climate vulnerabilities and how ecosystem health is linked to a myriad of aspects of communities? lives ? including water management, hygiene and sanitation and human resilience against zoonotic diseases such as COVID-19. In coordination with other investments, training will also include information on the application of weather advisories and early warning systems to support climate-resilient agricultural livelihoods. Capacity development under this output will be done in collaboration with NGO partners ? for example, Rikolto[92]92 ? building on their experience and expertise in agriculture, socio-environmental entrepreneurship, and record in enabling commodity market access.

88. Activities:

? Identify community learning hubs and other relevant mechanisms

? Train GMFs to conduct training and education sessions on CRIWDPs for community members

? Conduct training for 7,000 community members

Outcome 2.2: Food security of rural communities increased through improved climate-resilient SLM at suco level in two watersheds

89. Under this Outcome, the project will use EbA together with adaptation measures to reduce and restore degraded land, thereby enhancing the climate resilience of the two target watersheds. These measures will stabilise soils against the increased erosion caused by longer dry seasons and intensifying rainfall. Soil stabilisation will also increase the amount of available groundwater and improve the quality of surface waters by reducing runoff ? which will contribute to better food and water security for the target communities ? and will reduce the incidence of landslides. Adaptation measures will include: i) the restoration of 4,500 ha of degraded land; ii) the development and implementation of community agreements for the protection of 15,000 ha of forests and natural ecosystems; iii) improved livestock systems for 4,000 ha of communal grazing land under; and iv) 1,000 ha of communal land under restored and under improved integrated farming systems for the provision of ecosystem services and climate-resilient agricultural production.

90. The restoration of degraded land will enhance climate resilience by increasing the infiltration of rainwater into aquifers, reducing rainwater runoff, reducing soil erosion and helping attenuate flash flooding. Additional benefits of ecosystem restoration, particularly for agriculture, include localised cooling effects for intercropping and agroforestry systems and the creation of windbreaks which can protect crops and infrastructure from high-speed winds created by tropical cyclones. The restoration of forest landscapes also provides communities with increased supplies of fuelwood, timber for construction and other non-timber forest products such as fruit, honey, fibre and fodder for livestock.

91. Through the establishment of Community Conservation Agreements (CCAs) between municipal authorities, *suco* leadership and GMFs and the conducting of community consultation workshops, the project will inform communities on the links between crop production and environmental risks. During these workshops, community members will also engage with management measures required to ensure the sustainable management of local ecosystems without negatively impacting agricultural productivity.

<u>Output 2.2.1: 4,500 ha of forest restored to increase the climate resilience of rural communities in two priority watersheds</u>

92. The CRIWDPs (Output 2.1.2) will identify areas for forest restoration in each of the target *sucos*. At least 4,500 ha of degraded or deforested areas will be restored, focusing on areas where soil

stabilisation will have the maximum impact on improving water availability and quality. Forest restoration will primarily comprise assisted natural regeneration[93][93] to increase efficiency and ensure that species remain site appropriate. Reforestation with trees and shrubs will also, to a lesser degree, facilitate the introduction of agroforestry and intercropping systems (Output 3.2.1) to provide direct economic benefits to communities. Additionally, firebreaks will be established during the restoration process to protect vulnerable forests from wildfires which are prevalent during extended dry seasons and droughts. The project will establish nurseries for seedling propagation, under this output, to support reforestation, agroforestry and commodity production under Output 3.2.1.

93. Interventions under this output will focus on improving infiltration and protecting soil in highly degraded parts of watersheds to: i) reduce the risk of landslides; ii) reduce soil loss; and iii) increase water infiltration and availability. The socio-ecological impacts and cost-effectiveness of the interventions will be quantified during the project (see Output 4.1). The forest restoration interventions will be jointly funded through LDCF grant funding, government support (e.g. via co-finance from other projects), and impact finance agreed upon with investors in the agribusiness development under Component 3 (such as through technical support provided for the introduction of commercially viable agroforestry commoditycrops). Sites for the forest restoration will be selected to upscale initiatives implemented under the GCF project to revegetate road corridors and around water sources, including in Baucau, Laut?m and Ainaro. In combination with the forest protection measures under Output 2.2.2, this output focuses on the impact of longer dry seasons, increasing number of extreme heat days and more intense rainfall on farms and property.

94. Activities:

- ? Identify areas for forest restoration in target *sucos*
- ? Identify which areas require reforestation in addition to natural regeneration
- ? Establish seedling nurseries for trees and shrubs to be used in reforestation
- ? Restore at least 4,500 ha of degraded or deforested land, primarily through natural regeneration

Output 2.2.2: 10,500 ha forests and natural ecosystems protected through community agreements and monitoring at *suco* level

95. The CRIWDPs (Output 2.1.2) will identify at least 15,000 ha of forests and natural ecosystems for community-led protection in target *sucos.* This will include the 4,500 ha of forest restored under Output 2.2.1 in addition to protection agreements and delineation of 10,500 ha of existing forest and natural ecosystems. Community conservation agreements will be developed through a participatory process, using traditional *tara bandu* practices as a basis for community forest governance. The agreements will

include guidelines for forest fire management, firebreak maintenance and for the sustainable use of forest resources, identifying spatial and seasonal thresholds for use. The guidelines will also consider the different ways in which men and women use forest ecosystems. Roles and responsibilities for implementing and monitoring the agreements will be assigned, including for the GMFs strengthened under Output 2.1.3. The community conservation agreements will be reviewed and revised three years after their initial development to embed lessons learned from the initial implementation. These forest protection measures are expected to benefit ~68,000 people in Dasidaro and Laclo watersheds by reducing climate vulnerability through improved water resource availability and quality.

96. Activities:

- ? Conduct engagement and participatory process to co-develop community conservation agreements (CCA) to protect 10,500 ha of forests of natural ecosystems
- ? Identify roles and responsibilities for the implementation and monitoring of agreements
- ? Review and revise CCAs after three years

Output 2.2.3: 4,000 ha communal grazing land in target *sucos* under improved management to reduce land degradation

97. The CRIWDP will identify 4,000 ha of communal grazing land that is degraded or particularly vulnerable to land degradation given climate change. Under this output, livestock management plans and systems to monitor rangeland conditions will be developed through community consultations to improve productivity and build the resilience of these livestock systems to the impacts of climate change. It is envisaged that this rangeland restoration and protection will benefit 1,000 people. The management plans will be aligned with the principles of the CRIWDPs (Output 2.1.2) and will include guidelines for spatial and seasonal management of grazing lands. In addition, a monitoring system will be developed, including identifying ecological thresholds, indicators, and adaptive actions to prevent land degradation based on local community knowledge. This will be implemented through the overall project monitoring, evaluation and learning system (Output 4.1), under the guidance of the project Monitoring and Evaluation Specialist. All relevant community members will be consulted for the development of these management plans, which will consider the needs of both men and women in terms of livestock management and will focus on empowering households led by women. Responsibilities for monitoring rangeland conditions and overseeing the implementation of the livestock management plans will be assigned during their development. The livestock management plans will be updated in consultation with the communities three years after their initial development to refine them based on lessons learned from their implementation and rangeland monitoring.

98. Activities:

? Identify 4,000 ha of communal grazing land that is degraded or particularly vulnerable to land degradation

? Host community consultation workshops for the development of management plans and the identification of roles and responsibilities

? Develop livestock management plans and systems to monitor rangeland condition

? Develop monitoring system including the identification of ecological thresholds, indicators and adaptive actions to prevent land degradation, based on local community knowledge

? Host community consultation workshops to update livestock management plans three years after initial development

Output 2.2.4: Provision of ecosystem services and climate-resilient agricultural production enhanced on 1,000 ha communal land through ecosystem and farmland restoration and improved integrated farming systems (LEISA model)

99. Under this output, integrated farming systems will be established on 1,000 ha of communal farmland in target *sucos* using the Low External Input Sustainable Agriculture (LEISA) model to improve SLM and climate resilience. The application of the LEISA model revolves around the core components of decreased use of fertilisers and pesticides, decreased deforestation and community management of excess farm waste. This model helps communities reduce their reliance on chemical fertilisers and pesticides by training them on how to engage effectively in composting and the production and use of natural and organic fertilisers. Deforestation is addressed by the LEISA model through supporting communities in the establishment of buffer zones between agricultural land and forest land, as well as the introduction of agroforestry options to reduce the need for communities to clear land for agriculture. By supporting communities in the management of their excess farm waste, the LEISA model will both ensure that water sources are better protected while also potentially providing communities with additional income through the sale of manure and compost for fertiliser.

100. Capacity building and technical assistance will be provided for the conversion of village farms to LEISA systems, with a focus on: i) horticulture; ii) agroforestry; iii) climate-resilient agriculture including water-efficient irrigation; iv) manure management, composting and mulching; and v) integrated farming of crops and livestock. As for Outputs 2.2.1-2.2.3, the CRIWDPs (Output 2.1.2) will be used to identify appropriate land for these activities and to build community consensus. During the PPG phase a consultative process was undertaken to confirm details of the measures to be undertaken (Section 5: Stakeholder Participation). These initiatives will increase agricultural productivity and climate resilience for ~1,200 households by improving the flow of agro-ecosystem services, increasing their income by up to 30%, in alignment with GEF Objective LD-1-1. In coordination with other investments, the uptake and use of early warning systems and co-development of climate advisories in agricultural planning will be supported under the proposed project. Strategies for the uptake of early warning systems will be developed through coordination with the GCF project

titled ?*Enhancing Early Warning Systems to build greater resilience to hydro-meteorological hazards in Timor-Leste*?. This output will support the adoption of climate-resilient agribusiness development on farms under Output 3.2.1 by facilitating the implementation of *suco*-level SLM in agricultural landscapes.

101. Activities:

? Use CRIWDPS to identify appropriate land for activities to be implemented under Outputs 2.2.1?2.2.3

? Conduct an analysis of existing early warning systems in target *sucos*

? Host community engagement workshops to establish community consensus for activities to be implemented under Outputs 2.2.1?2.2.3 and, where possible, to coordinate the integration of early warning systems into communities

? Provide capacity building and technical assistance for the conversion of village farms to the LEISA system

? Establish integrated farming systems on 1,000 ha of communal farmland in target *sucos*

Outcome 2.3: Water security in climate vulnerability hotspots identified under Output 2.1.1 enhanced through the upgrade of climate-resilient water supply infrastructure, improved water management systems and training of 8,000 community members at village and sub-village level

102. Under this outcome, the project will enhance the water security of vulnerable communities through the development of water supply and storage infrastructure for at least ~40 sub-villages. This infrastructure will be supported with water demand management systems that will ensure the infrastructure will have enough capacity to meet community needs. Community members will be trained on the operation and maintenance of the infrastructure and systems introduced under this Outcome.

103. Infrastructure to enhance water security will include interventions such as: i) rainwater harvesting systems; ii) groundwater recharge basins; iii) water storage tanks; and iv) water source protection measures. These systems will increase the reliable supply of potable water and water for irrigation and livestock. The water security infrastructure will be installed in target *sucos*, where appropriate locations for installation will be identified in coordination with the target communities.

104. The development of water supply and storage infrastructure, demand management systems and groundwater monitoring will reduce the stress on existing water sources, indirectly benefitting local ecosystems by decreasing the competition for water, and will help reduce the reliance

of households on informal or unofficial connections to water services. The reduced reliance on informal connections to water services will reduce the intrusion of contaminated groundwater into households? water sources, thereby increasing sanitation and hygiene in communities. The participatory design, context-appropriate nature and community-based management of the water supply and storage infrastructure developed under this outcome will ensure that the systems are sustainable and increase the long-term water security and climate resilience of vulnerable communities.

105. Training on water supply and storage infrastructure operations and maintenance will help decrease erosion and inundation around farmland by reducing water loss, particularly from structures such as irrigation channels and systems.

106. This outcome will be supported by the implementation of Activities under Outcome 2.2, specifically the restoration of forest ecosystems under Output 2.2.21 and the protection of forests and natural ecosystems under Output 2.2.2.

Output 2.3.1: Water supply and storage systems upgraded to increase climate resilience in ~40 water-insecure sub-villages

107. Small-scale water supply and storage infrastructure will be developed to improve water security and climate resilience for ~40 sub-villages in target *sucos.* Small-scale supply and storage infrastructure will be developed at *suco* level in these areas to increase the reliable supply of both potable water and water for irrigation and livestock. Additionally, this output will upscale work undertaken to improve the climate resilience of water infrastructure under the ongoing GCF project ?*Safeguarding rural communities and their physical and economic assets from climate induced disasters in Timor-Leste*? and the completed LDCF project ?*Strengthening the Resilience of Small Scale Rural Infrastructure (SSRI) and Local Government Systems to Climate Variability and Risk*?. Community consultations helped identify community concerns around water security and these will inform the technical design of infrastructure to ensure that it meets the needs of each individual community. Drawing on lessons learned from these previous projects, the options of water systems considered for each village will include:

? developing rainwater harvesting systems;

? formalising informal communal water sources, for example through the installation of standpipes and storage tanks;

? revegetating land surrounding water sources;

? connecting existing water sources to collection points through distribution pipes; and

? developing small reservoirs for water storage.

108. The infrastructure will be designed to: i) enable villages to better monitor water availability and use; ii) provide more equitable and reliable access to water sources; iii) provide alternative water sources (for example, stored rainwater) to increase drought resilience; and iv) reduce the risk of floods and extreme rainfall events negatively affecting water quality. Implementing this infrastructure will increase the climate resilience of targeted villages by increasing their access to water under future climate conditions ? such as longer dry seasons, greater number of extreme heat days and more intense rainfall during extreme events. Moreover, increasing the ability of communities to monitor water availability and distribution will support village-level efforts to increase water security through water resource management.

109. Under this output, village-level plans for sustainable water use and distribution and responses to water shortages will be developed in a participatory manner. The plans will include the identification of water shortage thresholds and corresponding actions to reduce water insecurity. Site selection will be determined through a combination of exposure to water insecurity and social vulnerability. Management, operation and maintenance systems will be put in place under Outputs 2.3.2 and 2.3.3 to ensure that the infrastructure developed under this output deliver long-term climate resilience benefits to the targeted villages.

110. Activities:

? Identify small-scale water supply and storage infrastructure for target *sucos* and their optimal installation sites

? Install rainwater harvesting systems in target *sucos*

? Install groundwater recharge basins in target *sucos*

? Install water storage tanks in target *sucos*

? Establish water source protection measures in target *sucos*

Output 2.3.2: Community members at village level trained for the sustainable use, operation and maintenance of water supply and storage infrastructure

111. Under this output, representatives from the GMFs of target communities will be selected to monitor and manage water supply and storage infrastructure. These representatives will be appointed in consultation with existing community leadership structures and in alignment with the GMF schedule of activities and will be trained as trainers under Output 2.3.3.

112. Furthermore, sub-villages targeted under Output 2.3.1 will be trained in the sustainable use, operation and maintenance and adaptive management of the water supply and storage systems installed under Output 2.3.1. The training will focus on equipping community members to maintain water infrastructure, with a particular focus on training women as they are primarily responsible for collecting and using water for domestic purposes.

113. With the aim to minimise women?s unpaid reproductive labour and a concurrent understanding that women engage most regularly with water collection, women?s groups will be targeted for training in efficient maintenance of water infrastructure such that women are empowered in their current responsibility for water collection and that the burden of maintenance is shared collectively.

114. In addition to developing technical skills for infrastructure maintenance, training will facilitate discussions on sustainable water use and management. Discussions will include the integration of local ecological knowledge about climate-resilient water management and modern methods, and will identify water conservation strategies to manage water use in dry periods. In this way, Output 2.3.2 will support the community-level implementation of the sustainable water use plans developed under Output 2.3.1. The participatory design, context-appropriate nature and community-based management of the water supply and storage infrastructure developed under this outcome will ensure that the systems are sustainable. This will contribute toward increasing the long-term water security and climate resilience of vulnerable communities. In consultation with their communities, GMFs will co-develop water demand management systems to prioritise water use and increase efficiency in water shortages.

115. Activities:

? Identify and appoint a water management member, of each target GMF, to monitor and manage water security infrastructure

? Host training workshops on the sustainable use and O&M of the water supply and storage infrastructure

? Host community consultation workshops to co-develop water demand management systems at *suco* level

Output 2.3.3: Community members within sub-villages trained and systems established for monitoring and reporting on village-level water use and availability

116. Under this output, communities in target *sucos* will be trained in water resource management. GMF members will be trained on how to measure water use and availability and how to record and manage this information, water demand management systems, and groundwater monitoring.

In addition, through a Training of Trainers (ToT) approach, the GMF members will be trained to educate their communities on: i) the operation of the water supply and storage infrastructure; ii) the maintenance systems; and iii) water demand management measures for water-scarce periods. Effective monitoring of water resources will support the implementation of the sustainable water use plans developed under Output 2.3.1, informing when and how water conservation strategies are implemented. Water resource monitoring training will also include conflict management and resolution components to ensure sustainability in the long term.

117. Communication channels will be strengthened or established (as required) between sub-villages, GMFs and municipal governments to support the collection of water availability data at *suco* and watershed level. In this way, the output will contribute to filling data gaps relating to water security and use in Timor-Leste and enable improved evidence-based planning at suco, municipal and watershed level.

118. Activities:

? Host engagement workshops to train GMF members on how to measure water use and availability and how to record and manage this information, water demand management systems, and groundwater monitoring

? GMF members trained, through a ToT approach, to educate communities

? Awareness raising among communities on water demand management measures for water-scarce periods

? Host engagement meetings to strengthen or establish communication channels between villages, GMFs and municipal governments

Component 3: Enabling and piloting of agribusiness development to incentivise the adoption of climate-resilient SLM practices by small-scale farmers in two watersheds

119. This component will support the adoption of climate-resilient SLM at farm level through an agri-business model, thereby overcoming financial barriers to the transition away from unsustainable farming practices, such as slash and burn agriculture, which increase the rate of soil erosion and deforestation. Private sector partners ? PT PMA, Sucafina and Progreso ? will be engaged to leverage markets and create investment opportunities to enable small-scale farmers, comprising at least 50% women, to develop agri-businesses based on sustainably grown commodity crops that can be traced throughout the supply chain. Traceability enables production and material sources to be verified, improving the sustainability of the commodity, as well as the marketability. This will create an enabling environment for small-scale farmers to implement climate-resilient SLM, contributing to GEF Objective LD-2-5. By promoting permanent, locally-appropriate agroforestry systems and climate-resilient SLM, these interventions will reduce pressure on forests and water resources, contributing to

the GEFTF Objective LD-1-4 and reducing the vulnerability of small-scale farmers to climate-change induced crop losses and food insecurity. The adoption of this model will be piloted in the two priority watersheds ? *Sungai* Dasidaro and *Sungai* Laclo. In addition to facilitating the adoption of sustainable agroforestry, these activities will enhance the viability and sustainability of existing agroforestry systems by improving technical support and market access for sustainably produced commodities.

120. Outcomes and outputs within this component are described below.

Outcome 3.1: Farmer organisations and women?s cooperatives for agri-business development and sustainable value chains access finance to support adoption of climate-resilient SLM

121. Under this Outcome, the project will support the adoption of climate-resilient SLM at the farm level through an agribusiness model. Private sector partners will be engaged to leverage markets and create investment opportunities to enable small-scale farmers to develop agribusinesses based on traceable and sustainably grown commodity crops. Furthermore, the project will train 2,500 members of farmer organisations and women?s cooperatives on the development of climate-resilient agribusiness.

122. Private sector engagement will enable the shortening of the market chain of intermediaries from smallholder producers to large traders and markets. Agribusiness development training will also enable farmers not currently operating within established value chains to become involved, increasing their ability to buy and sell commodities, such as cocoa and coffee. This will increase crop profitability at the farm level and strengthen the role of farmer organisations and women?s cooperatives in the commercialisation of crops. Further to this, farmer organisations have substantial room for further development, particularly concerning business development and the participation of women. Capacity development is, therefore, vital for ensuring the effectiveness of farmer organisations and women?s cooperatives. Capacity development will also ensure farmers can access information about market conditions and are trained on how to implement that information effectively.

Output 3.1.1: Training conducted for 2,500 members of farmer organisations and women?s cooperatives to develop climate-resilient agribusinesses

123. The capacity for developing agribusinesses of farmer organisations and women?s cooperatives from target *sucos,* will be built under this output. This capacity building will focus on developing the business management skills of farmer organisations and women?s cooperative members and will support the development of protocols for adaptively managed agroforestry systems and sustainable commodity production (Output 3.2.1). Training on business management and engagement with value chain stakeholders will be conducted[94]94 and assistance will be provided to connect

farmer organisations and women?s cooperatives to markets and financial institutions linked to partnerships developed under Outputs 3.1.2 and 3.1.3. This capacity development will be done in partnership with NGOs, with particular expertise in agribusiness development (such as Rikolto[95]95), and will incorporate a training of trainers approach to ensure that capacity development can continue within farmer organisations and women?s cooperatives beyond project activities. The training of trainers approach will internalise the knowledge within community groups, enabling peer-to-peer learning. Through the training process, local trainers will be encouraged to establish self-help groups within the communities to close the gap in information dissemination and training resulting from the limited capacity of government extension services.

124. Additionally, plans for the replication and up-scaling of training activities through the farmer organisations and women?s cooperatives will be developed to facilitate the implementation of training and peer-to-peer learning beyond the scope of the project interventions. At least 2,500 farmers (50% women) will be trained under this output, while the development of these training plans will enable training to continue beyond the lifespan of the project and in communities not targeted by the project. Incremental support will be provided to the government and farmers to build capacity and conduct baseline and periodic farm surveys to monitor the success of agribusiness development, linked to the monitoring undertaken by the GMFs in Output 2.1.3.

125. Training activities and materials will focus on how climate-resilient land management, climate-resilient agriculture and ecosystem protection will increase communities? resilience to both climate change and zoonotic threats, such as COVID-19. During these trainings, the link between ecosystem health and human health will be explained to and discussed with community members. These training activities will raise awareness among stakeholders about this connection and the connections between ecosystem degradation and the emergence of zoonotic diseases. The project will, therefore, build momentum for broader-scale sustainable land management and land degradation neutrality that integrates the linkages between ecosystems and human health and the ability for climate-resilient adaption measures to contribute to this green recovery.

126. Activities:

? Conduct Training of Trainers for representatives of farmer organisations and women?s cooperatives to enable peer-to-peer learning beyond the scope of project interventions

? Representatives conduct training for farmer organisation and women?s cooperatives members, from target sucos, for the development of agribusinesses, business management and engagement with value chain stakeholders

? Farmer organisations, women?s cooperatives and markets connected with financial institutions facilitated by farmer organisations and women?s cooperative representatives

? Develop plans for the replication and up-scaling of training activities through the farmer organisations and women?s cooperatives to farmers and communities not targeted under project interventions

? Support provided to government and farmers to build capacity and conduct baseline and period farm surveys to monitor the success of agribusiness development

Output 3.1.2: Agreements negotiated and incentives created for private sector buyers to invest in traceable and sustainable agricultural commodity production and value chains

127. Based on the foundation laid during the PPG phase and Output 1.1.1 ? under which a market assessment of agricultural commodity crops will be conducted ? partnerships with the private sector and NGOs will be leveraged to strengthen agribusiness by improving farmers?, farmer organisations? and women?s cooperatives? access to international markets. Initial partnerships established during the PPG phase will provide technical support for farmers to develop commodity crops and commitments to purchase those commodity crops (see Appendix 9 for details of the co-financing and commitments from private sector investors).

128. Commitments from private sector buyers of agricultural commodities (such as Progresso[96][96]) for sourcing traceable and sustainable commodities from farmer organisations and cooperatives will be further developed throughout the project through engagement with intermediaries like Rikolto. These commitments will be designed to contribute to building climate resilience within the project?s EbA approach and are additional to the private co-finance provided directly to the project. Sustainability certification for small scale farmers and farmer organisations and a sustainable production system will encourage private sector involvement with these groups as a result of the transparency related to the development and implementation of these types of systems. The development of a traceability system will ensure the transparency of this sustainability certification. This system will ensure that buyers of agricultural commodities, government officials and relevant regulatory officials are able to identify which commodities have been sourced from which individual farmers and farmer organisations.

129. Engagement workshops with private sector buyers and intermediaries will provide the necessary technical assistance to farmer organisations and women?s cooperatives for adopting SLM methods and achieving sustainability certification. Specific sustainability certification will be dependent on the requirements of private sector buyers. Examples of such certification include: i) Rainforest Alliance; ii) UTZ Certified; iii) the Common Code for the Coffee Community; and iv) the Starbucks Caf? Practices Scheme. Engagement workshops will also facilitate the partnerships between farmers, farmer organisations and private sector buyers to overcome logistical challenges that farmers face ? such as difficulties with transporting goods to market locations.

130. Activities:

? Develop a traceability system for commodity crops to leverage partnerships with the private sector and NGOs

? Design and co-develop commitments from private sector buyers of agricultural commodities to source sustainable and traceable commodities from target communities

? Host annual engagement workshops with private sector buyers and intermediaries to provide technical assistance to farmer organisations and cooperatives for adopting SLM methods and achieving sustainability certification in line with private-sector buyer requirements

Output 3.1.3: Portfolio of bankable impact investments developed with capital intermediaries and providers targeting sustainable production of cocoa, vanilla and other commodities

131. Under this output, public and private sector financing mechanisms will be created to assist small-scale farmers in developing agribusinesses and establishing agroforestry systems to grow and market sustainable commodities ? specifically cocoa and vanilla. These mechanisms will be designed for the mobilisation of finance to facilitate the adoption of SLM activities and improve the income of small-scale farmers, as incentivised by the partnerships developed under Output 3.1.2. Government and grant finance will provide blended finance for de-risking of the private investments for these mechanisms, with the majority of the investment coming from the private sector ? such as through hosting investment showcases or through purchase agreements and commitments with farmer organisations and producers. These mechanisms will be developed through a partnership between the private sector commodity buyers (Output 3.1.2), local banks and agricultural finance institutions (for example, the Rabobank Agri-3 Fund) to facilitate the de-risking of impact investments. Under these mechanisms, the private sector will bear all loan or investment risks. Additionally, part of the investment will be used for attaining environmental objectives such as reforestation, water resource protection or other SLM activities (see Outcomes 2.2 and 2.3). These investments will be aligned with government programmes to make them more attractive to the private sector and so as to ensure country ownership in addressing environmental and climate change challenges. Farmer organisations and cooperatives in target *sucos* will be assisted to participate in and benefit from existing commodity development programmes without the risks associated with commercial loans or borrowing systems.

132. Activities:

? Design public and private sector financing mechanisms to mobilise finance, facilitate the adoption of SLM activities and improve the income of small-scale farmers

? Host investment showcase with commodity crop private sector investors and buyers, government stakeholders, farmer organisations and women?s cooperatives to leverage additional seed finance for financing mechanisms established under the project

? Host engagement workshop to develop mechanisms through a partnership between the private sector commodity buyers, local banks and agricultural finance institutions to facilitate the de-risking of impact investments

? Assist farmer organisations and cooperatives in target sucos to participate in and benefit from the commodity development programmes without the risks associated with commercial loans or borrowing systems

Outcome 3.2: Increased production of traceable and sustainably grown cocoa and other agribusiness commodities, benefitting 2,000 farmers

133. Under this Outcome, the project will develop protocols for agroforestry systems and sustainable commodity production to improve production and adoption of SLM practices over 2,200 ha for the benefit of ~2,000 farmers (50% women).

134. Training under this outcome will help farmers improve the productivity of their harvests, while the support provided to farmer organisations under Outcome 3.1 will help ensure the longevity and sustainability of the training. This training will be conducted through field schools and will be aimed specifically at small-scale farmers. Furthermore, the establishment of clonal gardens and nurseries under this Outcome will further facilitate increases in productivity by enabling farmers to actively engage in plant rejuvenation and source seedlings from superior clones. Training under this outcome will also focus on standards and requirements for traceability and sustainability accreditation.

Output 3.2.1: 2,200 ha climate-resilient and profitable agroforestry systems developed for 2,000 farmers growing cocoa and other agribusiness commodities

135. Supported by capacity development (Output 3.1.1) and public and private impact investments (Output 3.1.3), protocols for adaptively managed agroforestry systems and sustainable commodity production will be developed under this output. One thousand hectares of formerly unproductive or degraded farmland in the target *sucos* (identified through the CRIWDPs produced under Output 2.1.2) will be converted to pilot agroforestry systems, specifically for growing cocoa and vanilla. These agroforestry systems will both increase the income of local farmers and improve the delivery of agro-ecosystem services.

136. Field schools will be hosted by NGO partners (e.g. Rikolto) to train small-scale farmers on good agriculture practices such as conservation agriculture, climate-smart agriculture, pest management, waste management and post-harvest management. This training will support farmers in enhancing the adaptive management of their land and will help reduce land degradation and water insecurity. Training for farmers will include, for example, the introduction of terracing on hilly terrain and drainage systems on flat terrain to prevent erosion and inundation, respectively, and therefore prevent decreased productivity of farmland.

