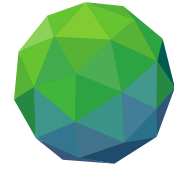




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## Project Document

<b>Project title: Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste</b>	
<b>Country: Timor Leste</b>	
<b>Implementing Partner:</b> Secretariat of State for the Environment (SEA), under the Coordinating Minister of Economic Affairs	<b>Management Arrangements :</b> National Implementation Modality (NIM)
<b>UNDAF/Country Programme Outcome:</b> By the end of 2020, people of Timor-Leste, especially the most disadvantaged groups, benefit from inclusive and responsive quality health, education and other social services and are more resilient to disasters and the impacts of climate change.	
<b>UNDP Strategic Plan Output:</b> Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters, including from climate change	
<b>UNDP Social and Environmental Screening Category:</b> Moderate	<b>UNDP Gender Marker for the project output:</b> Gen 2
<b>Atlas Project ID (formerly Award ID):</b> 00106661	<b>Atlas Output ID (formerly Project ID):</b> 00107294
<b>UNDP-GEF PIMS ID number:</b> 5910	<b>GCF ID number:</b> FP109
<b>Planned start date:</b> January 2020	<b>Planned end date:</b> January 2026
<b>LPAC meeting date:</b> 14 February 2020	
<b>Brief project description:</b>	
<p>Approximately 70% of Timor-Leste’s rural population (840,000 people) is highly vulnerable to climate changes, particularly increasing variability of rainfall and extreme weather events. Lives and livelihoods in the remote interior of the country and coastal regions are both highly exposed. Impacts of intensified extreme events include damage and degradation of decentralized small-scale critical infrastructure, particularly water supply and drainage structures, embankments, and feeder roads and bridges. Damages leave rural populations isolated, lacking basic services. According to climate change scenarios and risk models, occurrences of climate extremes and related damages will at least double towards mid-century.</p> <p>The project objective is to safeguard vulnerable communities and their physical assets from climate change-induced disasters. It aims to address existing institutional, financial and legislative barriers, increasing the climate resilience of vulnerable small-scale rural infrastructure. Output 1 focuses on strengthening the capacity of mandated institutions to assess and manage climate risks in order to</p>	


maintain local infrastructure services. GCF-funded activities will embed new skills, technologies, and innovative methods in climate risk identification and mitigation processes. Monitoring and recording of climate risk information will be enhanced, and these data will be integrated into policies, standards, guidelines, and long-term investment planning for small-scale rural infrastructure. Output 2 focuses on implementing climate resilient building measures to improve small-scale rural infrastructure in vulnerable areas<sup>1</sup>. GCF funds will assist in the development and implementation of catchment management strategies, supporting long-term resilience and climate risk reduction via landscape restoration and enhanced land stability, particularly in vulnerable catchments where small-scale infrastructure is present.

The project targets 175,840 direct beneficiaries, an estimated 15% of the total population. Benefits include increased climate resilience for small-scale infrastructure as well as 300 ha of reforested and rehabilitated land to buffer against climate-induced disasters. The project will ensure long-term infrastructure resilience via (i) embedding climate resilience standards into the processes through which small-scale infrastructure is planned, designed, constructed and maintained; (ii) improving climate hazard and risk assessment capacity and access to climate risk information. This project was developed at the request and full support of the NDA. All proposed interventions are aligned with the national determined contributions for adaptation, the National Adaptation Programme of Action, and strategic development plans. The project further ensures country ownership through strong stakeholder and community engagement components.



**FINANCING PLAN**

GCF grant	USD 22,356,805
UNDP TRAC resources	USD 400,000
<b>(1) Total Budget administered by UNDP</b>	<b>USD 22,756,805</b>
<b>PARALLEL CO-FINANCING</b> (all other co-financing (cash and in-kind) administered by other entities, non-cash co-financing administered by UNDP)	
Government	USD 36,687,062
<b>(2) Total co-financing</b>	<b>USD 36,687,062</b>
<b>(3) Grand-Total Project Financing (1)+(2)</b>	<b>USD 59,443,867</b>

**SIGNATURES**

<p><b>Signature:</b></p>  <p>H.E. Mr. Demétrio do Amaral de Carvalho Secretary of State for Environment Government of Timor-Leste</p>	<p>Agreed by Government of Timor-Leste</p>	<p>Date/Month/Year: <i>16 April 2020</i></p>
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<sup>1</sup> Small-scale rural infrastructure provision usually consists of a large number of comparatively small investments over a defined small geographical area and is therefore treated as a single sector in its own right, and is governed, financed and managed through decentralized sources and public services as a single sector.

<b>Signature:</b>  Ms. Munkhtuya Altangerel Resident Representative UNDP Timor-Leste	 Agreed by UNDP  	Date/Month/Year:  16.04.2020
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**Disbursement:** Government is aware of the conditions of disbursement ascribed to the first and subsequent tranches of the GCF funding as specified in the FAA (and in particular Clause 8 and 9.02 of the FAA). To the extent that these obligations reflect actions of the Government, the Government must ensure that the conditions are met and there is continuing compliance, and understands that availability of GCF funding is contingent on meeting such requirements and such compliance.

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## II. DEVELOPMENT CHALLENGE

Timor Leste is a least developed country<sup>2</sup> and post-conflict society with a fast-growing population. The country remains dependent upon subsistence agriculture. The country is prone to increasing climatic variability and unpredictability, particularly in relation to rainfall and extreme weather events such as floods, landslides, drought which result in the loss of lives and livelihoods of rural people. Impacts of intensified extreme events on critical rural infrastructure include damage and degradation of assets such as water supply and drainage structures, embankments and river protections, and community-level feeder roads and bridges. These damages leave rural populations without basic services and often in full isolation. These challenges hindered the country's achievement of sustainable development goals.

### *Climate change impact*

Timor Leste's Initial National Communication to UNFCCC (INC, 2014) recognizes two possible major impacts of climate change, including (a) a shift in seasonal and latitudinal precipitation patterns, and (b) an increase in the frequency and scale of extreme weather events. Climate change is expected to result in a more intense dry season and wet seasons characterised by fewer but more intense events, including El Niño events that may become more severe. These changes may exacerbate existing problems with drought, floods, and water quality. Water management infrastructure such as water storage, water supply and flood defence infrastructure is increasingly exposed to climate change impacts, thus necessitating additional and more resilient infrastructure as climate patterns change.

An assessment of the impact of climate-induced hydro-meteorological hazards on Timor-Leste shows that, under climate change, there will be an increase in the number of areas and key infrastructure affected for all hazards. In most cases, at least a doubling of hazard-affected areas in percentage terms is expected.<sup>3</sup> On average, the increase in impact of each hazard between the baseline and climate change scenarios nationally is 26.3%, 21%, 55.4%, and 55.8% for landslides, floods, erosion, and drought risk, respectively. The economic losses that could occur under climate change range from USD \$203 Million, \$37 Million, \$10 Million, and \$12.5 Million for landslides, floods, erosion, and droughts, respectively<sup>4</sup>.

These losses will impose significant additional financial burden on the government and affected population. At the same time, the frequency and intensity of climate extremes and disasters will necessitate additional infrastructure maintenance measures while also increasing the demand for additional protective features to be embedded into the design of new construction. These effects, in combination, will considerably increase the cost of construction, operations and maintenance of rural infrastructure. The implicit additional cost cannot be absorbed by local authorities or the general population and remains the responsibility of the government.

### **Underlying vulnerabilities**

The exposure of rural communities to climate-induced disasters within Timor-Leste's is exacerbated by:

- un-favourable socio-economic conditions, and limited access to infrastructure and services due to geographic isolation

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<sup>2</sup> Timor Leste has a UN Human Development Index of 0.595 and ranks 133 out of 188 countries

<sup>3</sup> In developing the baseline and climate change risk assessment and damages and losses assessment, existing hazard maps were used and climate change impacts were inferred by assuming a worsening of the hazard categories (e.g. baseline medium hazard will become high hazard) etc. This enabled quantification of potential climate risks and impacts and is based on the best available information at project design stage. Note: Irrigation infrastructure data was not available so it is not included in the analysis. Note: Irrigation infrastructure data was not available so it is not included in the analysis.

<sup>4</sup> Detailed socio-economic risk assessment is provided in Section 2.9 of the Feasibility Study (Annex II)

- limited adaptive capacity and resilience to enable effective response to or recovery from such disasters, which further deepens their deprivation.
- Women are notably at risk because of their comparatively limited education, income and ability to influence decision-making.

The degree of geographic isolation/access to urban areas coupled with socio-economic conditions demonstrates that most rural settlements in the country are highly vulnerable and susceptible to climate change induced risks. An ADB study on least developed sucos (villages) measured the living standards across the country against the asset index<sup>5</sup>. The sucos with highest living standards are concentrated around the capital Dili and close to district centres. Sucos with the lowest living standards are the most remote and have small population. Access to infrastructure is higher in sucos with higher living standards, and there is a large gap in access between groups.

In addition to asset, social and infrastructure indexes, capacity to cope is also an important index of vulnerability. When coping capacity is considered, the analysis showed that the impact of climate change is dependent on the size of the change (the increase in % of the municipality which will be affected by the highest category of the particular hazard) as well as the coping capacity for that municipality. This points to the need to enhance the coping capacity of communities and provides a means of identifying where the enhancement of components of coping capacity, namely infrastructure assets, livelihoods and socio-economic conditions, need to be prioritised to address the most vulnerable to climate change. The analysis shows that the climate risks to infrastructure and livelihoods is increasing, and that those who are most affected by such risks will be those least able to cope. This therefore demonstrates the need to address increasing risks to infrastructure, while also addressing threats to the communities.

Women play an important role in Timor Leste's rural communities. In particular, they are active in agriculture as cultivators, laborers and family workers. However, women face significant barriers and inequalities in terms of access to and control over resources such as land, capital and credit as well as access to agricultural inputs and technology, training, information and marketing services. This hinders their full participation in social and economic life in rural communities. Women and girls in Timor Leste are particularly vulnerable to food insecurity. Consequently, they suffer from malnutrition which leads to high rate of maternal, infant and child mortality (Seeds of Life III, 2010). Women's ability to attain food security through higher agricultural productivity is disproportionately affected by their low social empowerment, weak community influence and lack of control over and access to income, resource and information (Seeds of Life III, 2010). It is further hindered by their isolation due to a lack of mobility and basic infrastructure. Eliminating gender gaps in rural communities is thus paramount to achieving productive rural communities in Timor Leste.

When the impact of climate change with coping capacity considerations is assessed for each receptor type (roads, agriculture, water sources, houses) and taking all hazards into consideration, the following municipalities emerge as the most climate vulnerable: Baucau, Ermera, Aileu, Viqueque and Lautem. Liquica is also identified as particularly susceptible to flooding. Based on the assessment of damages and losses under baseline and climate change conditions, the 6 target municipalities will incur the following percentage of the total national losses from a single hazard event under climate change: 63% of property and 63% of crop income losses, 27 %<sup>6</sup> of property and 45% of crop income flood losses, 54% of crop income erosion losses and 54% of crop income drought losses. The people and infrastructure in target municipalities are therefore disproportionately affected by these climate-induced hazards.

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<sup>5</sup> Asian Development Bank (2013) Least Developed Sucos, Timor-Leste. The assets used are (i) the share of houses in a suco with good quality floors, roof, or walls; (ii) the share of households owning a hand tractor, television, motorcycle, radio, telephone or mobile phone, refrigerator or freezer, bicycle, car or van, rice husker, rice mill, or boat; and (iii) the average number per person of chickens, pigs, sheep, goats, horses, cattle or cows, and buffalos. Based on these assets, the asset index has been calculated.

<sup>6</sup> It should be noted that Dili on its own will incur 54% of flood losses due to the density of its population so 27% across the 6 target municipalities is still significant and essentially more than 50% of the risk outside Dili.

## Barriers

### ***Incomplete policies, standards and regulations that limit the implementation of climate resilient small-scale rural infrastructure***

The policies and laws governing climate change are established, such as draft National Climate Change policy and DRM Policy as well as some sectoral policies that include consideration of climate change. However, there remains regulatory and legislative limitation in implementing the climate change interventions prescribed in these draft policies. Moreover, several deficiencies and gaps in the enabling environment governing the implementation of infrastructure remain, which need to be addressed in order to embed climate resilience into the design, construction and maintenance of small scale rural infrastructure. The National Disaster Risk Management Policy, adopted in 2008, commits both the sectoral ministries and local communities, including suco (village) and aldeia (sub-village) chiefs to engage in both ex post and ex ante risk reduction. This policy covers a shift from traditional crisis response management to disaster, conflict, and climate change risk management. However, it remains too broad and is not guided by locally-specific information. In the absence of rigorous hazard and risk mapping as well as a damage accounting system, it is difficult to identify, plan, cost, and budget for risk reduction investments, especially in relation to physical infrastructure. Furthermore, sector ministries and local administrations are not guided by detailed operation protocols to effectively implement disaster risk reduction and climate resilience measures. Thus, the rural infrastructure that is being built may increase levels of exposure and risks of adverse impacts.

### ***Limited technical capacity to engineer climate proofing measures to infrastructure***

Technical capacity for compiling and analysing climate data for informing risk reduction practice is nascent. This includes capacities for producing hazard, risk and vulnerability maps and forecast bulletins. There is ongoing support for Timor Leste to upgrade and modernize the hydrometeorology observation network both nationally<sup>7</sup> and regionally<sup>8</sup>. However, currently much of the meteorological and forecasting data for informing climate risk and vulnerability is available from regional centres such as the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) or the Australian Bureau of Meteorology, and data products focused on Timor Leste are limited. Planning institutions are, therefore, limited to inadequate and outdated information when planning for future climate change scenarios and climate-induced disasters.

Risk management practitioners at the national and sub-national levels are not able to use seasonal and long-term forecasts of climatic conditions to inform probabilistic assessments of risks posed by climate-induced disasters to infrastructure. Without such risk assessments, tailored measures for disaster and climate risk management cannot be developed. Specifically, with respect to compiling: i) climate risk assessments; ii) vulnerability assessments; iii) damage and loss assessments; vi) economic valuations that underpin different sectoral, national and subnational plans; and v) contingency planning, there is currently a lack of capability at national and sub-national levels. Without these necessary skills, it will not be possible for effective planning and implementation of climate change adaptation to support climate proofing of infrastructure in Timor Leste. Furthermore, engineering skills and knowledge of climate proofing is nearly non-existent. All key types of practitioners within the climate disaster management and infrastructure planning and development fields currently lack capacities to be able to systematically identify and assess climate-induced hazards or to include climate proofing measures in infrastructure design and construction. Equipment, Verification, Evaluation and Supervision (EVAS) engineers that support village and municipal infrastructure development investments under the Ministry of State Administration have no training or re-training opportunities in climate proofing, neither are they guided by technical manuals or codes or

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<sup>7</sup> For example, GIZ has been implementing the project 'Global Climate Change Alliance' (GCCA-TL) in Timor Leste since 2013 which has improved capacity of the Agriculture and Land Use Geographic Information System (ALGIS) to collect, analyse and share agro-met data. 10 out of 12 ALGIS weather stations (AWS) are operational, a monthly edition of MAF Agro-meteorological Bulletin based on ground data is produced.

<sup>8</sup> WMO is working with the government and civil society partners in Fiji, Papua New Guinea, Solomon Islands, Timor-Leste and Vanuatu to develop a potential Green Climate Fund (GCF) project that aims to markedly improve the countries' Early Warning Systems "EWS Enhancing EWSs to build greater resilience to hydro and meteorological hazards in Pacific SIDS"

standards to apply and adhere to. There are not innovative technologies for physical damage and risk assessment (e.g. Unmanned Aerial Vehicles (UAV) drone technology for ground-truthing and verifying physical damage) available or used. Such equipment and technology would complement the observation network, enable more frequent surveys in remote and challenging topography, and enable rapid post-event damage and loss surveys and assessments. Such ground truthing approaches are particularly needed to conduct infrastructure and damage and loss assessments, and are particularly effective to understand the general context in an island settings.

***Weak capacity of municipal and village level institutions to plan, implement, and maintain network rural infrastructure that is resilient to the increasing impacts of climate change***

The sectoral legislative and institutional enabling environment does not currently take a risk-informed cross-sectoral approach to addressing and incorporating climate change considerations. This has resulted in poor spatial planning, land use water resource management, and disaster risk management - all of which significantly affect the ability to plan and develop climate resilient infrastructure. Already weak institutional functions and capacities at national/centralized levels are even weaker at district/municipal and village (suco) level. All stages of the District Investment Development Plan (PDIM) planning must embed climate risk reduction criteria for decision-making - from suco-level prioritization, to reviews at administrative post and municipal levels, and clearances at the Ministries of State Administration and Strategic Planning and Investment through their joint technical committee. The PDIM manual currently does not include detailed guidelines for climate resilient infrastructure development. There is no standard operating procedure (SOP) for infrastructure use and maintenance that considers emerging conditions of climate change. Spatially expressed risk information at various timescales is not available to the PDIM planners and engineers to reference their siting decisions, choices of construction materials, and engineering designs in response to existing vulnerabilities and projected risks. Furthermore, there is a lack of capacity at municipal level for designing climate resilient infrastructure. Climate risk-informed District Investment Development Plan (PDIM) and National Programme for Suco Development (PNDS) processes are critical for resilient development of local communities and infrastructure services

***Limited options for financing climate resilient decentralized small-scale rural infrastructure at sub-national level***

When planning and implementing infrastructure investments through municipal / district and village development planning mechanisms, broader landscape and ecosystem functions are not systematically considered a viable strategy to safeguard the investments. In both the short- and long-term, investments in ecosystems can protect and sustain built infrastructure and human livelihoods<sup>9,10,11</sup>. However, the allocation of development resources in Timor Leste is focused on physical infrastructure. Consequently, the value of ecosystem-based approaches to climate risk management is overlooked. The local planning process does not consider management of watersheds, especially where areas requiring management are larger than individual sucos (villages). In such cases, watershed management activities would not be considered in the suco plans nor be brought up to the district plans. However, recognition of the watershed as a planning entity is beginning; the National Directorate for Forestry has initiated the process of developing watershed management plans for select sucos.

The economic deprivation of rural communities and lack of alternative livelihoods leads to harmful land use practices resulting in land degradation. There are currently no incentives for local communities to rehabilitate degraded watersheds and adopt land use and livelihood practices that contribute to sustainable management of land and forests, neither do the communities have any investment resources to engage in adaptive land use and livelihood activities. Thus, substantial areas of land have been cleared of vegetation

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<sup>9</sup> Doswald *et al.* 2014. Effectiveness of ecosystem-based approaches for adaptation: review of the evidence base. *Climate and Development*. DOI: 10.1080/17565529.23013.867247.

<sup>10</sup> Highland, L.M. & Bobrowsky. 2008. *The landslide handbook – A guide to understanding landslides*. U.S. Geological Survey Circular 1325. Reston, Virginia.