137. The establishment of facilities to support sustainable crop production in target *sucos* will ensure that farmers are provided with adequate resources to implement the training they receive from the field schools. These facilities will include demonstration gardens, clonal gardens to test for climate- and pest-resilient clones, nurseries for seedling propagation (in conjunction with Output 2.2.1), and post-harvest processing facilities. These systems will be sustained through the investments and corporate partnerships promoted through the project, underpinned by the quality assurance mechanisms that will be supported by project partners. These partnerships will support the establishment of sustainable value chains, along with purchase agreements between private buyers and small-scale producers that will continue well beyond the project lifespan. Moreover, these facilities will provide practical sites for the peer-to-peer training plans established under Output 3.1.1. Additionally, the establishment of these facilities will include developing plans for their sustainable operation and management beyond the lifespan of the project.

138. This output will benefit 2,000 farmers (50% women) and improve production and adoption of SLM practices over 2,200 ha of agroforestry systems. This will facilitate the production of ~500 metric tonnes of traceable and sustainably sourced cocoa (dry beans) and ~100 metric tonnes of vanilla and other marketable commodities. This transition to agribusiness-based systems will be monitored throughout the project by the GMFs to contribute to adaptive management and supply lessons learned for future upscaling of agroforestry for sustainable commodity production (Component 4).

139. Activities:

? Develop protocols for agroforestry systems and sustainable commodity production

? Convert 1,000 ha of unproductive or degraded farmland in target sucos to pilot agroforestry systems (identified under Output 2.2.4)

? Host field schools, in partnership with NGO partners, to train small-scale farmers on good agricultural practices

? Establish facilities to support sustainable crop production, including demonstration gardens, clonal gardens to test for climate- and pest-resilient clones

? Establish facilities to support nurseries for seedling propagation

? Establish facilities to support post-harvest processing in target sucos

Component 4: Knowledge management and monitoring for replication of best practices in other *sucos* and watersheds

140. Under this component, monitoring and evaluation (M&E) will be undertaken to assess the effectiveness and impact of project interventions, including the implementation of CRIWDPs (Component 2) and the development of agribusinesses (Component 3). Information gathered during this M&E process will be used to develop best-practice guidelines and policy briefs on climate-resilient SLM and agribusiness development, taking the gender dimensions of these approaches into consideration. These information products will be disseminated targeting national- and local-level stakeholders to inform policy and programming on adaptation to climate change and reversing land degradation, informing the policy and programmes developed and updated under Component 1. Further to this, the information gathered will be used to inform potential pathways for integrating agribusiness into LDN targets (Output 1.1.1). Additionally, these knowledge products will facilitate the upscaling of successful project activities to other *sucos* and watersheds in Timor-Leste, contributing to LDCF and GEFTF objectives (CCA-1 and LD-1-1). Furthermore, M&E information will be used to adaptively manage the implementation of the project to ensure interventions are as effective as possible.

141. Outcomes and outputs within this component are described below.

Outcome 4.1: Replication enabled in other sucos and watersheds for integrated ecosystem-based adaptation and agri-business development programs.

142. Under this outcome, the project will promote the capture and dissemination of information and lessons learned during the monitoring and evaluation of project interventions. Additionally, the project will develop and disseminate policy briefs and best-practice guidelines to facilitate the replication and upscaling of climate-resilient SLM. These policy briefs and best-practice guidelines will facilitate the identification of two additional watersheds and the development of upscaling plans for the replication of successful interventions in these watersheds. The collection and dissemination of lessons learned and the development of best-practice guidelines will enable future projects to more accurately tailor their interventions to the needs of the *sucos* and communities they are implemented in. This will help ensure the involvement of communities in the implementation of interventions and, therefore, their sustainability.

Output 4.1.1: Project impact and effectiveness measured and lessons communicated through the implementation of a monitoring, evaluation and learning system

143. A monitoring, evaluation and learning (MEL) system will be designed and implemented throughout the project's lifespan. Monitoring will be conducted by the project team and specialists with support from members of the Facility Management Groups (GMFs, Output 2.1.3). The MEL system will be inclusive and gender-sensitive, ensuring that the considerations of women and other vulnerable groups are monitored throughout the project. The MEL system will establish baselines

and track progress against the targeted global environmental and adaptation benefits of project activities, including on the GEF Core Indicators. In addition, the MEL system will be guided by the project Theory of Change as an adaptive management tool to ensure project interventions are effectively addressing barriers. Progress of the implementation of the CRIWDPs will be monitored and the impact and scalability of EbA measures (Component 2) and agribusinesses for sustainable commodity production (Component 3) will be assessed. . These assessments will identify, for example, the extent to which interventions have been implemented, whether they have begun to benefit communities yet and whether their implementation can be scaled up to other communities and watersheds. The methodology for these assessments will be developed by the project M&E specialist. Lessons learned and best practices generated through the MEL system will be compiled into reports and disseminated under Output 4.1.2. M&E information will also enable an adaptive management approach in the project, whereby the implementation of interventions is adjusted via an iterative process based on knowledge and experience gained.

144. The MEL system will also be used to identify any additional baseline challenges which are beyond the project?s scope. The linkages between these issues and the successful upscaling and replication of project activities will be highlighted in the MEL reports and will further inform the policy briefs and best-practice guidelines developed under Output 4.1.2.

145. Activities:

? Design monitoring, evaluation and learning (MEL) system including social, environmental and financial outcomes of the project interventions

? Implement MEL system to assess the progress of the implementation of the CRIWDPs, the impact and scalability of EbA measures (Component 2) and agribusinesses for sustainable commodity production (Component 3)

? Generate MEL reports

Output 4.1.2: Gender-responsive policy briefs and best-practice guidelines developed and disseminated to facilitate the replication and upscaling of climate-resilient SLM in additional watersheds and municipalities

146. Under this output, the lessons learned and best practices generated through the MEL system (Output 4.1.1) ? and from sources of local ecological knowledge via *suco* councils and *lisans* ? will be collated and disseminated to inform upscaling of the EbA approach including agribusiness. Knowledge products will be developed to inform culturally relevant and gender-sensitive policy- and decision-making at the national and local levels. These knowledge products will include policy briefs and best-practice guidelines for financing and upscaling successful EbA interventions into other *sucos* and watersheds in Timor-Leste. These knowledge products will also identify baseline developmental interventions that are needed to support the upscaling of project interventions.

147. This will be done in coordination with existing knowledge management platforms and systems, including the Centre for Climate Change and Biodiversity at the National University of Timor-Leste and existing climate resilience systems (such as Wayfinder[97]). These knowledge products will be disseminated to decision-makers, farmer organisations, women?s cooperatives, and other relevant stakeholders to facilitate the upscaling and replication of project interventions through the existing platforms and systems and to ensure the project is able to adapt or transform interventions to maintain or enhance climate resilience. Further to this, the knowledge products developed under this Output will be used to strengthen and support the policy updates undertaken in Component 1 ? including the integration of agribusiness into LDN targets. By refining national policies and targets for climate change adaptation with updated best practices and lessons learned, the project will ensure long-term sustainability.

148. Activities:

? Collate lessons learned and best practices generated from MEL reports to inform upscaling of EbA approach

? Host coordination/engagement workshops with existing knowledge management platforms and systems to develop knowledge products, including policy briefs and best-practice guidelines for financing and upscaling successful EbA interventions, to inform policy- and decision-making at the national and local level

? Disseminate knowledge products to decision-makers, relevant stakeholders and the public through existing platforms, such as through the Centre for Climate Change and Biodiversity at the National University of Timor-Leste

Output 4.1.3: Two watersheds identified and upscaling plans developed for replication of successful project activities

149. Based on the policy briefs and best-practice guidelines developed under Output 4.1.2, an upscaling plan will be developed to replicate successful project activities in two additional watersheds. Towards the end of the project period, a workshop will be held with the CSWG (established under Output 1.1.2) and other project stakeholders to: i) present the policy briefs and best-practice guidelines; ii) identify two target watersheds for replication of the CRIWDP approach; and iii) develop an action plan for identifying funding sources, engaging with private sector partners and implementing activities recommended through the policy briefs and best-practice guidelines. Doing this during the implementation of the proposed project will ensure that the institutional knowledge developed through the project is retained and applied to the replication of the project?s successes elsewhere in Timor-Leste.

150. Activities:

? Develop a general upscaling plan to replicate successful project activities across additional watersheds

? Host engagement workshop with CSWG and project stakeholders to present policy briefs and best practice guidelines (developed under Output 4.1.2) to identify two target watersheds for replication

? Host engagement workshop, per identified watershed, with CSWG as well as project and local stakeholders to develop a roadmap for implementing upscaling plan in target watersheds, including steps to: i) identify funding sources; ii) engage with private sector partners; and iii) implement activities recommended through the policy briefs and best-practice guidelines

Alignment with GEF focal area and/or Impact Program strategies

151. The proposed project is a multi-trust fund investment and aligns with both the land degradation focal area under the GEF Trust Fund and climate change adaptation under the LDCF. Details of how the project aligns with each of these focal areas are provided below.

LDCF conformity

152. The specific objectives, outcomes and indicators related to CCA under the GEF Climate Change Adaptation Strategy 2018?2022 for the LDCF and SCCF, that the proposed project activities align with, are discussed below. Through these selected objectives, outcomes and indicators, the proposed project will contribute to the CCA strategy?s overall goal to increase the resilience of Timor-Leste?s vulnerable communities to the impacts of climate change.

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

153. In combination with Trust Fund resources, the LDCF investment will be used to reduce the vulnerability of rural communities and agro-ecological systems to the impacts of climate change ? namely, flooding, landslides, drought and wildfires. As a multi-focal initiative, the proposed project recognises the inter-linkages between climate change adaptation and land degradation and will introduce innovative, integrated measures to address these challenges. Accordingly, an EbA approach that combines the protection and restoration of forests (Output 2.2.1), improved crop and livestock management (Output 2.2.3 and Output 2.2.4), water resource provision (Output 2.3.1) and agribusiness development (Output 3.1.1) will be implemented under the project to reduce vulnerability to climate change.

154. The project will contribute to innovation in two key areas: i) combining green and grey technologies to bring about adaptation benefits; and ii) creating models for private sector financing for EbA and SLM. Green technologies and interventions will include forest and landscape restoration and improved agricultural and agribusiness practices, while grey technologies and interventions will primarily revolve around strengthening water security infrastructure. Forest restoration will comprise assisted natural regeneration, as well as the active planting of trees and shrubs ? to synergistically reduce land degradation and provide direct economic benefits to communities through agroforestry and intercropping. Specifically, these interventions will focus on reducing land degradation such that soil protection and water infiltration are improved within critical parts of the proposed project?s target watersheds. Preventing the loss of topsoil, improving infiltration and increasing the availability of surface water and groundwater will, in turn, reduce vulnerability and exposure to flooding, landslides, droughts and wildfires. Land degradation will be further addressed by the implementation of a Low External Input Sustainable Agriculture (LEISA) model to improve farming practices on 1,000 hectares of agricultural land (Output 2.2.4). Through an agribusiness model (Component 3), private sector partners will be engaged to leverage markets and create investment opportunities. Small-scale farmers will be able to develop agribusinesses based on traceable and sustainably grown commodity crops, thereby creating an impact financing model. The investments in an impact financing model are made with the intention to generate positive, environmental and social impacts as well as a financial return. Traceability is an important consideration, which will ensure the transparency of the sustainability certification and provide buyers with information on where the products were sourced from. Water infrastructure will reduce the vulnerability of communities to droughts and water shortages by introducing new and additional methods of water harvesting, storage and management.

155. The improvement of adaptive capacities will be realised through the training and strengthening of Facility Management Groups (GMFs) in each target *suco,* linked to *suco* leadership (Output 2.3.3). Community learning hubs for training and educational activities, including capacity building for entrepreneurship and agribusiness development will be implemented (Output 2.1.4). A training of trainers (ToT) model will be used for upscaling training activities through the farmer organisations and women?s cooperatives (Output 2.3.3). To ensure the sustainability of the water infrastructure, operation and maintenance will be managed through community water resource management systems (Output 2.1.2). A monitoring and learning system will be established to collate lessons learned from these pilots and contribute to the development of an evidence base on EbA measures in Timor-Leste for upscaling of EbA (Component 4).

Objective CCA-2: Strengthen institutional and technical capacities for effective climate change adaptation

156. The proposed project has been designed to address vulnerability to climate change by integrating efforts to address land degradation, water insecurity and rural poverty. To this end, the project will support the mainstreaming of climate change adaptation into a range of Timor-Leste?s policies and sectoral planning targets at the national government level (Component 1). Climate change considerations will also be mainstreamed into private sector partnerships, facilitating further investment

into achieving the country?s adaptation and land degradation neutrality (LDN) targets (Component 3), which will improve access to finance for small-scale farmers and thereby increase the adaptive capacity of these rural communities. A monitoring, evaluation and learning (MEL) system will be implemented for the project and monitoring will be conducted by the project team and specialists (Component 4). In addition, LDCF resources will be used to expand the knowledge base on climate change risks in rural Timor-Leste and promote policy mainstreaming by developing the evidence base on the cost-effectiveness of the project interventions through the MEL system (Component 4). Simultaneously, financing will be used to develop the technical capacity of rural communities to implement climate-resilient land and water management practices (Component 2).

GEF Trust fund conformity

157. The specific objectives, outcomes and indicators related to Land Degradation (LD) under the GEF-7 Land Degradation Focal Area strategy, with which the proposed project activities are aligned, are detailed below. Through these selected objectives, outcomes and indicators, the proposed project will contribute to the overall goal of the LD strategy, which is to increase support for land degradation neutrality and investment in sustainable land management.

Objective LD-1-1: Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Ecosystem-based Adaptation (EbA)

158. Aligned with the GEF-7 land degradation objectives, the proposed project will facilitate the implementation of EbA in agricultural landscapes in Timor-Leste. This will be done by firstly improving policy and planning support at the national level for the implementation of climate-resilient EbA and water resource management (Component 1). Such support will include improving cross-sectoral coordination for implementing targets under the UNCCD and UNFCCC and integrating agribusiness development into policies. Secondly, Climate-Resilient Integrated Watershed Development Plans (CRIWDPs) will be developed to facilitate the restoration and sustainable management of agro-ecosystems (Outcome 2.1). Based on these plans, EbA will be implemented at the landscape level to improve the delivery of ecosystem goods and services to rural communities (Outcome 2.2). Capacity building at the *suco* level for the implementation of the CRIWDPs and EbA practices will enhance the sustainability of these project interventions (Output 2.3.2 and Output 2.3.3). Thirdly, farmers will be supported to adopt EbA by developing agroforestry systems to produce traceable and sustainable commodity crops (Output 3.2.1). To support this transition, access to markets and linkages with sustainable supply chains for these farmers will be improved through private sector partnerships (Output 3.1.2).

Objective LD-1-4: Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape

159. The proposed project will engage with rural communities and small-scale farmers to address the drivers of land degradation and deforestation. To achieve this, Component 2 of the proposed project will develop CRIWDPs and strategies for the sustainable management of forests, communal rangelands and water resources. These will be developed in collaboration with target *sucos*

in the two priority watersheds identified in Component 2. In addition, training and capacity-building for the implementation of these strategies at the *suco* level will help to ensure that interventions are effective in reducing pressure on forests, water resources and rangelands. To further ensure the sustainable management of land and water resources, Component 3 of the proposed project will support farmers to develop permanent agroforestry systems for the sustainable production of commodity crops. Agroforestry interventions will be complemented by supporting agribusiness development, which will increase the income and food security of small-scale farmers in the target *sucos*. This transition to a sustainable and long-term agricultural system will secure forest protection measures to reduce deforestation rates in the target watersheds. The above-mentioned interventions aim to reduce pressures on Timor-Leste?s natural resources from competing land uses and increase resilience in the wider landscape. This is expected to increase water and food security in the country?s watersheds and increase the resilience of *sucos* to the impacts of climate change, including an increase in the occurrence and intensity of extreme weather.

Objective LD-2-5: Create enabling environment to support upscaling and mainstreaming of SLM and LDN

160. The proposed project will contribute to the establishment of an enabling environment for the achievement of LDN in Timor-Leste. Under Component 1, the country?s LDN targets, strategy and policy framework will be strengthened. In doing so, the proposed project aims to address the poor land-use practices associated with agriculture, and this will be supported by the implementation of climate-resilient agroforestry in Component 3. Updates to the LDN policy framework will be accompanied by capacity development and information-sharing at the national and sub-national level to support the implementation of LDN initiatives through the CRIWDP framework. In addition, training targeting Timor-Leste?s rural communities (Component 2) and members of farmer organisations and women?s cooperatives (Component 3) will strengthen capacity for the restoration and management of functional landscapes including agricultural land.

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

Incremental/additional cost reasoning

161. By addressing the nexus of climate change vulnerability and land degradation, the project will ensure that an integrated approach to climate change adaptation and reversing land degradation is implemented and embedded into national priorities in Timor-Leste. This will be done by supporting rural subsistence farmers in Timor-Leste to adopt an EbA approach, focusing on reversing land degradation through improved national and sub-national adaptation planning, land restoration, agricultural management systems, water provision and through the transformation of subsistence agriculture to agribusiness as well as improving access to commodity markets. This transformation will catalyse mechanisms for providing additional motivation, incentives and resources to communities (e.g.

through private sector engagement and impact investments) to engage in more sustainable water, forest, land and livestock management in priority watersheds. Policy mainstreaming activities will promote the upscaling of the approach to other watersheds in the country. Table 6 provides details of the additional/incremental cost reasoning for the proposed project.

Table 6. Additional/incremental cost reasoning for the four components of the proposed project.

Component and additional cost (by fund)	**Baseline**	**Alternative adaptation scenario**
Component 1: Building the national case and leverage for EbA and addressing land degradation in rural communities through agribusiness GEFTF: US$450,000 LDCF: US$300,000	To date, there has been limited integration of efforts to address land degradation, climate change adaptation and rural poverty in Timor-Leste. For example, LDN targets are focused on forests, with limited inclusion of livestock and watershed management. In addition, coordination between the ministries governing water resources, forests, agriculture and land-use planning for implementing this approach has been limited. While agribusiness development has been identified as a priority in the agricultural sector, systematic national planning to catalyse its implementation or the incorporation of EbA into this approach has not been undertaken. Without LDCF and GEFTF investment, coordination and institutional knowledge on and capacity for the adaptive management of landscapes and ecosystems between ministries and integration of climate change adaptation efforts will continue to be limited. As a result, the national policy support for EbA and agribusiness as an EbA approach will remain limited, constraining the implementation of these approaches.	Through GEF investment, the proposed project will facilitate the incorporation of an agribusiness approach to addressing land degradation and building climate resilience into national plans, policies and targets. This will include an opportunity assessment of agribusiness development at the national level and for the two priority watersheds. Results of this assessment will inform a communication campaign targeting national and local decision-makers to catalyse the incorporation of this approach into policies and plans. A cross-sectoral working group (CSWG) will be established to facilitate the integration of agribusiness as an EbA approach into relevant sectoral priorities. The CSWG will also facilitate the revision of Timor-Leste?s LDN targets to incorporate lessons from the CRIWDP process undertaken through the proposed project. These interventions will create an enabling environment for the implementation of EbA and agribusiness development and for the replication of project initiatives in other watersheds in Timor-Leste.

Component 2: Planning and implementation of EbA to address food and water security at *suco* level in two priority watersheds GEFTF: US$500,000 LDCF: US$4,600,000	Unsustainable agricultural practices, including shifting agriculture, cultivating on steep slopes and overstocking, contribute to land degradation and deforestation in rural Timor-Leste. As a result, there is a decline in the delivery of ecosystem services that support rural livelihoods and increased vulnerability to extreme climate events including floods, droughts and landslides. Several initiatives have undertaken watershed management planning in Timor-Leste to address these challenges. However, these initiatives have had limited success in incentivising farmers and communities to adopt climate-resilient SLM practices and gaps in food and water security still exist. There is also limited capacity and support for local communities to implement and govern existing plans and limited availability of financial resources to invest in improving and monitoring water supply or the restoration and protection of agro-ecosystems. Without LDCF and GEFTF investment, the development and implementation of Climate-Resilient Integrated Watershed Development Plans will remain a challenge. The success of watershed management initiatives is likely to continue to be limited by the lack of incentives for farmers to adopt sustainable practices and limited support for community-level governance of natural resources. In this scenario, unsustainable agricultural practices will continue to contribute to land degradation and climate change vulnerability.	Using LDCF and GEFTF finance, CRIWDPs will be developed in two priority watersheds based on high-resolution CCVAs. The CRIWDPs will be developed through a participatory approach and adopted at *suco* level. The CRIWDP process will consider existing and potential land degradation, agricultural potential, water security and gender-differentiated vulnerability to climate change. Based on the vulnerability assessment and planning process, plans for EbA, water resource management, livestock management and ecologically appropriate agricultural land-use will be developed. To support local governance and ownership of the CRIWDPs, Facility Management Groups (GMFs) will be trained in each target *suco* to oversee their implementation. Through a training-of-trainers approach, GMFs will have their capacity built to provide training to community members on the implementation of the CRIWDPs. This training and the development of the CRIWDPs will be designed to ensure the inclusion and representation of women, people with disabilities and the LGBT+ community. Improved coordination and communication between levels of governance will also be facilitated through these activities. Forests and degraded agricultural land in the target watersheds will be restored and protected using GEF investments and impact investments from private sector partners. This will improve the delivery of ecosystem services, thereby

		reducing land degradation and increasing the climate resilience of rural communities and their livelihoods. Water supply infrastructure will be developed to improve water security in vulnerability hotspots, identified in the CRIWDPs. To support the sustainability of these investments, collaborative plans for forest protection, livestock management and the operation and maintenance of water infrastructure will be co-developed with communities.
Component 3: Enabling and piloting of agribusiness development to incentivise adoption of climate-resilient SLM practices by small-scale farmers GEFTF: US$2,310,000 LDCF: US$700,000	Small-scale farmers in Timor-Leste primarily grow subsistence crops. Low yields of these crops frequently lead to food insecurity and insufficient incomes for farmers. There is potential to improve incomes for these farmers and promote permanent agriculture by growing commodity crops ? including coffee, cocoa and vanilla. However, farmer?s limited ability to access markets or finance to invest in the required inputs constrains the adoption of commodity crops into small-scale agricultural systems. Access to financial services and commodity markets is particularly restricted for rural women, as a result of the burden of unpaid work and cultural and social norms regarding the roles of women (please see Section 3). Without LDCF and GEFTF investment, agribusiness development will continue to be limited as a result of the limited capacity of farmers to take on financial risks. Without investment building capacity for agribusiness development and improving access to finance and markets, the transition from shifting subsistence agriculture to permanent agribusiness and agroforestry is likely to remain unviable for many small-scale farmers. Access will continue to be particularly limited for women, exacerbating existing gender inequalities in the absence of LDCF and GEFTF investment.	The proposed project will engage with private sector partners to increase access to finance and markets for small-scale farmers. Under this component, GEF resources will be used to incentivise subsistence farmers to transition to agribusiness to produce climate-resilient, traceable and sustainable commodities, including cocoa. To achieve this, impact investment mechanisms will be developed and market access for small-scale farmers will be improved through engagement with private sector and NGO partners. The capacity of farmer organisations and women?s cooperatives for starting agribusinesses and adopting climate-resilient SLM practices will be developed, with a focus on the empowerment of women. Building on these financing mechanisms and capacity development, 2,200 ha of climate-resilient agro-forestry systems will be developed on degraded farmland to cultivate cocoa and other agribusiness commodities.

Component 4: Knowledge management and monitoring for replication of best practices in other *sucos* and watersheds GEF TF: US$183,028 LDCF: US$425,300	A range of initiatives to promote the adoption of SLM and agribusiness and facilitate climate change adaptation in rural communities have been conducted or are underway across Timor-Leste. Up-scaling of these initiatives across districts and coordination between them has been limited, however, and lessons learned from these pilots have not been systematically collated and disseminated to support their replication. As a result, the evidence base for climate-resilient SLM and rural adaption is not well-developed. To address this gap in knowledge management, the GEF-LDCF ?Strengthening Resilience of Small-Scale Rural Infrastructure (SSRI)? project established the Centre for Climate Change and Biodiversity (CCCB) at the National University of Timor-Leste. The mission of the CCCB is to serve as a resource for informing decision-making and action on CCA and mitigation as well as biodiversity conservation. It serves as a repository for a small but growing pool of information on climate change and biodiversity conservation, including for past projects, policies and research. It is necessary to further this work and contribute new knowledge on CCA and addressing land degradation to ensure that these best practices and lessons continue to be integrated into government initiatives and donor projects. There has been limited integration of evidence on EbA and agribusiness into policies and plans to promote the transition away from unsustainable agricultural practices. Without improved knowledge management and systematic processes to collate, validate and upscale best practices, initiatives to promote EbA and agribusiness are likely to continue to be disparate. Without LDCF and GEFTF investment, future efforts to upscale EbA and agribusiness development across Timor-Leste and the region are less likely to be context-appropriate and effective. Farmers are likely to remain reliant on subsistence agriculture and unsustainable agricultural practices. Communities will remain vulnerable to the impacts of climate change and land degradation, with limited capacity for implementing EbA interventions and limited coordination across *sucos* and watersheds.	Lessons learned and best practices from the implementation of the proposed project will be documented through a monitoring, evaluation and learning (MEL) system. Under this Component, GEF resources will be used to establish this system to assess the progress, effectiveness and impact of project interventions. This information will be used to generate knowledge products, including gender-sensitive best practice guidelines and policy briefs on EbA and integrating the agribusiness into LDN targets. The knowledge products will be disseminated to targeted decision-makers at the national and local level to facilitate the upscaling and replication of climate-resilient SLM intiatitives. Knowledge sharing will be further done by collaborating with existing knowledgement management platforms, including the Centre for Climate Change and Biodiversity at the National University of Timor-Leste and other climate resilience systems. In addition, a workshop will be held to develop plans to replicate successful project interventions in two additional watersheds in Timor-Leste, using the best practice guidelines and policy briefs.

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

162. The proposed project will deliver global environmental benefits aligned with three LDCF Core Indicators and three GEFTF Core Indicators. The number of direct beneficiaries disaggregated by sex (LDCF Core Indicator 1, GEFTF Core Indicator 11) is reported for both funds. In addition, the number of people trained disaggregated by sex is presented in alignment with the LDCF Core Indicator 4. In addition, the area of land managed for climate resilience (LDCF Core Indicator 2) is split into the land area restored (GEFTF Core Indicator 3) and the area of landscapes under improved practices (GEFTF Core Indicator 4) for reporting to the GEFTF. Project interventions will contribute to these CCA and LD core indicators as follows:

LDCF Core Indicator 1, GEFTF Core Indicator 11: Number of direct beneficiaries disaggregated by sex

163. The proposed project will directly benefit the total population of ~68,000 people, of which ~49% are female ? in the Dasidaro (~7,300 people) and Laclo (~60,700 people) watersheds. The populations of these two watersheds will all benefit from the CRIWDP processes undertaken under Output 2.1.2 as well as the forest protection measures introduced under Output 2.2.2. The beneficiaries of all other outputs under this project will be residents of the Dasidaro and Laclo watersheds and are therefore included in the ~68,000 beneficiaries rather than being counted separately.

164. Under Outcome 2.3, at least 1,500 vulnerable households, comprising 50% female-headed, in ~40 sub-villages of the priority watersheds will benefit from interventions in the proposed project, including the development of water supply and storage infrastructure. This infrastructure will reduce vulnerability to climate change-induced water shortages as a result of projected climate change impacts, including an increase in the: i) frequency and intensity of extreme heat events; and the ii) duration of the dry season.

165. At least 1,000 farmers, of which 50% will be female, will benefit from improved livestock management on 4,000 hectares of communal land under Output 2.2.3 and 1,200 households, comprising 50% female-headed households, will benefit from the restoration of 1,000 ha of communal land for integrated livestock and crop production under Output 2.2.4. A further 2,500 members ? 50% female ? of farmer organisations and women?s cooperatives will benefit from the development of agroforestry systems for sustainable commodity crop production under Output 3.2.1 (2,200 ha). Through these outputs, livelihoods and sources of income for communities in the Dasidaro and Laclo watersheds will be strengthened and diversified (CCA Output 1.1.2).

Table 7. Breakdown of number of direct beneficiaries disaggregated by sex targeted under each output and how they correspond to LDCF and GEFTF Core Indicators. Asterisks indicate where the same beneficiaries are captured under multiple core indicators.

Activity and output	**LDCF Core indicator 1: Number of direct beneficiaries disaggregated by sex**	**GEFTF Core indicator 1: Number of direct beneficiaries disaggregated by sex**
Climate-Resilient Integrated Watershed Development Plans (Output 2.1.2)	~68,000*	~68,000*
Forest restoration (Output 2.2.2)	~68,000*	~68,000*
Improved communal grazing land management systems (Output 2.2.3)	1,000* 1,200 households*	1,000* 1,200 households*
Degraded farmland restored (Output 2.2.4)	1,000*	1,000*
Water supply and storage infrastructure (Output 2.3.1)	1,500 households*	1,500 households*
Agro-forestry systems for commodity production (Output 3.2.1)	2,500*	2,500*
Total	**68,000**	**68,000**

LDCF core indicator 2: Area of land managed for climate resilience
GEFTF Core indicator 3: Area of land restored; GEFTF Core indicator 4: Area of landscapes under improved practices

166. The proposed project will develop CRIWDPs for the Dasidaro (15,700 ha) and Laclo (55,600 ha) watersheds[98]98.

167. The CRIWDP process will include:

? developing watershed-level adaptation plans for water resource management, considering the likely impacts of climate change on the availability of water;

? mapping agro-ecological sub-zones and cultivable zones to ensure land use that is appropriate to local topography, soil and water availability;

? developing preparation and response plans for climate hazards;

? defining suitable locations for 4,500 ha of forest restoration (Output 2.2.1);

? defining suitable locations for 10,500 ha of forest protection;

? defining suitable locations for 4,000 ha of improved livestock management systems (Output 2.2.3);

? identifying areas for 1,000 ha of farmland restoration (Output 2.2.4); and

? identifying potential sites to transform 2,200 ha of unsustainably managed farms into sustainable agroforestry systems (Output 3.2.1).