<sup>11</sup> Rao *et al.* 2012. *A comparative analysis of ecosystem-based adaptation and engineering options for Lami Town, Fiji*. A synthesis report by the Secretariat of the Pacific Regional Environment Programme.



in Timor Leste and are under-utilized. At least 30% of land area is suitable for tree growing. However, this potential is not used to stabilize the land or reduce hazard risks to the communities and infrastructure, nor is it utilized to unlock the socio-economic potential of agroforestry to enhance livelihoods. Furthermore, current PDIM and PNDS do not have funding criteria or requirement to embed additional cost of climate risk reduction to physical and economic assets. Hence there is currently no understanding of the investment requirements for climate proofing infrastructure under climate change conditions due to the lack of climate risk information and methods on which to base such investment planning. These have traditionally followed the annual investment planning cycle which is not conducive to embedding long term adaptation objectives<sup>12</sup>. However, there are policy prerequisites to integrate climate and disaster risk management into these decentralized planning mechanisms that requires adequate enforcement capacities.

The combination of these four key barriers has hindered particularly vulnerable communities from effectively planning, establishing and utilizing approaches to protect and build the resilience of their physical and economic assets in the face of climate

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### III. STRATEGY

The main objective of this project is to safeguard vulnerable communities and their physical assets from climate change-induced disasters. First, the project will strengthen technical capacities of mandated institutions to assess and manage the risks of climate-induced physical damages and economic losses as well as integrate climate resilient measures into policies and planning. GCF funds will be used to embed new technical skills, improve availability of risk information, and create effective response mechanisms. Second, the project will implement climate risk reduction and climate-proofing measures for small-scale rural infrastructure in order to build the resilience of vulnerable communities in six priority districts. GCF funds will be used to introduce engineering skills and implement ecosystem based adaptation approaches for climate proofing of small-scale rural infrastructure that are essential to reducing prevalent social and economic vulnerabilities that will only worsen with climate change. In addition, GCF resources will be invested in the development and implementation of catchment management strategies, which will support landscape restoration and land stability as climate risk reduction and long-term resilience measures. The rehabilitation activities will be undertaken in the catchment areas located in the areas of small-scale infrastructure units.

The project is supporting an ongoing decentralized investment framework which is administered through the PDIM and PNDS processes, by embedding the knowledge of climate risks and skills of climate proofing design, construction, operation and maintenance of rural infrastructure.<sup>13</sup> Through the project, local authorities' capacity for climate-risk informed development of long-term investment plans will be enhanced, thereby strengthening de-centralized decision-making. Human resource capacity in managing climate risks to local development funding (including technical capacity for assessing proposals, ensuring performance standards, conducting safety, environmental impact and cost-effective evaluations of proposals, and monitoring local development projects) will be enhanced. The project is addressing the current gap in technical expertise in the target districts by developing a long-term capacity and resourcing plan and implementing training (including training of trainers, TOTs) focused on specialised climate proofing expertise for local experts, including architects and structural engineers. The project is also doing the following: strengthening

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<sup>12</sup> PDIM legal framework has been recently amended in 2016 in line with the deconcentrating/decentralization program that allows re-appropriation of the unspent budget. This new amendment allows administrative units to carry funds beyond the year of allocation. The decision on this appropriation is through consultation between the administration unit. The municipal and the line ministries responsible for the program to the following year

<sup>13</sup> In Timor-Leste, expenditure on infrastructure is implemented through three windows, these being: 1) the line ministries' Consolidated Fund of Timor-Leste (CFTL) budgets; 2) the Infrastructure Fund; and 3) the District Integrated Development Plan (PDID), now PDIM, a district development program which includes the construction of small-scale infrastructure projects with budgets of less than US\$500,000. At the village level, the PNDS process is used for small-scale infrastructure of less than \$150,000. The line ministries' CFTL budgets are used to execute projects that have budgets of a value of less than US\$1 million and which are expected to be completed within a year. The Infrastructure Fund, a multi-year fund that was established in 2011, is used to execute large projects with budgets to a value in excess of US\$1 million and which are expected to take more than one year to complete. The main goal of the PDIM and PNDS is to develop the domestic private sector, with its secondary goals being to create an increased number of employment opportunities in rural areas and to provide high quality infrastructure demanded by the local population in these areas.

the enabling environment and ensuring the availability and use of gender responsive climate risk and vulnerability data to inform risk assessments and the prioritisation of infrastructure; raising awareness and knowledge on the possible localized impacts of climate change on vulnerable livelihoods; embedding the use of site-specific natural systems in sustaining built systems and engaging communities to do so through catchment management and agroforestry, thus enhancing livelihoods; enabling engagement of local planners with communities through joint analysis of risks and changes in risk over time; enabling participation of households and communities in local development planning processes; and embedding long-term operations and maintenance arrangements with local participation to ensure long term sustainability of infrastructure, service delivery and local governance. The project is therefore addressing many of the current limitations of the decentralised investment framework to deal with climate risks to physical assets, as detailed in Section 6.3 of the Feasibility Study.

The following outputs will be delivered:

- Output 1: Climate risk information is developed, monitored and integrated into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management
- Output 2: Climate risk reduction and climate-proofing measures for small-scale rural infrastructure are implemented to build the resilience of vulnerable communities in six priority districts

#### Climate change drivers and impacts addressed by the project activities

Output	Activity	Climate Change Drivers and Impacts
Output 1: Climate risk information is developed, monitored and integrated into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management	Activity 1.1 - Develop and deliver climate risk information services and vulnerability mapping to all sectoral institutions	<ul style="list-style-type: none"> <li>• Increased temperature and decreased rainfall in dry season that leads to increased and intensified droughts which impacts water supply and agricultural production.</li> <li>• Increased and intensified rainfall during wet season leading to increased floods, landslides, and erosion</li> <li>• Increased rainfall variability that impacts water balance</li> <li>• Intensified extreme events and hazards leading to loss of lives, damage of property, loss of crop, damages in rural infrastructure (roads, bridges, and water supply)</li> <li>• Increased financial burden due to climate-induced damages and losses</li> </ul>
	Activity 1.2 - Establish a database system for monitoring, recording and accounting climate induced damages in order to inform climate risk reduction planning and budgeting	
	Activity 1.3 - Refine ordinances, regulations and associated codes and standards to enable climate proofing small-scale rural infrastructure	
Output 2: Climate risk reduction and climate-proofing measures for small-scale rural infrastructure are implemented to build the resilience of vulnerable communities in six priority districts	<p>Activity 2.1 - Climate risk reduction measures for small-scale rural infrastructure are fully integrated into the planning and budgeting cycles of Village and Municipal development plans</p> <p>Activity 2.2- Implementation of climate-proofing measures for small-scale rural infrastructure</p>	<ul style="list-style-type: none"> <li>• Increased and intensified droughts and prolonged dry seasons leading to water insecurity, loss of vegetation and loss of crops</li> <li>• Intensified droughts leading to the increasing uncertainty in yield.</li> <li>• Intensified extreme events leading to increased and intensified landslides that impact drainage and road stability</li> <li>• Increased and intensified rainfall during wet seasons leading to erosion and damage of flood embankments, and requirement for increased flood protection</li> <li>• Increased frequency and intensity of floods causing higher flood flow velocities and higher discharges that increase exposure and damage of roads, bridges and other rural infrastructure</li> <li>• Increased soil erosion leading to increased risk of water source pollution, destabilization of soil, land degradation, loss of crop yield and greater exposure of physical assets</li> </ul>

- Increased variability in rainfall and intensified rainfall during wet seasons leading to intensified runoff, soil erosion, landslides flash flooding and low soil fertility for crop production

## Project Theory of Change

The following diagram presents the project Theory of Change, demonstrating how the activities can remove current barriers and achieve transformational change in infrastructure development. This will result in increased infrastructure and built environment resilience, as well as enhanced livelihoods and resilience of the most vulnerable people, communities and regions of Timor Leste.

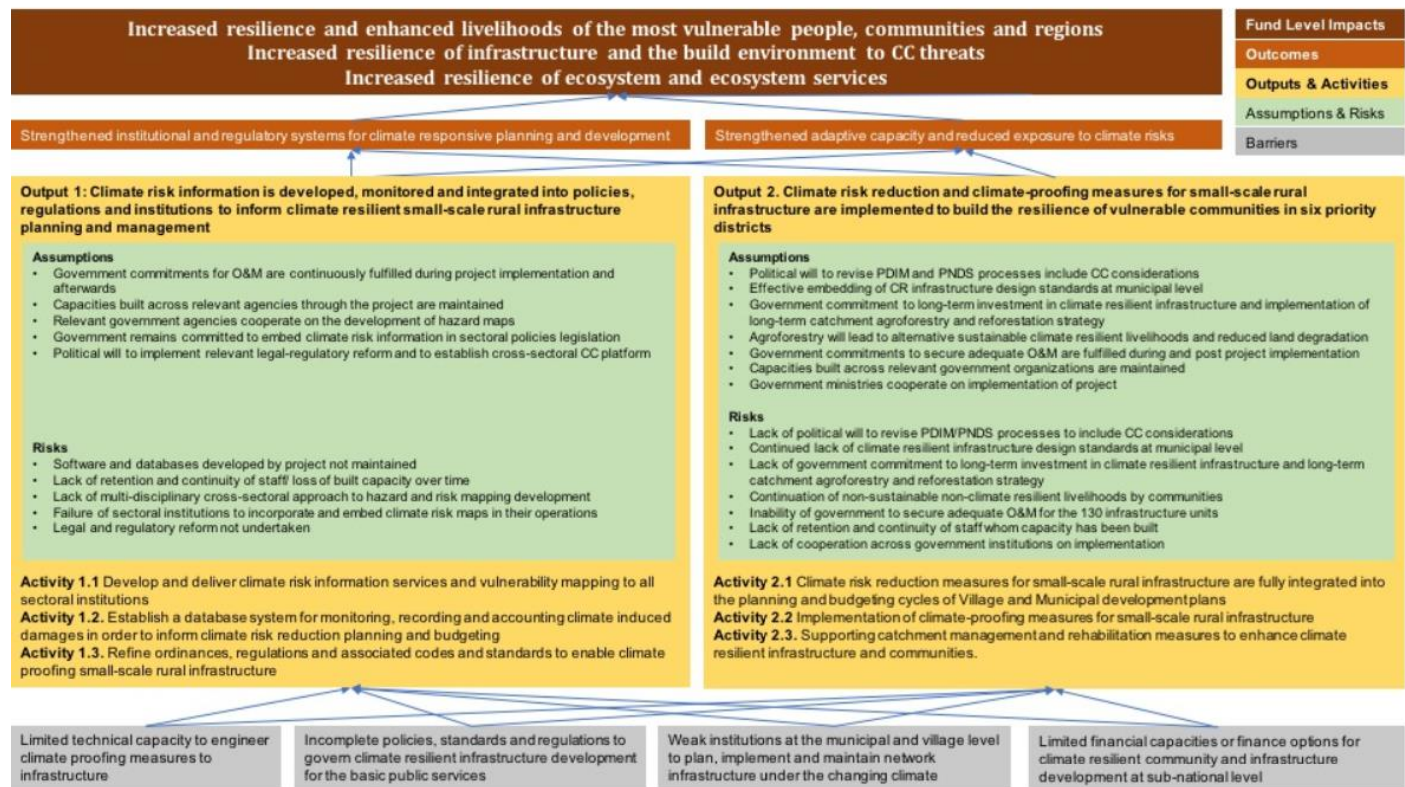


Figure 1: Theory of Change for the project

## Alignment with the Global Goals and the National and Sector Policy Context

The project is fully in line with the adaptation priorities expressed in National Adaptation Programme of Action (NAPA). The NAPA strongly prioritizes climate disaster risk reduction to protect local populations and physical infrastructure. Protection of forest and watershed forest rehabilitation linked with issues of food security are also underscored as important. A central pillar of the GoTL's Strategic Development Plan (2011-2030) is the building and maintenance of core and productive infrastructure to address the large infrastructure deficit and to enable Timor-Leste to develop economically and socially. The District Investment and Village Investment Plans (PDIM and PNDS) outline small-scale rural infrastructure development priorities with an aim to address the current infrastructure deficit in rural settings. It is critical to include climate hazard risk reduction and mitigation in construction and maintenance stages of small-

scale rural infrastructure development. Priority adaptation measures of Timor Leste's NDC will be focused on reducing adverse effects of climate change, promoting sustainable development, and reducing poverty. Timor-Leste's National Adaptation Programme of Action (NAPA) (2010), aims to implement the action plan to reduce the vulnerability of Timor-Leste to the consequences of climate change in all key sectors. The draft policy specifies the need to promote climate resilience and climate proofing approaches in small-, medium- and large-scale infrastructure development, as well as the need to create a platform for better coordination between climate change adaptation and disaster risk management interventions.

The project is aligned with SDGs 5, 6, 10, 11,13, 15. Specifically with regard the SDG 1 the project will

- Strengthen the resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;
- Integrate climate change measures into national policies, strategies and planning
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning;
- Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

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## IV. RESULTS AND PARTNERSHIPS

Expected Results: The project contributes towards UNDP Strategic Plan (SP) outcome 3 “Build resilience to shocks and crisis’ and adapts SP’s signature solution 3: enhance national prevention and recovery capacities for resilient societies”. The design of the project builds on lessons and best practices from the previous UNDP-supported project “Strengthening Small Scale Rural Infrastructure in Timor Leste – SSRI project”, which has piloted techniques, approaches and investments in the small scale rural infrastructure in three Municipalities - Baucau, Ermera and Liquica. Other lessons are derived from the UNDP-supported project – “Dili-Ainaro Road Corridor (DARDC) Project”.

Under the SSRI Project critical small scale rural infrastructure was designed to be climate-resilient and implemented through participatory approaches. In addition, the project strengthened local governance systems, at the municipal and Administrative Post levels. SSRI supported integrating climate change issues into Municipality and local level planning and implementation of PDIM projects in a manner that makes them withstand risks and impacts of climate change. The overall goal of the project is to safeguard development benefits for rural communities from future climate change induced risks, which is in line with, and underpinned by, a number of important policies and strategies governing Timor Leste's national development and its specific response to climate change.

The GCF-funded project will contribute to increased climate-resilient sustainable development in Timor-Leste by addressing existing institutional, financial and legislative barriers, and increasing the climate resilience of vulnerable small-scale rural infrastructure. strengthening the capacity of mandated institutions to assess and manage climate risks in order to maintain local infrastructure services. It will embed new skills, technologies, and innovative methods in climate risk identification and mitigation processes, enhance monitoring and recording of climate risk information and integrate climate risk data into policies, standards, guidelines, and long-term investment planning for small-scale rural infrastructure, and will implement climate resilient building measures to improve small-scale rural infrastructure in vulnerable areas. To further safeguard climate proofed infrastructure, the project will develop and implement catchment management strategies, supporting long-term resilience and climate risk reduction via landscape restoration and enhanced land stability, particularly in vulnerable catchments where small-scale infrastructure is present.

The project targets 175,840 direct beneficiaries, an estimated 15% of the total population and will catalysed benefits including increased climate resilience for small-scale infrastructure as well as 1500<sup>14</sup> ha of reforested and rehabilitated land to buffer against climate-induced disasters. The project will ensure long-term infrastructure resilience via (i) embedding climate resilience standards into the processes through which small-scale infrastructure is planned, designed, constructed and maintained; (ii) improving climate hazard and risk assessment capacity and access to climate risk information.

The two outputs above translate into the project interventions below.

**Output 1: Climate risk information is developed, monitored and integrated into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management**

This output will address the gaps in policy, regulations, and institutional capacity to deliver climate resilient small-scale rural infrastructure. It will do so by addressing gaps in the climate risk knowledge base through the development and introduction of hazard, risk and vulnerability assessment and mapping methods, technologies and tools, and capacity development within the main central government institutions involved in climate change adaptation and disaster risk management. Climate-induced hazard, risk and vulnerability maps are essential for the assessment of current and future hazards, for the identification of receptors such as infrastructure, people and agriculture at risk, and for the design of hazard management solutions that fully accounts for climate change. There is currently no definitive or accurate hazard and risk mapping for Timor Leste and existing national-scale hazard maps are of a broad-brush nature, lacking the level of technical detail on which to base comprehensive climate risk adaptation and disaster risk management. The strategic assessment of risk to population, infrastructure, economic activity, and future development under conditions of climate change is a government priority to support and guide municipalities to wisely and rationally manage risk exposure to acceptable levels. Under this output, the project will also address gaps in the legislative and policy framework by supporting the elaboration of policies, legislation, guidelines, and standards to embed climate change considerations across all sectors relevant to infrastructure development. Furthermore, the project will facilitate the dissemination and sharing of common and definitive climate risk information needed by all sectors to embed climate risk considerations into their functions. The Climate Change and Biodiversity Centre (CCCB), established under the SSRI project, has a mandate to provide climate information services across all government institutions to facilitate climate responsive policies and decision-making and to undertake capacity building of government practitioners. The project intends to build the capacity of the CCCB to embed necessary skills training (ToT) for long-term sustainable delivery of the key aspects of the capacity development plan.

The Capacity Assessment Study funded by SSRI included a broad review of capacity deficits in all municipalities and provided a high-level review of capacity issues, taking full account of the training that was provided by SSRI and other projects. Hence, with regard to training and other aspects of capacity development, SSRI's main contribution is an in-depth capacity development needs assessment and capacity development strategy formulated for a sustainable practice of Small Scale Resilient Infrastructure – SSRI. The UNDP-GCF project is fully guided by and embeds the key elements of capacity development strategy at policy, intuitional, and individual technical skill levels. The capacity development that had been identified for the GCF project is therefore building upon and complementary to that already undertaken by SSRI project and will importantly extend to other municipalities and embed capacity in the relevant institutions via the Training of Trainers (ToT) approaches and further development of central and municipality institutions within the PDIM and PNDS process.

**Activity 1.1. Develop and deliver climate risk information services and vulnerability mapping to all sectoral institutions.**

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<sup>14</sup> In which 1,200 ha of land within project areas will be rehabilitated through MAF co-financing

The GCF investment will be used to introduce technology, methodologies and capacities for the development of climate risk information and the long-term institutional capacity to undertake hazard, risk and vulnerability mapping in the future. Activity 1.1 will help develop and deliver climate services such as climate hazard and risk and vulnerability assessments, cost-benefit assessments for adaptation solutions and related training to responsible public servants across mandated institutions. The hazard and risk maps will be used for risk-informed decision-making for all aspects of development and risk management in the future. Uses will include development planning for zoning of development activity away from high hazards areas to avoid physical damages and economic losses to people, property and economic activity. Hazard and risk maps will be prepared for the whole of Timor Leste for the 4 main hazards - floods, landslides, soil erosion, and droughts.

This activity will introduce a bespoke GIS-based socio-economic risk model as a tool for risk assessment (including potential physical damage and economic losses modelling), cost-benefit analysis and the identification and appraisal of climate resilient intervention measures for strategic planning in the future. The hazard will be used in combination with infrastructure (bridges, roads and buildings), land use (settlements, agriculture, grazing lands, and conservation areas), property, and socio-economic data to model the socio-economic impacts of each hazard and produce vulnerability maps. The resulting vulnerability maps, based on the accurate hazard mapping of the current situation, will form the baseline. The baseline model will form the basis of future appraisal-led disaster risk management and climate risk-informed infrastructure planning. Central government and infrastructure practitioners will be trained in the use of the hazard and risk models developed and importantly, capacity will be built to enable the updating and maintenance of the models. Municipality engineers will also be trained in the use of the models for appraisal-led infrastructure planning.

Local field officers and village youth leaders will be trained in surveying techniques, including the use of global positioning systems (GPS) to undertake topographic surveys which will be required for the production and updating of flood risk maps and other community-based mapping for development, calibration and validation of the hazard maps. GPS will also be effectively used to record the coordinates of the infrastructure (as part of the asset mapping and asset management to be introduced in Activity 1.2) on the GIS hazard maps to inform planning and budget allocations. A series of technical staff trainings in climate risk modelling, mapping and vulnerability, cost benefit analysis (CBA) and project appraisal techniques, specifically in relation to infrastructure planning and development and climate-induced disaster risk management, will be delivered.

### **Activity 1.2. Establish a database system for monitoring, recording and accounting climate induced damages in order to inform climate risk reduction planning and budgeting**

GCF investment will be used to strengthen systems for monitoring and recording climate-induced disaster events. GCF resources will allow an estimation of the economic damages caused by climate change-induced events and establish a database management system to monitor damages over time. These improved systems will provide evidence for budgeting and implementation of climate risk reduction measures, specifically in relation to community infrastructure services. Such an accounting system will complement the risk modelling under Activity 1.1 and together will help demonstrate that benefits of avoided physical damages and related economic losses can outweigh costs of climate proofing and risk reduction. The manual and digital templates, including the detailed guidelines and training for the MI-SSCP field officers on how to record damage and loss data will be developed. This will also include a mobile application to record the data and transmit to the central server in real time. Use of UAV technology / drones will be introduced to map out current hazard risk conditions effectively at the catchment scale. Climate risk profiling of such accuracy and scale will underpin the planning and implementation of risk reduction measures in hazardous and densely populated areas. A series of trainings will be conducted on data management and analysis and data management standards and protocols will be introduced. Data sharing protocols will be put in place at all Ministries and Directorates holding relevant data resources. This activity will provide the profile of current climate risks and a means of systematically recording damages realised in actual events. Drone technology will be useful in mapping extent of current hazard conditions and in expediting the assessment

of losses following extreme climate events. They will complement the observation network, enable more frequent surveys in remote and challenging topography, enable rapid post-event damage and loss surveys, assist in assessments and ground truthing, and provide condition inspections for infrastructure asset management (needed at an increasingly large scale due to the worsening impacts of climate change).

The existing Desinventar database in Timor Leste contains some 1,600 records from 2001 to present; however, the scale and capabilities of the database needs to be expanded in order to systematically account for all physical damages and economic losses associated with climate hazards that will enable evidence-based planning and budgeting for climate proofing and risk reduction investments. A Risk Management Application will be developed for the storage, analysis and management of disaster data. Relevant inputs and reports will be managed on a simple real time system available to all tracking the observation data, verification data and compensatory responses, and to collate and track disparate reporting. The benefits will include: rapid and simple access to data; single data storage database; shorter lead times from data requests to delivery; improved feedback through standard reporting; better ownership and accountability; transparency; data quality control; timely resource allocation (to affected area); costs savings for rapid assessment teams; reduced operational costs for damage and loss data collection and storage; and on-demand data, both to- and from- District and sub-District data from NDOC. This will greatly increase cost-efficiency and accuracy of developing real-time climate hazard data that is critical in informing and guiding policy design and planning for climate resilient rural infrastructure.

Currently the cost of disaster risk management including an average of 10 to 15 rapid assessments per year, is around \$600,000 USD to \$1.5 million USD if site mobilisation and other items are factored in. It is estimated that the Risk Management Application will cost approximately \$500,000 USD to develop and operationalize. Based on qualitative estimations, it will result in long-term savings and efficiencies in institutional processes and will improve quality in the service, speed of response, quality of sector data and attributes in defining the physical/socio-economic characteristics of the disaster/event. It will transfer the National Disaster Operational Centres' (NDOC's) role from largely post-event compensatory to supporting more effective response during and immediately after the disaster. In addition, it will act as conduit for initiation and improvement of PDNA and will be validated by data collected by drones.

GCF resources will also contribute towards the application of an asset location and condition survey method (developed under the UNDP-GEF/LDCF Small Scheme Rural Infrastructure project) and will establish an asset management database on which to base damage and loss monitoring of infrastructure. GCF resources will also enable the introduction of asset inspection guidelines, methods and approaches, and will train Secretariat of State for the Environment (SEA) (formerly Ministry of Commerce, Industry and Environment or MCIE), Ministry of Interior (Secretary of State for Civil Protection) or MI-SSCP (formerly Ministry of Social Solidarity (MSS)), Ministry of Public Works (MoPW) national and municipality staff in the use and maintenance of the datasets, and in condition inspection in order to improve effectiveness of climate proofing methods. In addition, the asset management database will be used for planning, costing and prioritisation of asset maintenance using principles of portfolio risk assessment. The project will develop essential processes for infrastructure asset management including, maintaining a systematic record of individual assets (costs, original service life, remaining useful life, physical condition, repair and maintenance consistency); developing a defined program of planned maintenance of infrastructure including repair and replacement; and implementing and managing information systems (e.g., updating Geographic Information Systems on which the system will be based) based on surveys. Such systematized asset management practice will enable effective planning and costing of climate proofing measures and will minimize the damages from climate hazards.

### **Activity 1.3. Refine ordinances, regulations and associated codes and standards to enable climate proofing small-scale rural infrastructure**

Activity 1.3. will prepare a set of revised standards, guidelines and specifications for rural infrastructure, encompassing both technical and functional standards to respond to climate risk reduction requirements. The guidelines and SOPs for all infrastructure investments to be carried out under the municipal (PDIM)

and village (PNDS) development plans will be developed. Trainings for the technical personnel and groups of engineers to enable full compliance with the revised standards and codes will be delivered. GCF investment will be used to embed climate resilience into existing sectoral plans such as the Rural Roads Master Plan & Investment Strategy 2016–2020, and the National Water Supply Policy and Strategic Plan, an important framework that provides the medium- to long-term vision for the water sector and a framework for the institutional arrangements, overall operation and management of DNSA and coordination with other sectoral agencies and partners. Existing technical specifications will be reviewed to address the climate change resilience aspects of the specifications. Existing guidelines and manuals will be reviewed and strengthened thereby providing guidance for technicians and engineers to develop and design projects that are adaptable and resilient to climate change. In the case of small irrigation schemes, the guidelines would have to be developed from scratch. The existing Standard Method of Measurement (SMM) developed by Agency of National Development (AND) will be reviewed to ensure that it incorporates climate resilient design considerations, such as physical parameters and appropriate choice of materials. Other relevant and related standards that are in use in construction will also be developed (e.g. soil-bioengineering standards for infrastructure projects). Once developed, engineers will be fully trained in the use of the new specifications, guidelines, and manuals.

## **Output 2. Climate risk reduction and climate-proofing measures for small-scale rural infrastructure are implemented to build the resilience of vulnerable communities in six priority districts**

Under this output, the project will work closely with the municipal and village level government investment programmes, including PDIM and PNDS, to climate-proof local small infrastructure investments in the geographic focus areas. Actual physical investments will be accompanied by the development of essential capacities as well as initiation of institutional and procedural systems required for scaling up climate resilient approaches to infrastructure development in the country. This output builds upon the SSRI project, considering lessons learned and deepening the level of intervention in the municipal and village development planning processes (PDIM and PNDS) in order to fully embed climate resilience into infrastructure design, implementation, construction and maintenance. It will do so via the development of manuals, guidelines and specifications using climate risk information and methods developed in Output 1, for all stages of the rural infrastructure planning and implementation, and by building capacity at the local level for implementing these new methods. Using the new approaches, the project will directly implement climate resilience measures for small-scale rural infrastructure to be rehabilitated or built within the six priority districts of Baucau, Ermera, Aileu, Viqueque, Lautem and Liquica following PDIM and PNDS priorities. Furthermore, watershed rehabilitation and management approaches will be embedded to reduce exposure of infrastructure to climate risk and thus safeguard infrastructure and climate proofing investments from long-term climate change impacts.

The identification and prioritization of climate proofing needs were undertaken as part of project design which included a risk assessment of the infrastructure units using the currently available national hazard maps, against which the existing and approved PDIM and PNDS infrastructure had also been assessed. The risk assessment was undertaken using a GIS-based socio-economic risk model that was developed for the preparation of this proposal. The assessment incorporates the hazard maps, all receptor data of existing and planned infrastructure (including roads, water supply systems, irrigation systems, flood defences, agricultural land, dwellings, land use categories, socio-economic indices) based on the latest 2015 census survey, and calculates the damages and losses to infrastructure, agriculture, property, and livelihoods, under baseline and climate change scenarios. The results of the risk assessment identified the extreme hazard categories of each hazard (moderate and high severity flood risk for prioritization and the 1 in 100-year flood depth for design of the infrastructure; high and very high severity drought; moderate and high severity erosion; and high and very high intensity landslide risk) for each infrastructure unit, which was then used to design the specific climate proofing intervention for each infrastructure unit. Section 2.9 of the FS provides the detailed results of the risk assessment, while Sections 10.2 and 11.11 detail the prioritization and design of climate proofing for the rural infrastructure projects. Annex 8 to the FS provides the prototype designs of climate proofing features of target infrastructure across all categories.



## **Activity 2.1. Climate risk reduction measures for small-scale rural infrastructure are fully integrated into the planning and budgeting cycles of Village and Municipal development plans**

Activity 2.1 will introduce climate risk screening methods and embed climate risk reduction criteria across PDIM and PNDS planning and decision-making cycles. It will provide step-by-step guidelines for climate risk reduction measures for all categories of small-scale rural infrastructure through the following guidance: the PDIM manual – CAMP; Community-based management and maintenance – GMF manual, KAM – municipal procurement guidelines; and administrative post and the Ministerial Technical Committee review checklists. A team of technical staff of Equipment Verification, Evaluation and Supervision (EVAS) experts will be trained to determine the likelihood and consequences of risk in relation to asset (infrastructure exposure and vulnerability). Their skills to engineer climate resilient designs and apply various methods of bioengineering (e.g. by use of local vetiver plants to stabilize the slopes and gabion structures) will be developed.

Interventions will embed the systematic use of climate hazard and risk information (to be developed under Activity 1.1) in the PDIM project identification process to provide a more comprehensive, robust and evidence-based means of identifying projects at the suco level. The GCF project will provide technical assistance to Administrative Post (AP) staff in prioritizing projects at this level and in undertaking an appropriate level of feasibility studies on which to base climate-risk informed project prioritization. At the municipal level, the GCF project will also introduce climate risk criteria into the prioritization process and include other methods of measuring benefits of projects based on the introduction of appraisal-led project prioritisation using socio-economic cost-benefit analysis methods and tools to be developed under Activity 1.1.

Capacity development will be provided to enhance the ability to incorporate climate-risk considerations into technical feasibility studies and will include introduction of investment feasibility considerations, introduction of socio-economic cost-benefit analysis, optioneering and options appraisal methods as well as environmental impact assessment that integrate climate change impact scenarios, to strengthen the feasibility process, safeguard investments and optimize engineering solutions.

At the detailed design level, technical assistance will be provided to introduce climate change considerations into design of infrastructure to ensure that they will accommodate likely changes of environmental variables (frequency and intensity of occurrence) expected with climate change. Importantly, the project will train municipality engineers in the new climate-risk informed infrastructure detailed design methods and will include specific training in the design of bio-engineering methods relevant to Timor Leste. Bioengineering capacity development will be accomplished through technical assistance and by providing dedicated training events.

In order to enhance the ability of infrastructure contractors to implement climate-resilient construction, the project will introduce processes for pre-qualifying contractors, based on specific criteria such as certification in prior trainings on implementation of climate-resilient projects, experience of implementing climate-resilient projects, experience of contract management of such climate-resilient projects and access to engineering expertise aligned with the types of climate resilient measures to be built into infrastructure (such as bioengineering methods).

The project will strengthen the monitoring capacity at Administrative Post (AP) level through the provision of appropriate engineering expertise during implementation. The existing AP staff will be trained in a full cycle project monitoring to enable compliance with new resilience standards and requirements. The project will also seek to embed all training described above into appropriate centralised training centre courses by assisting with the development of course curriculum and certification and using training of trainers approaches. Further details can be found in Annex II Feasibility Study.

### Guidelines and Technical Specifications

In order to achieve continuity and support to these new roles and functions the project will support the development of the following manuals and guidelines for Climate-resilient Rural Infrastructure Projects in Timor Leste (SCRIPT)

- Manual/guidelines for the design and construction of rural road infrastructure – in collaboration with MSA, Ministry of Public Works and AND;
- Manual/guidelines for the design and construction of small irrigation schemes – in collaboration with Ministry of Agriculture and Fisheries, Ministry of State Administration;
- Manual/guidelines for the design and construction of rural water supply infrastructure – in collaboration with Ministry of Public Works.

Technical specifications for rural infrastructure will be reviewed and revised to improve the quality and adaptability of the construction to climate change for the various infrastructure types. The Technical Specifications forming part of the contract documents for the design and construction of roads, bridges and drainage structures will include specific sections for various elements such as excavation, gravel, concrete, masonry works, drainage, retaining-walls, etc. There will be a review of these specifications to include of a section/chapter on climate adaptation features/elements of each road, bridge and drainage infrastructure asset (for example, scour-checks, check-dams, rip-raps, gabions, soil-bioengineering, etc.). The project will review existing specifications which need to be revised and improved to respond to changing climate and existing conditions in the ground. This may include the design for retaining walls, specifications for the strength of concrete in various applications, and details for reinforced concrete and masonry. Existing guidelines and technical specifications for water supply systems will also be reviewed and enhanced to include climate resilient design.

Overall, GCF funds will be used to enhance the existing technical capacity to account for climate resilient engineering designs, solutions and practices that are essential for the reduction of prevalent vulnerabilities in the most climate vulnerable districts. In addition, GCF proceeds will be invested in the development and implementation of catchment management strategies, which will support landscape restoration and land stability as climate risk reduction and long-term resilience measure. The rehabilitation activities will be undertaken in the catchment areas located in the areas of small-scale infrastructure units.

### **Activity 2.2. Implementation of climate-proofing measures for small-scale rural infrastructure**

Small-scale rural infrastructure in the target districts and villages will be climate proofed. The key interventions include: revegetation of land around rural water supply systems, formalization existing and new rural irrigation systems, rehabilitation of rural bridges, slope stabilization of rural road corridors and installation of climate resilient rural flood defences (protective gates, gabions, and bio-engineered defences). Revegetating land around rural water supply and formalization of existing and new rural irrigation systems will address risks of changing water availability patterns and especially drought events. Slope stabilization of local village and municipal road corridors and rehabilitation of bridges will enable rural communities to overcome isolation and also have access to emergency evacuation routes during extreme climate events and disasters. Installation of climate resilient rural flood protection will create water flow control and flood risk management infrastructure. These small-scale rural infrastructure units will be established in the six target districts as the means to address adaptation deficit where the social vulnerabilities and exposure to climate risks are particularly high.

Based on the municipal level climate change risk and vulnerability assessment undertaken in the feasibility study, the project will target the 5 municipalities worst affected by multiple hazards: Baucau, Ermera, Aileu, Viqueque and Lautem. In addition, Liquica, which is at high risk from flooding and landslides only and for two receptors (houses and agriculture) only, and therefore did not rank within the top 6 has been included as it represents a municipality with significant deficit of flood protection infrastructure and will address one of the hazards with the greatest and most frequent impact on communities.

A total of 130 infrastructure units have been identified, (SSRI project investments were used as a reference for costing, per unit cost, including base cost for construction to be covered from municipal funds and climate proofing cost to be covered from GCF funds). PDIM and PNDS implementation has averaged 493 infrastructure units and \$54 Million USD per year between 2011 and 2016 nationally. Over the 5 years of infrastructure implementation, PDIM and PNDS investments in the 6 target municipalities will be \$12.5 Million USD and this amount has been committed as co-financing toward the 130 infrastructure units identified for this project (see Annex IV for government co-financing letters). Therefore, PDIM and PNDS co-financing will cover 49% of the investment in infrastructure and will cover the base cost of construction and/or rehabilitation of selected infrastructure units. Therefore, PDIM and PNDS co-financing will cover 49% of the investment in infrastructure and will cover the base cost of construction and/or rehabilitation of selected infrastructure units.

The following chart provides a breakdown of infrastructure units by type for each Municipality

**Table 1: Breakdown of infrastructure type and costs by municipality (FP= Flood protection; IS= Irrigation System; RR=Rural Roads; WS = Water Supply)**

Municipality	FP No.	FP Costs	IS No.	IS Costs	RR No.	RR Costs	WS No.	WS Costs
Aileu	5	740000	3	325000	14	2447472	3	265000
Baucau	2	525000	7	445000	5	1549973	9	875000
Ermera	1	72900	4	1035000	9	4048800	6	775000
Lautem	4	612500	6	961687	5	799882	11	745000
Liquica	5	950000	2	600000	9	3784987	3	340000
Viqueue	3	528750	3	315000	5	2200404	6	755925
<b>Totals</b>	<b>20</b>	<b>3,429,150</b>	<b>25</b>	<b>3,681,687</b>	<b>47</b>	<b>14,831,518</b>	<b>38</b>	<b>3,755,925</b>
<b>Total Units</b>								<b>130</b>
<b>Total Cost</b>								<b>25,698,280<sup>15</sup></b>

In each of the target sites, a mixture of interventions will be used according to the needs of each site. The summary of each type of intervention and projected costs are listed in table and further detailed out in Annex II Feasibility Study. The proposed climate proofing interventions will directly benefit 19,751 households or 175,840<sup>16</sup> people that represents 14.65% of the population of Timor Leste.

**Table 2: Number of infrastructure units by type that will be implemented under Activity 2.2**

Climate Proofing Measures	Description	Units	Approximate Cost (USD)
<b>Revegetating land around rural water supply systems</b>	<ul style="list-style-type: none"> <li>Revegetating land around sources</li> <li>Formalising informal sources (putting in pipes and collection/storage systems to enhance environmental protection and supply dependability) to address increasing uncertainty in yield of informal sources due to intensifying droughts and the increased risk of source pollution from increasing soil erosion. Formalising collection through small-scale reservoirs enables storage during the wet season, and use in the dry</li> </ul>	38	<b>3,755,925</b>

<sup>15</sup> The total value of all infrastructure projects/units is 25.7 million USD. The GoTL is providing 12.5 Million of this total through PDIM and PNDS funds towards the highly exposed units in the most climate vulnerable districts. It also covers 7.187 million USD O&M costs from year 3 to year 6 (during the project implementation). The referenced 33.8 million USD comprises: GoTL (MSA) 12.5 million + 7.187 Million = 19.687 Million, and 14.1 million USD of GCF financing.