168. While on-the-ground interventions will only be implemented on 16,700 ha of the Dasidaro and Laclo watersheds, the CRIWDP development and implementation process will result in improved climate resilience throughout these watersheds. This is because non-target areas within the two watersheds will benefit from: i) development planning that is informed by climate risk and vulnerability assessments; ii) an improved supply of ecosystem services such as soil stabilisation, infiltration and water retention; iii) land use that is appropriate to local conditions and accounts for predicted climate change impacts; iv) improved water availability because of forest restoration and protection; and v) improved agricultural practices resulting from the training of farmers and demonstration of good practice. Through the proposed project, these benefits will increase the resilience of 71,300 ha of land to the impacts of climate change.

169. Within the two target watersheds, the proposed project will restore 4,500 ha of forest (Output 2.2.1) and 1,000 ha of degraded farmland (Output 2.2.4). In addition, improved agricultural practices will be introduced on 4,000 ha of communal grazing land (Output 2.2.3) and 2,200 ha of unsustainably managed farmland (Output 3.2.1). The table below shows how the land targeted under each output corresponds to the relevant LDCF and GEFTF core indicators.

Table 8. Breakdown of land areas (ha) targeted under each output and how they correspond to LDCF and GEFTF Core Indicators. Asterisks indicate where the same land is captured under multiple core indicators.

Activity and output	**LDCF Core indicator 2: Area of land managed for climate resilience (ha)**	**GEFTF Core indicator 3: Area of land restored (ha)**	**GEFTF Core indicator 4: Area of landscapes under improved practices (ha)**
Climate-Resilient Integrated Watershed Development Plans (Output 2.1.2)	49,100	-	-
Forest restoration (Output 2.2.1)	4,500*	4,500*	-
Community conservation agreements (Output 2.2.2)	10,500*	-	10,500*

Improved communal grazing land management systems (Output 2.2.3)	4,000*	-	4,000*
Degraded farmland restored (Output 2.2.4)	1,000*	1,000*	-
Agro-forestry systems for commodity production (Output 3.2.1)	2,200*	-	2,200*
Total	**71,300**	**5,500**	**16,700**

LDCF Core Indicator 4: Total number of people trained (disaggregated by sex)

170. A total of 8,200 people (50% female) will receive training on climate change adaptation through the proposed project. Under Output 1.1.3, 200 government officials comprising 50% women will be trained on Climate-Resilient Integrated Watershed Development, to build support for the integration of this approach into policies and planning. At least 7,000 community members (50% female) in Dasidaro and Laclo watersheds will receive training on climate change impacts and adaptation opportunities in small-scale farming landscape under Output 2.1.4. The training will focus on, *inter alia*: i) climate change impacts and adaptation; and ii) implementation, maintenance and management of EbA measures. Under Output 3.1.1, 2,500 members of farmer organisations and women?s cooperatives will be trained on climate-resilient agroforestry for cocoa and vanilla production and business development. It is estimated that ~1,500 people will receive training under both Outputs 2.1.4 and 3.1.1 and that the total number of community members trained under the project will be ~8,000. Those trained under Outputs 2.1.4 and 3.1.1 will be comprised of a population that is 50% female. A training-of-trainers model will be used under both outputs to facilitate upscaling and NGOs (e.g. Rikolto) will contribute to the capacity development under both.

Table 9. Breakdown of number of people trained (disaggregated by sex) under each output and how they correspond to LDCF Core Indicators. Asterisks indicate where a proportion of people are expected to receive training under multiple outputs.

Activity and output	**LDCF Core indicator 4: Total number of people trained disaggregated by sex**
Climate-Resilient Integrated Watershed Development awareness raising (Output 1.1.3)	200 (50% women)
Climate change impacts and adaptation opportunities in small-scale farming training (Output 2.1.4)	7,000* (50% women)
Climate-resilient agroforestry training (Output 3.1.1)	2,500*
Total	**8,200**

LD Global Environmental Benefits

LD Core indicator 3: Area of land restored

171. A total of 5,500 ha of degraded land will be restored under Component 2 of the proposed project (4,500 ha of forest restored and 1,000 ha of degraded farmland restored). Specifically, the restoration of degraded forested areas (Indicator 3.2. Area of forest and forest land restored) in priority watersheds will be undertaken mainly through assisted natural regeneration under Output 2.2.1. The restoration activities will follow the land-use mapping carried out in the CRIWDP process in each watershed. Restoration will target degraded forests that play an important role in stabilising watersheds and supporting water and food security for rural communities.

LD Core indicator 4: Area of landscapes under improved practices

172. Under Components 2 and 3 of the proposed project, 16,700 ha in the two priority watersheds will be placed under improved practices. SLM practices will be adopted at both the *suco* level and on individual farms across a total of 7,200 ha (Indicator 4.3. Area of landscapes under sustainable land management in production systems). This land area constitutes: i) 4,000 ha of rangeland under Output 2.2.3; and; ii) 2,200 ha of agroforestry systems under Output 3.2.1. The agroforestry systems will be used to pilot sustainable and climate-resilient production of commodity crops to support agribusiness development. In so doing, they will improve farmers? incomes and incentivise permanent rather than shifting agriculture to reduce land degradation. In addition, community conservation agreements will be developed to protect 15,000 ha of forest under Output 2.2.2. The 15,000 ha includes 15,000 ha of existing forest to be protected under this Core Indicator (Indicator 4.1. Area of landscapes under improved management to benefit biodiversity) and will be managed to ensure the sustainable use of forest resources. Sites for these four outputs will be identified according to the CCVAs conducted under Output 2.1.1 and the CRIWDPs developed under Output 2.1.2.

GEFTF Core indicator 6: Greenhouse Gas (GHG) Emissions Mitigated

173. The project will reduce carbon sources and increase carbon sinks, mitigating an estimated 2,896,517 tCO_2e over the 20-year lifespan ? equivalent to ~145,000 tCO_2e per year. Using the Ex-Ante Carbon-balance tool produced by the FAO[99]99, the GHG emission reductions and carbon sequestration resulting from the project was estimated (see Appendix 17). First, the restoration of 4,500 ha of forest under Output 2.2.1 is expected to reduce emissions from deforestation by ~585,000 tCO_2e and increase carbon sequestration by ~715,000 tCO_2e. Second, the protection of the 10,500 ha of forest under Output 2.2.2 is expected to reduce emissions from deforestation by ~1,040,000 tCO_2e[100]100. Third, the avoided emissions from improved management of grazing lands under Output 2.2.3 was estimated at ~165,000 tCO_2e. Fourth, the restoration and improved management of 1,000 ha of farmland under Output 2.2.4 is expected to increase carbon sequestration by ~18,000 tCO_2e. Finally, the establishment of agroforestry systems on 2,200 ha of unsustainably managed farms under Output 3.2.1 is expected to increase carbon sequestration by ~374,000 tCO_2e.

Innovativeness, sustainability and potential for scaling up

Sustainability

174. An enabling framework for implementing EbA will be developed at the national level in Timor-Leste (Outcome 1.1) to facilitate an ongoing prioritisation of interventions to support climate change adaptation and LDN. This will include incorporating EbA and LDN into three national policies, planning and targets, which will be informed by the project?s analysis of opportunities for agribusiness development. Support for EbA and LDN will be further facilitated by collaboration with the corporate partners towards impact and blended financing mechanisms related to tradable commodities, introduction of Climate Smart agri-business practises and other sustainability measures on and off-farm; as well as advancing national and local government legislation to underpin farmers? agribusiness market opportunities and related services.

175. The effectiveness of EbA in Timor-Leste depends on its adoption by farming households to ensure sufficient buy-in ? and therefore sustainability and replicability ? for project activities. For this reason, the proposed project will ensure that *suco*-level landscape planning and institutional capacity development ? required to implement climate-resilient watershed development plans ? (Outcome 2.1) will enhance the sustainability of the project interventions by embedding EbA and LDN strategies into existing community governance systems. The operationalisation of these community governance systems will also be promoted through the strengthening of Facility Management Groups and agreeing on a specific schedule of activities for the groups. In addition, community consultations during the CRIWDP process, and throughout the project, will ensure that the project?s proposed EbA measures are gender-responsive, locally appropriate and respond to the needs of the most vulnerable members of the target communities. Similarly, a participatory approach will be used to co-develop specific plans for forest protection (Output 2.2.2), rangeland management (Output 2.2.3) and the maintenance and management of water supply and storage infrastructure (Outcome 2.3). Participatory approaches are expected to promote the climate resilience of target communities over the long-term.

176. Complementing the objective of women?s empowerment through agribusiness, gender-responsive measures will be used in all integrated activities during all project outputs. Accordingly, the proposed project?s focus on gender equity will contribute to the sustainability of the project by ensuring: i) a diversity of knowledge and representation, particularly of vulnerable groups, such as women; ii) gender equality in alignment with SDG5; and iii) a strong and widespread sense of ownership of the project, during implementation, and O&M among all stakeholders, which will ensure that the project is upscaled and replicated in future.

Innovativeness

177. The proposed project?s innovative approach is based on its use of integrated, multi-focal area interventions ? that incorporate the land degradation-climate change vulnerability nexus[101]101 ? to address the country?s environmental challenges. These interventions utilise an ecosystem-based adaptation (EbA) approach that is integrated with the development of agri-business, focussing on sustainable land management (SLM) and water security to achieve land degradation neutrality (LDN) and increase the resilience of local communities to the impacts of climate change. Best practices from related projects will inform the approach to developing partnerships between the GoTL, the private sector and rural communities to support small-scale farmers in the implementation of climate-resilient SLM and the transition to livelihoods based on agribusiness. Notably, these partnerships will assist in combining agribusiness with the empowerment of rural women by targeting technical capacity development at women?s cooperatives and farmer organisations to enable women to establish and manage businesses. This coordination between the private sector, GoTL and communities will improve access to markets and finance for small-scale farmers, particularly women, while also addressing barriers (please see Section 2.2 for further details on the project barriers) currently constraining the adoption of SLM (Outcome 3.1). In addition, the project will train representatives from farmer organisations (using a training of trainers approach) so that they are able to facilitate the training of farmer organisation members beyond the project lifespan. Engagement with the private sector to develop markets for traceable and sustainably grown commodities (Outcome 3.1) will support the upscaling of these interventions to other watersheds in Timor-Leste.

178. Similarly, EbA and LDN-related monitoring data and lessons learned will be gathered throughout the project and disseminated to stakeholders and relevant national ministries (Outcome 4.1) to support the replication and upscaling of EbA and LDN approaches across Timor-Leste. In addition, the policy briefs and best practice guidelines developed to communicate lessons learned from the project will be used to develop upscaling plans for implementing successful project interventions in two additional watersheds, in partnership with GoTL.

Potential for scaling up

179. Proposed project activities will be replicable across the remaining 24 watersheds in the country and in neighbouring districts of Indonesia, which share much of the same geophysical characteristics, such as steep mountain and valley slopes and local ecosystems. Several additional project-facilitated mechanisms will support the replicability of project activities. First, the frameworks for implementing climate-resilient SLM developed under Outcome 1.1 will facilitate the ongoing prioritisation of interventions to support the adoption of climate-resilient SLM and setting LDN targets. Second, producing high-resolution CCVAs at watershed level will enable the upscaling of the CRIWDP process and related activities to other *sucos* in the priority watersheds. Third, the proposed project will promote the capture of lessons learned throughout the project and will disseminate these to

other stakeholders and relevant national ministries (Outcome 4.1) to support country-wide replication and upscaling of: i) the CRWIDP process; ii) private sector partnerships to support agri-business development; and iii) the implementation of climate-resilient SLM measures at landscape and farm level. Finally, engagement with the private sector to develop markets for traceable and sustainably grown commodities will support the upscaling of these interventions to other parts of the region.

180. The scaling up of project activities will, however, need to overcome certain barriers. These barriers may include: i) differing levels of willingness to participate across *sucos*; ii) differing socio-economic needs; iii) differing needs relating to the impacts of climate change and land degradation; iv) limited government capacity to support upscaling; and v) limited funding sources for upscaling. These barriers will be addressed by Output 4.1.3, building on the enabling environment developed under Outcome 1.1 and the dissemination of lessons learned under Output 4.1.1. Specifically, under Output 4.1.3 engagement workshops will be held for each of the watersheds identified for upscaling to develop roadmaps for implementing upscaling plans. These roadmaps will include steps to: i) identify funding sources; ii) engage with private sector partners; and iii) implement activities recommended through the policy briefs and best-practice guidelines. The identification of upscaling targets under this project will ensure that lessons learned from project implementation are effectively applied to overcome the aforementioned barriers, while also facilitating coordination between project stakeholders (both from the government and the private sector) with vulnerable communities in the target watersheds.

181. One of the critical outcomes of the proposed project is to raise public awareness on the impacts of climate change in Timor-Leste and how EbA can, and should, be used as an adaptation measure. Specifically, under Output 1.1.3 the project will implement a policy and communication campaign to build support ? both at a national and local level ? for integrated climate-resilient watershed management. Moreover, activities under Components 2 and 3 will include training for community members and relevant stakeholders, which will strengthen local governance and the technical capacity of stakeholders to implement Climate-Resilient Integrated Watershed Development Plans and develop agribusinesses. Further knowledge management will be promoted under Component 4 through the dissemination of knowledge products to relevant stakeholders throughout Timor-Leste. By integrating the lessons learned through these initiatives into national policies, the project will establish a basis for scaling the initiatives across the rest of the country. This will extend to the development of upscaling plans for two additional watersheds.

182. Mainstreaming adaptation will be achieved through the establishment of a cross-sectoral working group (CSWG) comprising representatives from relevant line ministries to facilitate the integration of EbA and LDN into national policies and plans. The members of the CSWG will receive training on the integration of these approaches into policies and plans through the targeted engagements under Output 1.1.3. In addition, local community members and farmer organisations will receive training to ensure that communities develop a sense of ownership over project activities and

interventions, particularly by strengthening their knowledge and understanding of EbA, LDN and the impact that climate change has on the livelihood activities they depend on. Expanding on the impact of these interventions, Outputs 4.1.2 and 4.1.3 are designed to facilitate the upscaling and replication of successful project interventions across other watersheds in Timor-Leste through the sharing of lessons learned and best practices collated through the MEL and knowledge systems.

---

[1] USAID. 2017. Climate Risk Profile: Timor-Leste. Available online at: https://www.climatelinks.org/sites/default/files/asset/document/2017_Climate%20Change%20Risk%20Profile%20-%20Timor%20Leste.pdf

[2] Climate Risk Country Profile: Timor-Leste. 2021. The World Bank Group and the Asian Development Bank

[3] Climate Risk Country Profile: Timor-Leste. 2021. The World Bank Group and the Asian Development Bank

[4] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[5] Climate data projections, Timor-Leste. 2021. The World Bank Group and the Asian Development Bank

[6] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[7] Figures presented based on mid-level emissions scenarios.

[8] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[9] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[10] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at:

https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[11] Ministry of Agriculture and Fisheries. 2018. Final Country Report of the Land Degradation Neutrality Target Setting Programme in Timor-Leste. Available at: https://knowledge.unccd.int/sites/default/files/ldn_targets/2019-01/Timor-Leste%20LDN%20TSP%20Country%20Report.pdf

[12] National Adaptation Programme of Action (NAPA). 2010

[13] Ibid.

[14] GoTL. 2018. LDN TSP.

[15] Ibid.

[16] World Bank. 2015. Water Supply and Sanitation in Timor-Leste. Turning Finance into Services for the Future. Water and Sanitation Program, World Bank. Available at: https://www.wsp.org/sites/wsp/files/publications/WSP-Timor-Leste-WSS-Turning-Finance-into-Service-for-the-Future.pdf

[17] Ibid.

[18] Ibid.

[19] World Bank Group. 2018. Timor-Leste: Water Sector Assessment and Roadmap. Available at: https://documents1.worldbank.org/curated/en/433121521173685667/pdf/124329-WP-P163648-PUBLIC-Timor-Leste.pdf

[20] See the Final Country Report of the Land Degradation Neutrality Target Setting Programme (LDN TSP) in Timor-Leste and see: https://www.usaid.gov/timor-leste/project-descriptions/developing-agricultural-communities

[21] https://agrilinks.org/post/state-urgency-adapting-agribusiness-maintain-timor-leste-food-supply

[22] Oxfam. 2021. Agriculture Assessment. Oxfam in Timor-Leste.

[23] The Ministry of Agriculture and Fisheries of the Democratic Republic of Timor-Leste. 2019. Timor-Leste Agriculture Sector Review: The Sustainable Agriculture Productivity Project.

[24] National Adaptation Programme of Action (NAPA). 2010.

[25] For further detail, see: https://www.usaid.gov/timor-leste/project-descriptions/developing-agricultural-communities

[26] GoTL. 2021. Timor-Leste?s National Adaptation Plan. Addressing climate risks and building climate resilience.

[27] Ibid.

[28] National Adaptation Plan of Action (NAPA) (2017).

[29] Ministry of Agriculture and Fisheries. 2018. Final Country Report of the Land Degradation Neutrality Target Setting Programme in Timor-Leste. Available at: https://knowledge.unccd.int/sites/default/files/ldn_targets/2019-01/Timor-Leste%20LDN%20TSP%20Country%20Report.pdf

[30] The Ministry of Agriculture and Fisheries of the Democratic Republic of Timor-Leste. 2019. Timor-Leste Agriculture Sector Review: The Sustainable Agriculture Productivity Project.

[31] Ribeiro Sarmento, Decio MPH, "An Analysis of Access to Improved Drinking Water and Sanitation and Distance to the Water Source in a Newly Independent Country, Timor-Leste: Assessing Geographical and Socioeconomic Disparities. Thesis, Georgia State University, 2015.

[32] Green Climate Fund (GCF). 2019. Gender Assessment. FP109: Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste.

[33] Ibid.

[34] Wallace L, Sundaram B, Brodie RS, Marshall S, Dawson S, Jaycock J, Stewart G & Furness L. 2012. Vulnerability assessment of climate change impacts on groundwater resources in Timor-Leste - Summary report. Record 2012/55. Geoscience Australia: Canberra.

[35] In 2017, coffee account for ~24% of Timor-Leste?s income from exports. OEC. 2019. Timor-Leste. Available at: https://oec.world/en/profile/country/tls/

[36] *Lisan* refers to customary practice in Timor-Leste.

[37] Belun. The Asia Foundation. 2013. Tara Bandu: Its Role and Use In Community Conflict Prevention In Timor-Leste. Available online at: https://belun.tl/wp-content/uploads/2013/08/Tara-Bandu-PB-English.pdf

[38]Ibid.

[39] After: CARE International in Timor-Leste. 2020. CARERapid Gender analysis COVID-19 Timor-Leste. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/20200515%20Timor-Leste%20Rapid%20Gender%20Analysis%20COVID-FINAL.pdf.

[40] Office of the Resident Coordinator. 2016. Timor-Leste: El Ni?o Impact ? Situation Report No.3. Available at: https://reliefweb.int/report/timor-leste/timor-leste-el-ni-o-impact-un-resident-coordinators-office-situation-report-no-3

[41] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at:

https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[42] Ibid.

[43] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[44] Climate Risk Country Profile: Timor-Leste (2021): The World Bank Group and the Asian

Development Bank

[45] Data accessed via Earthmap.org. Source: Mu?oz Sabater, J., (2019): ERA5-Land hourly data from 1981 to present. Copernicus Climate Change Service (C3S) Climate Data Store (CDS). doi:10.24381/cds.e2161bac

[46] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[47] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[48]Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[49] Red Cross Red Crescent. 2021. Climate Change Impacts on Health and Livelihoods: Timor-Leste Assessment. Available online at: https://www.climatecentre.org/wp-content/uploads/RCRC_IFRC-Country-assessments-TIMOR-LESTE-3.pdf

[50] USAID. 2017. Climate Risk Profile: Timor-Leste. Available online at: https://www.climatelinks.org/sites/default/files/asset/document/2017_Climate%20Change%20Risk%20Profile%20-%20Timor%20Leste.pdf

[51] Data accessed via ThinkHazard.org Source: GFDRR. Available online at: https://thinkhazard.org/en/report/242-timor-leste/LS

[52] Data accessed via Earthmap.org. Source: Mu?oz Sabater, J. 2019. ERA5-Land hourly data from 1981 to present. Copernicus Climate Change Service (C3S) Climate Data Store (CDS).

[53] Data accessed via Earthmap.org. Source: RunOff - Derived from ECMWF Land and CCI Land Cover

[54] Duffy B & Quigley M. 2021. Flooding And Landsliding In Timor-Leste: Linked Hazards In A Young Mountain Belt. Available at: https://www.geo-down-under.org.au/timor-leste-flood-disaster/

[55] Duffy B & Quigley M. 2021. Flooding And Landsliding In Timor-Leste: Linked Hazards In A Young Mountain Belt. Available at: https://www.geo-down-under.org.au/timor-leste-flood-disaster/

[56] ThinkHazard. 2020. Timor-Leste: Wildfire. Available at: https://thinkhazard.org/en/report/242-timor-leste/WF

[57] ThinkHazard. 2020. Timor-Leste: Wildfire. Available at: https://thinkhazard.org/en/report/242-timor-leste/WF

[58] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change.

[59] Ibid.

[60] Australian Bureau of Meteorology and CSIRO. 2014. Climate Variability, Extremes and Change in the Western Tropical Pacific:New Science and Updated Country Reports. Pacific-Australia Climate Change Science and Adaptation Planning Program Technical Report, Australian Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation

[61] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[62] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[63] ThinkHazard. 2020. Timor-Leste: Water scarcity. Available at: https://thinkhazard.org/en/report/242-timor-leste/DG

[64] ThinkHazard. 2020. Timor-Leste: Wildfire. Available at: https://thinkhazard.org/en/report/242-timor-leste/WF

[65] World Bank Group & Asian Development Bank. 2021. Climate Risk Country Profile ? Timor-Leste. Available at: https://www.adb.org/sites/default/files/publication/751241/climate-risk-country-profile-timor-leste.pdf

[66] Tebaldi C. & Lobell D. 2018. Environmental Research Letters, 13.065001. Available at: https://iopscience.iop.org/article/10.1088/1748-9326/aaba48/pdf

[67] Molyneux N, da Cruz GR, Williams RL et al. 2012. Climate Change and Population Growth in Timor Leste: Implications for Food Security. AMBIO 41 Available at:. https://doi.org/10.1007/s13280-012-0287-0

[68] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[69] Barnett J, Dessai S & Jones R. 2007. Vulnerability to Climate Variability and Change in East Timor. Ambio. 36. 372?8. 10.1579/0044-7447(2007)36[372:VTCVAC]2.0.CO;2. URL: https://pubmed.ncbi.nlm.nih.gov/17847801/

[70] World Bank Group. 2021. Climate risk country profile: Timor-Leste. Available at: https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15971-WB_Timor-Leste%20Country%20Profile-WEB.pdf

[71] Issaka S & Ashraf MA. 2017. Impact of soil erosion and degradation on water quality: a review. *Geology, Ecology, and Landscapes*.

[72] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[73] Pariente, S. 2021. Precipitation: Earth Surface Responses and Processes. Available at: https://www.sciencedirect.com/science/article/pii/B9780128226995000239

[74] Issaka, S. and Ashraf, M.A., 2017. Impact of soil erosion and degradation on water quality: a review. *Geology, Ecology, and Landscapes*.

[75] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[76] Myers, B., Fisher, R., Wurm, P., Paul, T. & Campbell, A., 2011. The vulnerability of groundwater resources to climate change in Timor-Leste.

[77] World Bank 2018. Timor-Leste Water Sector Assessment and Roadmap. World Bank, Washington, DC. Available at: http://documents.worldbank.org/curated/en/433121521173685667/pdf/124329-WP-P163648-PUBLIC-Timor-Leste.pdf

[78] Democratic Republic of Timor-Leste. 2020. Second National Communication under the United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/sites/default/files/resource/Second%20National%20Communication%2C%20Timor-Leste.pdf.

[79] Myers, B., Fisher, R., Wurm, P., Paul, T. and Campbell, A. 2011. The vulnerability of groundwater resources to climate change in Timor-Leste.

[80] Harvey B & Fisher C. 2013. Mobilising knowledge for climate change adaptation in Africa: reflecting on the adaptive management of knowledge networks. Knowledge management for development journal. 9(1).

[81] Project Terminal Evaluation available online at: https://undpgefpims.org/attachments/5108/213816/1726537/1744529/TE%20report%20DARDC_MS_ps.docx

[82] Hivos is a Dutch NGO with regional hubs in Latin America, East Africa, Southern Africa and the Middle East and North Africa.

[83] The Government of the Republic of Timor-Leste?s Ministry of the Economy and Development. 2010. National Adaptation Program of Action on Climate Change.

[84] This will depend on gender proportions in the relevant ministries.

[85] Building on the work done under the National LDN Target Setting Program.

[86] The proposed output will build on the foundation of the LDN Target Setting Program and strengthen Timor-Leste?s integrated approach to addressing climate change and land degradation risks to food and water security.

[87] Additional intersectional factors contributing to climate change vulnerability, including age, disability and income will be considered in this vulnerability assessment.

[88] informed by local ecological knowledge from *suco* councils and *lisan*

[89] Dasidaro watershed falls on the border of Baucau and Lautem Districts and Laclo watershed comprises areas in Aileu, Ainaro, Manatuto and Manufahi Districts. The estimated populations of these watersheds are 7,300 and 60,700 people respectively. Further information is given under ?Baseline situation in target watersheds?.

[90] *Lisan* refers to customary cultural practice in Timor-Leste.

[91] See Community-based Natural Resource Management (CBNRM) under the Ministry of Agriculture and Fisheries. Available at: http://maf.gov.tl/tt/?page_id=2651

[92] Further information available at: www.rikolto.org

[93] Assisted natural regeneration is a method of forest restoration that focuses on accelerating natural regeneration by protecting young plants and reducing disturbance rather than propagating and planting seedlings.

[94] Topics for training may include: i) Internal Control System (ICS); ii) accounting and bookkeeping systems; iii) traceability of LDN compliance system; iv) business plans and canvas business model; v) market intelligence; vi) innovative marketing; and vii) integrated agricultural business models

[95] Rikolto is an international NGO that specialises in, *inter alia,* rural development, community facilitation and assisting small-scale farmers to adopt sustainable and climate-resilient practices by brokering partnerships with banks, governments and the food industry. For more information, see: https://www.Rikolto.org/en

[96] Progresso are a multi-national company with large shares in the cocoa market. Engagement with them and other private sector partners took place during the project preparation phase.

[97] Wayfinder is a process guide for resilience assessment, planning and action in social-ecological systems. Wayfinder helps development practitioners, project teams and policymakers navigate towards sustainable, safe and just futures.

[98] Targeted hectares for restoration and related activities were determined as a result of land use analys of the target watersheds identified from the IVA conducted by the GoTL and based on governemet priorities and targets.

[99] FAO. 2021. Overview: Ex-ACT Tool. Available at: http://www.fao.org/in-action/epic/ex-act-tool/overview/en/

[100] The mitigation calculation for Output 2.2.2 used 10,500 ha of land as input, as the mitigation benefits of the remaining 4,500 ha were accounted for under Output 2.2.1.

[101] The land degradation-climate change vulnerability nexus acknowledges how climate change, resource scarcity and land degradation are multipliers of risks that exacerbate existing societal problems, such as poverty and social insecurity.