The number of direct beneficiaries of the 130 infrastructure projects/interventions alone is 119, 498. Complementary catchment management activities have been estimated to result in an additional 56,342 direct agro-forestry beneficiaries. This gives a total number of direct beneficiaries of 175,840 beneficiaries of Output 2.

	<ul style="list-style-type: none"> <li>Installing standpipes in villages to address increasing uncertainty in yield of informal sources due to intensifying droughts that is resulting in conflict over water use. Standpipes enable equitable distribution among villages</li> <li>Connecting to existing sources in order to project water supply systems in light of climate change impacts of increasing uncertainty in yield of informal sources due to intensifying droughtiness and the increased risk of source pollution from increasing soil erosion</li> </ul>		
<b>Formalization of existing and new rural irrigation systems</b>	<ul style="list-style-type: none"> <li>Formalising existing or newly installed rural irrigation schemes (including water storage systems) to store water for use in prolonged dry seasons and mitigate against intensified droughts that are projected to occur with climate change</li> <li>Through this intervention, the efficiency and stability of rural water supply for crop production will be secured and made resilient to climate risks of intensified droughts, enhancing the resilience of local agricultural systems.</li> </ul>	25	<b>3,681,687</b>
<b>Installation of rural flood defences to withstand climate change impacts</b>	<ul style="list-style-type: none"> <li>Designing and installing flood defences to withstand the increasing frequency and intensity of floods due to climate change</li> <li>Designs will include bioengineering methods to protect flood embankments from climate-induced erosion where possible</li> </ul>	20	<b>3,429,150</b>
<b>Rehabilitation of rural bridges and slope stabilization of rural road corridors</b>	<ul style="list-style-type: none"> <li>Rehabilitating bridges that are usually washed away in the rainy season using climate resilient materials. Bridges are increasingly at risk of failure during floods due to higher flood flow velocities and higher discharges due to climate change.</li> <li>Protecting bridge openings from higher flood flow velocities and higher discharges and increased erosion, with bioengineering methods (e.g. vetiver grass)</li> <li>Slope stabilization through implementation of sustainable structural measures (such as gabion baskets, vegetation of road corridors with bioengineering material like vetiver grass, vegetation of road embankments, and re-sizing of drainage systems) that accommodate baseline levels of flows and projects levels of flow due to climate change. These measures will address the intensifying erosion and landslide risks of embankments above and below rural roads in the steep rural environment and will provide drainage for the increasing road drainage flow velocities that are required due to climate change.</li> </ul>	47	<b>14,791,488</b>
	<b>Total</b>	<b>130</b>	<b>25,658,250<sup>17</sup></b>

A cost-benefit<sup>18</sup> analysis has been conducted on all 130 units and they have been ranked and prioritised based on their internal rates of return (IRR) and the number of associated beneficiaries, into high, medium and low priority (dark to light blue cells in Table below) which will dictate the order or priority in which they will be implemented during each implementation year. This is to ensure that the highest priority projects benefitting the most people will be completed first. The IRR calculation includes the cost of maintenance (periodic and annual) that would be required over a 20-year lifespan of the infrastructure.

Rehabilitation of rural bridges and slope stabilization of rural roads are the most expensive accounting for 57% of total project costs (and 36% of the number of projects), with only 34% of all interventions falling in the high and medium priority categories. This is mainly a reflection of high maintenance costs associated with bridges and road corridors despite the large benefits that road projects will bring to rural communities. For example, without maintenance included in the IRR calculation, 84% of bridges and road corridors fall within the high and medium priority categories. It is also a reflection of the isolation of some communities that will benefit from the climate resilient roads such that the beneficiary numbers of some of the schemes are low compared to the overall cost. However, it is specifically to relieve the isolation of communities that many of these interventions are needed and to secure the economic activities that vulnerable communities are heavily dependent on. It also points to the need to ensure a proper maintenance strategy to capitalise on the gains that will be made from climate proofing. It is likely that climate proofing will reduce maintenance costs, so the values used reflects the reduced maintenance that climate proofing will provide, balanced against the need for increased maintenance with worsening climate-induced hazards that will be incurred.

<sup>17</sup> \$12.5 Million will be government co-financing

<sup>18</sup> Details of method and discussion of results of the cost-benefit analysis is contained in Annex 8 of the feasibility report

Revegetating land around rural water supply systems has the two highest proportions of interventions in the high and medium categories (91%) which reflects the relatively low capital and maintenance costs, compared with the numbers of beneficiaries, as well as the socio-economic gains that will be realised by rural communities. Revegetation activities refer to localised revegetation of the land around water sources which, if degraded, can lead to erosion around water sources, pollution of water sources due to sedimentation being washed into the water sources, and reduced functionality of sources. Localised land degradation can also lead to undermining and damage of transmission lines. As part of the climate-proofing of water supply sources, there is usually a need to address these localised land degradation issues to ensure land stability. The cost of revegetating land around water supply systems, is included in the infrastructure costs of the water source infrastructure. This is a typical engineering practice to stabilize the land prior to construction. Hence, the costs of revegetation account for only a small part of activity costs, and the main portion of the activity costs are related to the climate proofing of rural water supply infrastructure units to be implemented. It should also be noted that the revegetation under 2.2 is not the same as the agro-forestry and reforestation under Activity 2.3.

The GCF project will provide only the water supply systems/infrastructure with no physical intervention/infrastructure for sanitation. However, the water supply systems that are implemented will have a direct positive impact on sanitation and hygiene, as the water supply systems provide water not only for drinking purposes, but also for washing, cleaning and other domestic purposes. In the design of the systems, there is provision for adequate supply of water for drinking and other domestic purposes including sanitation, including flushing of toilets where improved facilities are constructed and hygiene practices (bathing, washing, etc.). Water supply infrastructure that the project will implement will therefore provide opportunities for households to follow the Community-led total sanitation approach (CLTS) and install pour flush latrines or flush toilets. During project formulation, consultations were undertaken with NGOs that are working in Timor-Leste on WASH interventions that have stated that the key issue regarding improved sanitation and good hygiene practices has been lack of water availability due to lack of infrastructure. There are areas for collaboration, particularly in the management of water supply systems, with interventions focusing on sanitation and hygiene. In particular, provision of community water stands, promotion of good hygiene practices by raising awareness and instilling behavioural change have been considered the areas for partnership and collaboration with organizations that are working on these issues in Timor-Leste. Under the leadership of Director General and as part of the National Water Forum set up at the Department of Water and Sanitation of the Ministry of Public Works consultations have been held and cooperation agreed with WaterAid, UNICEF, WHO and other agencies who have sanitation and hygiene interventions in rural communities and signed the letter of commitment for cooperation (Annex XIII (d-2) – Annexure 1). While the project does not include physical interventions such as building toilets, the GCF project will ensure that the Standards for improved sanitation facilities embeds climate proofing approaches and WHO standards on sanitation. Hence, the increased availability and reliability of water supply to households through the climate proofed water supply units to be implemented by the project means that households will be more inclined to install improved sanitation methods that require the use of water, such as the pour-flush toilets, and additionally benefit from interventions from NGOs and other organizations that are actively supporting sanitation practices. This is fully in line with the government’s National Sanitation Strategy that aims at full CLTS targets by 2020-21. In fact, the evidence shows that certain municipalities that have been previously declared as Free from Open Defecation turned back to open defecation practice due to unavailability of water for flushing and sanitation as well as hygiene. The table below shows that the states of sanitation coverage in GCF project target municipalities.

**Table 3: Sanitation facilities / methods of private households at GCF target municipalities of Timor Leste<sup>19</sup>**

	Proportion of flush & latrine toilets
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<sup>19</sup> Open Defecation Free – ODF means that all people living in a municipality exclusively use toilets rather than defecating in public places. The ODF team, together with municipality ODF secretariat team, monitor and encourage people to build toilets for themselves, Suco Councils verify ODF. (Source: <https://www.wateraid.org/au/articles/liquica-announces-open-defecation-free-status?fbclid=IwAR1Zvz8ZGhnwAxi0t8MVTXJj3JXyhSfPNEFNtj8hJxKv16-ECuBKYSzMZcl>) As CLTS is progressing and more households are having sanitation installations the data will be verified and updated at the inception stage of the project

Administrative Post and Suco	Private Households							<b>Status of Open Defecation Free (ODF)</b> (meaning that all people in all households have access to toilet. ODF is part of the implementation of PAKSI (Action Plan for Community Sanitation and Hygiene) of the Ministry of Health (MoH)).  Source: <a href="https://www.communityledtotalsanitation.org/country/timor-leste-east-timor">https://www.communityledtotalsanitation.org/country/timor-leste-east-timor</a>
		Total flush toilet	%	Total latrine	%	No facility & others	%	
Aileu	7,598	2593	34%	4,436	58%	569	7%	Declared 'Open Defecation Free' (ODF). 92 percent of all households in Aileu Municipality have a toilet.
Baucau	22,976	6152	27%	13,497	59%	3,327	14%	
Ermera	20,671	5601	27%	11,680	57%	3,390	16%	Officially declared 'Open Defecation Free' (ODF) on 22 Feb 2019
Lautem	12,050	2965	25%	5,458	45%	3,627	30%	Expected to declare 'Open Defecation Free' (ODF) in November
Liquica	11,885	3,557	30%	6,142	52%	2,186	18%	Officially declared 'Open Defecation Free' (ODF) on 30th April 2019)
Viqueque	15,297	2,585	17%	5,753	38%	6,959	45%	Expected to declare 'Open Defecation Free' (ODF) in November

Formalization of existing and new rural irrigation systems include interventions, of which 66% fall in the high and medium priority categories.

Installation of rural flood defences to withstand climate change impacts shows only a small proportion of high and medium priority projects (20%) and this is in large part, due to the very small numbers of beneficiaries, agricultural land and property that can be protected by individual flood defences. It is likely that flood risk management strategies that do not only include infrastructure will need to be examined and the right combination of structural and non-structural measures implemented (e.g. soil-bioengineering and broader sub-catchment restoration and management). It is noted that actions under Activity 2.3 will address ecosystem-based methods of resilience and will have attendant benefits on flood risk management, but the cost-benefit of these have been assessed separately (see Activity 2.3).

With regards to the use of hydro-meteorological data in the climate proofing measures of water supply systems, the most common system in rural Timor-Leste for both water supply systems and irrigation schemes are gravity fed (from springs, surface water collected from catchment – water capturing and rivers). Climate proofing design of small-scale irrigation and water supply units embeds consideration of drought discharge volumes and recharge rates to ensure continuous functionality of the system and water availability, as well as water source protection measures to reduce the risks of drying out water sources and catchment rehabilitation to stabilize water yielding capacities of the catchments. For the water supply systems, the reservoir sizing has been designed based on the population (beneficiaries) and using the national average of 35 litres per person per day (as per the manual for water supply systems) with provision for population growth for at least 20 years or the design life of the water supply systems, and 30% increase factored into the design to account for capacity requirement due to climate change impacts which will increase the water needs/consumption (see Section 11.11 of the FS for further details).

Taking into account the above and with the aim of addressing the deficits of small-scale rural infrastructure, the project will formalize existing systems by surfacing the irrigation and water supply transmission earthen channels, which will reduce transmission losses, improve the serviceability to farms and increase the efficiency of the channels during low flows and dry periods. The formalization and implementation of irrigation infrastructure has two key positive impacts (1) increased capacity of the community to produce crops more than once per year and (2) increase in cultivable lands due to availability and improved reliability of water.

With regards to the interventions relating to water supply, water storage reservoirs will improve supply reliability during dry season and reservoirs will be managed by the water management group (GMF) that will agree on the operating rules during the dry season based on water availability and reservoir recharge rates. The combined efforts of climate proofing of physical structures of the existing and future infrastructure

and catchment rehabilitation for its runoff formation and drainage control services ensures stability and functionality of the target infrastructure in the face to evolving climate risks.

Furthermore, the proposed water supply interventions have taken into consideration provisions for adequate supply of water for drinking and other domestic purposes including sanitation (flushing of toilets where improved facilities are constructed) and hygiene practices (bathing, washing, cleaning and etc.). Also, when water is not available, households are less inclined to use improved sanitation methods that require the use of water, such as the pour-flush toilets. However, with the installation of the water supply systems, households can self-construct improved sanitation facilities and can benefit from interventions from NGOs and other organizations that are actively supporting sanitation practices. In this way, the water supply systems that are implemented will have a direct positive impact on sanitation and hygiene.

During project formulation, consultations were undertaken with NGOs that are working in Timor-Leste on WASH interventions that have stated that the key issue regarding improved sanitation and good hygiene practices has been lack of water availability. There are areas for collaboration, particularly in the management of water supply systems, with interventions focusing on sanitation and hygiene. In particular, promotion of good hygiene practices by raising awareness and instilling behavioural change has been considered as part of public awareness activities for beneficiaries through partnership and collaboration with organizations that are working on these issues in Timor-Leste. This partnership was discussed with WaterAid that has sanitation and hygiene interventions in rural communities. UNICEF, WHO and Ministry of Health (environmental Health department) also have programmes that provide opportunities to collaborate on public awareness programmes to address hygiene issues. The GCF project will collaborate and complement these efforts.

This preliminary project identification, outline scoping and cost-benefit analysis will be refined during the project and will be based on detailed hazard mapping. It will utilise the robust cost-benefit assessment and appraisal-led methods and tools to be introduced by the project under Output 1. In refining the assessment, the viability of each scheme will be determined and additional criteria used to ensure that the most beneficial schemes are implemented as priority. The \$25.66 million (including \$12.5 Million co-financing) USD budget is therefore an upper limit of capital costs that the project will cover in implementing these infrastructure schemes

### Investment Planning

As discussed above, currently the PDIM and PNDS do not have funding criteria or requirement to embed additional cost of climate risk reduction to physical and economic assets and there is currently no understanding of the investment requirements for climate proofing infrastructure due to the lack of climate-risk information and methods on which to base such investment planning.

To address this barrier, the project will develop and implement new approaches to investment planning to ensure that infrastructure investment including annual and periodic maintenance which can be met in the long-term and will include climate proofing. Approaches will include:

- Embedding climate proofing in the PDIM and PNDS project identification and screening processes from village level project identification through to project feasibility, design and costing.
- Identification of financing models for investment maintenance costs (e.g. of community-based scheme that involve the use of tariffs or in-kind contributions to establish municipal maintenance programmes (e.g. GMF as being done on SSRI) or engagement of private sector in infrastructure maintenance financing).
- Development of municipal infrastructure investment plans based on risk-informed project designs, including maintenance, and cost-benefit analysis based on CBA methods and models to be introduced in Activity 1.1.

- Use of municipality investment plans for technical justification for central budget allocation to cover investment and maintenance cost of climate resilient rural infrastructure utilising the climate proofing methods introduced by the project.
- Providing evidence of the long-term need for maintenance to safeguard infrastructure investments and assisting the government in identifying and prioritising financing, based on the principles of portfolio risk assessment (PRA) and associated cost-benefit analysis. Furthermore, the CBA tools to be developed by the project will be embedded in municipality as a standardised requirement for developing annual infrastructure investment plans.

Using the asset management database to be introduced in Activity 1.2, the project will develop essential processes for infrastructure asset management. These will include: maintaining a systematic record of individual assets (costs, original service life, remaining useful life, physical condition, repair and maintenance consistency); developing a defined program of planned maintenance of infrastructure including repair and replacement; and implementing and managing information systems (e.g., updating Geographic Information Systems on which the system will be based) based on surveys.

### Operations and Maintenance

The annual and periodic maintenance cost for each of the 130 infrastructure units has been identified during project design process for 20-years of the infrastructure lifespan<sup>20</sup>. Emergency maintenance which may be required to repair damage caused by unexpected events, by definition, cannot be forecasted and therefore has not been budgeted in annual O&M cost profile or implementation programmes. This will be considered in the investment planning to be undertaken based on risk-informed climate hazard information and will include contingency investment planning for such incidences, thus allowing for timely response to hazardous events to limit loss of access to infrastructure and limit the extent of the damages. The O&M strategy is detailed in the O&M annex (Annex XIII (b)).

To ensure sustainability of O&M, the project will strengthen the technical, financial and institutional capacity for the O&M mechanisms of rural infrastructure. To this end, the project will embed the capacity to identify and address current and future requirements for maintenance by developing and embedding, asset management system, tools and approaches, including regular asset condition inspection mechanisms and damage and loss accounting. Under Activity 1.2 and 1.3 the project is developing essential processes for infrastructure asset management including, maintaining a systematic record of individual assets (costs, original service life, remaining useful life, physical condition, repair and maintenance consistency); developing a defined program of planned maintenance of infrastructure including repair and replacement; and implementing and managing asset information systems as well as portfolio risk management methods that ensure the systematic prioritisation of the maintenance costs of each infrastructure unit for the lifespan of the unit. Such systematized asset management practice will enable effective planning and costing of climate proofing measures, and, in particular, asset maintenance.

The project will also implement a strategy for the harmonisation of the PDIM and PNDS infrastructure into a maintenance programme with regular budget allocated for maintenance, thus enhancing the service life of the infrastructure units. Building on improved institutional arrangements for O&M achieved under the SSRI project and the passing of Decree Law 3/2016, which embeds O&M responsibility under the respective Municipal Service with MSA having overall financing and implementation responsibility for small scale rural infrastructure O&M, the GCF project is supporting the ongoing decentralized investment framework which is administered through the PDIM and PNDS processes, by embedding the knowledge of climate risks and skills of climate proofing design, construction, operation and maintenance of rural infrastructure and embedding long-term operations and maintenance arrangements with local participation to ensure long term sustainability of infrastructure, service delivery and local governance.

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<sup>20</sup> Please see individual infrastructure unit tabs in excel spreadsheets XIII (h) 2-5, Ranking tab of excel file Xiii (h) 1 and the tables in O&M Plan Annex XIII (b), for the profile of maintenance costs for each infrastructure unit over 20 years



Furthermore, with regards to long-term O&M financing, the project will embed financing models for investment maintenance costs (e.g. of community-based schemes that involve the use of tariffs or in-kind contributions to establish municipal maintenance programmes and will seek to engage private sector in infrastructure maintenance financing) using CBA approaches (being developed under Activity 1.2). It will use asset portfolio risk management approaches, in the identification and prioritization of long-term asset maintenance. Hence, the project is developing long-term infrastructure investment strategies which will help government to identify the infrastructure O&M needs and mechanisms for the long-term, which will include consideration of reduced O&M costs due to the climate proofing of infrastructure by this project. This comprehensive approach to O&M will ensure that the government would cover all O&M costs up to year 20 and beyond which will ensure the sustainability of O&M as a key and integral part of infrastructure climate proofing.