1b. Project Map and Coordinates

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

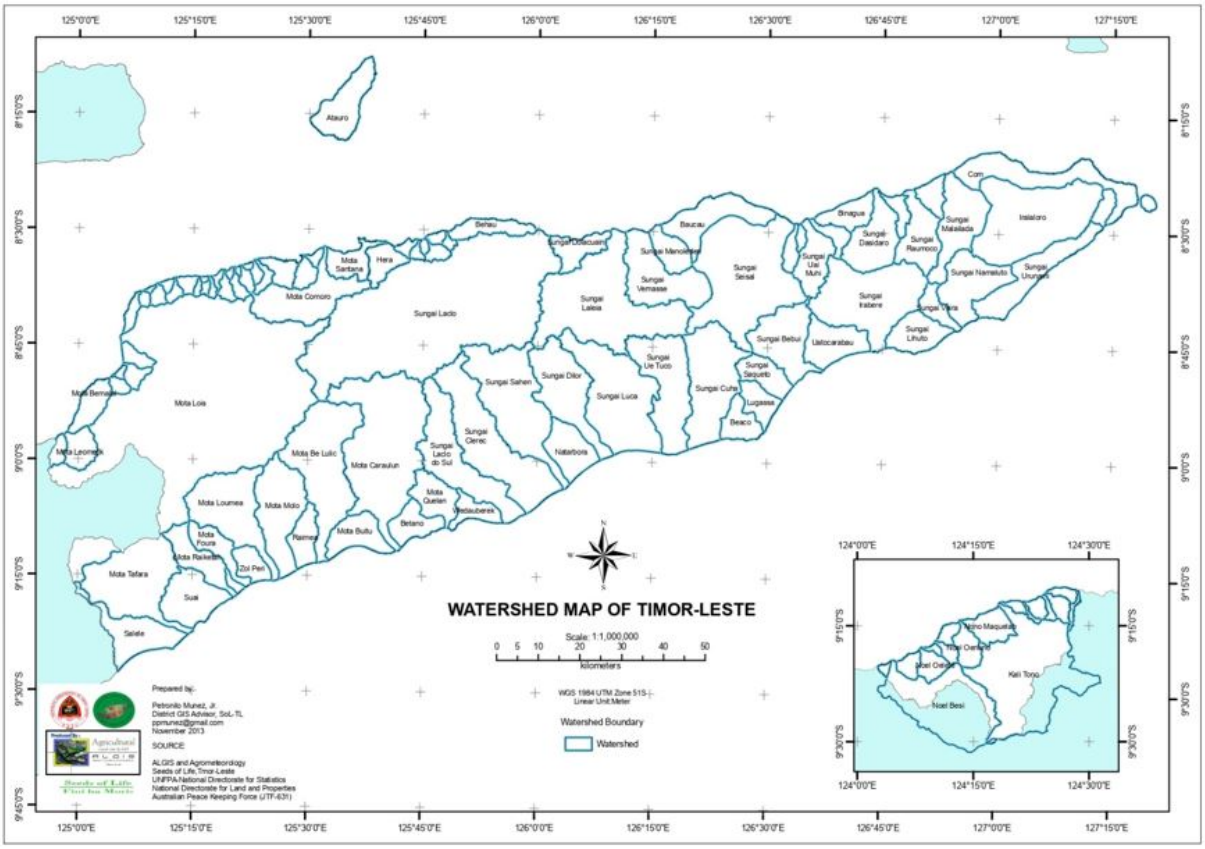


Figure 18. Watershed map of Timor-Leste[1].

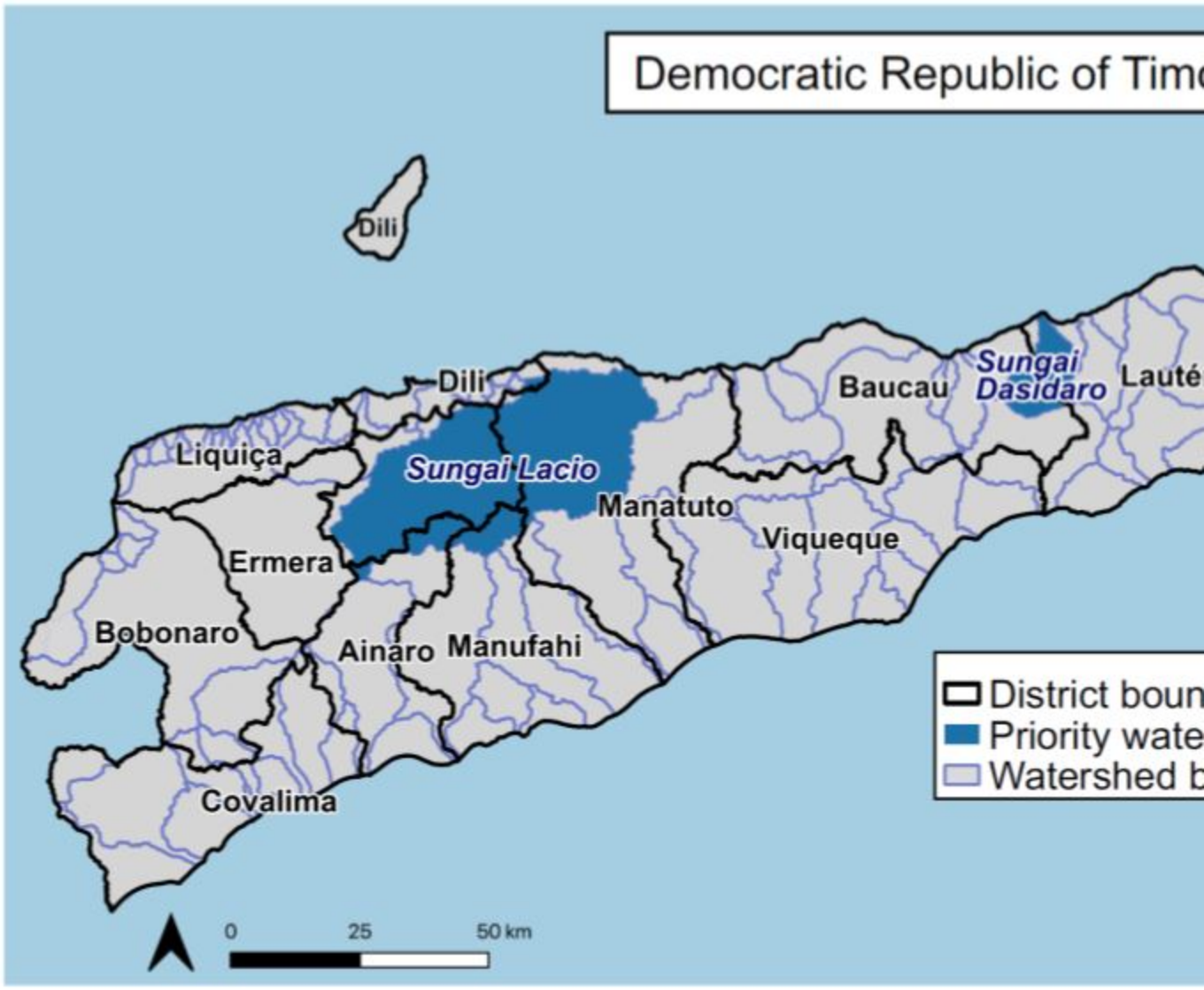


Figure 19. Laclo and Dasidro watersheds in Timor-Leste.

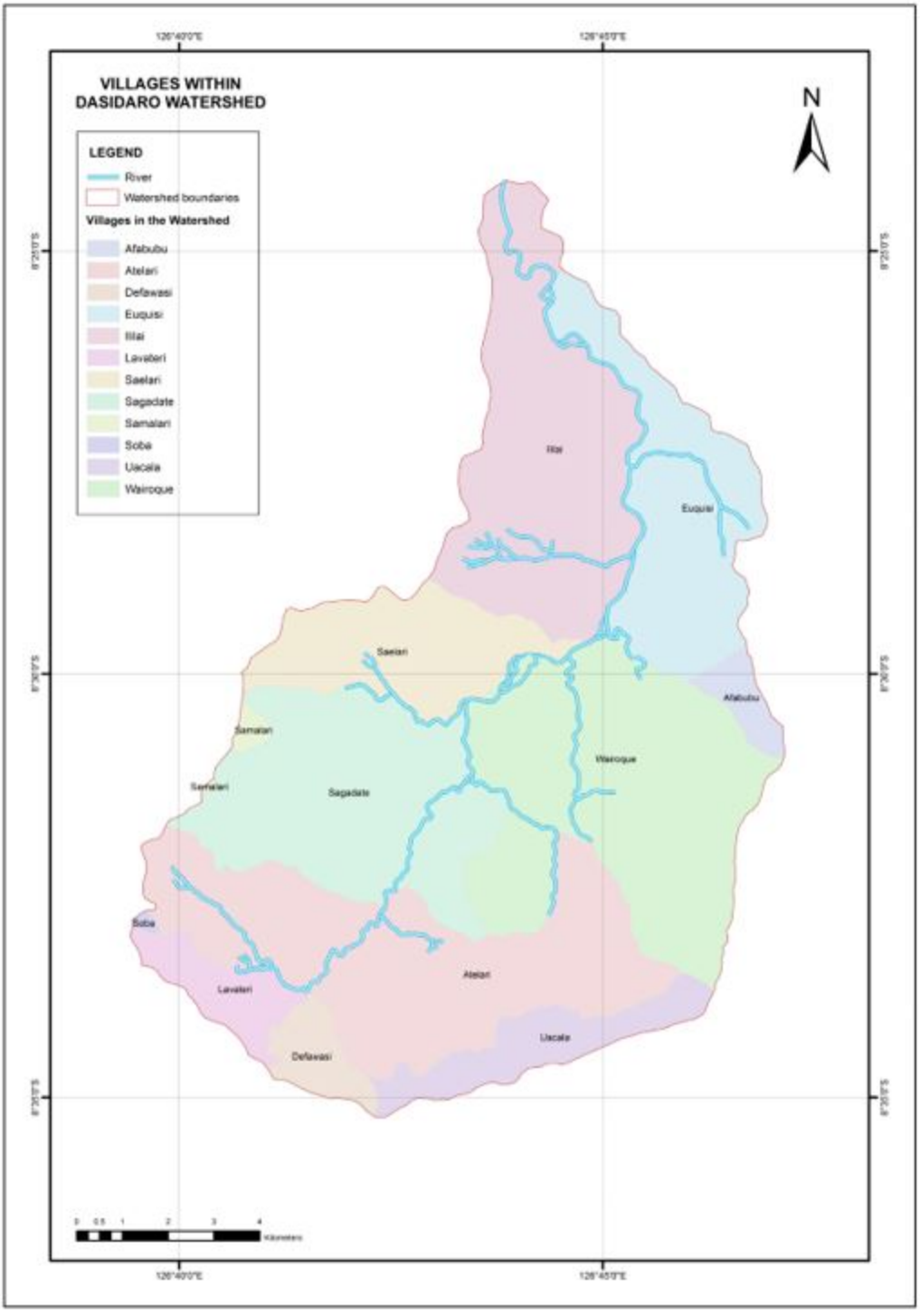


Figure 20. Map of the villages within Dasidaro watershed.

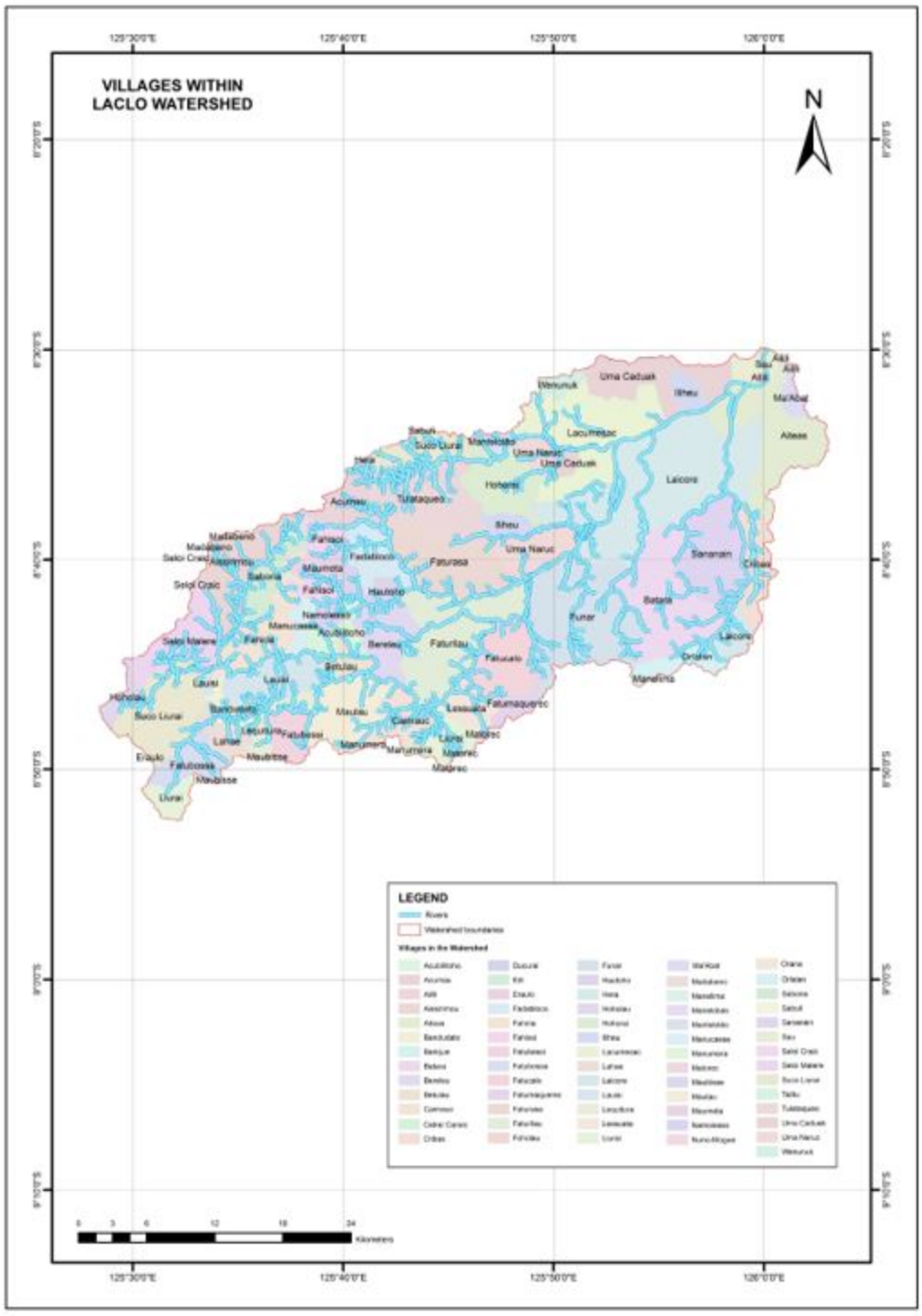


Figure 21. Map of the villages within the Laclo watershed.

[1] ALGIS and Agrometeorology. Seeds of Life, Timor-Leste. UNFPA-National Directorate for Statistics. National Directorate for Land and Properties. Australian Peace Keeping Force (JTF-631)

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 Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Please see Annex 12 for the stakeholder Engagement Plan

Table 10. Stakeholders and their roles in project implementation.

Output number	Lead Responsibility	Participants in project implementation	Indicative project role
1.1.1 Opportunity Assessment of agribusiness developed and presented to relevant national ministries to achieve enhanced socio-	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women Ministry of Transportation and Communication Ministry of Social Solidarity Ministry of Tourism,	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system

economic and EbA outcomes		Commerce and Industry	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
1.1.2 Cross-sectoral working group (CSWG) on EbA and LDN established, and policy revision timeline agreed	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		Ministry of Public Works	
1.1.3 Policy and communication campaign undertaken to build national- and local-level support for integrated, climate-resilient watershed development	Secretary of State for the Environment; Ministry of Transportation and Communication	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture;

Bee Timor-Leste Empresa Publica	recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
Ministry of Public Works	
District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
Women?s organisations	
Rabobank	De-risking market investment into sustainable agribusiness development
Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
Progresso Foundation	
PT Profil Mitra Abadi	
Olam	
Mars	
Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development

		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
		JICA	Providing technical advice and lessons learned from community engagement
		FAO	
		HIVOS	
1.1.4 Climate risk assessment (CRA) conducted at the national level	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; coordinating with district and municipal authorities
		Ministry of Agriculture and Fisheries	
		Bee Timor-Leste Empresa Publica	
		Ministry of Public Works	
1.1.5 Gender-responsive revisions to LDN targets and sectoral policies prepared and agreed with the national focal Ministries for UNFCCC and UNCCD, to incorporate climate change risk assessments and expand the scope of LDN strategies	Secretary of State for the Environment; Secretary of State for the Support and Socio-Economic Promotion of Women	Ministry of Transportation and Communication	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		Ministry of Public Works	

2.1.1 Detailed and gender-specific climate change vulnerability assessments conducted for two watersheds and shared with relevant stakeholders	Secretary of State for the Environment; Secretary of State for the Support and Socio-Economic Promotion of Women; Ministry of Public Works	Ministry of Tourism, Commerce and Industry	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities

2.1.2 CRIWDPs for water and food security, developed and adopted in two priority watersheds	Secretary of State for the Environment;	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		Ministry of Public Works	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities

		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.1.3 Facility Management Groups strengthened and schedule of activities agreed	Secretary of State for the Environment	District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
2.1.4 Training conducted for 7,000 people, 50% of whom are women, in *sucos* within two watersheds to strengthen local governance and implementation of the CRIWDPs	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system

		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.1 4,500 ha of forest restored to increase the climate resilience of rural communities in two priority watersheds	Secretary of State for the Environment	Ministry of Public Works	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities

		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Community members in target *suco*s	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.2 10,500 ha forests and natural ecosystems protected through community agreements and monitoring at *suco* level	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Social Solidarity	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities

		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.3 4,000 ha communal grazing land in target *sucos* un der improved management to reduce land degradation	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Farmer organisations	Recipients of training on agribusiness development;

		Women?s organisations	participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.4 Provision of ecosystem services and climate-resilient agricultural production enhanced on 1,000 ha communal land through ecosystem and farmland restoration and improved integrated farming systems (LEISA model)	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	

		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
2.3.1 Water supply and storage systems upgraded to increase climate resilience in ~40 water-insecure sub-villages	Secretary of State for the Environment; Ministry of Public Works	Bee Timor-Leste	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Empresa Publica	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities

2.3.2 Community members at village level trained for the sustainable use, operation and maintenance of water supply and storage infrastructure	Secretary of State for the Environment; Bee Timor-Leste Empresa Publica	Ministry of Public Works	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Community members in target *suco*s	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.3.3 Community members within sub-villages trained and systems established for monitoring and reporting on village-level water use and availability	Secretary of State for the Environment; Bee Timor-Leste Empresa Publica	Ministry of Public Works	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system

		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
3.1.1 Training conducted for 2,500 members of farmer organisations and women?s cooperatives to develop climate-resilient agribusinesses	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system

		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
		Rabobank	De-risking market investment into sustainable agribusiness development
		Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
		Progresso Foundation	
		PT Profil Mitra Abadi	
		Olam	
		Mars	
		Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development
		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development

3.1.2 Agreements negotiated and incentives created for private sector buyers to invest in traceable and sustainable agricultural commodity production and value chains	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	
		Rabobank	De-risking market investment into sustainable agribusiness development

		Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
		Progresso Foundation	
		PT Profil Mitra Abadi	
		Olam	
		Mars	
		Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development
		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
3.1.3 Portfolio of bankable impact investments developed with capital intermediaries and providers targeting sustainable production of cocoa, vanilla and other commodities	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system

District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
Women?s organisations	
Rabobank	De-risking market investment into sustainable agribusiness development
Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
Progresso Foundation	
PT Profil Mitra Abadi	
Olam	
Mars	
Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development

		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
3.2.1 2,200 ha climate-resilient and profitable agroforestry systems developed for growing cocoa and other agribusiness commodities	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	

		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
4.1.1 Project impact and effectiveness measured and lessons communicated through the implementation of a monitoring, evaluation and learning system	Secretary of State for the Environment	Ministry of Transportation and Communication	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		National University of Timor-Leste, Centre for Biodiversity and Climate Change	Providing scientific support; contributing to the implementation of a knowledge management system

		JICA	Providing technical advice and lessons learned from community engagement
		FAO	
		HIVOS	
4.1.2 Gender-responsive policy briefs and best-practice guidelines developed and disseminated to facilitate the replication and upscaling of climate-resilient SLM in additional watersheds and municipalities	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		National University of Timor-Leste, Centre for Biodiversity and Climate Change	
4.1.3. Two watersheds identified and upscaling plans developed for replication of successful	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the
		Ministry of Transportation and Communication	

project activities		Ministry of Social Solidarity	knowledge management system
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		Ministry of Public Works	

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

Please refer to Table 10 attached.
Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

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

Executor or co-executor;

Other (Please explain)

Please see Annex 12 for the Stakeholder Engagement Plan.

1. The Secretary of State for the Environment (SSE) will implement the project in coordination with relevant stakeholders, including, *inter alia, suco* leaders, municipal officers, user committees,

community working groups and national government institutions. Non-governmental organisations (NGOs) ? including potential implementation partners ? will be invited to participate in working groups at national and local levels, where appropriate. Project representatives, such as NGOs, will be invited to attend the Project Steering Committee (PSC) board meetings. These meetings will provide a platform for relevant partners to share their experiences and participate in decision-making processes throughout the lifetime of the project.

2. Stakeholders will be continuously consulted throughout project implementation to maximise the effectiveness of project interventions and to ensure community and country ownership. Under Component 1, regular engagement workshops will be hosted with members of the Cross-Sectoral Working Group and representatives of relevant government agencies to inform the development of Climate-Resilient Integrated Watershed Development Plans and the implementation of project interventions. Under Component 2 and 3, the project team will regularly engage with government, community and private sector stakeholders on topics including sustainable land management, ecosystem restoration, the introduction of sustainable water infrastructure and the uptake of improved agricultural practices and agribusiness. Under Component 4, the project team will engage with government, community, private sector and civil society to identify additional watersheds for upscaling to develop plans to facilitate the replication of project interventions.

3. Municipality staff will support SSE in undertaking community-level consultations with local communities and user groups within the project area through the relevant *suco* offices. Consultations will be held as community meetings, led by local *suco* officials and situated at *suco* offices or project sites. During the inception phase of the project, a workshop will be held to inform stakeholders about the project work plan, the roles of each stakeholder during the implementation phase and the initial activities that will be undertaken. Intensive consultations will be undertaken with local communities to validate the intervention activities of the project and provide opportunities for community input regarding the design of EbA interventions.

4. A consultative and participatory approach that ensures women's full representation and participation in all decision-making processes will continue to be used throughout project preparation and implementation. Consultations will include regular meetings, community focus groups and training workshops which will be organised and conducted in a gender-responsive manner ? such that participation and gender-sensitive approaches are ingrained in collaborative processes. These processes will be conducted in alignment with up-to-date Covid-19 regulations to ensure the safety of all stakeholders (please refer to the mitigation strategy in Table 5).

Table 10. Stakeholders and their roles in project implementation.

Output number	Lead Responsibility	Participants in project implementation	Indicative project role
1.1.1 Opportunity Assessment of agribusiness developed and presented to relevant national ministries to achieve enhanced socio-economic and EbA outcomes	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
			Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
1.1.2 Cross-sectoral working group (CSWG) on EbA and LDN established, and policy revision timeline agreed	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets
		Ministry of Agriculture and Fisheries	

		Ministry of Public Works	according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
1.1.3 Policy and communication campaign undertaken to build national- and local-level support for integrated, climate-resilient watershed development	Secretary of State for the Environment; Ministry of Transportation and Communication	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Bee Timor-Leste Empresa Publica	
		Ministry of Public Works	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	

		Rabobank	De-risking market investment into sustainable agribusiness development
		Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
		Progresso Foundation	
		PT Profil Mitra Abadi	
		Olam	
		Mars	
		Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development
		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
		JICA	Providing technical advice and lessons learned from community engagement
		FAO	
		HIVOS	
1.1.4 Climate risk assessment (CRA) conducted at the national level	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; coordinating with district and municipal authorities
		Ministry of Agriculture and Fisheries	
		Bee Timor-Leste Empresa Publica	
		Ministry of Public Works	
1.1.5 Gender-responsive revisions to LDN targets	Secretary of State for the Environment; Secretary of State for the Support and	Ministry of Transportation and Communication	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies

and sectoral policies prepared and agreed with the national focal Ministries for UNFCCC and UNCCD, to incorporate climate change risk assessments and expand the scope of LDN strategies	Socio-Economic Promotion of Women	Ministry of Social Solidarity	and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		Ministry of Public Works	
2.1.1 Detailed and gender-specific climate change vulnerability assessments conducted for two watersheds and shared with relevant stakeholders	Secretary of State for the Environment; Secretary of State for the Support and Socio-Economic Promotion of Women; Ministry of Public Works	Ministry of Tourism, Commerce and Industry	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system

		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.1.2 CRIWDPs for water and food security, developed and adopted in two priority watersheds	Secretary of State for the Environment;	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		Ministry of Public Works	

		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.1.3 Facility Management Groups strengthened and schedule of activities agreed	Secretary of State for the Environment	District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities

2.1.4 Training conducted for 7,000 people, 50% of whom are women, in *sucos* within two watersheds to strengthen local governance and implementation of the CRIWDPs	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.1 4,500 ha of forest restored to increase the climate resilience of rural communities in two priority watersheds	Secretary of State for the Environment	Ministry of Public Works	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system

		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Community members in target *suco*s	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.2 10,500 ha forests and natural ecosystems protected through community agreements and monitoring at *suco* level	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Social Solidarity	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system

		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.3 4,000 ha communal grazing land in target *sucos* under improved management to reduce land degradation	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system

		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.2.4 Provision of ecosystem services and climate-resilient agricultural production enhanced on 1,000 ha communal land through ecosystem and farmland restoration and improved integrated farming	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system

systems (LEISA model)		*Suco* leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	
		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
2.3.1 Water supply and storage systems upgraded to increase climate resilience in ~40 water-insecure sub-villages	Secretary of State for the Environment; Ministry of Public Works	Bee Timor-Leste	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Empresa Publica	

		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.3.2 Community members at village level trained for the sustainable use, operation and maintenance of water supply and storage infrastructure	Secretary of State for the Environment; Bee Timor-Leste Empresa Publica	Ministry of Public Works	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system

		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Community members in target *suco*s	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
2.3.3 Community members within sub-villages trained and systems established for monitoring and reporting on village-level water use and availability	Secretary of State for the Environment; Bee Timor-Leste Empresa Publica	Ministry of Public Works	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities

		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
3.1.1 Training conducted for 2,500 members of farmer organisations and women?s cooperatives to develop climate-resilient agribusinesses	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities

		Rabobank	De-risking market investment into sustainable agribusiness development
		Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
		Progresso Foundation	
		PT Profil Mitra Abadi	
		Olam	
		Mars	
		Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development
		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
3.1.2 Agreements negotiated and incentives created for private sector buyers to invest in traceable and sustainable agricultural commodity production and value chains	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system

District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
Women?s organisations	
Rabobank	De-risking market investment into sustainable agribusiness development
Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
Progresso Foundation	
PT Profil Mitra Abadi	
Olam	
Mars	
Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development

		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
3.1.3 Portfolio of bankable impact investments developed with capital intermediaries and providers targeting sustainable production of cocoa, vanilla and other commodities	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	
		Ministry of Agriculture and Fisheries	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities

		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	
		Rabobank	De-risking market investment into sustainable agribusiness development
		Sucafina	Providing a market for sustainably sourced commodities; investing in small-scale agribusiness development
		Progresso Foundation	
		PT Profil Mitra Abadi	
		Olam	
		Mars	
		Cooperativa Caf? Timor	Providing technical advice and lessons learned on agribusiness development
		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
3.2.1 2,200 ha climate-resilient and profitable agroforestry systems developed for growing cocoa and other	Secretary of State for the Environment; Ministry of Agriculture and Fisheries	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Tourism, Commerce and Industry	

agribusiness commodities		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Communities	Participating in CRIWDP process; implementing *suco*- and farm-level SLM and EbA activities
		Farmer organisations	Recipients of training on agribusiness development; participating in CRIWDP process and implementing farm-level SLM and EbA activities
		Women?s organisations	
		Rikolto	Facilitating partnership development and sustainability commitments for food industry companies to work with small-scale farmers; providing support on the implementation of interventions related to an integrated approach to community and sustainable climate-smart agriculture development
4.1.1 Project impact and effectiveness measured and lessons communicated through the implementation of a monitoring,	Secretary of State for the Environment	Ministry of Transportation and Communication	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system

evaluation and learning system		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system
		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		National University of Timor-Leste, Centre for Biodiversity and Climate Change	Providing scientific support; contributing to the implementation of a knowledge management system
		JICA	Providing technical advice and lessons learned from community engagement
		FAO	
		HIVOS	
4.1.2 Gender-responsive policy briefs and best-practice guidelines developed and disseminated to facilitate the replication and upscaling of climate-resilient SLM in additional watersheds and municipalities	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		District authorities	Coordinating local stakeholders; consulting on project design; issuing any relevant authorities or permits; users of the knowledge management system

		Suco leadership	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating *suco*-level sustainable land management (SLM) and EbA activities
		Facility Management Groups (GMFs)	Participation in CRIWDP process; implementing plans; recipients of capacity development for CRIWDP implementation; coordinating and monitoring *suco*-level sustainable land management (SLM) and EbA activities
		National University of Timor-Leste, Centre for Biodiversity and Climate Change	
4.1.3. Two watersheds identified and upscaling plans developed for replication of successful project activities	Secretary of State for the Environment	Secretary of State for the Support and Socio-Economic Promotion of Women	Consulting on project implementation; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Transportation and Communication	
		Ministry of Social Solidarity	
		Ministry of Tourism, Commerce and Industry	
		Bee Timor-Leste Empresa Publica	Supporting project implementation, specifically as it relates to agriculture; recipients of policy campaign and capacity development; revising policies and targets according to sectoral expertise; coordinating with district and municipal authorities; users of the knowledge management system
		Ministry of Agriculture and Fisheries	
		Ministry of Public Works	

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Please see Annex 15 for full Gender Analysis and Action Plan

1. A commitment to gender equality is enshrined in Article 17 of the Constitution of Timor-Leste, which is furthered by the State Secretary of Equality and Inclusion[1] through a programme to build capacity for gender-responsive budgeting and gender mainstreaming across government ministries[2]. The constitutional rights of women are recognised by Timor-Leste?s involvement in several international conventions that support gender equality, which in turn have guided the development of a legal policy and institutional framework toward gender equality in the country.

2. International agreements supporting gender equality ratified or adopted by the government of Timor-Leste include:

•Convention on the Elimination of Discrimination against Women and its Optional Protocol (2003);

•Sustainable Development Goals (2015), including SDG 5 ? achieving gender equality and the empowerment of all women and girls[3];
•Beijing Declaration (1995);
•Sendai Framework for Disaster Risk Reduction (2015?2030); and
•Paris Agreement (2015)[4].
National and sub-national legislation and policies in Timor-Leste dedicated to the protection of women and gender inequality include:
•Security Council Resolution No.1325 on Women, Peace and Security (2008);
•Law Against Domestic Violence (2010);
•Timor-Leste Strategic Development Plan (2011?2030);
•National Action Plan against Gender-based Violence (2017?2021); and
•*Suco* Law (2016).

3. Despite the legislative frameworks and gender-inclusive intentions discussed above, gender inequality in the country remains high. Timor-Leste ranks 128th of 187 countries on the Gender Inequality Index (GII)[5]. This inequality is largely brought about by cultural, religious and social practices relating to contraception, gender roles, property rights, inheritance, marriage and bride price[6] that restrict the social and economic independence of women[7],[8]. Moreover, gender-based violence (GBV) ? particularly domestic violence towards women by male intimate partners ? is a widespread concern exacerbated by women?s limited access to the justice system, Covid-19 and related lockdown restrictions[9]. Cases of abuse are generally underreported, with less than a quarter of affected women seeking help and only 4% formally reporting the case to the police.

4. The economic independence of Timorese women is limited, with only ~27% formally employed, compared with the ~56% of men[10]. This disparity is largely a consequence of gender roles, with men as primary income generators in the formal economy and decision-makers in the home. Despite these challenges, 66% of Timorese women play a role in the country?s economically-important agricultural

sector, particularly as cultivators or labourers in subsistence agriculture[11]. However, female farmers produce 15% less produce per hectare than their male counterparts because of their limited access to hired labour and tools, lower education and literacy and lower involvement in farmers? groups[12]. Moreover, traditional gender roles burden women with additional domestic responsibilities[13], which can expose them directly to the impacts of climate change[14].

5. Gender equality in Timor-Leste is negatively impacted by the customary patrilineal systems of land ownership and inheritance, despite legal provisions to ensure equal land tenure rights[15]. Even in rare cases of female land ownership, land-management decision-making remains the responsibility of male family members[16]. Women?s extremely minimal ownership of land translates to the overall low financial independence and capacity to improve their livelihoods.

6. In addition to uneven land ownership, historical disparities in education have contributed to current gender inequality in Timor-Leste. Approximately ~58% of women over the age of 25 have no formal education, compared with ~43% of men. Women?s limited access to education is further emphasised by the high level of illiteracy among women over the age of 15 (~48%) compared with ~37% of men. There has been some progress in closing this gap, however, with Timorese boys and girls having similar primary school enrolment rates since 2002[17].

7. Water collection is one of the main domestic responsibilities of Timorese women, who spend an average of three hours per day on this task[18]. Women also comprise one-third of the members of community water management groups ? established in 2010 to improve water management at the community level in Timor-Leste. Their involvement in these groups has a positive influence on the sustainable availability of water close to households[19].

8. Participation of women in decision-making is insufficient at the national, *suco* and household levels. Women represented 38% of parliament in 2012, which, although still relatively low, is a much higher representation than the 4.5% representation of women in leadership roles as *suco* or *aldeia* chiefs[20]. In addition, only 29% of civil servants are women[21]. At the household level, men are typically responsible for decision-making and controlling family finances, with little opportunity for women?s contribution[22].

---

[1] Government of Timor-Leste. 2002. Constitution of the Democratic Republic of Timor-Leste. Available at: http://timor-leste.gov.tl/wp-content/uploads/2010/03/Constitution_RDTL_ENG.pdf.

[2] Japan International Cooperation Agency (JICA). 2011. Timor-Leste Country Gender Profile: Final Report.

[3] UN Women. 2022. Timor-Leste affirms ending gender discrimination an ongoing priority in commitment to the SDGs and Beijing Platform for Action (updated). Available at: https://www.unwomen.org/en/get-involved/step-it-up/commitments/timor-leste.

[4] UNFCCC. 2021 What is the connection and why is Gender and Climate Change important? Available at: https://unfccc.int/gender.

[5] The Gender Development Index (GDI) of Timor-Leste is 0.868. It is calculated from the sex-disaggregated Human Development Index (HDI) as the ratio of female HDI to male HDI, where 1 indicates gender parity. The indicator incorporates the three dimensions of the HDI: health (measured by female and male life expectancy at birth), education (measured by female and male expected years of schooling for children and mean years for adults aged 25 years and older); and command over economic resources (measured by female and male estimated GNI per capita).

[6] A bride price or dowry is an amount of money given by the groom and his family to the bride?s family patrilineal communities. It is the most financially significant of the bride gifts and is not part of matrilineal ceremonies.

[7] Asian Development Bank (ADB). 2014. Timor-Leste Country Gender Assessment.

[8] JICA. 2011. Timor-Leste Country Gender Profile: Final Report.

[9] Tackling Gender-Based Violence (GBV) in Timor-Leste. 2021. Available at: https://reliefweb.int/report/timor-leste/tackling-gender-based-violence-gbv-timor-leste.

[10] The World Bank. 2019. A Gender-Sensitive Insight of Poverty Mapping for Timor-Leste.

[11] Timor-Leste. 2018. 2018 Census Analytical Report on Agriculture.

[12] UN Women. 2018. Policy Brief Issue 4. Women Farmers in Timor-Leste: Bridging the Gender Gap in Agricultural Productivity.

[13] ADB. 2014. Timor-Leste Country Gender Assessment.

[14] Green Climate Fund. 2019. Gender Assessment. FP109: Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste.

[15] Thu PM, Scott, S & Niel, KPV. 2007. Gendered access to customary land in East Timor, GeoJournal 69, 4:239?55, https://doi.org/10.1007/s10708-007-9094-8.

[16] World Bank. 2009. Gender in Agriculture Sourcebook.

[17] ADB. 2014. Timor-Leste Country Gender Assessment.

[18] Ibid.

[19] Timor-Leste Rural Water Supply and Sanitation Program (BESIK). 2011. Phase II Design Document. Available at: https://www.dfat.gov.au/about-us/publications/Pages/timor-leste-rural-water-supply-and-sanitation-program-besik-phase-ii-design-document.

[20] Municipalities in Timor-Leste are divided into *sucos* or villages, which are further divided into *aldeias* or communities.
[21] ADB. 2014. Timor-Leste Country Gender Assessment.
[22] Timor-Leste Population and Housing Census. 2010. Analytical Report on Gender Dimension. Volume 4. Reported in GCF. 2019. Gender Assessment. FP109: Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste.

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. The project has adopted an innovative approach to strengthening community welfare, economic and climate resilience and their willingness to engage in SLM practices by enhancing agriculture practices and production methods, as well as community market access for commodities. This approach will be achieved through engagement and collaboration with the private sector, attracting new corporate finance and support from private companies and NGO partners to facilitate farmers? empowerment. During the PPG phase, initial feasibility assessments have been conducted on potential commodities suitable for agribusiness development and having potential markets, mainly by trade intermediaries, agriculture development, and credit suppliers. Advanced talks have been held with PT. Profil Mitra Abadi, the Progreso Foundation and Sucafina together would invest a total of US$14 million in loans and grants for human development and agriculture development. Investments will include purchasing commodities produced by the project target farmer communities, as well as making trade financing available for farmer organisations to access markets. However, because of market uncertainties and Covid-19 impacts on the willingness to invest/take risks ? which is a global issue ? as well as the need to conduct detailed feasibility analysis and design, most of their commitments are intentional and conditional on favourable outcomes of, for example, the detailed feasibility design. As a

?safe approach?, the project has estimated that such trade deals will be implemented during the second half of the project period.

2. Grant Investment co-financing has been discussed and agreed upon with PT Profil Mitra Abadi (PT PMA), an Indonesian-based company active in several countries. More information is available in the co-finance letter, which can be found in Annex 2 of the Project Document. Contributions from PT PMA will include: i) training farmers in the target watersheds on vanilla production; ii) establishing internal control systems run by farmer groups; iii) investing in small-scale vanilla processing facilities; iv) introducing and guiding the adoption of production procedures ? including safety procedures and organic certification where possible; and v) purchasing vanilla raw materials for importation into Europe. As a private partner, PT PMA will strongly contribute to the project objective of sustainable agriculture and SLM outcomes. It is estimated that PT PMA can off-take approximately 60 tons/year once the project is at full speed and the other SLM and community development outputs have been established. This would be conducted in coordination with RIKOLTO. As a leader in the farming community and agri-business development, RIKOLTO?s experience with adhering to FPIC systems ? as well as regulating traceable production and value chains ? will make them well placed to carry out full consultations and reach agreements with farmers and local governments. Any green loans established will be carried out by corporate partners rather than farmers or government entities. This will enable small-scale farmers to invest in the transition to agroforestry systems for commodity production.

3. Agreements have also been made with Sucafina to assist with market access and the purchase of sustainable coffee produced by farmers and farmer production groups in the project landscapes. Sucafina is a multinational coffee merchant based in Geneva, Switzerland, active in 31 countries. The company already trades coffee from Timor Leste to several countries and regions, including the United States, Australia, Japan, Taiwan, and Europe. Additionally, Sucafina will contribute technical assistance to evaluate product quality, search for market access, and provide feedback to various stakeholders. While working in collaboration with RIKOLTO, farmer organisations and the government, these contributions will enhance the value chain and support the adoption of sustainable farming practices. Pending meeting a number of conditionalities, Sucafina has the capacity to purchase an excess of 6,000 bags (approximate value of $1.5 million in today?s market) per annum, starting at the mid-term of the project.

4. Co-financing agreements have also been made with Progreso ? a Dutch NGO that provides technical assistance for coffee and cocoa producer organisations in Latin America, Africa and Asia. Progreso?s role is to improve farmers business approach, market access and trade financing, with the goal of becoming more environmentally and economically sustainable. Progreso works in the field of access to markets, access to finance, capacity building, diversification, climate-smart agriculture, and conservation agriculture. While Progreso is not a corporate entity, they act both as a financer through their Progreso Fund as well as an intermediary to help farmers access private capital through

corporations and banks; and based on a full-scale business plan analysis for farmer organisations. These two types of support include:

? Technical support, including activities related to organisational strengthening, financial literacy, price risk management, quality control and marketing.

? The budget for Technical Assistance projects is projected to be US$100,000 Grant Investment to support 5 to 7 producer organisations of the GEF project.

? Financial support: The Progreso Fund provides trade finance against signed export contracts in US$ or EUR for starting Producer Organisations without a formal track record and small producer organisations that do not have a relationship with a (social) lender yet.

? Loan for producer organisations in the form of trade finance is projected to be US$400,000 Loan Investment support.

? Additionally, Progreso has good experience and can recommend and guide farmer-producer organisations with financial track records to secure more considerable impact/blended investments from the Rabo Foundation (for example, Agri3 Fund) up to US$1,000,000.

5. Initial talks were also held with additional financial institutions and capital intermediaries during the PPG phase, for example, the talks RIKOLTO HQ in Belgium had with the Rabobank Agri-3 Fund. While these discussions have not yet reached a stage of detailed feasibility design and analysis, progress will be made once the project activities and partnerships with farmer organisations have been developed further. Development during project implementation will include, inter alia: i) determing the type of farming systems supported; ii) identification of markets by corporate partners; iii) developing agreements with farmers, agricultural commodity traders and the government; iv) developing additional business models involving impact and blending financing for farmer organisations and women?s cooperatives.

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):

1. The risks involved in the implementation of the proposed project have been identified in the table below. Risks were identified based on consultations with local communities, as well as lessons learned from other projects in the region. Included with each of the risks are the: i) potential consequences of the risk; ii) risk category and training; iii) proposed mitigation measure(s); v) probability and impact of the risk; and vi) the overall risk rating based on the probability and impact.

Table 12. Risks and mitigation measures for the proposed project.

Risk	Potential consequence	Mitigation measure	Probability (P) & Impact (I) (1?5)	Risk rating (R) & Category (C)
Food production for local consumption decreases as a result of the conversion of land used for subsistence agriculture to agroforestry systems for commodity production and the capacity of affected individuals to purchase food is not increased or is only increased after some time through income from commodity production.	Vulnerability to climate change and food insecurity are increased for vulnerable community members.	Participatory Climate-Resilient Integrated Watershed Development Planning (CRIWDP) will be undertaken with detailed input from communities to ensure that food security is not compromised through project interventions. EbA initiatives implemented during the project are designed to increase agricultural productivity and food security through the increased provision of ecosystem goods and services.	P = 2 I = 5	R = High C = Social
There is conflict among stakeholders regarding land-use in the CRIWDP process.	Project interventions are delayed or a lack of community buy-in results in a failure of *suco*s to implement plans and effectively adopt climate-resilient SLM practices.	The CRIWDP process will be professionally facilitated by an external consultant contracted in consultation with government ? and include mechanisms for conflict resolution. Implementation of the CRIWDPs will focus on community participation to further avoid conflict. The process will be aligned with traditional *tara bandu* practices[1] and in this way will make use of existing community systems for conflict resolution.	P = 2 I = 3	R = Modest C = Social

The private sector is unwilling to invest in supporting the development of agri-businesses and the adoption of climate-resilient SLM because of the high risk of investing in Timor-Leste.	Markets for commodity crops remain inaccessible to small-scale farmers and there remains limited scope to increase income from sustainable agribusiness and therefore limited incentives for farmers to adopt the EbA approach.	Consultations with private sector stakeholders were conducted during project development to identify potential entry points for investment in agribusinesses in Timor Leste. The project will build on these initial consultations to establish partnerships between private sector buyers and farmer organisations and womens cooperatives. Engagements with private sector partners during project implementation will focus on de-risking investments to promote investor confidence.	P = 2 I = 3	R = Modest C = Economic
Investment mechanisms designed under the project are not context-appropriate and/or are only accessible to specific groups and therefore do not improve access to finance for the most vulnerable small-scale farmers.	Existing inequalities are further entrenched and vulnerable farmers continue to have limited access to capital and are therefore unable to transition to sustainable agribusiness. Uptake of climate-resilient SLM practices at farm level remains limited and private sector financing is not effectively utilised.	Comprehensive research and community engagement have been undertaken during project preparation to ensure investment mechanisms are appropriate for the target communities and that access to these opportunities is equitable. Lessons learned and best practices from other projects in Timor-Leste and the region informed project design during the PPG phase to maximise its impact. The fair distribution of benefits from the investment mechanisms will also be enhanced by linking investments to farmer organisations and women?s cooperatives, maximising opportunities for the most vulnerable groups.	P = 2 I = 2	R = Low C = Social

EbA technologies and practices implemented under the project are not maintained by communities and are degraded after the project lifespan.	There is little change from the baseline vulnerability to climate change and land degradation scenario.	Maintenance of project interventions and ongoing implementation of EbA practices will be incorporated into the CRIWDPs generated under the project to facilitate community commitment to the sustainability of the interventions. Monitoring and evaluation will be conducted throughout the project to assess the impact and effectiveness of interventions which will help to mobilise government support for upscaling of the EbA approach.	P = 2 I = 2	R = Low C = Social
Extreme climate events and natural hazards, including landslides, drought, floods and fires at project sites during project implementation damage or destroy SLM and EbA measures implemented through the project.	The implementation of the project will be stopped or delayed as communities recover from the impacts of the extreme events and fires.	Disaster risk and response plans informed by a climate risk analysis will be co-developed with target communities.	P = 2 I = 3	R = Modest C = Environmental
Gender-inequitable contexts in Timor-Leste may pose challenges for achieving the results of the gender responsive interventions.	Collaboration between stakeholders and implementation of interventions may ineffectively engage females and subsequently lead to project maladaptation.	Project design was informed by a gender analysis and action plan to ensure gender equity through gender-responsive indicators and interventions. Gender equity targets the project has established in Gender Action Plan (Table 6) will ensure equal access to training and livelihood opportunities.	P = 2 I = 4	R = Modest C = Social

The implementation of project interventions will result in the displacement and involuntary resettlement of communities. Although no resettlement will be done through the project, there is a possibility that vulnerability assessments conducted under the project may highlight the need to resettle highly vulnerable households to protect against severe climate hazards.	The implementation of project interventions related to land use, such as the restoration and natural regeneration of degraded landscapes, will require households or communities to resettle or become displaced involuntarily.	Hosting community engagement workshops will ensure that project interventions do not result in the displacement of communities. Additionally, monitoring of project implementation by the PM and M&E specialist and frequently engaging with community leadership will ensure that communities are satisfied with the scope and scale of project interventions. In the instance that assessments conducted under the project identify any areas where the extent of climate hazards exceeds the potential risk mitigation options and where there may be future need to resettle groups, the project safeguards specialist will develop clear recommendations for Government from on how to approach the matter in a collaborative manner with communities, adopting the principles of free, prior and informed consent.	P = 2 I = 3	R = Modest C = Social

The implementation of project interventions will have an impact on indigenous peoples in the project sites	Project implementation will not take indigenous people?s specific concerns and needs into consideration and will result in these groups being negatively impacted by project interventions.	? In the inception phase, stakeholders? safeguard baseline study will be conducted. The study will also verify preferred language of communication for project consultations. ? Continuous community engagement workshops through District structures conducted in a gender-responsive manner; ? Means of consultation will be in the local indigenous language. ? Stakeholders? consultation during PPG identified Tetum as preferred language of communication (table 2 is SEP, Appendix 12 of Pro. Doc). During implementation, language preference will be further verified. ? Establish Grievance Response Mechanism that is known by all the community to ensure inclusivity of the project approach and to prevent negative impacts. Implement the stakeholder engagement plan (Table 3, Appendix 12).	I = 3 P = 3	R = Modest C = Social

COVID-19 pandemic resurgence during PPG phase and/or implementation.	This would likely result in restrictions regarding: i) the congregation of people, and ii) national and international travel. Thus, stakeholder engagement could be hindered, and project implementation delayed ? particularly activities related to capacity development and adaptation interventions.	In a resurgence scenario, the proposed project will follow Government protocol related to COVID-19. The risks related to COVID-19 will be evaluated during implementation and mitigation measures will be integrated into planned project activities and budgets. Possible arrangements include that: i) meetings and workshops will take place in outdoor spaces, with social distancing and hygiene measures applied; ii) meetings and workshops will be organised in smaller groups, with a larger number of events such that all stakeholders are engaged and that the same total number of beneficiaries are reached; iii) physical meetings may be replaced with virtual meetings (via Skype, Zoom or an similar platform); iv) capacity building and training may be conducted via videos, online training modules, webinars, and/or podcasts; and v) protective equipment will be provided to all implementing partners and beneficiaries and full access to sanitation points will be ensured. Should national or international travel restrictions be implemented as part of Government COVID-19 regulations, virtual consultations, workshops, and training can be organised.	P = 2 I = 3	R = High C = Social

[1] *Tara bandu* is a traditional Timorese custom used to regulate behaviour and resolve conflict through public agreement. Further information available at: https://asiafoundation.org/resources/pdfs/TaraBanduPolicyBriefENG.pdf

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.

1. The proposed project will be implemented over a six-year period (2023?2029) and will be executed by Timor-Leste?s National Directorate of Climate Change, in collaboration with the Ministry of Agriculture and Fisheries, the Ministry of State Administration, municipal governments and Rikolto.

2. National ministries, additional to those directly involved in project implementation, will be consulted regularly to ensure that the project is executed in line with national priorities and to identify areas of complementarity. Regular, community-level consultations with local stakeholders will also ensure that local needs and priorities are addressed throughout project implementation. Staff from target municipalities will support the Secretary of State for the Environment (SSE) ? in the role of national Executing Agency, more information below ? in conducting these community-level consultations. During the project's inception phase, an inception workshop will be convened to inform stakeholders about the project work plan, project activities and interventions, and the different roles stakeholders will fulfil during project implementation. Community consultations will ensure that intervention activities are validated and enable communities to provide input into the design and implementation of interventions.

Implementing Agency:

3. UNEP will be the GEF Implementing Agency (IA) for the proposed project, overseeing the project and providing any technical assistance required to meet the project goals and objectives. As IA, UNEP will implement the project through its Ecosystems Division, with delegated authority for day-to-day supervision by a Task Manager (TM) based at UNEP?s Asia and the Pacific Office in Bangkok, Thailand. UNEP will be responsible for project supervision to ensure consistency with GEF and UNEP policies and procedures and follow-up and evaluation, including the supervision of a Mid-Term Review and Terminal Evaluation and the review and approval of regular reports ? both financial and technical. The agency will also provide guidance, analysis and technical support in relevant areas and other liaison and coordination actions necessary to ensure the effective implementation of the project. As mentioned above, a TM will be assigned to the project, providing project supervision to ensure compliance with GEF and UNEP policies and procedures. The TM will formally participate in the following: i) annual Project Steering Committee (PSC) meetings; the Mid-Term and Terminal Evaluations; the clearance of bi-annual progress reports and project implementation reviews; and iv) the technical review of project outputs.

4. UNEP will provide guidance on linkages with relevant UNEP and GEF-funded activities and provide a platform for collaborative partnerships between national and international organisations that will bring the best available expertise in science and knowledge from the scientific community to partners working in project development at a national level. UNEP will also monitor the implementation of activities undertaken during the execution of the project by providing the overall coordination and ensure that the project is in line with the UNEP Medium-Term Strategy and its Program of Work (PoW). Timor Leste has finalized the UN Timor-Leste Sustainable Development Cooperation Framework (UNSDCF) 2021-2025. The document represents the UN's collective value proposition to support and accelerate Timor-Leste's progress towards achieving the SDGs and its national development priorities. Out of 6 focus areas where UN commits to support the national efforts, the project will contribute towards the targets related 1. Nutrition, food security and agricultural productivity, 2. sustainable economic opportunities and 3. manage natural resources and achieve enhanced resilience to impacts of climate change, natural and human-induced hazards, and environmental degradation. The proposed project has been discussed with the UN Resident Coordinator (UNRC) and has been included in the list of UN programs and projects contributing towards UNSDCF, through the Ecosystems Subprogram Coordinator who is also the UNCT focal point from UNEP for Timor Leste. The UN Country Teams focal point for Timor-Leste will continue to update project progress with UNRC as well as monitor the project?s contribution towards Common Country Analysis (CCAs) and UN Sustainable Development Cooperation Frameworks.

5. The Secretary of State for the Environment (SSE) will serve as the proposed project's national Executing Agency (EA). SSE will provide overall leadership for the project in close collaboration with: i) the Ministry of Agriculture and Fisheries; ii) the Ministry of State Administration; iii) members of the Project Steering Committee; iv) municipalities; and v) local communities.

6. SSE will be accountable to UNEP, as IA, for project execution at the national level and using resources for project implementation effectively. In addition, SSE will be responsible for achieving the overall project objectives and will, therefore, designate a senior official to serve as the National Project Director (NPD). The NPD?s primary responsibility will be to ensure that the project produces the results specified in the Project Document to the required quality standard within the specified time and cost constraints[1]. They will work closely with all partner institutions to link the project with complementary national programmes and initiatives. SSE will also designate an alternate to act as NPD in their absence to ensure continuity.

7. UNEP will enter into a Project Cooperation Agreement (PCA) with SSE to execute the project. The PCA will establish clear roles and responsibilities for: i) delivering the proposed activities, schedule and conditions for instalments, and ii) determining the prevailing fiduciary standards, terms and conditions for arbitrations and termination of contracts. The PCA will include specific obligations for the national EA on project execution, financial management, personnel administration and reporting, as well as arbitration and liability terms. The national EA will be responsible for establishing national project implementation in a relevant department of the government administration to provide guidance and support to national service providers and Technical Partners. Accordingly, the national EA will provide technical and implementation

guidance and facilitate cooperation and coordination among national service providers. The EA will be accountable and submit regular progress reports to the PSC.

8. As the Executing Agency (EA), the Secretary of State for the Environment (SSE) will have full responsibility to support accountability, transparency, effective management, and timely project results. The day-to-day management of the proposed project will be the responsibility of the Project Management Unit (PMU), under the direct supervision of the NPD. The PMU will be based in Dili and comprise the following staff: i) Project Manager; ii) Finance Manager; iii) Stakeholder and Gender Specialist; iv) a Chief Technical Advisor (CTA); v) Monitoring and Evaluation (M&E) and learning specialist; and vi) Policy and Planning Specialist.

9. A Project Manager (PM) will be recruited[2] on a full-time basis to lead the PMU and coordinate the execution of the proposed project under the guidance of the NPD. The individual responsible for the role will be answerable to the Project Steering Committee (PSC) for, *inter alia*, the: i) quality, timeliness and effectiveness of the interventions implemented; and ii) transparent disbursement and use of project funds[3]. The PM will produce annual work plans (AWPs) ? with associated cash advance requests/annual budget plans[4] ? that will be approved by the PSC at the beginning of each financial year and provide the basis for allocating resources to planned activities. Once an AWP is approved, it will be sent to the UNEP TM[5] for clearance of GEF funds, which will be released once UNEP clears the AWP and its associated cash advance requests.

10. In addition to a Project Manager, the following positions will be recruited to support project implementation:

1. A Finance Manager will be recruited to manage the finances of the project in accordance with UNEP and GEF policies and will report to the PMU.

2. A Monitoring and Evaluation (M&E) Specialist will be recruited to support the implementation of project activities ? particularly Components 1, 2 and 3. The M&E Specialist will support the PMU with: i) monitoring; ii) reporting; iii) knowledge sharing; and iv) adaptive management. Moreover, the M&E specialist will support independent evaluators conducting the Mid-Term Review and Terminal Evaluation.

3. A part-time Stakeholder and Gender Specialist will be recruited to support the implementation of project activities ? particularly Components 1, 2 and 3 ? and to ensure the implementation of the project Gender Action Plan. The Stakeholder and Gender Specialist will support the PMU with: i) implementation; ii) stakeholder engagement; iii) monitoring; iv) knowledge sharing; and v) adaptive management.

4. A Policy and Planning Specialist will be recruited to ensure that policy outputs are delivered and that planning processes are delivered adhering to GEF and UNEP policies on stakeholder engagement, particularly Components 1 and 4. The Policy and Planning Specialist will support the PMU with: i) implementation; ii) stakeholder engagement; iii) knowledge sharing; and iv) adaptive management.

5. SSE will recruit a Chief Technical Advisor (CTA), with involvement and approval by UNEP, responsible for providing overall technical backstopping and operational support to the project. The CTA will provide technical support and expertise to the implementation of project activities, specifically guiding sustainable land management through an agribusiness approach. The CTA will also provide support to SSE on related matters. The CTA will not provide any oversight services and will be considered project staff.

6. Rikolto ? having been involved throughout the project development process and having committed to support the project through both grant and in-kind co-finance (please see Section 7.2 Project Co-financing) ? will support SSE (as a Technical Partner/Sub-contractor) for the implementation of project activities. This support will primarily involve providing technical support to the implementation of Components 2 and 3. Rikolto will specifically support the PMU with the implementation of project activities relating to the introduction of the LEISA agricultural system, the transition from subsistence agriculture to agri-business and engagement with the private sector.

11. SSE will have the ability to contract other entities ? defined as Responsible Parties ? to undertake specific project tasks through a competitive bidding process according to procurement rules and regulations of the GoTL. However, if an identified Responsible Party is another government institution, Inter-governmental Organisation or a United Nations agency, competitive bidding will not be necessary and direct contracting will be applied. Confirmation of direct contracting will need to comply with comparative advantage, timing, budgeting and quality criteria. If direct contracting criteria cannot be met, the position will be opened to competitive bidding.

12. All procurement will be non-discriminatory, inclusive and gender-sensitive, with at least 50% of roles filled by women. Contractors that will be procured will be required to demonstrate their commitment to inclusivity and all labour conditions will be in line with Timor-Leste labour laws.