### **Activity 2.3. Supporting catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities.**

This activity will scale-up climate resilient catchment management in order to reduce the exposure of communities and their physical assets, such as rural infrastructure, to climate-induced hazards. Even with the climate proofing approaches to be introduced and implemented, it will still be necessary to implement catchment rehabilitation and management to re-establish proper catchment ecosystem functions in order to safeguard infrastructure and climate proofing investments from long-term climate change impacts. This will have the added benefit of reducing the cost of climate proofing and maintenance of infrastructure in the future. The project will assist MAF in utilizing climate risk information in their reforestation programmes (as part of project co-financing). Climate risk model and risk maps produced by the project will assist MAF in prioritization of catchments for rehabilitation, defining the methods of rehabilitation as well as geographic extend. Helping MAF to develop catchment re-forestation and agroforestry strategies that will include community engagement and training in forestry and agroforestry practices will lead to direct re-forestation of the catchments and improve livelihoods to the communities which ensure land use practices that contribute to overall risk reduction and long term climate resilience.

This project will be implemented via catchment management adaptation strategies (that include rehabilitation of hazardous areas through providing climate risk information) and actual on-the-ground methods for landscape restoration. The project will include landscape restoration, but will also employ the development of agroforestry strategies, including the community-based identification of appropriate climate resistant varieties of trees for planting in said restoration activities. Agroforestry and restoration ecosystem-based adaptation activities will be implemented at the catchment level.

More specifically, agro-forestry and reforestation activities refer to catchment management measures which will address wider catchment degradation which has led to increased flood, erosion and landslide risks which in turn threatens all infrastructure situated within the catchment. This intervention will assist MAF to develop their catchment agro-forestry and reforestation strategy based on climate risk information to be developed by the GCF project. The UNDP-GCF project will work with the Ministry of Agriculture and Fisheries (MAF)'s National Directorate for Agro-commerce and Private Sector Cooperation and National Directorate for Agro-commerce and private Sector Cooperation and SEA to develop catchment rehabilitation strategies including agro-forestry strategies for upstream catchments of target infrastructure. The project will develop strategies and actions for catchment rehabilitation, including selection of tree species, methods of rehabilitation and maintenance that are fully informed by the hazard maps to be developed under Activity 1.1. It will delineate the priority hazardous areas for a phased rehabilitation strategy. It will assist in the identification of plant species that will provide the soil, water and nutrient protection properties needed to address degradation of catchment. Several varieties of tree species have already been identified. This intervention will implement catchment rehabilitation and management to re-establish proper catchment ecosystem functions in order to safeguard infrastructure and climate proofing investments from long-term climate change impacts. This will have the added benefit of reducing the cost of climate proofing and maintenance of infrastructure in the future. The agroforestry activities will be fully aligned with the relevant policies, especially the Agricultural Policy and Strategic Framework and will be implemented in line with the relevant

value chains and market linkages being developed by GoTL, ensuring the sustainability of the agro-forestry activities.

GCF resources, combined with co-finance from the Ministry of Agriculture and Fisheries (MAF), the National Directorate for Forest, Coffee, and Industrial Plants and National Directorate for Agro-commerce and private Sector Cooperation will be used to develop catchment rehabilitation strategies, including agroforestry, for catchments upstream of target infrastructure assets. The project will develop strategies and actions of catchment rehabilitation, including selection of tree species, methods of rehabilitation and maintenance that are fully informed by the climate hazard maps to be developed under Activity 1.1. The maps will delineate the priority hazardous areas for a phased rehabilitation strategy. This will assist in the identification of plant species that will provide the soil, water and nutrient protection properties needed to address degradation of catchments. Several varieties of tree species have already been identified, among them *falcataria moluccana*, a fast-growing tree that is typically cultivated for timber; *Acacium mangium* that is increasingly being used for agroforestry projects for its nitrogen fixation properties, but also for shadow it creates for other trees, such as wild coffee. It is a resistant tree, and can be productive in low fertility soils with poor moisture content. *Casurina* and *Toona Sureni* are also used for their timber and fast burning properties. Teak, mahogany, sandalwood and coconut have also been identified as climate resistant and with high livelihood value (see Annex II Feasibility Study for further details). The project will assist MAF and SEA in developing a long-term strategy and plan for agroforestry as a catchment-wide ecosystem-based adaptation method. This will include identification of the most appropriate species for each municipality, based on the ability to address soil erosion and land degradation. The main benefit of this activity will be in its reduction of climate change impacts on the rural infrastructure of the 6 target districts. Other co-benefits include: gradual improvement of the geo-physical and hydrological condition of the catchment, reduced incidence of burning (slash and burn farming), promotion of the culture of planting and growing high value, climate resistant crops, provision of short and long term yet sustainable economic benefits to project beneficiaries, and the promotion of the creation of sustainable enterprise

Actual catchment rehabilitation works will be conducted in the catchment areas that are particularly hazardous across the target districts. These areas will require reforestation in order to stabilize the soil, arrest erosion, and stem degradation that exposes the community and physical assets to climate change risks. The proposed catchment management works will involve convergence of existing government reforestation programmes with collective action by the community. MAF typically applies the community engagement methods in most of the reforestation schemes and the proposed project will also follow the same established practice. The project will support the MAF directorates on forestry and watershed management to undertake a phased approach to catchment rehabilitation while focusing on areas of high exposure to climate risk. Such climate risk informed prioritization will be based on hazard modelling and mapping of a range of climate change scenarios. Based on hazard risk information developed during the feasibility study, 200 hectares of state-owned land has been identified for reforestation/catchment management schemes. The project will work with the MAF to design and deliver this support to their existing reforestation and catchment management schemes in the 6 target municipalities which contain 19 sub-catchments in total. This is in line with MAF SDP (2011-2030) objective 3.4 which aims 'To develop capacity for improved decision making in planning and budgeting processes by providing accurate and up-to-date climate information and analysis. As part of rehabilitation efforts agroforestry will be used as an important element of catchment management. The MAF forestry and agro-commerce experts will engage with community leaders to facilitate the formation of cooperatives for sustainable agroforestry.

At the local level, and based on the agroforestry strategies to be developed, the project will support farmers in identifying suitable community agroforestry opportunities. It will do this by identifying agriculture associations and cooperatives which will serve to facilitate individual members or groups in developing community-based agroforestry. These associations will also serve to provide technical and logistical guidance to farmers and will be organised by type of agroforestry (e.g. coconut growers association) and by geography (e.g. on an Administrative post level) to provide logistical support to farmers. In addition, these groups will include women's associations as well as youth organisations. The project will work with the MAF to design and deliver this support to their existing reforestation and catchment management schemes in the 6 target municipalities.

Furthermore, this activity will support rural communities to implement agroforestry on their lands and, in so doing, will enhance catchment management adaptation strategies. The main benefit of the catchment-based approach is that it addresses the livelihood pressures of communities within the catchments where key infrastructure is being developed, and at the same time helps to protect the infrastructure from climate-induced hazards through the re-establishment of critical ecosystem functions. Based on the 10 sucos with the highest vulnerability to soil erosion in the 6 target municipalities, it is estimated that 23,412 households face potential crop losses due to erosion (a total loss of \$1.9 Million USD). GCF funds will be used to generate climate risk information at appropriate scale to support MAF in designing and delivering the reforestation and catchment management schemes both on public and farm lands. MAF co-financing will be used to implement reforestation, covering the labour cost, attendance and maintenance in order to increase the survival rate of the planted stands. MAF will also mobilize local communities and engage with local vulnerable farmers in the target municipalities to promote and support multiplication of seedlings for agroforestry.

Assuming agroforestry will be promoted in areas such as these, the potential number of beneficiary households is 24,312. It is estimated that approximately 100 ha of privately-owned land belonging to these climate vulnerable households currently under threat from land degradation. Community implementation models have been used before and consultations were undertaken for the project to ensure community buy-in (See Annex XIII d-1 – Stakeholder Consultation). This will be used to establish agroforestry within the target, priority sub-catchments. The hectares of land to be rehabilitated has been calculated based on number of households currently at risk from erosion and likely to be losing crop yields because of the combined effect of catchment degradation and climate change exacerbated hazard risks. The best proven approach is to target communities and incentivise them to engage in agroforestry (i.e. such households are likely to engage as they currently have a problem with loss of crops due to intensified hazards and degradation of their land). The communities thus identified will be supported to implement climate resilient livelihoods that are conducive to resilient catchment management and climate risk reduction

Partnerships: The project will be implemented by Secretariat of State for Environment using UNDP's National Implementation Modality, through Country Office Support Service (COSS) which is designed to provide technical support for institutional strengthening and ensure domestic systems are used for accountability. The interventions through this project will be compliant with the Fund's ESS and compliant with stakeholder consultations. UNDP has a three-tiered quality assurance system.

While the overall execution/implementation of project will rest upon the Secretariat of State for Environment as an implementing partner, concrete outputs and activities/sub-activities will be implemented by a combination of experts from a number of parties. These will include various government entities as responsible parties (relationships facilitated through Letter of Agreements between UNDP and responsible parties), as well as consultant teams and organizations which will be procured through open competitions and request for proposals. More specifically, the project will engage the following responsible parties in achieving project outputs:

The Secretariat of State for Environment (SEA): this agency is the lead government agency responsible for environmental protection and promotion activities, and development of policies, procedures, and standards that contributes to the implementation of the Timor-Leste Strategic Development Plan (2011-2030). SEA housed the Directorate General for the Environment (DGA) responsible for coordinating and implementing policies for environmental protection and promotion. The DGA consists of four National Directorates - (i) the National Directorate of Pollution Control which is mainly focus overseeing pollution control standards and regulations; (ii) the National Directorate of Climate Change (DNAC) which responsible for international climate change activities and cooperation; (iii) National Biodiversity Directorate (DNB) which is focus on integrated actions for protection of biodiversity; (iv) Environmental Education and Information Center (CEIA) which responsible for strengthening environmental education, policies and strategies. The GEF, GCF and UNFCC focal points and Designated National Authority for Timor Leste also sit within the SEA. Main programmes implemented with the applicable UN agency/ies include: Renewable Energy Project; -Second

National Communication (SNC) Project; Strengthening the Resilience of Small Scale Rural Infrastructure (SSRI) Project and Local Government Systems to Climate Variability and Risk, Timor Leste (SSRI Project); Strengthening Community Resilience to Climate induced disasters in the Dili to Ainaro Road Development Corridor, Timor Leste (DARDC Project); GCF Readiness; Cross Cutting Capacity Development (ongoing). For this GCF project, the SEA will be the Implementing Partner (specifically through the Climate Change Directorate) responsible for coordinating project activities. SEA will also be responsible for coordination of cross-sectoral climate risk working group.

Ministry of State Administration (MSA): this agency is responsible for, among others, local governance, administrative decentralization, and local development including infrastructure at all levels through the National Directorate for Integrated Municipal Development Planning under the Directorate General for Administrative Decentralization. National Directorate for Integrated Municipal Development Planning, is responsible for local development and good governance through decentralisation of functions. PDIM and PNDS processes are the main mechanisms by which this decentralisation of infrastructure development is achieved. Community-driven programmes using the PDIM process are therefore of importance to the MSA and fully aligned with the strategy of decentralisation for local level rural economic development. Under this GCF project, the MSA will be the lead agency and Responsible Party for Activities 2.1 and 2.2, and their activities will include development of standards, manuals, guidelines for climate resilient designs, responsible for leading the municipality engineers on the design and implementation of climate resilient infrastructure. The MSA was the main implementing agency for the SSRI project. Under the GCF project, the MSA will be responsible for: developing long-term municipal investment plans for PDIM and PNDS; liaising with SEA on climate change policy, legislation and cross-sector CC risk information embedding; supporting standardization of climate resilient designs, evidence-based policy influencing and scaling up; organizing awareness raising and training events; development of step-by-step guidelines for climate risk reduction measures for all categories of small-scale rural infrastructure (water supply, road and bridges, irrigation, flood defences) through the PDIM manual – CAMP; and development of community-based management and maintenance protocols (such as the GMF manual, KAM), municipal procurement guidelines, and administrative post and the Ministerial Technical Committee review checklists.

Ministry of Interior – Secretary of State for Civil Protection (MI-SSCP) is responsible for providing disaster risk management, coordination and technical support to the government and communities in Timor Leste. The Civil Protection Authority and Directorate General for Civil Protection are departments within the Ministry of Interior-Secretary of State for Civil Protection responsible for coordinating and implementing the civil protection policy and activities. (MI – SSCP) will be the lead agency and Responsible Party for Activities 1.1 and 1.2. Utilizing technical assistance, the MI-SSCP will develop and undertake multi-hazard, risk, and vulnerability assessments and mapping as well as damage and loss accounting activities. As part of this process, they will work with communities to identify past impacts from hazards. Their main responsibility will be for DRR, DRM, establishment and maintenance of DRM systems, and the purchase and maintenance of software, hardware, and equipment for the monitoring and management of climate-induced disasters. The MI-SSCP will be responsible for development of DRMapp as well as the purchase and maintenance of drone equipment and technology and development of mobile GIS-based asset condition inspection methods and tools. In addition, the MI-SSCP will be responsible for development of the asset management system and damage and loss database as well as the development and introduction of guidelines for new systems and methodologies and the coordination and management of municipality disaster data collection.

The Ministry of Agriculture and Fisheries (MAF) is the government institution mandated for the development of the main rural sectors and for coordinating rural development. The Directorate General for Forests, Coffee and Industrial Plants plays an important role in watershed management and reforestation in catchment areas in order to respond to climate change. It has three National Directorates responsible for conservation of forest, forest management, and community-based forestry development. It has established coordinating mechanisms at all levels for harmonizing functions, planning and implementation and for monitoring progress of achievements in rural development. It will be the Responsible Party for Activity 2.3. With Technical Assistance, it will develop agro-forestry and reforestation strategies for target catchments, implement agroforestry and reforestation schemes in these catchments, train local extension workers, train

communities to implement and maintain agroforestry activities, and undertake long-term monitoring of agroforestry schemes.

While overall project outputs and activities/sub-activities will be implemented by the above-mentioned responsible parties, the following government and non-government entities will be engaged in and support implementation of activities/sub-activities at national and local level.

The Ministry of Public Works, National Directorate for Water Resources, is responsible for policy, planning, execution, organisation and monitoring of all water systems implemented by government and also all government partners. All agencies and NGOs who work on water supply system activities must work directly with the Directorate for Water and Sanitation. The directorate will provide input to Activity 2.1 via development of Climate proofing standards and manuals for rural water supply and flood defence infrastructure, collaboration on climate resilient design approaches and sustainable O&M methods for rural water, sanitation and hygiene sectors, and standardization of designs and climate resilient policy development. The Ministry of Public Works, National Directorate for Water Resources will also be involved in the design and implementation of water supply schemes under the project. The Ministry of Public Works' Roads 4 Development effort will be involved in the design of roads, road drainage structures and other related small infrastructure works. In addition, they will help with the standardization of designs and climate resilient policy development related to rural roads, and technical capacity development for communities and LA's.

Municipalities, Development Commissions, and Local Authorities will be responsible for the implementation of PDIM and PDID projects. In addition, they are responsible for local planning, development of strategic municipal plans, budgeting, and infrastructure development. During the project, these entities will undertake the development of annual climate- resilient investment plans, determine budgets, implement climate resilient small scale infrastructure and ecosystem services, standardize infrastructure designs, scale up best practices across the entire Municipality Plans programme, and engage in evidence-based policy advocacy. Through the PDIM, PNDS and under MSA, they will be responsible for implementation of Activities 2.1 and 2.2. This will include responsibility for detailed design and implementation of climate resilient infrastructure with MSA technical assistance. In addition, this will include engineering inputs to feasibility studies, detailed design, procurement and implementation of 130 infrastructure schemes (TA, municipal input, international experts, community engagement, bill of quantities development, procurement process, construction supervision, construction hand over, etc.).

Activities related to community-based engagement and training will be implemented by a group/consortium of international and local NGOs that have grass-roots experience in the areas of community-level participatory infrastructure development and disaster risk planning and management, integrated natural resources management, community mobilization and empowerment. These will include implementation of agroforestry and reforestation strategy for infrastructure sub-catchments. Technical guidance to and QA/QC of contractor's work will be provided by an international consultant(s) hired by UNDP.

An informal multi-stakeholder Technical Advisory Working Groups (TAWG) will also be established to provide inputs to and endorsement of the design and quality of the project outputs. The TAWG members will represent the government, private sector, academia and civil society to provide guidance and technical advice on the project.

Risks and Assumptions: The risks that were identified during project formulation phase and the mitigation measures have been provided in Annex K. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Although there are risks to project implementation, these do not pose a significant threat to successful project implementation.

Stakeholder engagement plan: A wide range of stakeholders including key government line ministries, development partners, NGOs, municipal and local authorities as well as community groups will engage in

the project implementation. In general, stakeholder engagement in the project implementation will start at the inception workshop which will be held in the capital Dili. This will include community engagement and capacity development on topics to include climate risk management and resilience building measures. Meanwhile, formation of community catchment management groups will improve ownership of these interventions while implementation of the Gender Action Plan will ensure that interventions take account of gender specific requirements and enhance gender equality in Timor Leste. In addition, the strengthening of cooperatives through the development and implementation of the agro-forestry strategy will embed knowledge and learning of resilient and sustainable agro-forestry methods and practices within communities.

More details of the Stakeholder Engagement Plan can be found in Annex I to this Project Document.

Gender equality and empowering women: Gender assessment has been conducted and an action plan has been developed for this project which can be found in Annex J to this Project Document. The project design has been informed through consultation with various stakeholders and has sought to reflect the gender differentiated aspects of climate risks. Information on the needs of vulnerable groups (women, ethnic minorities, disabled, elderly) has been collected and will continue to be collected through ongoing and inclusive stakeholder engagement. Through a Gender Action Plan (GAP), which addresses the needs of not only women and other vulnerable groups, concrete actions will assist in fulfilling Timor Leste's commitment to gender equity and international obligations on gender responsive climate change and disaster risk measures. The GAP will draw on lessons learnt from the UNDP SSRI project include the need for gender responsive planning and implementation. It will include gender analysis as part of risk and vulnerability and support capacity building of staff and implementing partners to collect sex and age disaggregated baseline data; develop specific performance indicators to monitor, report or track progress, inform decision; and strengthen accountability on commitments for gender equality. For example, the project will seek to mainstream gender in the PDIM to ensure women's involvement in all stages of the process:

- Planning: Take women's opinion, experience, skills and knowledge in developing the strategic plan and PDIM projects
- Design: Prioritize and ensure women participation in all stages from project planning to implementation; ensure provision enhance the women's capacity.
- Implementation of projects: Ensure women's participation in implementing projects in rural areas
- Monitoring & Evaluation: Balance participation to make M&E more effective

South-South and Triangular Cooperation (SSTrC): Learning opportunities and technology transfer from peer countries will be further explored during project implementation. To present opportunities for replication in other countries, the project will codify good practices and facilitate dissemination through global ongoing South-South and global platforms, such as Africa Solutions Platform, the UN South-South Galaxy knowledge sharing platform and PANORAMA<sup>21</sup>.

In addition, to bring the voice of Timor-Leste to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on climate change/environmental protection. The project will furthermore provide opportunities for regional cooperation with countries that are implementing initiatives on climate proofing infrastructure and disaster risk management in geopolitical, social and environmental contexts relevant to the project in Timor-Leste.

Sustainability and Scaling Up: The project will not only achieve the impact potential but also to create enabling environment/condition for scaling up/replicating the project impact beyond the immediate target areas. The project's sustainability and exit strategy is rooted in the key elements of design and implementation. The following assures long-term sustainability beyond the project implementation period:

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<sup>21</sup> <https://panorama.solutions/en>

**Investment in human resources and institutions:** The project is focused on developing knowledge institutions that have skilled human resources as well as adequate information, tools and technologies to effectively pursue their mandate in climate risk management. Project investments will improve the availability of risk information and create effective response mechanisms. The project will help all relevant institutions develop and implement comprehensive short- to long-term personnel learning and training programs at all scales - including community, Administrative Post (AP), municipality and national levels. All these programmes will be integrated into existing education and training systems and will become routine after the end of the project. This approach to capacity development is far reaching and more likely to ensure sustainability, and continued growth, of improved human resource and technical capacities. To address sustainability of institutional capacities advanced as part of the project, the project will support the development and adoption of relevant legal frameworks, policies and planning frameworks for climate resilient infrastructure development. In addition, as part of the exit strategy, the project will address the legal frameworks, policies, and processes which currently present barriers to the climate resilient provision of decentralized infrastructure services in Timor Leste. Through enhancements to the legislative and institutional framework, the project will ensure that the required systems/mechanisms for accountability, transparency, and technical knowledge transfer for decentralized climate resilient infrastructure development are in place for the long-term.

Most importantly, cost-benefit assessment methodologies and a socio-economic risk model will be embedded into the planning processes for the Integrated Municipal Development Planning (PDIM) and National Village Development (PNDS) programmes as a result of the project (Output 1). These will ensure that financial and economic resources are available after GCF assistance ends for the government to better analyse climate risks associated with the provision of decentralised infrastructure services at the municipal and village level, identify and finance cost-effective climate risk reduction measures, and maintain infrastructure investments over time. The cost-benefit modelling initiated as part of this effort will be used to support efficient use of financing.

**Investment in social and economic assets of vulnerable communities:** This project seeks to strengthen PIDM and PNDS investment planning and implementation cycles by embedding climate risk information and enhancing the capacity to prioritize, budget, locate and deploy infrastructure that is functionally stable in the face of climate hazards. This will help ensure the financial sustainability of infrastructure climate proofing efforts for the long-term. In addition, this will provide the potential to mobilise financing to absorb the additional cost of climate proofing in the future, through municipal and private sector finance mechanisms.

**Investment in natural capital:** The functional capacity of the landscape plays an essential role in maintaining long-term resilience and safeguarding investments and communities against climate-induced disasters and slow onset changes in weather patterns, especially in an island community of complex and harsh terrain. For example, stable adjacent slopes and healthy watersheds will keep the cost of climate-proofing infrastructure proposed above within a manageable range. Thus, it is critical for the project to take a broader climate risk reduction approach that also accounts for, and promotes the maintenance of, the ecosystem services provided by the natural environment in the project areas. Natural landscapes can provide protective services and reduce the need for additional infrastructure dedicated to climate protection, such as sea defences or flood walls, interconnections in water supply, or retrofitting of all existing infrastructure units. Fostering an environment of stable and well-managed natural capital is an investment in the long-term sustainability of social and economic assets, such as those that the GCF project will fund in Timor Leste.

**Post-project O&M:** In addition to protecting investments via maintaining the natural surroundings, the government cofinancing supporting district / municipal and village investment mechanisms will also include budgeted O&M costs for a period well beyond the project duration. Local customary land use laws (tara bandu) and traditions will be used as well as locally defined roles and responsibilities for control, protection and maintenance to sustain the GCF investments.

In terms of maintenance of infrastructure, MSA is committed to provide O&M to 130 infrastructure units to be implemented by the project, during and after the end of the project (please refer to MSA's co-financing letter in Annex D to this Project Document. Furthermore, the implemented infrastructure units will be integrated into the existing rural infrastructure asset network to be operated and maintained by relevant line ministry practitioners sitting under MSA at the municipal level. (please refer to O&M plan – Annex XIII (b) to the Funding Proposal.)

In addition, the project will assist relevant government institutions in developing long-term O&M financial planning to ensure that infrastructure, equipment and systems implemented under the project will be maintained in the long-term. The project interventions have been designed to strengthen financing and implementation of O&M in the long-term. To this end, the project will address current and future requirements for maintenance by developing and embedding CBA, asset management and portfolio risk management methods that ensure the systematic identification and prioritisation of the maintenance costs over the lifespan of the infrastructure units. Recognising that O&M is integral to climate proofing of infrastructure, the project will also implement a strategy for the harmonisation of the PDIM and PNDS infrastructure into a maintenance programme with regular budget allocated for maintenance, thus enhancing the service life of the infrastructure units

Specifically, the project will provide the following safeguards to financial sustainability:

- Review budgetary requirements for long-term maintenance of rural infrastructure based on climate risk information to be developed by the project, and development of a financing model for the long-term maintenance (using cost-benefit modelling to support the financing model)
- Strengthening multi-disciplinary approach to O&M for a harmonised O&M framework for rural infrastructure
- Advising the government on optimum/efficient allocation of funds for climate proofing and DRM
- Improve the donor coordination in the area of rural infrastructure development and climate proofing

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## V. PROJECT MANAGEMENT

### Cost efficiency and effectiveness:

The project will increase resilience and enhance livelihoods of the most vulnerable segments of population, particularly women, children and the elderly. Physical damage and economic losses due to impacts of extreme climate related disasters will decrease by at least half (calculated against baseline Damage and Loss)<sup>22</sup>. Nationally, economic losses from extreme hazards range from \$203 Million, \$37 Million, \$10 Million and \$12.5 Million USD for landslides, floods, erosion and drought respectively for the whole of Timor Leste. This is a considerable financial burden and development setback for a low-income country with a heavy dependence on subsistence agriculture. Through the development of climate risk information, inclusion of such information and improved DRM systems and climate change adaptation in the long-term, the project will help reduce these levels of economic damages.

In the 6 target municipalities climate-induced hazards currently have the following impacts on people, infrastructure and agriculture<sup>23</sup>:

- Dwellings (number of homes affected): 14,663 homes affected by floods; 87,139 homes affected by drought; 75,819 homes affected by erosion; 84,853 homes affected by landslides

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<sup>22</sup> See Section 2.9 of the Feasibility Study for the detail socio-economic risk assessment

<sup>23</sup> Details of the socio-economic risk assessment on which figures are based, can be found in Chapter 2 of the feasibility report



- Water supply sources (Number of homes at risk from impacts on water sources): 66,027 homes at risk from floods; 76,049 homes at risk from drought; 76,049 homes at risk from erosion; 75,186 homes at risk from landslides
- Rural roads (length of rural roads impacted): 323.69 km impacted by floods; 2,143 km impacted by landslides
- Agriculture (numbers of hectares affected): 40,598ha affected by landslides; 15,785ha affected by floods; 40,598ha affected by erosion; 40,598ha affected by drought

The 20 flood control projects identified will have the effect of averting \$37,000 USD in annual economic damages in the target communities, impacting 11,338 beneficiaries and protecting 109 ha of land from flooding. The 47 road slope stabilization sites will increase access to markets and other services for 92,397 beneficiaries and will substantially increase their economic activity from current values of \$1.68 million USD combined. The 38 water supply projects identified will reach 21,973 beneficiaries with a combined income of \$1.2 Million USD. The 25 irrigation schemes will reach 50,246 beneficiaries and will enhance income from crops, currently a value of \$428,485 USD.

The impact potential of climate proofing critical small-scale rural infrastructure is high as it will safeguard vulnerable communities and their economic assets from climate change-induced disasters. In addition, livelihoods of communities will be enhanced through agroforestry which, in combination with reforestation and catchment management measures, will reduce land degradation on 300 ha of land, impacting 208,367 beneficiaries<sup>24</sup>. A further 1200 ha of land within project areas will be rehabilitated through MAF co-financing.

It is expected that the proposed project adaptation interventions, will provide essential climate resilient infrastructure to the most vulnerable, enable them to participate more effectively in a productive society and providing access to essential clean water (through water supply infrastructure), transportation (through road and bridge construction and rehabilitation), increased crop productivity (through irrigation infrastructure), and flood defenses resulting in better health and socio-economic development and protection of people, property and community assets from floods, landslide and erosion risks. The needs of disabled and vulnerable people will be considered throughout the project in terms of policies and regulations, design of infrastructure, capacity building of decision makers, and implementation, including employment opportunities. For example, Activity 1.3 involves the revision of regulations, standards and specifications for climate proofed infrastructure, such revision will include consideration of the needs of disabled and vulnerable people.

#### Project management:

The Project Management will be supported by a core team of technical and support staff forming the Project Implementation Unit (PIU). The PIU will be located at the MSA to execute project activities, including day-to-day operations of the project, and the overall operational and financial management and reporting (the PIU will include a finance and administrative officer and monitoring and evaluation officer). The PIU will have 6 National Field Coordinators who will be based at the MSA's municipal administration offices in the 6 target municipalities to coordinate and execute project activities in close coordination with the municipal and local authorities.

For the project's technical support, a Technical Committee comprised of key relevant government departments and technical partners (Civil Society Organizations, academia, interest groups and associations on the ground) will be established and will work closely with the central Project Implementation Unit, with the mandate to vet the project deliverables and provide technical inputs and validation. In addition to the Technical Committee, a separate donor coordination group will be set up to ensure there are synergies and coordination and that a scale up strategy is enforced through multiple programmes and investments. At the municipal level, the project will require Field coordinators for each target municipality to localize the project plans and synchronize work planning and implementation with overall coordination by the National Project Coordinator, and supported by the Project Manager and CTA.

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<sup>24</sup> All these figures are based on the socio-economic risk modelling undertaken for the formulation, as part of feasibility study.

SEA is also the National Designated Authority of the Green Climate Fund and all the national level coordination mechanisms will be under the aegis of the secretariat of state. The Ministry of State Administration – MSA, responsible for municipal and village investment programmes (PDIM and PNDS); Ministry of Interior – Secretariat of State for Civil Protection MI-SSCP, responsible for disaster risk reduction policies and actions; and Ministry of Agriculture, Forestry and Fisheries – MAF, responsible for reforestation policies and actions, will take the roles of Responsible Parties under the respective project activities, following their mandates. Under the National Implementation Modality, and in terms of the Project Document to be signed between UNDP and GOTL, UNDP will procure goods and services, engage service providers-NGOs, and advance cash funds on a quarterly basis to SEA as EE and to MSA, MAF and MI-SSCP as RPs<sup>25</sup>. The major agreements to be entered into are the Country Office Support Service (COSS) Agreement between UNDP and SEA, and Letter of Agreement (LOA) for those between UNDP and RPs, responsible for delivering particular projects activities following their institutional mandates (these will be detailed during the Inception Workshop).

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the GCF for providing grant funding, the GCF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GCF will also accord proper acknowledgement to the GCF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy<sup>26</sup> and the relevant GCF policy.

Disclosure of information: Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy<sup>27</sup> and the GCF Disclosure Policy<sup>28</sup>.

Carbon offsets or units: As outlined in the AMA agreement between UNDP and the GCF, to the extent permitted by applicable laws and regulations, the Implementing Partner will ensure that any greenhouse gas emission reductions (e.g. in emissions by sources or an enhancement of removal by sinks) achieved by this project shall not be converted into any offset credits or units generated thereby, or if so converted, will be retired without allowing any other emissions of greenhouse gases to be offset.

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<sup>25</sup>UNDP may increase its support services in the area of direct payment based on calculated risk and assumption to comply with the project timelines and ensure achievement of project objectives as well as outputs and outcomes.

<sup>26</sup> See [http://www.undp.org/content/undp/en/home/operations/transparency/information\\_disclosurepolicy/](http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/)

<sup>27</sup> See [http://www.undp.org/content/undp/en/home/operations/transparency/information\\_disclosurepolicy/](http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/)

<sup>28</sup> See [https://www.greenclimate.fund/documents/20182/184476/GCF\\_B.12\\_24\\_-\\_Comprehensive\\_Information\\_Disclosure\\_Policy\\_of\\_the\\_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb](https://www.greenclimate.fund/documents/20182/184476/GCF_B.12_24_-_Comprehensive_Information_Disclosure_Policy_of_the_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb)

## VI. PROJECT RESULTS FRAMEWORK

**This project will contribute to the following Sustainable Development Goal (s):** 5, 6, 10, 11, 13, 15. Specifically with regard the SDG 1 the project will

- Strengthen the resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;
- Integrate climate change measures into national policies, strategies and planning
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning;
- Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

**This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:** By the end of 2019, people of Timor-Leste, especially the most disadvantaged groups, benefit from inclusive and responsive quality health, education and other social services and are more resilient to disasters and the impacts of climate change

**This project will be linked to the following output of the UNDP Strategic Plan**

**SP Output #3:** 1.3.1 National capacities and evidence-based assessment and planning tools enable gender-responsive and risk-informed development investments, including for response to and recovery from crisis.

**Indicators:**

- Number of countries with recovery plans and systems in place utilizing sex, age and disability disaggregated data and gender analysis
- Number of countries with development, risk reduction and recovery interventions informed by multi-hazard and other risk assessments

**GCF Paradigm shift objectives: Increased climate-resilient sustainable development**

The project objective is to safeguard vulnerable communities and their physical assets from climate change-induced disasters by addressing existing institutional, financial and legislative barriers, and increasing the climate resilience of vulnerable small-scale rural infrastructure. strengthening the capacity of mandated institutions to assess and manage climate risks in order to maintain local infrastructure services. It will embed new skills, technologies, and innovative methods in climate risk identification and mitigation processes, enhance monitoring and recording of climate risk information and integrate climate risk data into policies, standards, guidelines, and long-term investment planning for small-scale rural infrastructure, and will implement climate resilient building measures to improve small-scale rural infrastructure in vulnerable areas, To further safeguard climate proofed infrastructure, the project will develop and implement catchment management strategies, supporting long-term resilience and climate risk reduction via landscape restoration and enhanced land stability, particularly in vulnerable catchments where small-scale infrastructure is present. The project targets 175,840 direct beneficiaries, an estimated 15% of the total population and will catalysed benefits including increased climate resilience for small-scale infrastructure as well as 1500\* ha of reforested and rehabilitated land to buffer against climate-induced disasters. The project will ensure long-term infrastructure resilience via (i) embedding climate resilience standards into the processes through which small-scale infrastructure is planned, designed, constructed and maintained; (ii) improving climate hazard and risk assessment capacity and access to climate risk information.

\*1,200 ha of land within project areas will be rehabilitated through MAF co-financing

	Objective and Outcome Indicator	Baseline	Mid-Term Target	End of Project Target	Assumptions
	<p>SDG Indicators: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters</p> <p><b>INDICATOR 1.5.1</b> Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population</p>	<p>Total of 16 deaths due to climate hazards between 2015 to 2019 has been recorded. In 2019 alone, 8 people died due to 5 disaster events mainly strong winds, inundation, landslide, and wildfire (Source <a href="http://tidd.MI-SSCP.gov.tl/Desinventar/results.jsp">http://tidd.MI-SSCP.gov.tl/Desinventar/results.jsp</a>)</p>	<p>15% reduction in the number of deaths and number of directly affected persons</p>	<p>15% reduction in the number of deaths and number of directly affected persons</p>	<p>Climate proofing infrastructures, asset management and maintenance and DRM interventions result in target reduction in number of deaths and number of people directly affected</p>
<b>FUND LEVEL IMPACT</b>					
A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	A1.1 % reduction in losses of lives and economic assets (US\$) due to the impact of extreme climate-related disasters in the geographic area of the GCF intervention	Economic loss exposure equivalent to 11.5% of GDP	25% reduction in economic losses in 6 target municipalities	75% reduction in economic losses in 6 target municipalities	Climate proofing, asset management and maintenance and DRM interventions result in target reduction in economic losses
A3.0 Increased resilience of infrastructure and the built environment to climate change	A3.1 total number of infrastructure units made climate resilient	13 units per year non-climate proofed infrastructure in each of the 6 target municipalities	31 climate resilient infrastructure assets built or improved by project	130 <sup>29</sup> climate resilient infrastructure assets built or improved by project	Central government, Municipalities, and community members are willing and able to scale up climate-resilient infrastructure design and development practices.
	A3. number of beneficiaries with access to climate resilient infrastructure units	33,000 beneficiaries in 3 of the target municipalities where SSRI has been implemented	75,000 direct beneficiaries (51% male, 49% female) of the 31 climate resilient infrastructure assets	175,840 direct beneficiaries (51% male, 49% female) of the 130 climate resilient	

<sup>29</sup> 49% of assets will be implemented using government co-financing

				infrastructure assets	
A4.0 Improved resilience of ecosystems and ecosystem services	A4.1 Extent of ecosystems strengthened, restored and protected from climate variability and change	Deforestation rate of 1.16% per year	100 ha of farm and state land is under agroforestry and reforestation efforts	300 ha of farm and state land is under agroforestry and reforestation efforts	All communities willing to implement agroforestry on their land and willing to assist in implementing agroforestry on state land
<b>Project Outcomes</b>					
A5.0 Strengthened institutional and regulatory systems for climate responsive planning and development	A 5.1 # of Institutional and regulatory systems that improve incentives for climate resilience and their effective implementation	Outdated sectoral guidelines for infrastructure development that do not include climate risk considerations	3 national policies, regulations, revised methodologies and guidelines for CR infrastructure adopted	6 national policies, regulations, revised methodologies and guidelines for CR infrastructure adopted	Government commitment to embed climate risk information in sectoral policies and legislation Political will to implement relevant legal-regulatory reform and to establish cross-sectoral CC platform
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	A7.1: Use by public-sector services staff of Fund supported tools, instruments, strategies and activities to respond to climate change and variability		100 staff in MSA, MI-SSCP and MAF in central and local government using new tools and technologies	200 staff in MSA, MI-SSCP and MAF in central and local government using new tools and technologies	Government commitments to secure adequate O/M of relevant software and databases are fulfilled on a continuous basis both during the project implementation and afterwards Capacities built across relevant agencies through the project are maintained and periodically updated
	A 7.2 # of males and females reached benefitting from climate-resilient infrastructure.	33,000 beneficiaries in 3 of the target municipalities where SSRI has been implemented	75,000 direct beneficiaries (51% male, 49% female) of the 31 climate resilient infrastructure assets  Total direct and indirect beneficiaries: 261,000 (51% males, 49% female) beneficiaries	175,840 direct beneficiaries (51% male, 49% female) of the 130 climate resilient infrastructure assets  Total direct and indirect beneficiaries: 522,000 (51% males, 49% female) beneficiaries	There is continued commitment and uptake of the information by targeted communities in the project
<b>Project Outputs</b>					