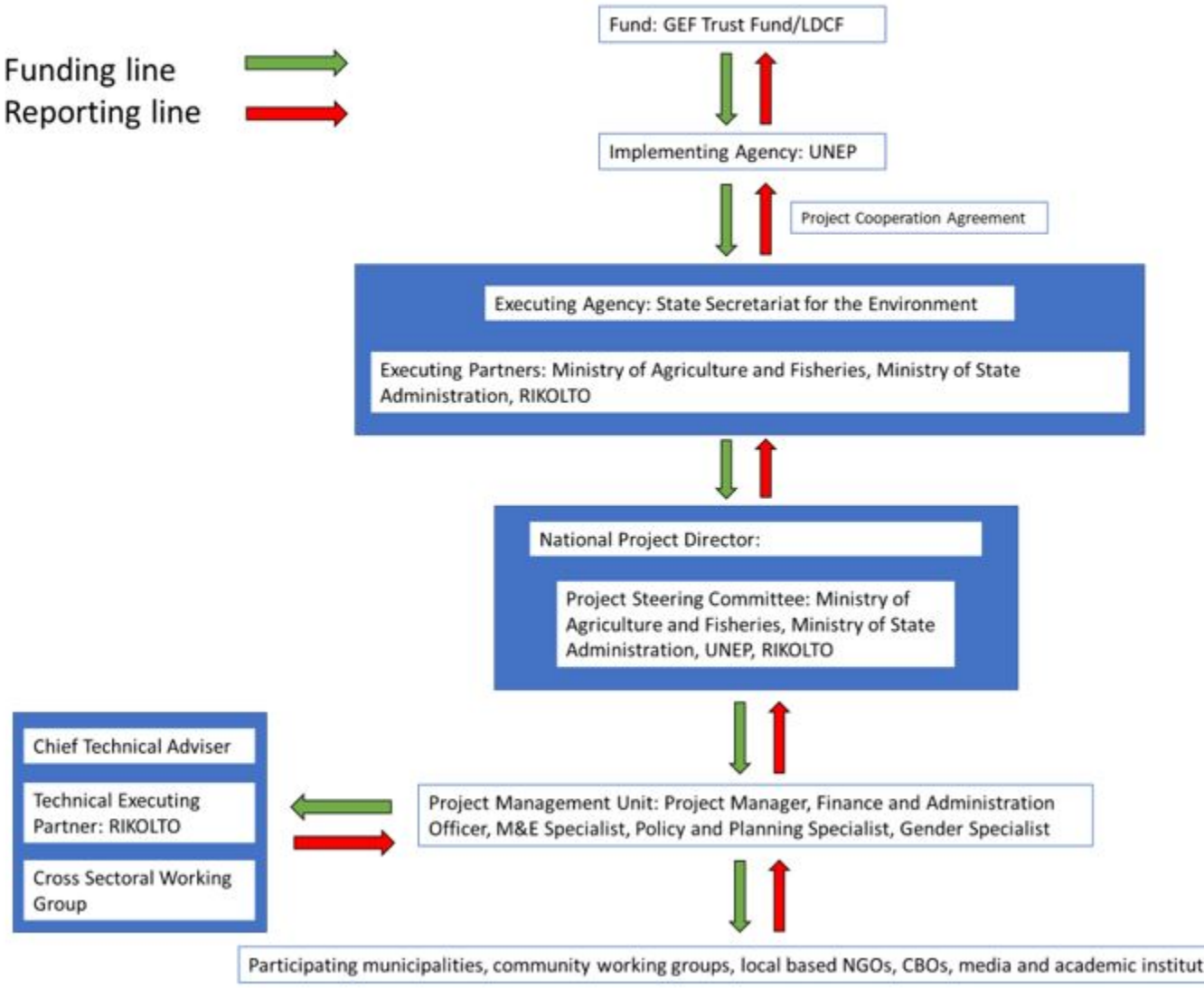


Figure 22. Schematic diagram of project Implementation Arrangements

Project Steering Committee

13. A Project Steering Committee (PSC) will be established as the group responsible for making management decisions ? by consensus ? when the PMU, and the PM, requires high-level guidance. For example, the PSC will be responsible for the approval of project work plans and budgets and any revisions by UNEP and SSE. In addition, the PSC will provide high-level oversight and guidance in achieving project objectives and participate in discussing general strategies and opportunities for project planning and implementation. Committee members will meet a minimum of once a year (more often if necessary), be co-chaired by SSE and UNEP, and comprise of the UNEP Task Manager and representatives from: i) SSE; ii) the Ministry of Agriculture and Fisheries; iii) the Ministry of State Administration; iv) Rikolto; v) relevant NGOs; vi) community groups; and vii) municipal associations. The final membership compilation of the PSC will be determined during the project inception phase; additional members may be added, as required during project implementation.

Cross-Sectoral Working Group

14. Project implementation will be supported by a cross-sectoral working group (CSWG) comprised of representatives from relevant national ministries, selected by the PMU and SSE and approved by the PSC. The CSWG will meet biannually at the SSE offices from the inception of the project, with the possibility of *ad hoc* meetings occurring as required to ensure the delivery of project outputs. The composition of the CSWG can be amended at any point in the project's lifetime to include representatives with additional expertise. Any such amendments will be made at the request of the PMU and require approval by the PSC. The CSWG will work towards integrating EbA and LDN into Timor-Leste?s national policies and plans and engage with relevant ministries to establish targets for the implementation of EbA and LDN. In addition, the CSWG will facilitate coordination between the proposed project and related or similar projects that are being simultaneously implemented in Timor-Leste.

---

[1] Within the conditions laid down by the Project Steering Committee and in line with UNEP Policies and Procedures

[2] By SSE using national rules and regulations and ensuring international standards on recruitment processes

[3] The Executing Agency (EA) is also accountable for the use of project funds.

[4] Under the supervision of the National Project Director and with support from the rest of the PMU

[5] At the GEF Regional Coordinating Unit (RCU)

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.

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

? - National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC

? - National Action Program (NAP) under UNCCD

? - ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury

? - Minamata Initial Assessment (MIA) under Minamata Convention

? - National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD

? - National Communications (NC) under UNFCCC

? - Technology Needs Assessment (TNA) under UNFCCC

? - National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD

? - National Implementation Plan (NIP) under POPs

? - Poverty Reduction Strategy Paper (PRSP)

? - National Portfolio Formulation Exercise (NPFE) under GEFSEC

? - Biennial Update Report (BUR) under UNFCCC

- Others

1. Other projects in the country have been implemented with the objective of promoting sustainable farming methods and land-use planning. For example, the FAO has promoted conservation agriculture in seven districts across Timor-Leste to improve yields and income for subsistence farmers[1], with five of these ? namely Aileu, Baucau, Manufahi, Manatuto and Lautem ? coinciding with the proposed project (please see Section 2.7). However, few of these projects consider the inter-linkages between agribusiness development, climate change adaptation and land degradation. Without additional interventions, agribusiness development will continue to be limited to the few *sucos* and districts where previous projects have been successful and will be unlikely to integrate national climate change and land degradation priorities. The proposed project is aligned with the strategies and plans described in Table 13 below.

Table 13. Alignment of the proposed project with the national policies, strategies and plans of Timor-Leste.

National Strategies/Plans	Alignment
National Action Programme to Combat Land Degradation (LDNAP), 2008[2]	The LDNAP recognises the urgent need to implement sustainable land management and provide a suite of incentives to catalyse its adoption among subsistence farmers. The proposed project will contribute to five of the Action Programmes identified in the LDNAP, namely: i) sustainable agriculture and forestry development; ii) poverty alleviation programmes, including agricultural diversification; iii) public education and awareness; iv) strengthened legislature for sustainable land management; and v) rehabilitation of degraded lands and protection of water resources.
National Adaptation Programme of Action (NAPA), 2010[3]	Food security is identified as a priority sector for adaptation in the NAPA and the proposed project closely aligns with this priority, as the NAPA is still considered a guiding document for adaptation in Timor-Leste. In addition, the proposed project will contribute to the development of national institutional capacity required to address climate change, which is one of the priorities identified in the NAPA. Specifically, the project aims to strengthen cross-sectoral coordination at national government level and develop community-level capacity to adapt to climate change.
Strategic Development Plan, 2011?2030[4]	National priorities and a guiding framework ? which will remain relevant until 2030 ? are set out in the Strategic Development Plan of Timor-Leste. Climate change adaptation and raising awareness around climate change and environmental issues are recognised within this Plan as necessary initiatives for building social capital[5]. In addition, the development of agriculture-related small businesses is identified as an important component of rural development. The proposed project is aligned with these strategic national priorities to facilitate environmentally sustainable economic development.
National Biodiversity Strategy and Action Plan (NBSAP) 2011?2020[6]	Strategic Actions 3 and 4 under Priority Strategy 1 of the NBSAP aim to promote sustainable agricultural practices and develop policies to support sustainable land management. The proposed project will contribute to these goals by training farmers on the implementation of sustainable farming methods and facilitating policy development to create an enabling environment for sustainable land management.
Initial National Communication to the UNFCCC (INC), 2014[7]	The proposed project will contribute to implementing prioritised adaptation actions identified in the INC. These priorities include watershed management to improve water supply for agriculture ? aligning with project activities to restore watersheds ? and improved coordination between sectors to facilitate adaptation. The INC also highlights the key adaptation programmes identified in the NAPA (alignment of the proposed project with the NAPA is detailed in the cell for the NAP above).
National Strategy and Action Plan for Gender and the Private Sector, 2014?2017[8]	The proposed project will contribute to the goals of this Strategy and Action Plan, which include: i) creating an enabling environment for rural women to establish small businesses; ii) improving women?s access to markets; and iii) improving women?s access to credit and financial services. the project directly supports these goals by providing training for women in target *sucos*.
MAF Agriculture Sector Development Medium Term Operation Plan, 2014?2018[9]	The proposed project will contribute to the programmes identified in this plan to improve access to markets and value addition for small-scale farmers, to support the development of an enabling environment and to incorporate natural resource management and sustainable agricultural practices into agricultural development.
Nationally Determined Contribution (NDC), 2015[10]	Adaptation measures for improved food security are identified in the NDC as a national priority. These measures include promoting agroforestry, watershed management and sustainable land management, reforesting degraded land and raising awareness and conducting educational campaigns to support sustainable agricultural practices. The proposed project aligns with these measures through the promotion of permanent agriculture instead of shifting cultivation, contributing to reduced land degradation and climate change adaptation.

Zero Hunger Challenge: National Action Plan for a Hunger and Malnutrition Free Timor-Leste, 2015?2025[11]	One of the aims of this Action Plan is to increase the income and productivity of smallholder farmers; the proposed project will contribute to this by improving smallholder farmers? access to finances and partnering with the private sector to increase rural incomes. The Action Plan also acknowledges the importance of addressing vulnerability to climate change and variability. The project will support this aim by providing support for subsistence farmers in the implementation of climate-resilient SLM.
National Policy on Forests, 2017[12]	The proposed project is aligned with the Forest Policy?s objective of preventing deforestation and forest degradation. Land-use planning initiatives undertaken through the proposed project will support rural communities to sustainably manage forest resource use and restoration activities will improve the supply of ecosystem goods and services from forests to rural communities.
Land Degradation Neutrality Target-Setting Process (LDN TSP) Country Report, 2018[13]	The proposed project will contribute to achieving targets to reduce land degradation in Timor-Leste over a targeted area of 26,700 ha by sustainably managing priority watersheds and supporting community-level governance of natural resources. The project will also address barriers to achieving LDN targets, identified in the report, by improving the accessibility of financing for SLM on small-scale farms and building capacity for the implementation of SLM practices.
Agricultural Mechanisation Policy, 2018[14]	Among its objectives, the Agricultural Mechanisation Policy aims to promote the development of agribusiness in an environmentally-conscious manner. The proposed project aligns with this objective by contributing to the need identified in the policy for ?government-enabled, private sector-led and producer/community-owned enterprises and strengthened value chains.
National Adaptation Plan (NAP), 2020?2030[15]	The NAP for Timor-Leste identifies several adaptation priorities, including, *inter alia*: i) the integration of climate change into development plans, policies and strategies within all relevant sectors; ii) strengthening the capacity of institutions and communities to manage climate risks (floods, drought and landslides); iii) addressing the needs of vulnerable communities and groups; iv) improving water resources management under future climate scenarios; v) promoting sustainable land management; and vi) building climate-resilient livelihoods. The proposed project will contribute to each of these priorities through the development of climate-resilient and gender responsive national policies, the design and implementation of CRIWM plans, the promotion of climate-resilient SLM practices and investment in agribusiness development to build sustainable livelihoods. Collectively, these interventions will address vulnerable communities? needs by improving food and water security within the target regions under future climate conditions.
National Disaster Risk Management Policy (NDRMP) (Draft), 2019?2023[16]	A revised NDRMP is currently under development for Timor-Leste. This policy supports the 2011?2030 SDP (discussed above) and provides guidance and direction for strengthened disaster risk reduction and management in the country. Interventions designed under the proposed project are in alignment with the following NDRMP objectives: i) promoting and strengthening risk assessment, research and preparedness; ii) improving national disaster risk management governance and collaboration; iii) building capacity, understanding, and communication for improved disaster risk reduction and management; and iv) providing targeted investment and effective disaster risk management programme implementation.
Five-year Action Plan of the National Directorate for Roads, Bridges and Flood Control, 2019?2023[17]	Under the Ministry of Public Work, the National Directorate for Roads, Bridges and Flood Control has formulated its five-year investment plan for upgrading, rehabilitation and maintenance of national, urban and municipal roads and bridges. Although the plan does not explicitly mention climate change adaptation, it will address the negative impacts of floods and landslides on roads and bridges. By developing and implementing CRIWDPs within two priority watersheds, the proposed project will protect road networks and other infrastructure from damages caused by floods and landslides. In this way, the proposed project will contribute to achieving the objective of the National Directorate for Roads, Bridges and Flood Control?s Five-year plan.

[1] A manual on conservation agriculture in Timor-Leste has been produced as an output of this programme. FAO. 2018. Promoting Conservation Agriculture in Timor-Leste. Available at: http://www.fao.org/documents/card/en/c/I8858EN/

[2] Available at: https://knowledge.unccd.int/sites/default/files/ldn_targets/2019-01/Timor-Leste%20LDN%20TSP%20Country%20Report.pdf

[3] Available at: https://unfccc.int/resource/docs/napa/tls01.pdf

[4] Available at: https://www.adb.org/sites/default/files/linked-documents/cobp-tim-2014-2016-sd-02.pdf

[5] Social capital refers to the networks of relationships among people who live and work in a particular society or community and their capacities, enabling that society or community to function effectively.

[6] Available at: https://www.timorleste.tl/wp-content/uploads/formidable/4/TLBiodiversityActionPlanOct2011en-1.pdf

[7] Available at: https://unfccc.int/resource/docs/natc/tlsnc1.pdf

[8] Available at: http://extwprlegs1.fao.org/docs/pdf/tim150789.pdf

[9] Available at: https://www.gafspfund.org/sites/default/files/inline-files/6c.%20Timor-Leste_Ministry%20of%20Agriculture%20and%20Fisheries%20Medium%20Term%20Operation%20Plan%20%28full%29.pdf

[10] Available at: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Timor-Leste%20First/Timor-Leste%20First%20NDC.pdf

[11] Available at: https://premiunutrisaunprezidensial.files.wordpress.com/2014/08/final-pan-ham-til_english.pdf

[12] Available at: http://extwprlegs1.fao.org/docs/pdf/tim170725.pdf

[13] Available at: https://knowledge.unccd.int/sites/default/files/ldn_targets/2019-01/Timor-Leste%20LDN%20TSP%20Country%20Report.pdf

[14] Available at: https://www.laohamutuk.org/Agri/2018/LHDraftMechanizationPolicy01Mar18en.pdf

[15] Available at: https://www4.unfccc.int/sites/NAPC/Documents/Parties/Timor%20Leste%20NAP.pdf

[16] Ministry of Social Solidarity and Inclusion. 2019. National Disaster Risk Management Policy (NDRMP) 2019?2023 (DRAFT). MSSI. 57pp.

[17] Secretariat of State for Environment, Coordinating Minister for Economic Affairs. 2020. Timor-Leste?s National Adaptation Plan. Available at: https://www4.unfccc.int/sites/NAPC/Documents/Parties/Timor%20Leste%20NAP.pdf

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.

1. Knowledge management is an important consideration under all the components of the proposed project. Knowledge generated under the project will be used to generate knowledge products including gender-sensitive best practice guidelines and policy briefs on EbA and integrating agribusiness into LDN targets. In particular, knowledge management is addressed by Component 4 through dissemination of knowledge products to relevant stakeholders throughout Timore Leste. By integrating the lessons learned through the initiatives of the proposed project into national policies, the project will establish a basis for scaling the initiatives across the country. Under Component 4 the project will establish monitoring and evaluation (M&E) to assess the effectiveness and impact of project interventions. These interventions will include the implementation of the CRWIDPs (Component 2) and the development of agribusiness (Component 3). Lessons learned during project implementation ? in addition to those from past and current aligned initiatives ? will be collated through the M&E system established under Output 4.1.1 and used to inform best-practice guidelines and policy briefs on climate-resilient sustainable land management (SLM) and agribusiness development (Output 4.1.2). These knowledge products will be disseminated to national- and local-level stakeholders to facilitate the upscaling and replication of climate-resilient SLM initiatives, as well as to inform potential pathways for integrating agribusiness into land degradation neutrality (LDN) targets (Output 1.1.1). In addition, the generated knowledge products will also identify baseline development interventions that are required to support the upscaling of project interventions.

2. Sharing knowledge products will be done in coordination with existing knowledge management platforms, including the Centre for Climate Change and Biodiversity at the National University of Timor-Leste, as well as other existing climate resilience systems. These knowledge products will be disseminated to decision-makers, farmer organisations, women?s cooperatives and other relevant stakeholders to facilitate the upscaling and replication of project interventions through the existing platforms and systems and to ensure the project is able to adapt or transform interventions to maintain or enhance climate resilience. The usage of the generated knowledge products will be monitored by replication and upscaling efforts of project activities. During the final stages of project implementation, a workshop will be held with the CSWG and other project stakeholders (Output 4.1.3) to: i) present the policy briefs and best-practice guidelines; ii) identify two target watersheds for replication of the CRIWDP approach; and iii) develop an action plan for identifying funding sources, engaging with private sector partners and implementing activities recommended through the policy briefs and best-practice guidelines. Monitoring the implementation of upscaling opportunities in the late stages of the project will ensure that institutional knowledge is retained and applied for upscaling across Timor-Leste in future years.

3. Please see Annex 1 Budget, Annex 4 Workplan and Annex 5 Key Deliverables for further details on how the knowledge management has been incorporated throughout.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

1. In line with the GEF Evaluation requirements and UNEP?s Evaluation Policy, GEF Full-Sized Projects and any project with a duration of 4 years or more will be subject to an independent Mid-Term Evaluation or management-led Mid-Term Review at mid-point. All GEF funded projects are subject to a performance assessment when they reach operational completion. This performance assessment will be either an independent Terminal Evaluation or a management-led Terminal Review.

2. In case a Review is required, the UNEP Evaluation Office will provide tools, templates, and guidelines to support the Review consultant. For all Terminal Reviews, the UNEP Evaluation Office will perform a quality assessment of the Terminal Review report and validate the Review?s performance ratings. This quality assessment will be attached as an Annex to the Terminal Review report, validated performance ratings will be captured in the main report.

3. However, if an independent Terminal Evaluation (TE) of the project is required, the Evaluation Office will be responsible for the entire evaluation process and will liaise with the Task Manager and the project implementing partners at key points during the evaluation. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation (or the management-led review) will be charged against the project evaluation budget. The TE will typically be initiated after the project?s operational completion If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office in relation to the submission of the follow-on proposal.

4. The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalized. The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process. The evaluation recommendations will be entered into a Recommendations Implementation Plan template by the Evaluation Office. Formal submission of the completed Recommendations Implementation Plan by the Project Manager is required within one month of its delivery to the project team. The Evaluation Office will monitor compliance with this plan every six

months for a total period of 12 months from the finalisation of the Recommendations Implementation Plan. The compliance performance against the recommendations is then reported to senior management on a six-monthly basis and to member States in the Biennial Evaluation Synthesis Report

Type of M&E activity	Responsible Parties	Budget from GEF	Budget co-finance	Time Frame
Inception Meeting	? Chief Technical Advisor (CTA) ? Project Manager (PM) ? M&E Specialist ? UNEP TM	Indicative cost: USD10,000	None	Within the first two months of project start up. A national inception workshop and launch will be held followed by watershed level workshops.
Inception Report	? Chief Technical Advisor (CTA) ? Project Manager (PM) ? M&E Specialist	Indicative cost: USD2,000	None	1 month after project inception meeting
Baseline measurement of project outcome indicators, GEF Core indicators (Tracking tools?)	? Chief Technical Advisor (CTA) ? Project Manager (PM) ? M&E Specialist UNEP TM	Indicative cost: USD35,000	None	By year 1 of project start up.
Mid-point measurement of project outcome indicators, GEF Core indicators (Tracking tools?)	? External consultant ? UNEP TM ? UNEP Evaluation Office ? CTA ? PM ? M&E Specialist	Indicative cost: USD20,000	None	At the mid-point of project implementation (Year 3) before MTR
End-point measurement of project outcome indicators, GEF Core indicators (Tracking tools?)	? External consultant ? UNEP Evaluation Office as per UNEP Evaluation policy.	Indicative cost: USD 20,000	None	In the final year of project implementation before TE
Semi-annual Progress/ Operational Reports to UNEP	? CTA ? PM ? M&E Specialist ? UNEP TM	None	None	Within 1 month of the end of reporting period i.e. on or before 31 January and 31 July
Project Steering Committee (PSC) meetings and National Steering Committee meetings	? PM ? SSE UNEP TM	None	None	Once a year minimum
Reports of PSC meetings	? PM ? CTA	None	None	One month after PSC

Type of M&E activity	Responsible Parties	Budget from GEF	Budget co-finance	Time Frame
Project Implementation Review (PIR) report	? CTA ? PM ? M&E Specialist ? UNEP TM	None	None	Annually, part of reporting routine
Monitoring visits to field sites	? CTA ? PM ? M&E Specialist ? UNEP TM	None	None	The PMU team will conduct regular monitoring visit (at least once quarterly and also as and when required). UNEP TM will have monitoring visit at least once a year. The monitoring budget for PMU team has been built in the travel cost of the project and TM cost will be from fee money.
Mid Term Review/Evaluation	? External consultant ? UNEP TM ? UNEP Evaluation Office ? CTA ? PM M&E Specialist	Indicative cost: USD 40,000	None	At mid-point of project implementation
Terminal Evaluation	? External consultant UNEP Evaluation Office as per UNEP Evaluation policy.	Indicative cost: USD 60,000	None	Within six months of the project completion date
	?			
Assessment of carbon benefits produced from the project	? PM ? M&E Specialist	Indicative cost: USD 3,000	None	Within six months of the project completion date
Project Operational Completion Report	? CTA ? PM ? M&E Specialist ? UNEP TM	None	None	Within 2 months of the project completion date

[1] Field visits to monitor the progress of project implementation will occur concurrently with field visits conducted as part of project intervention implementation, with costs associated with the travel budgeted under the implementation costs.

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. EbA interventions will be designed and implemented to maximise the co-benefits of the proposed project. These co-benefits include, *inter alia*: i) alternative livelihood opportunities; ii) poverty reduction; iii) improved water quality; iv) strengthened biodiversity value; and v) strengthened cultural value. In particular, the EbA interventions will contribute towards poverty reduction through the creation of new livelihood opportunities, such as promoting smallholder farmers? access to commodity markets. Specifically, interventions to be implemented in rural areas will enhance the cultural value of the target sites, by restoring the natural resources that people living in *sucos* depend on for their cultural and traditional indigenous land use practices. The livelihood opportunities created and strengthened by the project interventions will also assist communities to recover from the impacts of the Covid-19 pandemic, specifically the loss of trade opportunities caused during global travel bans. The target communities have been largely affected by the impacts of Covid-19 on the market, where uncertainty causes challenges to bankability and willingness of investors. By improving market access and developing new pathways to commodity markets, the project will support farmers to recover lost income opportunities, as well as develop access current markets in a post-Covid-19 era. During project development, the risks associated with Covid-19 have been assessed to identify opportunities for green recovery. Measures for capitalizing on these opportunities have been intregrated into the project strataegy and activities. The proposed project will respond to COVID-19 by proactively integrating COVID-19 into training activities under Outputs 2.1.4. This Output, focused on the CRIWDPs, will include specific training materials on water management, sanitation, hygiene, and human resilience against zoonotic diseases such as COVID-19. Additionally, training activities under Output 3.1.1 (on climate-resilient agribusinesses) will include materials on the opportunities for green growth ? particularly regarding the ways in which investments in climate-resilient income-generating activities can stimulate local economies, create employment and livelihood security, and increase local resilience to recurrent zoonotic diseases. By raising awareness among stakeholders about the linkages between ecosystem resilience and human resilience to COVID-19, the proposed project will not only build momentum for implementing and scaling up climate-resilient agricultural interventions but also contribute to global green economic growth and sustainability efforts. Through sustainable and climate-resilient interventions, the proposed project will support green recovery from Covid-19 among the target communities in Timor-Leste.

2. Throughout all phases of implementation, local community representatives will be consulted and engaged in the various project activities to ensure that the selected interventions do not interfere with the religious or cultural importance of the sites. All plant species that will be planted under the project will be assessed for compatibility with the sites. Wherever possible, endemic/indigenous and climate-resilient species will be used. During the inception phase of the proposed project, plant species will be identified for each site according to the following criteria: i) species that play an important role in the local ecosystem; and ii) species that support soil and water conservation. Local communities will be involved in the selection of preferred species for planting.

3. The project will be implemented through a multi-stakeholder approach and include government agencies, development partners, international research forums and relevant NGOs (please see Section 2.5. Stakeholder Mapping, Analysis and Consultation). Local-level EbA interventions will be analysed and lessons learned and best practices will be collated from monitoring, evaluation and learning (MEL) reports. The extracted information will be used to inform upscaling of the EbA model as well as enhance the national body of knowledge for climate change adaptation, specifically on land degradation neutrality (LDN) and sustainable land management (SLM). Limitations in the institutional and technical capacity of national agencies to plan for and respond to climate change impacts will be addressed by raising awareness, training Facility Management Groups (GMFs) and communities in the two watersheds on the implementation of Climate-Resilient Integrated Watershed Development Plans (CRIWDPs), developing national policies on LDN and EbA and building institutional and technical capacity. Moreover, knowledge and information about climate impacts within the Timor-Leste target areas will be gathered, documented and shared with a Cross-Sectoral Working Group (CSWG) who will propose policy revisions to incorporate: i) EbA and climate resilience; ii) LDN; and iii) agri-business development in support of poverty alleviation

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Low		

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.

Please refer to latest ES workplan attached

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Appendix 19_ES workplan_130123	CEO Endorsement ESS	
Timor-Leste GEF_UNEP_Safeguard Risk Identification Form_130123	CEO Endorsement ESS	
Timor-Leste PPG_UNEP_Appendix 19_ESMP_3 August 2022	CEO Endorsement ESS	
CCA core indicator	Project PIF ESS	
Timor-Leste GEF_UNEP_Core Indicator Worksheet	Project PIF ESS	
Timor-Leste_SRIF_final	Project PIF ESS	
LOE	Project PIF ESS	
Timor-Leste GEF_PIF_final	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).

Appendix 3. Results Framework

Project Objective, Components, Outcomes and Outputs	**Indicator**	**Baseline**	**Mid-term targets**	**End of project target**	**Means of Verification**	**Assumptions**
Objective: to increase climate resilience of and reduce land degradation in rural communities in Timor-Leste through an EbA approach, which will be achieved through the implementation of four inter-linked components	O1. Area of **land restored (**Hectares)	0	2,000 ha	5,500 ha	Field surveys Project progress reports	All land identified will be available for restoration and will be restored during the project lifespan
	O2. Area of **landscapes under improved practices** (excluding protected areas) (Hectares)	0	10,000 ha	16,700 ha	Field surveys Project progress reports	All land identified for improved practices will be utilised
	O3. **Greenhouse Gas Emissions Mitigated** (metric tonnes of CO2e)	0	868,955 tCO_2e	2,896,517 tCO_2e	Ex-ACT calculation based on achieved restoration activities	Restoration activities are successful

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
	O4. Number of **direct beneficiaries disaggregated by gender** as co-benefit of GEF investment	0	20,400 people 10,078 females 10,322 males	68,000 people: 33,592 females 34,408 males	Project progress reports	Project interventions will have a direct benefit on the total population of both target watersheds
Component 1. Building the national case and leverage for EbA and addressing land degradation in rural communities through agribusiness						

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
Outcome 1.1: Developing an enabling environment for EbA, Land Degradation Neutrality (LDN) and climate resilience through 3 improved gender-responsive national policies	1.1.1 Degree of mainstreaming and integration of CR, LDN and agri-business approach in policies relevant to watershed planning and management.	Watershed planning and management policies are not perceived to adequately reflect CR, LDN and agri-business approaches (Level 1)	Plans for integration of CR, LDN and agri-business into watershed planning and management policies under development, but not yet actionable (Level 2)	Clear and actionable plans for integration of CR, LDN and agri-business into watershed planning and management policies have been developed and communicated to stakeholders (Level 3)	Perception-based index assessing the degree of integration into plans and policies using an interview format involving stakeholders from sector agencies, donor agencies, and practitioners Review of government documents pertaining to CR, LDN and agri-business approach in watershed planning and management	CR, LDN and agri-business will be mainstreamed into policies relevant to watershed planning and management

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
	1.1.2 Project-facilitated policy modifications benefit improved adoption of Sustainable Land Management (SLM) in two of the twenty nine national priority watersheds by 2025 to avoid further LD	Policies do not adequately support the adoption of SLM practices in two priority watersheds (Level 1)	Policies make provision for the adoption of SLM but do not provide an adequate framework for implementation in two priority watersheds (Level 2)	Policies fully support and provide a framework for the adoption of SLM but do not mandate specific practices in two priority watersheds (Level 3)	Perception-based index assessing the degree of integration into plans and policies using an interview format involving stakeholders from sector agencies, donor agencies, and practitioners Review of government document pertaining to policies to benefit improved adoption of Sustainable Land Management (SLM) in two of the 29national priority watersheds	Policy modifications that benefit SLM adoption in the two target watersheds are facilitated

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
Output 1.1.1 Opportunity assessment of agribusiness developed and presented to relevant national ministries to achieve enhanced socio-economic and SLM outcomes Output 1.1.2: Cross-sectoral working group (CSWG) on EbA and LDN established, and policy revision timeline agreed Output 1.1.3: Policy and communication campaign to train 200 government staff and build national- and local-level support for integrated, climate-resilient watershed development Output 1.1.4: Climate risk assessment (CRA) conducted at the national level Output 1.1.5: Gender-responsive revisions to LDN targets and sectoral policies prepared and agreed with the national focal Ministries for UNFCCC and UNCCD, to incorporate climate change risk assessments and expand the scope of LDN strategies						
Component 2: Planning and implementation of EbA to address food and water security at suco level in two priority watersheds						
Outcome 2.1: Suco-level landscape management improved through the development and implementation of climate-resilient integrated watershed development plans (CRIWDP) in	2.1.1 Percentage of the community members that apply SLM practices based on CRIWDPs (of which at least 30% women)	0	1,000 community members (at least 300 women) apply SLM practices	At least 30% of the targeted 7,000 community members which is 2,100 community members (at least 630 women) apply SLM practices	Community surveys and site visits	Community members will be able to apply SLM practices following training

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
two watersheds	2.1.2 Climate-resilient landscape management covers 71,300 ha of watershed area.	0	Climate resilient landscape management adopted for Laclo and Dasidaro watershed area (30,000 ha).	2 CRIWDPs adopted for an estimated watershed area of 71,300 ha (15,700 ha Dasidaro & 55,600 ha Laclo)	CRIWDP documents signed and adopted by relevant government and community officials	CRIWDPs will be adopted by municipal officials and communities
Output 2.1.1: 4 detailed and gender-specific climate change vulnerability assessments conducted for two watersheds and shared with relevant stakeholders Output 2.1.2: CRIWDPs for water and food security, developed and adopted for 71,300 ha in two priority watersheds Output 2.1.3 Facility Management Groups strengthened and schedule of activities agreed Output 2.1.4: Training conducted for 7,000 people, 50% of whom are women, in sucos within two watersheds to strengthen local governance and implementation of the CRIWDPs						
Outcome 2.2: Food security of rural communities increased through improved climate-resilient SLM at suco level in two watersheds.	2.2.1 Percent age of the communities that are food secure through project interventions in ecosystem resilience and land restoration	0	10% of target communities are food secure through project interventions in ecosystem resilience and land restoration	At least 30% of target communities are food secure through project interventions in ecosystem resilience and land restoration	Site visits, community surveys and project progress reports	Project interventions will improve the food security of vulnerable communities

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
	2.2.2 Area of land, forest and farmland (in hectares) rest ored	0	1,650 ha restored (1,350 ha forest and 350 ha farmland)	5,500 ha restored (4,500 ha forest restored; 1,000 ha degraded farmland restored)	Site visits and project progress reports	Land targeted for restoration is able to be successfully restored
	2.2.3 Area of forest protected (in hectares)	0	3,150 ha forest protected	10,500 ha forest protected	Site visits and project progress reports	Communities engage in forest protection strategies
	2.2.4 Area of land with improved management of communal grazing land	0	1,200 ha improved management of communal grazing land	4,000 ha improved management of communal grazing land	Site visits, community surveys and project progress reports	Communities adopt improved management strategies across identified communal grazing land

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
Output 2.2.1: 4,500 ha forest restored to increase the climate resilience of rural communities in two priority watersheds Output 2.2.2: 10,500 ha forests and natural ecosystems protected through community agreements and monitoring at suco level Output 2.2.3: 4,000 ha communal grazing land in target sucos under improved management to reduce land degradation Output 2.2.4: Provision of ecosystem services and climate-resilient agricultural production enhanced on 1,000 ha communal land through ecosystem and farmland restoration and improved integrated farming systems (LEISA model)						
Outcome 2.3: Water security in climate vulnerability hotspots identified under Output 2.1.1 enhanced through the upgrade of climate-resilient water supply infrastructure, improved water management systems and training of 8,000 community members at village and sub-village level	2.3.1. Number of vulnerable households in 40 villages, comprising 50% females report a 50% increase in number of days with regular access to water as compared to baseline	0	At least 500 vulnerable households in 12 villages, comprising 50% females report a 50% increase in number of days with regular access to water as compared to baseline	At least 1,500 vulnerable households in 40 villages, comprising 50% females report a 50% increase in number of days with regular access to water as compared to baseline	Community surveys	Project interventions increase access to water for vulnerable households

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
Output 2.3.1: Water supply and storage systems upgraded to increase climate resilience in ~40 water-insecure villages Output 2.3.2: Community members at village level trained for the sustainable use, operation and maintenance of water supply and storage infrastructure Output 2.3.3: Community members within villages trained and systems established for monitoring and reporting on village-level water use and availability						
Component 3. Enabling and piloting of agribusiness development to incentivise the adoption of climate-resilient SLM practices by small-scale farmers in two watersheds						
Outcome 3.1 Farmer organisations and women?s cooperatives for agri-business development and sustainable value chains access finance to support adoption of climate-resilient SLM	3.1.1 Number of farmers trained develop climate-resilient agribusiness	0	850 members of farmers organisations and women?s cooperatives (50% of which will be women) trained in climate-resilient agribusiness	2,500 members of farmers organisations and women?s cooperatives (50% of which will be women) trained in climate-resilient agribusiness	Training attendance records and reports detailing progress in climate-resilient agribusiness development	Members of farmers organisations and women?s cooperatives are willing to participate in climate-resilient agribusiness practices
	3.1.2 Number of business plans with EbA and SLM objectives integrated to increase climate resilience, and SLM linkages in the landscape	0	EbA and SLM objectives integrated in 1 agri-business plan to increase climate resilience, and SLM linkages in the landscape	EbA and SLM objectives integrated in 2 agri-business plans to increase climate resilience, and SLM linkages in the landscape	Project progress reports	EbA and SLM objectives are integrated into agri-business plans and implemented

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
	3.1.3. Percentage of trained farmers & women benefitting from enhanced credit access through participation in ?impact finance? programme with private sector buyers	0	At least 12% of trained farmers & equal number of women benefitting from enhanced credit access through participation in ?impact finance? program with private sector buyers	At least 40% of trained farmers & equal number of women benefitting from enhanced credit access through participation in ?impact finance? programme with private sector buyers	Training attendance records and reports detailing enhanced credit access through private partnerships in the ?impact finance? programme	Training will enable farmers and women to participate in impact finance programme and partner with private buyers to access credit for traceable and sustainable agricultural commodity production and value chains
Output 3.1.1: Training conducted for 2,500 members of farmer organisations and women?s cooperatives to develop climate-resilient agribusinesses Output 3.1.2: Agreements negotiated and incentives created for private sector buyers to invest in traceable and sustainable agricultural commodity production and value chains Output 3.1.3: Portfolio of bankable impact investments developed with capital intermediaries and providers targeting sustainable production of cocoa, vanilla and other commodities						

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
Outcome 3.2: Increased production of traceable and sustainably grown cocoa and other agribusiness commodities, benefitting 2,000 farmers	3.2.1 Number of hectares with new or upgraded agro-forest systems (identified as hotspots in CRIWDPs) for improved SLM and climate resilience outcomes (e.g. soil, water, multi-story vegetation, and climate-proof crop production) =	0	Improved SLM and Climate Resilience outcomes (e.g. soil, water, multi-story vegetation, and climate-proof crop production) on 660 ha new or upgraded agro-forest systems (identified as hotspots in CRIWDPs)	Improved SLM and Climate Resilience outcomes (e.g. soil, water, multi-story vegetation, and climate-proof crop production) on 2,200 ha new or upgraded agro-forest systems (identified as hotspots in CRIWDPs)	Project progress reports	The introduction of or upgrading to agro-forestry will lead to improved SLM and climate resilience outcomes
	3.2.2 Number of tonnes of traceable and sustainably grown cocoa produced	0	150 tonnes of traceable and sustainably grown cocoa produced	500 tonnes of traceable and sustainably grown cocoa produced	Project progress reports	Improved agribusiness focus and farming methods will enable the increased production of cocoa

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
	3.2.3. Number of tonnes of traceable and sustainably grown vanilla produced	0	30 tonnes of traceable and sustainably grown vanilla produced	100 tonnes of traceable and sustainably grown vanilla produced	Project progress reports	Improved agribusiness focus and farming methods will enable the increased production of vanilla
	3.2.4. Number of female farmers deriving socio-economic benefits	0	Socio-economic benefits to 600 farmers of which 30% female	Socio-economic benefits to 2,000 farmers of which 30% female	Reports detailing socio-economic benefits and community surveys	Training on agribusiness will enable farmers to increase their socio-economic benefits
Output 3.2.1: 2,200 ha climate-resilient and profitable agroforestry systems developed for 2,000 famers growing cocoa and other agribusiness commodities						
Component 4. Knowledge management and monitoring for replication of best practices in other sucos and watersheds						
Outcome 4.1: Replication enabled in other sucos and watersheds for integrated ecosystem-based adaptation and agri-business development programs.	4.1.1 Number of watersheds for which financing is secured for replication of EbA and agri-business model	0	Financing secured for replication of EbA and agri-business model in one other watershed in Timor-Leste	Financing secured for replication of EbA and agri-business model in two other watersheds in Timor-Leste	Official letters confirming financing, signed by financier and relevant government officials	Funds and private sector finance sources are supportive of project upscaling

Project Objective, Components, Outcomes and Outputs	Indicator	Baseline	Mid-term targets	End of project target	Means of Verification	Assumptions
Output 4.1.1: Project impact and effectiveness measured and lessons communicated through the implementation of a monitoring, evaluation and learning system Output 4.1.2: Gender-responsive policy briefs and best-practice guidelines developed and disseminated to facilitate the replication and upscaling of climate-resilient SLM in additional watersheds and municipalities Output 4.1.3: Two watersheds identified and upscaling plans developed for replication of successful project activities						

[1] Including carbon sequestered and emissions reduced under Outputs 2.2.1, 2.2.2, 2.2.3, 2.2.4 and 3.2.1 over the 20-year expected lifespan; further details are provided in Appendix 20: Summary of Ex-ACT mitigation calculations.

[2] Based on the total population in Dasidaro (~7,300 people) and Laclo (~60,700 people) watersheds from the most recent census data (2015). Available at: https://www.citypopulation.de/en/timor/admin/

[3] Assuming the sex ratio of the populations of these watersheds is the same as the national sex ratio, 49.5%. From: https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?locations=TL

[4] The perception-based index will score the level of integration on a four-point scale, with the specific score at each stage based on the perceived level by the majority of stakeholders. The specific scoring criteria will be refined by the M&E and Policy Specialists, but will broadly be structured as: 1) Inadequate integration of CR, LDN and agri-business into plans and policies; 2) Plans for integration of CR, LDN and agri-business into policies under development, but not yet actionable; 3) Clear and actionable plans for integration of CR, LDN and agri-business into policies have been developed and communicated to stakeholders; 4) CR, LDN and agri-business are fully integrated into policies and under implementation.

[5] The specific stakeholders will be determined collaboratively by the M&E and Policy Specialists

[6] The perception-based index will score the level of integration on a four-point scale, with the specific score at each stage based on the perceived level by the majority of stakeholders. The specific scoring criteria will be refined by the M&E and Policy Specialists, but will broadly be structured as: 1) Policies do not adequately support the adoption of SLM practices; 2) Policies make provision for the adoption of SLM but do not provide an adequate framework for implementation; 3) Policies fully support and provide a framework for the adoption of SLM but do not mandate specific practices; 4) Policies fully support and mandate the adoption of SLM.

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).

Part I: Project Information

What STAP wants	STAP Comment	Responses
Project Objective		

What STAP wants	STAP Comment	Responses
Is the objective clearly defined, and consistently related to the problem diagnosis?	This is not clear. While the PIF is well- constructed, the claim that future conditions are likely to increase poverty by exacerbating vulnerability to climate change cannot be cross-checked because the references for this section were omitted. This is a problem because the rest of the description calls this claim into question. For example, models appear to project a net 9-day reduction in the growing season, presumably by 2100. It is possible that such a small reduction could be important, as Timor-Leste is somewhat arid in places, but given the cycles of most major crops it seems unlikely that this much of a change will be a big driver of agricultural impacts. Similarly, the temperature increases projected are for 2100 ? which means there is not likely to be a major evapotranspirative stress, thermal stress for crops and animals, or substantially increased evaporation in the next few decades. These issues call into question the link between climate change and declining livelihoods conditions. The part of the PIF that constructs the problems to be addressed as emerging from not just climate change, but various social and biological processes that, as a whole, produce big stresses, is very strong. The project will either need to carefully substantiate the assumed links between climate change and the problems it seeks to address, particularly its claims about climate and poverty. If this cannot be done, the project should instead focus on how climate change, even relatively small changes, will exacerbate some of these bigger and more temporally-	This comment is well noted, the vulnerability to climate change aspect of the project has been strengthened, however it should be noted that there is very little data available on climate change and climate change impacts, as a result of Timor-Leste?s developing country status and its turbulent political past. The development of the PPG has therefore had to rely on the limited data that is available and interviews with local communities. These community consultations reported major climate change impacts, and this qualitative data has been presented in the project document. This climate change vulnerability aspect has been enhanced by strengthening the linkage between temperature increase and water stress, noting that increasing temperatures will place greater water requirements on communities for agricultural purposes while also reducing the amount of water available as a result of increased evaporation of already limited surface water sources. Additionally, the argument for climate change as an additional driver of land degradation has been strengthened.

What STAP wants	STAP Comment	Responses
	urgent pressures. This will help the project better target interventions and identify impacts.	
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, but adaptation benefits likely arise insofaras the project addresses climate change?s potentially minor contribution to the larger challenges it seeks to resolve. Minor point ? the presentation of the project framework, section B is confusing. Some sections appear repetitive.	This is well noted. The project framework has been restructured to create a clearer narrative with less repetition (please see Section B of the CEO Endorsement Request document).

Part II: Project justification

What STAP wants	STAP Comment	Responses
Project description		
Is the problem statement well-defined?	The PIF constructs a logical argument, but see the point above about climate change, climate impacts, and the problems identified in the PIF: it is not clear that climate change plays a central role in the challenges the project seeks to address. It may do so several decades into the future, but this project is unlikely to influence the situation at that time.	The problem statement has been refined to clarify the central role that climate change plays in the challenges the project seeks to resolve. In addition, further information on past and projected climate trends has been added to further strengthen the argument regarding the impacts of climate change (please see Section 2.1.7 of the Project Document).

What STAP wants	STAP Comment	Responses
	Increased deforestation and land degradation are also substantial challenges in Timor-Leste.Forest degradation is a result of logging for timber, harvesting for fuelwood, shifting agriculture, and forest fires. Changes in climate are considered to exacerbate these drivers, such as fire. Land degradation is driven by poor soils, unsustainable land management practices, unsustainable grazing, and climate change ? i.e. soil erosion, landslides.	These points are well noted and have been accounted for in the document, particularly in Sections 2.1.3 and 2.1.7 of the Project Document.
	STAP values Figure 1 and 2, illustrating the links between climate change impacts, land degradation, and water insecurity. The figuresdemonstrate succinctly the scale of the problem, the connections and feedbacks between climate change, land degradation andwater insecurity. STAP appreciates the systems thinking that emerges when the PIF describes the connections between the drivers of forest and land degradation, water insecurity, and climatechange impacts in the target sites, and suggeststhis thinking be applied to the project going forward.	This is well noted. The project has applied this systems thinking approach to the design of the project, and especially the project Components (please see Section 3.3 of the Project Document).
The baseline scenario or any associated baseline projects		

What STAP wants	STAP Comment	Responses
Is the baseline identified clearly?	Yes, the baseline is described clearly as a narrative of past and on-going projects (GEF and non-GEF) in the country, and in the targeted watersheds. STAP appreciates the fact the PIF included more than one future climate projection, demonstrating a recognitionthat the future state of the climate is probabilistic and therefore contains a degree of irreducible uncertainty. STAP suggests that theproject actively consider how its proposed interventions might function across these different futures to identify interventions that will be robust across a range of plausible futures.	This is well noted. The project will introduce a monitoring, evaluation and learning system under Component 4 (please see Section 3.3 of the Project Document) to assess interventions and adaptively manage them based on updating climate information and projections.
Does it provide a feasible basis for quantifying theproject?s benefits?	Not yet. However, the project developers are encouraged to identify indicators beyond the GEF?s and LDCF?s core indicators. For example, it would be valuable to identify metrics for landscape management/watershed management, including measuring groundwater supply and other ecosystem services that are important to the communities.For the land and forest degradation baseline, indicators should be used that are aligned withmetrics used by Timor-Leste to monitor its LDN targets on forest conservation (and land management). Consideration should also be given to remote sensing for establishing land cover baselines.	This is well noted. Indicators beyond the GEF and LDCF core indicators have been identified (such as number of households reporting increased number of days with access to water and amount of cocoa and vanilla produced as a result of project activities) and included in the project Results Framework (please see Annex 3).

What STAP wants	STAP Comment	Responses
Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Partially. Suggest identifying indicators thatcomplement the GEF?s and LDCF?s core indicators to truly be able to measure and assess the incremental and additional cost reasoning of this project. Suggests on indicators and metrics are provided above.	Please see response above.
Are the lessons learned from similar or related past GEFand non-GEF interventions described?	This information appears absent in the PIF. Suggest adding a table that lists the baselineprojects, and how lessons from each will contribute to this project.	Thank you for identifying this; a table has been included in the project documentation as requested (please see Section 2.6 of the Project Document).
Are the mechanisms of change plausible, and is there awell-informed identification of the underlying assumptions?	Yes, the theory of change identifies assumptions underlying the success of each outcome. The assumptions should be tested and refined as the theory of change is applied and modified. STAP notes that these assumptions generally look outside the projectitself, and suggests that the project team consider the assumptions about problem identification, intervention design, and implementation that might shape the outcomes of this project as well.	Additional assumptions have been added, specifically relating to the project itself, as suggested (please see Section 3.4 of the Project Document).
Is there a recognition of what adaptations may be requiredduring project implementation to respond to changing conditions in pursuit of the targeted outcomes?	Yes ? component 3 describes the possible needfor managing adaptively the newly formed value chains on vanilla and cacao. Suggest using the theory of change to look for opportunities across the components on adaptive management.	This is well noted; the presence and training on adaptive management has been incorporated under additional components (specifically under Outputs 2.1.4 and 2.3.2).
Incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co- financing		

What STAP wants	STAP Comment	Responses
GEF trust fund: will the proposed incremental activitieslead to the delivery of global environmental benefits?	It is likely that the proposed incremental activities will lead to global environmental benefits with good monitoring, evaluation and learning. STAP recommends identifying indicators to monitor short-term outcomes, andrevisiting the theory of change as the project isimplemented and the assumptions are being tested, or validated. Table 3 usefully describes and organizes additional cost reasoning per component. Suggest adding a column to describe the incremental reasoning in the same manner, i.e., per component. Alternatively, offer a combined description of the incremental and additional cost reasoning per component. Thisappears to be the case for component 3.	The combined additional and incremental cost reasoning has been included under the additional/incremental cost reasoning table.

What STAP wants	STAP Comment	Responses
LDCF/SCCF: will the proposed additional cost reasoninglead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	Possibly. There are clearly real challenges in Timor Leste and several of the activities proposed by this project are likely to reduce vulnerability and build some adaptive capacity.What is not clear is whether or not that reduced vulnerability and increased adaptive capacity will have much to do with the climate, given the tenuous link between climate and the challenges to be addressed by this project. STAP suggest that the project team carefully consider how the project will lead to adaptations that reduce the likelihood that climate change will exacerbate other drivers of change. While this will not do a lot to reduce vulnerability to climate change itself, mostly because it is not clear how significant a challenge climate change is here, at least in thenear term, it will make the character of proposed adaptations and the expected impacts much clearer.	The link between climate change and the challenges addressed by the project have been strengthened under sections 2.1.3, 2.17 and 2.3 of the Project Document to better represent how the project adaptations will reduce the likelihood that climate change will exacerbate other drivers of change. In these sections the links between the impacts of climate change (such as floods, droughts, landslides and wildfires) and baseline conditions have been strengthened to stress the fact that climate change is accelerating baseline challenges.
Global environmental benefits (GEF trust fund) and/or adaptation benefits(LDCF/SCCF)		

What STAP wants	STAP Comment	Responses
Is the scale of projected benefits both plausible andcompelling in relation to the proposed investment?	Possibly. Recommend identifying clearly the boundaries for the social-ecological system, and applying systems thinking to further enhance the problem statement, and to developthe impact pathways. Additionally, suggest developing a separate theory of change on scaling. This involves specifying causal pathways that identify innovation required for scaling, the barriers to scaling, including barriers associated with institutional arrangements, cultural norms and values. Paying close attention to scaling ? developing distinct impact pathways on scaling ? will more likely put the project on the transformative paths it is trying to achieve. Refer to STAP?s theory of change primer, and STAP?s transformation brief.	This is well noted. The project section on Replicability (Section 3.9 of the Project Document) has been expanded to identify barriers to scaling and how the project will overcome them as well as the identification of impact pathways, drawing on the lessons learned from the project.
What activities will be implemented to increase theproject?s resilience to climate change?	All the components in one way or other seek toincrease the resilience to climate change. However, the project developers are encouraged to systematically use the theory ofchange to look for opportunities to adapt, or transform, the interventions to maintain or enhance climate resilience. A resilience assessment would be a valuable tool to use in the design and implementation of the project: https://research.csiro.au/eap/rapta/ https://wayfinder.earth/contact-us/	This is well noted. The project will develop a monitoring, evaluation and learning system under Output 4.1.1. This system will be used to adaptively manage project interventions so as to maintain or enhance climate resilience. In addition, the use of resilience assessments has been included in Output 4.1.2, as part of the ongoing monitoring of project activities and the production of project lessons.
Stakeholders		

What STAP wants	STAP Comment	Responses
Have all the key relevant stakeholders been identified tocover the complexity of the problem, and project implementation barriers?	Possibly. Suggest revisiting stakeholders as theproject is designed and implemented to ensure the appropriate actors are being engaged basedon the project needs.	The project stakeholders list has been updated as a result of consultations with target communities and relevant government agencies that occurred during the project design.
What are the stakeholders? roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessonslearned and knowledge?	Suggest specifying how the stakeholders? combined roles will achieve the environmental and adaptation outcomes. STAP notes that none of the stakeholders listed appears to play the role of implementer. The project team should be clear about who is responsible forwhat aspects of implementation.	This is well noted; the list of project stakeholders has been updated to reflect which stakeholders will directly support the implementation of project interventions.
Gender Equality and Women?s Empowerment		
Have gender differentiated risks and opportunities beenidentified, and were preliminary response measures described that would address these differences?	Partly. STAP is pleased the project will embedgender-differentiated needs and capacities in the project. STAP recommends building gender across the components, and develop theinterventions based on the social and cultural norms in the target watersheds described in the PIF. Attention also should be paid to how gender shapes access to, and control of resources (land, income, and other). Assumptions about gender also should be builtinto the theory of change. Refer to the following paper for further insights on gender and climate change: Lau, Jacqueline D., et al. "Gender equality in climate policy and practicehindered by assumptions." Nature Climate Change 11.3 (2021): 186-192.	This is well noted. Gender has been strengthened across the project and the development of a Gender Action Plan (please see Annex 15 and Section 2.5 of the Project Document) will ensure that project interventions are implemented in a manner that is gender-sensitive and gender-responsive. In addition, gender assumptions have been included into the project theory of change (please see section 3.4 of the Project Document).

What STAP wants	STAP Comment	Responses
Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how willthese obstacles be addressed?	Unclear. Recommend considering whether gender considerations hinder the participationof an important stakeholder group. For example, focusing a specific activity on women may prevent others from joining, or benefitting.	This comment is well noted. The project gender action plan (GAP) has been developed on the basis that women?s issues are not necessarily representative of other vulnerable groups, thereby preventing a deepening of disparities and contributing to the meaningful engagement of other vulnerable groups in the project (please see Appendix 15 and Section 2.5 of the Project Document). The project will contract a Stakeholder and Gender Specialist who will be responsible for ensuring that project interventions are implemented in accordance with the GAP are not implemented to the benefit of women but the exclusion of other marginalised groups. In addition, the monitoring, evaluation and learning system developed under Output 4.1.1 will be used to monitor the project?s involvement of and impact on women and other vulnerable groups.
Risks		

What STAP wants	STAP Comment	Responses
Are the identified risks valid and comprehensive? Are therisks 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 to2050, 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 addressprojected climate risks and impacts been considered? How will these be dealt with? What technical and institutional capacity, and information, will be needed to address climaterisks and resilience enhancement measures?	The risks are valid, and comprehensive, andare within the project?s control. As the project is developed, greater attention should be given to the links between climate change risks and land management. For example, the project will target areas that are more prone to increased drought, flooding andlandslides. How will reduced access to water affect agricultural production, including the proposed value chains on cocoa and vanilla? How will groundwater recharge be managed amid increased propensity to flooding, and increased rainfall intensity? Is sea level rise and salinization of groundwater a risk in the Dasidaru watershed? STAP proposes considering one, or two, alternative pathways to plan for uncertain risksand stressors, such as climate change impacts, demographic changes, market fluctuations, andpossibly conflict. This scenario planning will assist in making the interventions more robust as opportunities for adaptation and transformational change will be more visible.	This is well noted. The role of the CSWG has been expanded to include close coordination with the PMU to monitor uncertain and unforeseen risks and stresses and to adaptively manage them (please see Output 1.1.2 and Section 4 of the Project Document). In addition, it was identified during project development that more detailed assessments of the links between climate change and land management were needed to inform the development of land management plans and the implementation of project interventions. The project will therefore conduct an opportunity assessment for agribusiness under Output 1.1.1, a climate risk assessment under Output 1.1.4 and detailed and gender-specific climate change vulnerability assessments under Output 2.1.1 (informed by the field assessments conducted during the PPG phase under included under Appendices 13 and 18). In addition, the monitoring, evaluation and learning system developed under Output 4.1.1 will be used to monitor on the ground implementation and to update and address impacts that were not identified during these assessments.
Coordination		

What STAP wants	STAP Comment	Responses
Is there adequate recognition of previous projects and thelearning derived from them?	Possibly. Suggest listing in a table format the projects, their lessons, and how they were used to inform the design of this project. This willmake the information more visible.	A section has been added to the project on the linkages with other GEF and non-GEF interventions. Included in this section is a table as requested (please see Section 2.6 of the Project Document).
Knowledge Management		
What overall approach will be taken, and what knowledgemanagement indicators and metrics will be used?	Knowledge management will be managed through monitoring and evaluation ? component 4. Suggest using the theory of change as an adaptive management tool; thus, recommend linking component 4 to the theoryof change.	This is well noted; the use of the theory of change as an adaptive management tool has been included in Output 4.1.1 to link Component 4 to the ToC, as suggested.

Comments from Jennifer Novotney, U.S. Department of State (DOS), Bureau of Oceans and International Environmental and Scientific Affairs (OES), Office of Environmental Quality (ENV, Council, United States made on 7/23/2021	
Comment	Response

- A successful project in this area will have long-term implementation and maintenance needs. It is unclear from the attachments if such long-term support has been adequately considered, which has implications for results sustainability.	- Thank you for bringing this to our attention. Since your suggestion, we have adjusted and enhanced the project's design to account for long-term implementation and maintenance needs. Specifically, collaboration with private partners and integrating Ecosystem-based Adaptation (EbA) and land degradation neutrality (LDN) practices into national governance institutions will bolster the sustainability of project interventions. In addition, further support for the project?s long-term implementation will be secured at the community level. The interventions proposed in the project have been designed to build capacity at a *suco*-level, which will engage directly with the target communities and enhance project sustainability by embedding EbA and LDN into existing community structures, namely Facility Management Groups (additional information on these interventions can be found under Output 2.1). You will also note that linkages between project interventions and sustainability have been strengthened in Sections 3.8 and 3.9 of the Project Document, as well as the sub-section, ?Innovativeness, sustainability and potential for scaling up?, in the CEO Endorsement Request.