<p>1. Climate risk information is developed, monitored and integrated into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management</p>	<p>1.1 # of hazard risk maps and information developed and adopted/ embedded into sectoral policies and legislations</p>	<p>Coarse resolution UNDP indicative national hazard maps for 4 major hydromet hazards</p>	<p>2 sets of national hazard maps covering all of Timor Leste for floods, landslide, erosion and drought (to be completed before mid-term)</p>	<p>4 sets of national hazard maps covering all of Timor Leste for floods, landslide, erosion and drought (to be completed before mid-term)</p>	<p>Government commitments to secure adequate O/M of relevant software and databases are fulfilled on a continuous basis both during the project implementation and afterwards</p> <p>Capacities built across relevant agencies through the project are maintained and periodically updated</p> <p>Relevant government agencies cooperate on the development of hazard maps (MI-SSCP, MAF, SEA, MPWTC etc.).</p> <p>Government commitment to embed climate risk information in sectoral policies and legislation</p> <p>Political will to implement relevant legal-regulatory reform and to establish cross-sectoral CC platform</p>
<p>2. Climate risk reduction and climate-proofing measures for small-scale rural infrastructure are implemented to build the resilience of vulnerable communities in six priority districts</p>	<p>2.1 # of infrastructure units built to new climate resilient standards</p>	<p>13 units per year non-climate proofed infrastructure in each of the 6 target municipalities</p>	<p>31 climate resilient infrastructure units</p> <p>20 roads; 11 water supply units</p>	<p>130<sup>30</sup> climate resilient infrastructure units</p> <p>38 water supply units, 25 Irrigation system, 20 flood protection units. 47 Rural roads.</p>	<p>Political will to revise PDIM and PNDS processes to include CR considerations</p> <p>Effective embedding of CR infrastructure design standards at municipal level</p> <p>Government commitment to long-term investment in CR infrastructure</p> <p>Government commitment to implementation of long-term catchment agroforestry and reforestation strategy introduced by project</p> <p>Agroforestry introduced to local communities will lead to alternative sustainable CR livelihoods that lead to reduced land degradation</p> <p>Government commitments to secure adequate O/M of 130 infrastructure units are fulfilled on a continuous basis both during the project implementation and afterwards</p> <p>Capacities built across relevant local government organisations through the project are maintained and periodically updated</p> <p>Relevant government agencies cooperate on development and</p>
	<p>2.2 # Hectares of agroforestry implemented in target infrastructure catchments</p>	<p>Deforestation rate of 1.16% per year</p>	<p>75 hectares</p>	<p>300 hectares</p>	

<sup>30</sup> 49% of assets will be implemented using government co-financing

					implementation of CR infrastructure (MI-SSCP, MAF, SEA, MPWTC etc.).
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## VII. MONITORING AND EVALUATION (M&E) PLAN

The project results as outlined in the project results framework will be monitored and reported annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GCF-specific M&E requirements will be undertaken in accordance with relevant GCF policies.

In addition to these mandatory UNDP and GCF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Workshop Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including national/regional institutes assigned to undertake project monitoring.

### **M&E oversight and monitoring responsibilities:**

Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF Regional Technical Advisor of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The Project Manager will develop annual work plans to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the Annual Project Report, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. Environmental and social management plan, gender action plan etc.) occur on a regular basis.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

Project Implementing Partner: The Implementing Partner is responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key M&E activities including the Annual Project Report, the independent mid-term evaluation and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.



The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the Annual Project Report and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. Annual Project Report quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.

The UNDP Country Office will support GCF staff (or their designate) during any missions undertaken in the country, and support any ad-hoc checks or ex post evaluations that may be required by the GCF.

The UNDP Country Office will retain all project records for this project for up to seven years after project financial closure in order to support any ex-post reviews and evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GCF.

UNDP-Global Environmental Finance Unit (UNDP-GEF): Additional M&E and implementation oversight, quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

**Audit:** The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies and the related arrangements agreed to in the Accreditation Master Agreement. Upon request, project audit report(s) will be shared with the GCF (the donor).

#### **Additional GCF monitoring and reporting requirements:**

Inception Workshop and Report: A project inception workshop will:

- a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
- b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
- d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E;
- e) Identify how project M&E can support national monitoring of SDG indicators as relevant;
- f) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender action plan; and other relevant strategies;
- g) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the periodic audit; and
- h) Plan and schedule Project Board meetings and finalize the first year annual work plan.

The inception report must be submitted to the GCF within six months of project start (i.e. FAA Effective Date). The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

GCF Annual Project Report (due 1 March each year of project implementation): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual project report covering the calendar year for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance so that progress can be included in the report. The APR will include reporting of: environmental and social risks and related management plans, gender, co-financing and financial commitments, GCF 'conditions precedent' outlined in the FAA, amongst other issues. The annual project report will be due for submission to the GCF in the first quarter of each year for the duration of the project. The last APR will be due for submission within 3 months after the project completion date.

The Annual Project Report submitted to the GCF will also be shared with the Project Board. The UNDP Country Office will coordinate the input of other stakeholders to the report as appropriate. The quality rating of the previous year's report will be used to inform the preparation of the subsequent report.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

Interim Independent Evaluation Report: An interim independent evaluation report will be completed within three (3) months after Year Three from Effective Date. The findings and responses outlined in the management response to the interim independent evaluation will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the evaluation process and the evaluation report will follow the standard templates and guidance prepared by the UNDP IEO available on the [UNDP Evaluation Resource Center \(ERC\)](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Other stakeholders will be involved and consulted during the evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final interim evaluation report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

Final Independent Evaluation Report: A final independent evaluation report will be completed within six (6) months after submission of Project Completion Report. The final evaluation will take place upon completion of all major project outputs and activities. The final evaluation process will begin at least three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Final Independent Evaluation report is due for submission to the GCF within 6 months after the project completion date.

The Project Manager will remain on contract until the final evaluation report and management response have been finalized. The terms of reference, the evaluation process and the final evaluation report will follow the standard templates and guidance prepared by the UNDP IEO available on the [UNDP Evaluation Resource Center](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Additional quality assurance support is available from the UNDP-GEF Directorate. The final evaluation report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The final evaluation report will be publicly available in English on the UNDP ERC.

The UNDP Country Office will include the planned project evaluations in the UNDP Country Office evaluation plan, and will upload the evaluation reports in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC).

Final Report: The project's final Annual Project Report along with the final independent evaluation report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

**Mandatory GCF M&E Requirements and M&E Budget:**

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget <sup>31</sup> (US\$)		Time frame
		GCF grant	Co-financing	
Inception Workshop	UNDP Country Office	15,000	None	
Inception Report and baseline assessments	Project Manager	5,000	None	Within six (6) months after Effective Date
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	Per year: 2,000 Total: 12,000	Annually
Risk management	Project Manager Country Office	None	Per year: 2,000 Total: 12,000	Quarterly, annually
Monitoring of indicators in project results framework (including hiring of external experts, project surveys, data analysis etc.)	Project Manager Country Office	Per year: 10,000 Total: 60,000	Per year: 10,000 Total: 60,000	Annually
GCF Annual Project Report	Project Manager and UNDP Country Office and UNDP-GEF Unit	None	None	Annually as per FAA
Audit of Implementing Partner as per UNDP audit policies	UNDP Country Office	None	Per year: 6,000 Total 36,000	As per UNDP Audit policies
Lessons learned, case studies, and knowledge generation	Project Manager UNDP CO	Per year: 3,000 Total: 18,000	Per year: 3,000 Total: 18,000	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	Per year: 3,000 Total: 18,000	Per year: 3,000 Total: 18,000	On-going
Monitoring of gender action plan	Project Manager UNDP CO	Per year: 3,000 Total: 18,000	Per year: 3,000 Total: 18,000	On-going
Monitoring of stakeholder engagement plan	Project Manager UNDP CO	Per year: 3,000 Total: 18,000	Per year: 3,000 Total: 18,000	On-going

<sup>31</sup> Excluding project team staff time and UNDP staff time and travel expenses.

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget <sup>31</sup> (US\$)		Time frame
		GCF grant	Co-financing	
<b>Addressing environmental and social grievances</b>	Project Manager UNDP Country Office BPPS as needed	Per year: 4,000  Total: 24,000		Costs associated with missions, workshops, BPPS expertise etc. can be charged to the project budget.
<b>Project Board meetings</b>	Project Board UNDP Country Office Project Manager	Per year: 5,000  Total: 30,000	Per year: 2,000  Total: 12,000	At minimum annually
<b>Supervision missions</b>	UNDP Country Office	None <sup>32</sup>		Two per year
<b>Oversight missions</b>	UNDP-GEF Unit	None		Troubleshooting as needed
<b>GCF learning missions/site visits</b>	UNDP Country Office and Project Manager and UNDP-GEF Unit	20,000/mission  Total: 40,000 (at least twice during project duration)	5,000/ mission  Total: 10,000 (at least twice during project duration)	Costs associated with GCF missions, workshops, site visits, etc (It is expected that the mission will be conducted at least twice during project duration)
<b>Interim independent evaluation and management response (add additional lines if more than one interim evaluation is required)</b>	UNDP Country Office and Project team and UNDP-GEF Unit	30,000		Within three (3) months after Year three (3) from Effective Date
<b>Final independent evaluation and management response</b>	UNDP Country Office and Project team and UNDP-GEF Unit	55,000		Within six (6) months after submission of Project Completion Report
<b>Translation of evaluation reports into English</b>	UNDP Country Office	5,000		
<b>TOTAL indicative COST</b> Excluding project team staff time, and UNDP staff and travel expenses		US \$336,000	\$214,000	

<sup>32</sup> The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GCF Agency Fee.

## VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project’s governance mechanism: The project will be implemented following UNDP’s national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of Timor Leste, and the Country Programme.

The **Implementing Partner** for this project is the Secretariat of State for Environment (SEA). The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Implementing Partner is responsible for:

- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

The project organisation structure – as outlined in Schedule 3 of the FAA - is as follows:

### Indicative Schematic of the Management Arrangements for the Proposed Project

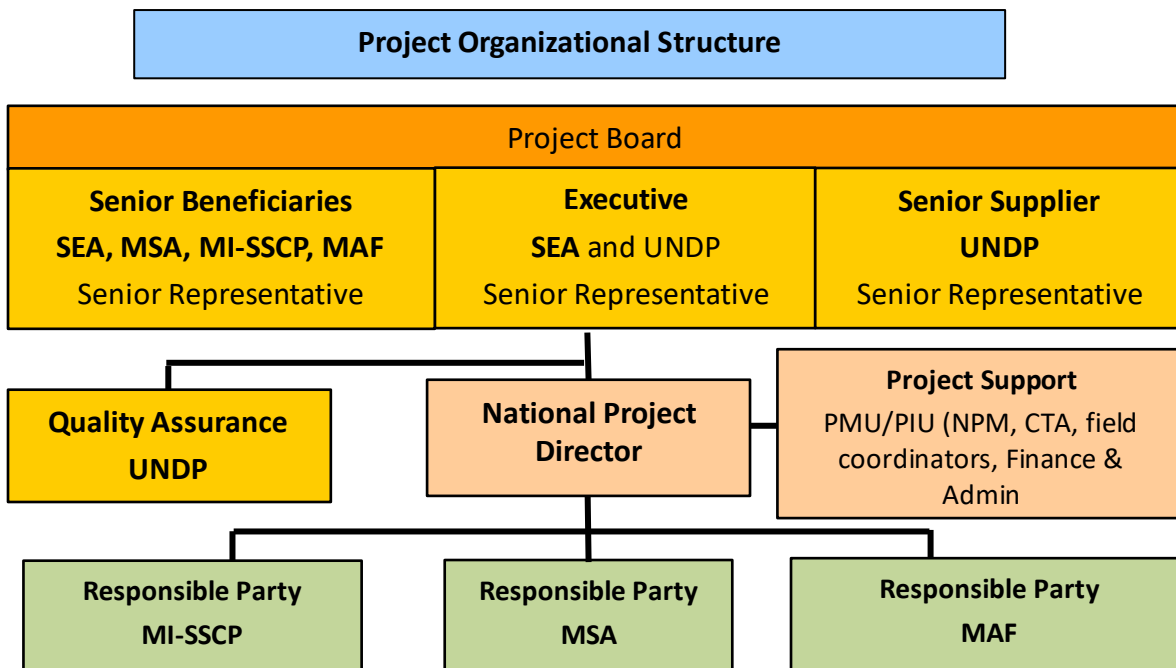


Figure 2: Indicative Schematic of Management Arrangements for proposed project

**Project Board:** The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendations for UNDP/Implementing Partner approval of project plans and revisions, and addressing any project level grievances. In order to ensure UNDP’s ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on project manager's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the workplan;
- Provide ad hoc direction and advice for exceptional situations when the project manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

The composition of the Project Board must include the following roles:

Executive: The Executive is an individual who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency and/or UNDP. The Executive is: Secretary of State for Environment and UNDP Resident Representative (as co-chair).

The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive has to ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and supplier.

Specific Responsibilities: (as part of the above responsibilities for the Project Board)

- Ensure that there is a coherent project organisation structure and logical set of plans;
- Set tolerances in the AWP and other plans as required for the Project Manager;
- Monitor and control the progress of the project at a strategic level;
- Ensure that risks are being tracked and mitigated as effectively as possible;
- Brief relevant stakeholders about project progress;
- Organise and chair Project Board meetings.

Senior Supplier: The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Supplier is: UNDP Resident Representative.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Make sure that progress towards the outputs remains consistent from the supplier perspective;
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management;

- Ensure that the supplier resources required for the project are made available;
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

**Senior Beneficiary:** The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary role is held by a representative of the government or civil society. The Senior Beneficiary is: high level officials/representatives from the IP "Secretary of State for Environment" and RPs namely Minister of Agriculture and Fisheries, Minister/Vice Minister for State Administration, and Ministry of Interior-Secretary of State for Civil Protection.

The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Specification of the Beneficiary's needs is accurate, complete and unambiguous;
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;
- Risks to the beneficiaries are frequently monitored.

**Project Manager:** The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

The Implementing Partner recruits the Project Manager, who should be different from the Implementing Partner's representative in the Project Board.

Specific responsibilities include:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;

- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
- Capture lessons learned during project implementation;
- Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the Annual Project Report and submit the final report to the Project Board;
- Based on the Annual Project Report and the Project Board review, prepare the AWP for the following year.
- Ensure the interim evaluation process is undertaken as per the UNDP guidance, and submit the interim evaluation report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the final evaluation process is undertaken as per the UNDP guidance, and submit the final evaluation report to the Project Board.

**Project Assurance:** UNDP provides a three – tier supervision, oversight and quality assurance role – funded by the agency fee – involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. This project oversight and quality assurance role is covered by the accredited entity fee provided by the GCF.

As an Accredited Entity to the GCF, UNDP delivers the following GCF-specific oversight and quality assurance services: (i) day to day project oversight supervision covering the start-up and implementation; (ii) oversight of project completion; and (iii) oversight of project reporting. A detailed list of the services is presented in the table below.

Function	Detailed description of activity	Typical GCF fee breakdown
Day-to-day oversight supervision	<p><b>1. Project start-up:</b></p> <ul style="list-style-type: none"> <li>• In the case of Full Funding Proposals, prepare all the necessary documentation for the negotiation and execution of the Funding Activity Agreement (for the project) with the GCF, including all schedules</li> <li>• In the case of readiness proposals, if needed assist the NDA and/or government partners prepare all the necessary documentation for approval of a readiness grant proposal</li> <li>• Prepare the Project Document with the government counterparts</li> <li>• Technical and financial clearance for the Project Document</li> <li>• Organize Local Project Appraisal Committee</li> <li>• Project document signature</li> <li>• Ensure quick project start and first disbursement</li> <li>• Hire project management unit staff</li> <li>• Coordinate/prepare the project inception workshop</li> <li>• Oversee finalization of the project inception workshop report</li> </ul> <p><b>2. Project implementation:</b></p>	70%



Function	Detailed description of activity	Typical GCF fee breakdown
	<ul style="list-style-type: none"> <li>• <u>Project Board</u>: Coordinate/prepare/attend annual Project Board Meetings</li> <li>• <u>Annual work plans</u>: Quality assurance of annual work plans prepared by the project team; issue UNDP annual work plan; strict monitoring of the implementation of the work plan and the project timetable according to the conditions of the FAA and disbursement schedule (or in the case of readiness the approved readiness proposal)</li> <li>• <u>Prepare GCF/UNDP annual project report</u>: review input provided by Project Manager/team; provide specialized technical support and complete required sections</li> <li>• <u>Portfolio Report (readiness)</u>: Prepare and review a Portfolio Report of all readiness activities done by UNDP in line with Clause 9.02 of the Readiness Framework Agreement.</li> <li>• <u>Procurement plan</u>: Monitor the implementation of the project procurement plan</li> <li>• <u>Supervision missions</u>: Participate in and support in-country GCF visits/learning mission/site visits; conduct annual supervision/oversight site missions</li> <li>• <u>Interim Independent Evaluation Report</u>: Initiate, coordinate, finalize the project interim evaluation report and management response</li> <li>• <u>Risk management and troubleshooting</u>: Ensure that risks are properly managed, and that the risk log in Atlas (UNDP financial management system) is regularly updated; Troubleshooting project missions from the regional technical advisors or management and programme support unit staff as and when necessary (i.e. high risk, slow performing projects)</li> <li>• <u>Project budget</u>: Provide quality assurance of project budget and financial transactions according to UNDP and GCF policies</li> <li>• <u>Performance management of staff</u>: where UNDP supervises or co-supervises project staff</li> <li>• <u>Corporate level policy functions</u>: Overall fiduciary and financial policies, accountability and oversight; Treasury Functions including banking information and arrangements and cash management; Travel services, asset management, and procurement policies and support; Management and oversight of the audit exercise for all GCF projects; Information Systems and Technology provision, maintenance and support; Legal advice and contracting/procurement support policy advice; Strategic Human Resources Management and related entitlement administration; Office of Audit and Investigations oversight/investigations into allegations of misconduct, corruption, wrongdoing and fraud; and social and environmental compliance unit and grievance mechanism.</li> </ul>	

Function	Detailed description of activity	Typical GCF fee breakdown
<b>Oversight of project completion</b>	<ul style="list-style-type: none"> <li>• Initiate, coordinate, finalize the Project Completion Report, Final Independent Evaluation Report and management response</li> <li>• Quality assurance of final evaluation report and management response</li> <li>• Independent Evaluation Office assessment of final evaluation reports; evaluation guidance and standard setting</li> <li>• Quality assurance of final cumulative budget implementation and reporting to the GCF</li> <li>• Return of any un-spent GCF resources to the GCF</li> </ul>	10%
<b>Oversight of project reporting</b>	<ul style="list-style-type: none"> <li>• Quality assurance of the project interim evaluation report and management response</li> <li>• Technical review of project reports: quality assurance and technical inputs in relevant project reports</li> <li>• Quality assurance of the GCF annual project report</li> <li>• Preparation and certification of UNDP annual financial statements and donor reports</li> <li>• Prepare and submit fund specific financial reports</li> </ul>	20%
	<b>TOTAL</b>	<b>100%</b>

Governance role for project target groups:

The project target groups and stakeholders including the NDA Focal Point will be involved as much as possible in project-implementation as well as M&E level. They are expected to actively engaged in all project activities including in a) planning, implementation, and maintenance of climate-proofing infrastructure through the PDIM/PNDS mechanism; b) watershed management/reforestation activities, c) taking part in risk assessment, establishment of climate risk information system, and development of strategy/policy; d) capacity building activities; e) monitoring and evaluation to assess progress/impact.