- The drivers behind forest and land degradation could be more fully addressed in the final project document. Assuming that forest degradation in Timor-Leste is driven by logging for both timber and fuelwood, it is somewhat unclear how this project will address this driver**.**	- This feedback has been well received, thank you. The drivers of forest and land degradation, including deforestation, unsustainable farming practices and other indirect socioeconomic factors, have been elaborated upon in Section 2.3.2 (Root Causes of Land Degradation) of the Project Document and Part II of the CEO Endorsement Request document. The proposed project aims to address these drivers of deforestation by facilitating a shift away from unsustainable land use practices through the introduction and development of agribusinesses and value chains. These interventions diversify livelihoods, facilitate sustainable land management, and secure sustainable income sources, thereby reducing the need to harvest forest resources for timber and fuel wood. Details of these proposed interventions are discussed in Component 3.
Comments by Kordula Mehlhart, GEF Council Member, Head of Division on Climate Finance, BMZ, Federal Ministry for Economic Cooperation and Development, Council, Germany made on 7/4/2021	
Comment	Response

- While Germany supports the project?s aim to link climate change, land degradation, water insecurity and food insecurity in an all-encompassing way, it would like to stress the complexity of such an aim. Thus we request that this should be factored into the capacity-building elements of the project. This is all the more essential as poor rural community stakeholders will be involved (e.g. in implementation of climate-resilient integrated watershed development plans - CRIWDPs), and that their education and literacy rates may hamper their understanding of why they should adopt climate-resilient practices. This is especially important for gender aspects, as only 52% of women over the age of 15 are literate as per the proposal.	- Thank you for this feedback. The capacity-building activities of the project have been strengthened to support the complexities undertaken by the proposed project objectives. In addition, the complexity of the project will be supported by a well staffed Project Management Unit (PMU), which will include a: i) Project Manager; ii) Finance Manager; iii) Stakeholder and Gender Specialist; iv) a Chief Technical Advisor (CTA); v) Monitoring and Evaluation (M&E) and learning specialist; and vi) Policy and Planning Specialist. This multi-disciplinary team will be well-equipped to manage integrated project objective. The PMU will be further supported by Rikolto as a Technical Parter for the implementation of the project activities. This support will primary involve providing technical support for the implementation of Components 2 and 3. Rikolto will specifically support the PMU with the implementation of project activities relating to the introduction of the LEISA agricultural system, the transition from subsistence agriculture to agri-business and engagement with the private sector. At a local level, improvement of adaptive capacities will be realised through the training and strengthening the capacity of existing community structures, namely the Facility Management Groups discussed under Output 2.1.3. Training programmes at the local level will be designed in collaboration with community members to ensure that training is executed in a manner most accessible to the targeted communities. This includes acknowledging cultural norms, literacy rates and any traditional practices to be incorporated. The design and implementation of CRIWDPs will also be facilitated in a community-driven manner to ensure buy-in and adoption of interventions. In addition, you will note that Project Outputs have been designed in a gender-sensitive manner, which is also supported by the Gender Analysis and Action Plan completed for this project (Appendix 15). Such considerations include, *inter alia*, the differences between literacy rates and gender roles.
- Germany furthermore suggests addressing the land rights issue in more depth. Competing land titles pose major challenges to any land-use endeavour. Vanilla, for example, requires long land use periods ? conflict-free land sections are crucial for this purpose.	- Thank you for this suggestion. We have addressed the issue of land rights in this proposed project by ensuring close collaboration with traditional governance systems. This approach will ensure project activities are aligned with traditional and equitable systems of land use and customary tenure. In addition, by designing project interventions from a community-based level, the proposed project will ensure that land used for activities such as growing vanilla will be free of conflict.

- Under the governance elements, it could be useful to leverage the presence of women representatives within suco[1] councils, to further enhance the project?s gender objectives.	- This feedback has been well received, thank you. The project activities have been further designed to ensure gender-balanced targets, including within the governance institutions. Please see the Gender Analysis and Action Plan (Appendix 15) for a detailed analysis.
- Germany sees the potential of cocoa and vanilla crops for Timor-Leste. However, the two intervention watersheds most commonly grow different crops. As the project requires substantial changes in practices from rural communities, it is important to ensure local populations? buy-in for the latter. Therefore, the reluctance to change should be factored in.	- Thank you for raising this point, it has been well-noted in the development of the proposed project. The profitability and viability of the target cash crops in the target watersheds were assessed as part of the document entitled Livelihoods and Value Chain Assessment (Appendix 18). The potential reluctance to this change was accounted for by choosing crops that can be intercropped with common agricultural products that locals are more familiar with, such as coconut. This method reduces the degree of change (partial rather than complete) and, when combined with adequate training, awareness and community engagement (Outputs 1.1.2, 2.2.2, and 3.1.1), will ensure community buy-in and substantially reduce this potential reluctance to these agricultural shifts.
- Germany strongly supports the involvement of the private sector in this project. However, it is stated that ?all loan or investment risks will be borne by the private sector?. Given that local institutions will be involved, it should be clarified how the private sector?s risk-averse investment mindset and lack of resources will be addressed	- This feedback has been well noted. The private sector partnerships proposed and established under the project have taken into consideration the potential for risk-averse investors, particularly in the wake of Covid-19 impacts on the market. During the PPG phase, initial feasibility assessments were conducted on potential commodities and markets. Advanced discussions have been held with several corporations, including PT Profil Mitra Abadi, the Progreso Foundation and Sucafina ? of which several are international organisations. To account for risk-averse investors, the project has estimated that trade deals will be implemented during the second half of the project period. We trust that this will adequately address the concerns raised in this comment.

Criteria	Secretariat Comment at PIF stage	Responses
Gender Equality and Women?s Empowerment Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?	Recommended action: During PPG, we request the agency to identify some indicators to measure tangible benefits to women pertaining to their resilience, both quantitative ones (e.g., increase in income; reduction in time spent collecting water, etc., as appropriate) and qualitative ones that indicate change in empowerment and vulnerability.	This has been well noted. Please note that the following Outputs have gender-related indicators and/or sex-disaggregated targets: Output 2.1.1; Output 2.3.1; Output 3.1.1; Output 3.1.3; and Output 3.2.3. Further to this, a full Gender Adaptation and Action Plan (GAAP) has been developed, which includes detailed gender-specific actions per output. Please see Appendix 15 for further details.
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 and sustainability?	Yes for PIF stage. By CEO Endorsement, please provide detailed information on: - The various aspects of knowledge emerging from this project that will be captured (e.g., engagement of the private sector in climate-resilient agriculture; conducting climate change assessments of crops and infrastructure; enhancing the climate resilience of women; etc.). - How the knowledge products will be developed to target various stakeholder groups, in appropriate formats for each, and how their usage can be monitored.	Section 8 of the CEO Endorsement Request on Knowledge management has been expanded upon to include this information. This includes a more detailed explanation of how the MEL system will capture and disseminate the knowledge products gathered on the upscaling and replication of climate-resilient SLM initiations and integration of LDN targets. Knowledge products will be delivered to stakeholders through existing knowledge management platforms and community-level engagements. Monitoring of the usage of knowledge products has been integrated into the project design by upscaling project interventions to other watersheds during the last stages of implementation. Please see paragraphs 221 and 22 of the CEO Endorsement document for further details.
Private Sector Engagement	Please provide further detail on this aspect of the project (farmer	During the PPG phase, initial feasibility assessments have been

Is the case made for private sector engagement consistent with the proposed approach?	linkage with private sector for sustainable and climate resilient commodities) by CEO Endorsement.	conducted on potential commodities suitable for agribusiness development and having potential markets, mainly by trade intermediaries, agriculture development, and credit suppliers. Advanced talks have been held with PT. Profil Mitra Abadi, the Progreso Foundation and Sucafina together would invest a total of US$14 million in loans and grants for human development and agriculture development. Investments will include purchasing commodities produced by the project target farmer communities, as well as making trade financing available for farmer organisations to access markets. For further information on private sector engagement, please see paragraphs 200 to 204 in the CEO Endorsement Request document.
	By CEO Endorsement stage, we will need detailed information on the specific investments that will be supported by the LDCF.	Specific investments will be: ? Water supply and storage systems upgraded to increase climate resilience in ~40 water-insecure sub-villages ? 4,500 ha forest restored to increase the climate resilience of rural communities in two priority watersheds ? 10,500 ha forests and natural ecosystems protected through community agreements and monitoring at suco level ? 4,000 ha communal grazing land in target *sucos* under improved management to reduce land degradation ? climate-resilient agricultural production enhanced on 1,000 ha communal land through ecosystem and farmland restoration and

		improved integrated farming systems ? 2,200 ha climate-resilient and profitable agroforestry systems developed for 2,000 farmers growing cocoa and other agribusiness commodities The details can be found in paragraphs: 96-104 111-121 139-143
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 submit a climate risk assessment for the project. Please see STAP documentation on items to consider/include in the assessment.	Please note that a national climate risk assessment has been integrated a part of project design (Output 1.1.4) and will be completed during the first year of the project implementation period. During the PPG phase, an integrated vulnerability assessment and multi-criteria analysis was undertaken to identify priority watersheds, and this is included as Appendix 16 in the Appendices document. A multi-criteria analysis (MCA) was performed using climate change vulnerability, deforestation (as a proxy for land degradation) and standard of living as the criteria. As part of the MCA, Geographic Information System (GIS) software was used to overlay watershed boundaries on the maps used as data sources for each of the three criteria. Importantly, climate change vulnerability, deforestation and standard of living were weighted evenly to produce a score out of 60 for each watershed. The watersheds were then ranked from highest to lowest priority based on their scores.

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:			
Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
Consultants	179,000	94,000	85,000
Workshops/meeting/consultation	9,000	9,000	
Travel	12,000		12,000
Total	**200,000**	103,000	97,000

Endorsement/approval date. No later than one year from CEO endorsement/approval date. Agencies should report closing of PPG to Trustee in its Quarterly Report. If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of CEO

ANNEX D: Project Map(s) and Coordinates

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

ANNEX E: Project Budget Table

Please attach a project budget table.

ANNEX F-1 - RECONCILIATION BETWEEN GEF ACTIVITY BASED BUDGET AND UNEP BUDGET LINE (GEF FUNDS ONLY US$) original budget as per contract

Project title:		Adapting to climate change and enabling sustainable land management through productive rural communities in Timor-Leste																	
Project number:																			
Project executing partner:		State Secretary for the Environment																	
Project implementation period:		Expenditure by project component/activity										Expenditure by calendar year							
From:	2023																		
To:	2028								PMC	M&E	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total	
UNEP Budget Line												2023	2024	2025	2026	2027	2028		
	PERSONNEL COMPONENT	Details	Component 1	Component 2			Component 3		Component 4	PMC	M&E	**Total**	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	**Total**
			Outcome 1.1	Outcome 2.1	Outcome 2.2	Outcome 2.3	Outcome 3.1	Outcome 3.3	Outcome 4										
	1100	**Project personnel**										-							-
	1101	Project Manager								201600		**201,600**	33,600	33,600	33,600	33,600	33,600	33,600	**201,600**
	1102	Chief Technical Advisor	19500		97500			58500	19500			**195,000**	32,500	32,500	32,500	32,500	32,500	32,500	**195,000**
	1103	Stakeholder Engagement and Gender Specialist	16800			16800		16800	16800	33600		**100,800**	16,800	16,800	16,800	16,800	16,800	16,800	**100,800**
	1104	Policy and Planning Specialist	75,600						25,200			**100,800**	16,800	16,800	16,800	16,800	16,800	16,800	**100,800**
	1105	Monitoring and Evaluation Specialist									100800	**100,800**	16,800	16,800	16,800	16,800	16,800	16,800	**100,800**
	1106	Finance Manager								201,600		**201,600**	33,600	33,600	33,600	33,600	33,600	33,600	**201,600**
		Sub-total	**111,900**	-	**97,500**	**16,800**	-	**75,300**	**61,500**	**436,800**	**100,800**	**900,600**	**150,100**	**150,100**	**150,100**	**150,100**	**150,100**	**150,100**	**900,600.00**
	2100	**Sub-contract to Executing Entity**										-							-
	2101	Baseline study									35,000	**35,000**	35000						**35,000**
	2102	Stakeholder safeguard baseline study									30,000	**30,000**	30,000						**30,000**
	2103	Measurement of means of verification for project progress on output and implementation									40,000	**40,000**			20000			20000	**40,000**
	2104	Assessment of carbon benefits produced from the project									3,000	**3,000**	0	0	0	0	0	3000	**3,000**
	2105	Annual audit								30,000		**30,000**	5000	5000	5000	5000	5000	5000	**30,000**
	2106	Mid-term Evaluation									40,000	**40,000**			40000				**40,000**
	2107	Terminal Evaluation									60,000	**60,000**						60000	**60,000**
		Sub-total	-	-	-	-	-	-	-	**30,000**	**208,000**	**238,000**	**70,000**	**5,000**	**65,000**	**5,000**	**5,000**	**88,000**	**238,000.00**
	1200	**Consultants**										-							-
	1201	International consultant to develop updated communications material (Output 1.1.3)	21,000									**21,000**	21000						**21,000**
	1202	International consultant to identify climate risks for communities from CRA data (Output 1.1.4)	21,000									**21,000**	21000						**21,000**
	1203	International consultant to conduct GAP assessment (Output 1.1.5)	21,000									**21,000**	21000						**21,000**
	1204	International consultant to prepare detailed action plan (Output 1.1.5)	21,000									**21,000**	21000						**21,000**
	1205	International consultant to draft revised policy briefs (Output 1.1.5)	21,000									**21,000**	21000						**21,000**
	1206	International consultant to conduct assessments on: i) vulnerability; ii) hydrology and water availability; iii) water use; and iv) land use and degradation. Compile CCVA and host validation workshop.		116,800								**116,800**			116,800				116,800
		International consultant to: i) map agro-ecological sub-zones; ii) define targets and locations for Outcome 2.2; iii) host validation workshop for targets and locations; iv) develop hazard preparation and response plans; v) compile CRIWDPs; and vi) host validation workshop for CRIWDPs		88,200								**88,200**			88200				**88,200**
	1208	International consultant to identify areas for restoration through: i) natural regeneration; and ii) reforestation			42,000	-	-	-	-	-	-	**42,000**	-	42,000	-	-	-	-	42,000
	1209	International consultant to: i) identify 4,000 ha of communal grazing land; ii) host community consultation workshop; iii) develop livestock management plans and systems; iv) develop monitoring system; and v) host community consultation workshop to update livestock management plans after three years			82,600							**82,600**		81,200			1,400		82,600
	1210	International consultant to: i) identify appropriate land for activities; ii) conduct analysis of existing EWS; iii) host engagement workshops; and iv) facilitate training for the conversion of farms to the LEISA system			87,500							**87,500**		87,500					87,500
	1211	International consultant to: i) identify appropriate small scale infrastructure for target communities; and ii) host engagement workshops				71,400						**71,400**			71,400				71,400
	1212	International consultant to: i) develop upscaling plan to replicate successful project activities across additional watersheds; and ii) host engagement workshops and present upscaling plan							22,400			**22,400**						22,400	22,400

		workshop and present updating plan																	
	1213	National consultant to: i) collate data into Opportunity Assessment; and ii) host validation workshop and present the results of the opportunity Assessment	18,000									**18,000**	18,000						18,000
	1214	National consultant to: i) host engagement workshop to establish CSWG; ii) host inception workshop to define CSWG mandate and workplan; iii) host annual engagement workshop to identify policies and targets for revision; iv) host engagement workshop to assess and revise financial plans; and v) facilitate annual engagement meetings with CSWG	6,600									**6,600**	900	900	900	900	900	900	6,600
	1215	National consultant to: i) assist contractual services to develop communications campaign; ii) support international consultant develop updated communications material; and iii) host engagement workshop	18,300									**18,300**	18,300						18,300
	1216	National consultant to: conduct gap assessment of climate vulnerability assessment; ii) assist contractual services to conduct CRA; iii) support IC identify climate risk for communities; iv) host validation workshop for CRA; v) assist IC conduct vulnerability assessments; and vi) compile climate change vulnerability assessment	27,300	54,000								**81,300**	27,300		54,000				81,300
	1217	National consultant to: i) support IC conduct gap assessment; ii) host workshop to develop and propose revisions to policies and targets; iii) host engagement workshop with 'Strengthening targeted national capacities to improve decision-making and mainstreaming global environmental obligations into national development priorities' GEF project management team; iv) support IC draft revised policy briefs; v) host engagement workshop to present policy briefs and best practices guidelines to identify watersheds for replication; and vi) support IC develop upscaling plan to replicate project activities	22,200						9,300			**31,500**	22,200					9,300	31,500
	1218	National consultant to: i) identify water insecurity hotspots; ii) assist IC develop preparation and response plans; iii) assist IC compile CRIWDPs; iv) host engagement workshop; v) identify community learning hubs; vi) host training on CRIWDPs; vii) facilitate training for community members; and viii) support IC identify appropriate land for activities		55,300	18,000							**73,300**		18,000	29,800	25,500			73,300
	1219	National consultant to: i) assist IC map agro-ecological zones; ii) identify sites for agribusiness development; iii) support IC identify 4,000 ha of communal grazing land; iv) support IC develop livestock management plans and systems; v) support IC develop monitoring system; vi) support contractual services to establish 1,000ha of integrated farming systems; vii) host annual training for farmer organisations and women's cooperatives; and viii) support contractual services establish facilities to support sustainable crop production		22,500	48,000			26,100				**96,600**	10,000	49,000	23,500	12,100	1,000	1,000	96,600
	1220	National consultant to: i) map ecosystem services and landscape elements; ii) assist IC define targets and locations and to host validation workshop; iii) support IC identify areas for restoration; iv) support contractual services establish seedling nurseries; v) support contractual services restore 4,500 ha of degraded land; vi) develop protocols for agroforestry systems and sustainable commodity production; and vii) support contractual services establish facilities to support nurseries		18,000	36,000			19,800				**73,800**	10,800	36,000	18,000	9,000			73,800
	1221	National consultant to host engagement workshops to: i) review GMF membership; and ii) develop schedule of activities with each GMF		16,200								**16,200**			16,200				16,200
	1222	National consultant to: i) host engagement workshop to co-develop community conservation agreements; ii) host engagement workshop to identify roles and responsibilities for the implementation and monitoring of agreements; and iii) review and revise agreements after three years			24,600							**24,600**		15,600			9,000		24,600

	1223	National consultant to support IC to conduct analysis of existing early warning systems (Output 2.2.4)			18,000							**18,000**		18000					**18,000**
	1224	National consultant to: i) support IC identify appropriate small scale infrastructure; and ii) support contractual services install small scale infrastructure.				104,700						**104,700**			104,700				104,700
	1225	National consultant to: i) host engagement workshop to identify and appoint water management member of GMFs; ii) host training workshop on water infrastructure; iii) host community consultation workshops to co-develop demand management plans; iv) host training workshop for GMF members; v) host training workshops on the O&M of water supply and storage infrastructure; vi) support contractual services develop awareness raising campaign; and vii) host engagement workshops				72,000						**72,000**			18,000	54,000			**72,000**
	1226	National consultant to: i) host annual training workshop for farmer organisation and women's cooperative representatives; ii) host training workshop for farmer organisation and women's cooperative members; iii) engagement meetings between farmer organisations; women's cooperatives and markets with financial institutions; iv) develop plans for replication and upscaling of training; and v) host training workshop for government and farmers to build capacity for baseline and periodic farm surveys					39,000					**39,000**		600	600	36,600	600	600	39,000
	1227	National consultant to: i) support contractual services develop traceability system; ii) host engagement workshops between private sector buyers and farmer organisations to co-develop commitments; and ii) host annual engagement workshops to provide technical assistance to farmer organisations and cooperatives for adopting SLM methods					40,800					**40,800**	4,500	4,500	4,500	18,300	4,500	4,500	40,800
	1228	National consultant to: i) support contractual services design public and private sector financing mechanisms; ii) host engagement workshop to develop mechanisms to facilitate de-risking of impact investments; and ii) host engagement workshop to build capacity of farmer organisations t participate in and benefit from commodity development programmes					14,700					**14,700**				14,700			14,700
	1229	National consultant to support contractual services to establish facilities to support post-harvest processing in target sucos (Output 3.2.1)						10,800				**10,800**	10800						**10,800**
	1230	National consultant to support: i) contractual services develop MEL system; ii) M&E specialist implement MEL system; iii) M&E specialist generate MEL reports; iv) M&E specialist collate lessons learned and best practices; v) M&E specialist host engagement workshops; and vi) M&E specialist to disseminate knowledge products							179,400			**179,400**	37,900	28,300	28,300	28,300	28,300	28,300	179,400
		Sub-total	**197,400**	**371,000**	**356,700**	**248,100**	**94,500**	**56,700**	**211,100**	-	-	**1,535,500**	**265,700**	**381,600**	**574,900**	**199,400**	**45,700**	**67,000**	**1,535,500**
	1300	**Contractual Services**										-							
	1301	Contractual services to conduct: i) market and value chain assessment; ii) spatial assessment; iii) assessment on potential impacts of climate change on value chain commodity crop; iv) analysis of how agri-business approach can be integrated into LDN targets; and v) assessment of the opportunities for impact investment and private sector partnership for agribusiness development	150000									**150,000**	150000						150000
	1302	Contractual services to develop communications campaign (Output 1.1.3)	35000									**35,000**	35000						**35,000**
	1303	Contractual services to conduct national CRA (Output 1.1.4)	35000									**35,000**	35000						**35,000**
	1304	Contractual services to: i) establish seedling nurseries for restoration; ii) implement natural regeneration in 4,400 ha; and iii) implement restoration in 100 ha of most degraded landscape			760000							**760,000**		760000					760000
	1305	Contractual services to establish 1,000 ha of integrated farming systems (Output 2.2.4)			314200							**314,200**		314200					**314,200**
		Contractual services to install: i) rainwater																	

	1306	harvesting systems; ii) groundwater recharge basins; iii) water storage tanks; and iv) water source protection measures				2160000						**2,160,000**			2160000				2160000
	1307	Contractual services to develop awareness raising campaign (Output 2.3.3)				50250						**50,250**				50250			**50,250**
	1308	Contractual services to develop traceability system (Output 3.1.2)					30000					**30,000**				30000			**30,000**
	1309	Contractual services to design public and private sector financing mechanism (Output 3.1.3)					50000					**50,000**				50000			**50,000**
	1310	Contractual services to coordinate investment showcase in collaboration with Rikolto and relevant ministries (Output 3.1.3)					5000					**5,000**				5000			**5,000**
	1311	Contractual services to: i) convert 1,000 ha of unproductive or degraded land to pilot agroforestry systems; ii) establish facilities to support sustainable crop production; iii) establish facilities t support nurseries; and iv) establish facilities to support post-harvesting processes						1370000				**1,370,000**	1110000			260000			1370000
	1312	Contractual services to design MEL system (Output 4.1.1)							30718			**30,718**	30718						**30,718**
	1399	**Sub-total**	**220,000**	-	**1,074,200**	**2,210,250**	**85,000**	**1,370,000**	**30,718**	-	-	**4,990,168**	**1,360,718**	**1,074,200**	**2,160,000**	**395,250**	-	-	**4,990,168.00**
	3200	**Workshops and Training**										-							
	3201	Host Validation Workshop for the Opportunity Assessment (Output 1.1.1)	3500									**3,500**	3500						**3,500**
	3202	Host: i) validation workshop for opportunity assessment; ii) engagement workshop to establish CSWG; iii) engagement workshop to define CSWG mandate and workplan; iv) annual CSWG meeting; v) engagement workshop to identify policies and targets for revision; and vi) engagement workshop to assess and revise financial plans	70000									**70,000**	17500	10500	10500	10500	10500	10500	70000
	3203	Host: i) engagement workshops for relevant stakeholders; and ii) annual engagement meetings with the CSWG to refine communications campaign	24500									**24,500**	7000	3500	3500	3500	3500	3500	24500
	3204	Host validation workshop for the outcomes of the CRA (Output 1.1.4)	3700									**3,700**	3700						**3,700**
	3205	Host: i) workshop to develop and propose revisions to policies and targets; and ii) engagement workshops with the project management team of the GEF project 'Strengthening targeted national capacities to improve decision-making and mainstreaming global environmental obligations into national development priorities' GEF project	7000									**7,000**	7000						7000
	3206	Host validation workshop in each watershed to disseminate information from CCVAs (Output 2.1.1)		7000								**7,000**			7000				**7,000**
	3207	Host: i) validation workshop to confirm targets and locations for activities; ii) validation workshop for CRIWDPs; and iii) engagement workshop to establish responsibilities for the oversight and implementation of CRIWDPs		18000								**18,000**			18000				18000
	3208	Host engagement workshops: i) in target sucos to review GMFS; and ii) to develop schedule of activities with each GMF		126000								**126,000**			126000				126000
	3209	Host: i) training for GMFs from target sucos; and ii) training for 5,000 community members		126000								**126,000**				126000			126000
	3210	Engagement workshop to: i) co-develop community conservation agreements to protect 10,500 ha of forests and ecosystems; and ii) identify roles and responsibilities for implementation and monitoring of agreements4 (Output 2.2.2)			126000							**126,000**		126000					126000
	3211	Host community consultation workshops: to develop management plans and identify roles and responsibilities; and ii) update livestock management plans after three years (Output 2.2.3)			67150							**67,150**		63000			4150		67150
	3212	Host community engagement workshops to: i) establish consensus on activities; ii) integrate early warning systems into communities and activities; and train communities for the conversion of village farms to LEISA system (Output 2.2.4)			99625							**99,625**		99625					99625
	3213	Engagement workshop to validate identified small scale infrastructure (Output 2.3.1)				63000						**63,000**			63000				**63,000**
	3214	Host engagement and community consultation workshops to: i) identify and appoint water management members of GMF; train members on				189000						**189,000**			189000				189000

		water infrastructure; and iii) co-develop demand-management plans (Output 2.3.2)																	
	3215	Host training workshops for: i) GMF members; ii) community members on the operation of the water supply and storage infrastructure; iii) community members on the maintenance of the water supply and storage infrastructure; iv) the implementation and distribution of the awareness raising campaign in communities. (Output 2.3.3)				252000						**252,000**				252000			252000
	3216	Host annual training workshops and engagement meetings for: i) farmer organisations, and women's cooperatives representatives; ii) markets with financial institutions; and iii) government and farmers to build capacity and conduct baseline and period farm surveys (Output 3.1.1)					161000					**161,000**		7000	7000	133000	7000	7000	161000
	3217	Host engagement workshops between private sector buyers and farmer organisations to co-develop commitments; and provide technical assistance to farmer organisations and cooperatives for adopting SLM methods (Output 3.1.2)					378000					**378,000**	52500	52500	52500	115500	52500	52500	378000
	3218	Host engagement workshops to: i) develop mechanisms through a partnership between the private sector commodity buyers, local banks and agricultural finance institutions to facilitate the de-risking of impact investments; ii) build capacity of farmer organisations to participate in and benefit from the commodity development programmes; and iii) leverage additional seed finance for financing mechanisms. (Output 3.1.3)					81500					**81,500**				81500			81500
	3219	Host field schools to train small scale farmers (Output 3.2.1) and annual training for farmer organisations and women's cooperatives on the use of facilities established under Outcome 3.2 (Output 3.2.1)						98000				**98,000**		7000	7000	70000	7000	7000	98000
	3220	Host engagement workshops with existing knowledge management platforms (Output 4.1.2)							3653			**3,653**					3653		**3,653**
	3221	Host engagement workshops to present policy briefs and best practice guidelines to identify two target watersheds for replication and develop a roadmap for implementing upscaling plan in target watersheds(Output 4.1.3)							7000			**7,000**						7000	7000
	3222	Host project inception workshop (PMC)									**12000**	**12,000**	12000						**12,000**
		Sub-total	**108,700**	**277,000**	**292,775**	**504,000**	**620,500**	**98,000**	**10,653**	**-**	**12,000**	**1,923,628**	**103,200**	**369,125**	**483,500**	**792,000**	**88,303**	**87,500**	**1,923,628.00**
	1600	**Travel on official business**										-							
	1601	Return flights for the international consultant (Output 2.1.1)		1,500								**1,500**			1,500				**1,500**
	1602	DSA for the international consultant (Output 2.1.1)		13,825								**13,825**			13,825				13,825
	1603	Return flights for the international consultant (Output 2.1.2)		1,500								**1,500**			1,500				**1,500**
	1604	DSA for the international consultant (Output 2.1.2)		6,125								**6,125**			6,125				6,125
	1605	Return flights for the international consultant (Output 2.2.1)			1,500							**1,500**		1,500					**1,500**
	1606	DSA for the international consultant (Output 2.2.1)			5,250							**5,250**		5,250					5,250
	1607	Hiring of three vehicles for the project team to conduct field work			60000							**60,000**	60000						**60,000**
	1608	Return flights for the international consultant (Output 2.2.3)			1,500							**1,500**		1,500					**1,500**
	1609	DSA for the international consultant (Output 2.2.3)			10,500							**10,500**		10,150			350		10,500
	1610	Return flights for the international consultant (Output 2.2.4)			1,500							**1,500**		1,500					**1,500**
	1611	DSA for the international consultant (Output 2.2.4)			12,250							**12,250**		12,250					12,250
	1612	Return flights for the international consultant (Output 2.3.1)				1,500						**1,500**			1,500				**1,500**
	1613	DSA for the international consultant (Output 2.3.1)				8,925						**8,925**			8,925				8,925
	1614	Return flights for the international consultant (Output 4.1.3)							1,500			**1,500**					1,500		**1,500**
	1615	DSA for the international consultant (Output 4.1.3)							350			**350**					350		**350**
	1616	Travel and DSA for PMU		29,251	70,425	10,325						**110,001**	18,334	18,334	18,334	18,334	18,334	18,334	**110,001**
	1617	International travel for project team members related to capacity building and knowledge sharing							18,000			**18,000**	3,000	3,000	3,000	3,000	3,000	3,000	**18,000**
		Sub-total	**-**	**52,201**	**162,925**	**20,750**	**-**	**-**	**19,850**	**-**	**-**	**255,726**	**81,334**	**53,484**	**54,709**	**21,334**	**23,534**	**21,334**	**255,726**
	4100	**Office Supplies**																	
	4101	Office supplies for the PMU								2,040		**2,040**	340	340	340	340	340	340	**2,040**
		Sub-total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,040**	**-**	**2,040**	**340**	**340**	**340**	**340**	**340**	**340**	**2,040.00**
	Component total		**638,000**	**700,201**	**1,984,100**	**2,999,900**	**800,000**	**1,600,000**	**333,821**	**468,840**	**320,800**	**9,845,662**	**2,031,392**	**2,033,849**	**3,488,549**	**1,563,424**	**312,977**	**414,274**	**9,845,662**

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.

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.

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).