As part inception workshops, stakeholders including target groups will be informed of mechanisms to submit concerns about the social and environmental impacts of the project. The first mechanism stakeholders may utilize to express concerns about the project’s impacts is the implementing partner’s grievance resolution mechanism. The second is the UNDP Country Office’s existing project management procedures. Concerned stakeholders can engage with UNDP project staff through Project Steering Committees or through direct contact with the relevant UNDP programme manager. UNDP’s Social and Environmental Compliance Review and the Stakeholder Response Mechanism will provide a third avenue for situations in which project stakeholders have not been satisfied with the responses they have received through the first two mechanisms. The Stakeholder Response Mechanism should also be used when the Implementing Partner’s or UNDP’s actions are the source of the grievance.

## IX. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is *USD 59,443,867*. This is financed through a GCF grant of *USD 22,356,805*, *USD 400,000* in UNDP Trac Fund and *USD 36,687,062* in government co-financing. UNDP, as the GCF Accredited Agency, is responsible for the oversight and quality assurance of the execution of GCF resources and the cash co-financing transferred to UNDP bank account only.

### Project Financing

Output	Activity	GCF funding amount (USD)	Govt. Co-financing amount (USD)	UNDP Co-financing amount (USD)	Amount for Entire Project (USD)
Output 1: Climate risk information is developed, monitored and integrated into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management	Activity 1.1 - Develop and deliver climate risk information services and vulnerability mapping to all sectoral institutions	1,883,515	-	-	1,883,515
	Activity 1.2 - Establish a database system for monitoring, recording and accounting climate induced damages in order to inform climate risk reduction planning and budgeting	790,512	4,470,057	-	5,260,569
	Activity 1.3 - Refine ordinances, regulations and associated codes and standards to enable climate proofing small-scale rural infrastructure	573,233	-	-	573,233
<b>Total Output 1</b>		<b>3,247,260</b>	<b>4,470,057</b>	<b>-</b>	<b>7,717,317</b>
Output 2: Climate risk reduction and climate-proofing measures for small-scale rural infrastructure are implemented to build the resilience of vulnerable communities in six priority districts	Activity 2.1 - Climate risk reduction measures for small-scale rural infrastructure are fully integrated into the planning and budgeting cycles of Village and Municipal development plans	1,186,049	-	-	1,186,049
	Activity 2.2 - Implementation of climate-proofing measures for small-scale rural infrastructure	14,128,803	19,687,062	-	33,815,865
	Activity 2.3 - Supporting catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities.	3,129,732	12,000,000	-	15,129,732
<b>Total Output 2</b>		<b>18,444,584</b>	<b>31,687,062</b>	<b>-</b>	<b>50,131,646</b>
Project Management Cost		664,961	529,943	400,000	1,594,904
<b>Total project financing</b>		<b>22,356,805</b>	<b>36,687,062</b>	<b>400,000</b>	<b>59,443,867</b>

**GCF Disbursement schedule:** GCF grant funds will be disbursed according to the GCF disbursement schedule. The Country Office will submit an annual work plan to the UNDP-GEF Unit and comply with the GCF milestones in order for the next tranche of project funds to be released. All efforts must be made to achieve 80% delivery annually.

Disbursements	GCF Proceeds (USD)
1	2,349,598

<b>2</b>	<b>2,997,580</b>
<b>3</b>	<b>4,028,584</b>
<b>4</b>	<b>6,164,937</b>
<b>5</b>	<b>5,300,883</b>
<b>6</b>	<b>1,515,223</b>
<b>Total</b>	<b>22,356,805</b>

Direct Project Services as requested by Government: services provided to government directly under NIM. The UNDP Country Office will also deliver a pre-determined set of project-specific execution services at the request of the Government. To ensure the strict independence required by the GCF and in accordance with the UNDP Internal Control Framework, these execution services should be delivered independent from the GCF-specific oversight and quality assurance services (i.e. not done by same person to avoid conflict of interest). These execution services will be charged to the project budget in accordance with the [UNDP's Harmonized Conceptual Funding Framework and Cost Recovery Methodology](#). The letter of agreement for these direct project costs is included in Annex L to this Project Document.

Budget Revision and Tolerance: Up to 10% of the total approved budget for each output can be reallocated among the budget account categories within the same project output. However, any increase in the amount allocated to project management costs must be communicated by UNDP-GEF to GCF and approved by GCF in advance. Any budget reallocation involving a major change in the project's scope, structure, design or objectives or any other change that substantially alters the purpose or benefit of the project requires the GCF's prior written consent.

As outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board (within the GCF requirements noted above). Should such deviation occur, the Project Manager and UNDP Country office will seek the approval of the UNDP-GEF Unit.

Any over expenditure incurred beyond the available GCF grant amount will be absorbed by non-GCF resources (e.g. UNDP TRAC or cash co-financing).

Refund to GCF: Unspent GCF resources must be returned to the GCF. Should a refund of unspent funds to the GCF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.<sup>33</sup> On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-Global Environmental Finance Executive Coordinator.

Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Final Independent Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed.

Transfer or disposal of assets: In consultation with the NIM Implementing Partner and other parties of the project, UNDP programme manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and

<sup>33</sup> see <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx>

endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file<sup>34</sup>.

In addition, the following GCF requirements must be followed: As stated in Clause 9.03 of the Funding Activity Agreement included in Annex<sup>[1]</sup>, the Accredited Entity shall inform the GCF, in the final APR, which steps it intends to take in relation to the durable assets and/or equipment purchased with the GCF Proceeds to implement the Funded Activity.

Financial completion: The project will be financially closed when the following conditions have been met: a) The project is operationally completed or has been cancelled; b) The Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

The project is required to be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

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<sup>34</sup> See

[https://popp.undp.org/\\_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP\\_POPP\\_DOCUMENT\\_LIBRARY/Public/PPM\\_Project%20Management\\_Closing.docx&action=default](https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default).

[1] 23.04 of the AMA states: " In relation to a Funded Activity that is a grant financed in whole or in part with GCF Proceeds, if any part of such grant is used to purchase any durable assets or equipment used to implement the relevant Funded Activity (such as vehicles or office equipment), upon completion of the Funded Activity or termination of the relevant FAA in accordance with its terms, the Accredited Entity shall take such steps in relation to such assets or equipment which it reasonably deems in the best interest of the continued operation of the Funded Activity taking into consideration the objectives of the Fund and the terms of the applicable SBAA."

## X. TOTAL BUDGET AND WORK PLAN

<b>Award ID:</b>	00106661	<b>Project ID(s):</b>	00107294
<b>Award Title:</b>	Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste		
<b>Business Unit:</b>	TLS10		
<b>Project Title:</b>	Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste		
<b>PIMS Number:</b>	5910		
<b>Implementing Partner (Executing Agency)</b>	Secretariat of State for the Environment (SEA)		

Output	Activity	Responsible Party	Financing Source	Budget Account Code	Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	TOTAL (USD)	Budget Note
<b>Output 1: Climate risk information is developed, monitored and integrated into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management</b>	1.1 Develop and deliver climate risk information services and vulnerability mapping to all sectoral institutions	Ministry of Interior (Secretary of State for Civil Protection)	GCF	71200	International Consultants	125,000	125,000	-	-	-	-	250,000	1A
				71300	Local Consultants	106,976	120,000	-	-	-	-	226,976	1B
				71400	Contractual Services - Individuals	9,902	9,902	9,902	9,903	9,903	9,903	59,415	1C
				71600	Travel	20,024	25,000	-	-	-	-	45,024	1D
				74200	Audio Visual & Print Prod Costs	32,345	34,655	-	-	-	-	67,000	1E
				75700	Training, Workshops and Conference	45,000	30,000	-	-	-	-	75,000	1F
				72100	Contractual Services - Companies	743,525	373,075	-	-	-	-	1,116,600	1G
				61100	Salary costs - NP staff	7,250	7,250	7,250	7,250	7,250	7,250	43,500	1H
				<b>Activity 1.1 Total</b>					<b>1,090,022</b>	<b>724,882</b>	<b>17,152</b>	<b>17,153</b>	<b>17,153</b>
	1.2 Establish a database system for monitoring, recording and accounting climate induced damages in order to inform climate risk reduction planning and budgeting	Ministry of Interior (Secretary of State for Civil Protection)	GCF	71400	Contractual Services - Individual	9,903	9,903	9,903	9,902	9,902	9,902	59,415	1I
				72200	Equipment and Furniture	170,002	-	-	-	-	-	170,002	1J
				75700	Training, Workshops and Conference	15,000	10,000	-	-	-	-	25,000	1K
				72100	Contractual Services - Companies	339,663	170,431	-	-	-	-	510,094	1L
				61100	Salary costs - NP staff	4,333	4,334	4,333	4,333	4,333	4,334	26,000	1M
				<b>Activity 1.2 Total</b>					<b>538,901</b>	<b>194,668</b>	<b>14,236</b>	<b>14,235</b>	<b>14,235</b>

Output	Activity	Responsible Party	Financing Source	Budget Account Code	Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	TOTAL (USD)	Budget Note	
	1.3 Refine ordinances, regulations and associated codes and standards to enable climate proofing small-scale rural infrastructure	Ministry of State Administration	GCF	61100	Salary costs - NP staff	4,000	4,000	4,000	4,000	4,000	4,000	24,000	1N	
				71200	International Consultants	213,153	202,153	11,000	-	-	11,000	437,306	1O	
				71300	Local Consultants	3,667	-	3,667	-	-	3,666	11,000	1P	
				71400	Contractual Services - Individuals	8,488	8,488	8,488	8,488	8,488	8,488	50,928	1Q	
				75700	Training, Workshops and Conference	30,000	20,000	-	-	-	-	50,000	1R	
				<b>Activity 1.3 Total</b>		<b>259,308</b>	<b>234,641</b>	<b>27,155</b>	<b>12,488</b>	<b>12,488</b>	<b>27,154</b>	<b>573,234</b>		
	<b>GCF Total Output 1</b>						<b>1,888,231</b>	<b>1,154,191</b>	<b>58,543</b>	<b>43,876</b>	<b>43,876</b>	<b>58,543</b>	<b>3,247,260</b>	
	<b>Govt Co-financing Total Output 1</b>						<b>-</b>	<b>894,011</b>	<b>894,011</b>	<b>894,012</b>	<b>894,012</b>	<b>894,011</b>	<b>4,470,057</b>	Co-f 1
<b>TOTAL OUTPUT 1</b>						<b>1,888,231</b>	<b>2,048,202</b>	<b>952,554</b>	<b>937,888</b>	<b>937,888</b>	<b>952,554</b>	<b>7,717,317</b>		
<b>Output 2: Climate risk reduction and climate-proofing measures for small-scale rural infrastructure are implemented to build the resilience of vulnerable communities in six priority districts</b>	2.1 Climate risk reduction measures for small-scale rural infrastructure are fully integrated into the planning and budgeting cycles of Village and Municipal development plans	Ministry of State Administration	GCF	71400	Contractual Services - Individuals	22,908	22,908	22,908	22,908	22,909	22,908	137,449	2A	
				75700	Training, Workshops and Conference	100,000	200,000	200,000	200,000	200,000	100,000	1,000,000	2B	
				61100	Salary costs - NP staff	8,100	8,100	8,100	8,100	8,100	8,100	48,600	2C	
				<b>Activity 2.1 Total</b>		<b>131,008</b>	<b>231,008</b>	<b>231,008</b>	<b>231,008</b>	<b>231,009</b>	<b>131,008</b>	<b>1,186,049</b>		
	2.2 Implementation of climate-proofing measures for small-scale rural infrastructure	Ministry of State Administration	GCF	71200	International Consultants	11,000	65,601	207,803	196,803	65,600	32,867	579,674	2D	
				71300	Local Consultants	3,667	58,746	179,904	176,237	58,746	23,249	500,549	2E	
				71400	Contractual Services - Individuals	62,081	62,081	62,081	62,081	62,081	62,081	372,486	2F	
				72200	Equipment and Furniture	-	23,048	55,976	113,598	113,598	23,048	329,268	2G	
				72100	Contractual Services - Companies	-	845,578	2,053,545	4,167,489	4,167,489	845,578	12,079,679	2H	
				61100	Salary costs - NP staff	44,524	44,525	44,525	44,525	44,524	44,524	267,147	2I	
	<b>Activity 2.2 Total</b>		<b>121,272</b>	<b>1,099,579</b>	<b>2,603,834</b>	<b>4,760,733</b>	<b>4,512,038</b>	<b>1,031,347</b>	<b>14,128,803</b>					
	2.3 Supporting catchment		GCF	61100	Salary costs - NP staff	16,200	16,200	16,200	16,200	16,200	16,200	97,200	2J	

Output	Activity	Responsible Party	Financing Source	Budget Account Code	Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	TOTAL (USD)	Budget Note			
	management and rehabilitation measures to enhance climate resilient infrastructure and communities	Ministry of Agriculture and Fisheries		71400	Contractual Services - Individuals	23,775	23,775	23,775	23,775	23,776	23,776	142,652	2K			
				71600	Travel	20,000	35,000	35,880	33,000	33,000	20,000	176,880	2L			
				72300	Materials & Goods	-	62,981	188,944	188,944	62,981	20,994	524,844	2M			
				74200	Audio Visual & Print Prod Costs	21,286	26,607	26,607	26,607	26,607	21,286	149,000	2N			
				72100	Contractual Services - Companies	-	244,699	734,096	734,096	244,699	81,566	2,039,156	2O			
				<b>Activity 2.3 Total</b>					<b>81,261</b>	<b>409,262</b>	<b>1,025,502</b>	<b>1,022,622</b>	<b>407,263</b>	<b>183,822</b>	<b>3,129,732</b>	
				<b>GCF Total Output 2</b>					<b>333,541</b>	<b>1,739,849</b>	<b>3,860,344</b>	<b>6,014,363</b>	<b>5,150,310</b>	<b>1,346,177</b>	<b>18,444,584</b>	
<b>Govt Co-financing Total Output 2</b>					<b>-</b>	<b>2,315,000</b>	<b>6,639,400</b>	<b>8,870,100</b>	<b>5,990,100</b>	<b>7,872,462</b>	<b>31,687,062</b>	Co-f 2				
<b>TOTAL OUTPUT 2</b>					<b>333,541</b>	<b>4,054,849</b>	<b>10,499,744</b>	<b>14,884,463</b>	<b>11,140,410</b>	<b>9,218,639</b>	<b>50,131,646</b>					
Project Management	Project Management	Coordinating Ministry for Economic Affairs (The Secretary of State for Environment)	GCF	74500a	Services to Projects - GOE	50,512	50,512	53,668	53,669	53,669	53,669	315,699	PM1			
				71400	Contractual Services - Individual	46,243	46,243	46,243	46,243	46,242	46,242	277,456	PM2			
				71600	Travel	2,000	2,000	5,000	2,000	2,000	5,806	18,806	PM3			
				72200	Equipment and Furniture	25,000	-	-	-	-	-	25,000	PM4			
				72400	Communic & Audio Visual Equip	1,071	1,785	1,786	1,786	1,786	1,786	10,000	PM5			
				75700	Training, Workshops and Conference	3,000	3,000	3,000	3,000	3,000	3,000	18,000	PM6			
	<b>GCF Total Project Management</b>					<b>127,826</b>	<b>103,540</b>	<b>109,697</b>	<b>106,698</b>	<b>106,697</b>	<b>110,503</b>	<b>664,961</b>				
	<b>Govt Co-financing Total Project Management</b>					<b>-</b>	<b>88,195</b>	<b>110,437</b>	<b>110,437</b>	<b>110,437</b>	<b>110,437</b>	<b>529,943</b>	Co-f 3			
	<b>UNDP Co-financing Total Project Management</b>					<b>74,569</b>	<b>127,907</b>	<b>39,381</b>	<b>79,381</b>	<b>39,381</b>	<b>39,381</b>	<b>400,000</b>	Co-f 4			
<b>TOTAL PROJECT MANAGEMENT</b>					<b>202,395</b>	<b>319,642</b>	<b>259,515</b>	<b>296,516</b>	<b>256,515</b>	<b>260,321</b>	<b>1,594,904</b>					
<b>TOTAL - GCF</b>					<b>2,349,598</b>	<b>2,997,580</b>	<b>4,028,584</b>	<b>6,164,937</b>	<b>5,300,883</b>	<b>1,515,223</b>	<b>22,356,805</b>					
<b>TOTAL GOVT CO-FINANCING</b>					<b>-</b>	<b>3,297,206</b>	<b>7,643,848</b>	<b>9,874,549</b>	<b>6,994,549</b>	<b>8,876,910</b>	<b>36,687,062</b>					
<b>TOTAL UNDP CO-FINANCING</b>					<b>74,569</b>	<b>127,907</b>	<b>39,381</b>	<b>79,381</b>	<b>39,381</b>	<b>39,381</b>	<b>400,000</b>					
<b>GRAND TOTAL</b>					<b>2,424,167</b>	<b>6,422,693</b>	<b>11,711,813</b>	<b>16,118,867</b>	<b>12,334,813</b>	<b>10,431,514</b>	<b>59,443,867</b>					



**Budget Note:**

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
<b>Output 1</b>									
1A	International Consultants	Setting up of the project GIS (SDI system), engagement of national expert, travel-related costs, data review and data modelling inputs, GIS work, printing and production of reports and maps; International expert for development of the GIS-based risk and vulnerability modelling tool based on hazard data, physical data (receptor data), socio-economic data from new survey methods	125,000	2	Years	-	-	250,000	250,000
1B	Local Consultants	Data gathering and organisation into project GIS (SDI system), various data gathering, physical (e.g. topographic and geological) surveys. Survey teams (contractors)	50,000	2	Contracts	-	-	100,000	226,976
		Engagement of local teams to undertake socio-economic surveys	126,976	1	Contract	-	-	126,976	
1C	Contractual Services - Individuals	National Project Manager (7% of contract time - \$27,369/annum). Technical input to all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 1.1	27,369	6	Years	7%	% of contract time	11,495	11,495
		Municipal Field Coordinators (x6) (7% of contract time - \$19,016/person/annum). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 1.1 specifically all local data inputs, local survey.	114,096	6	Years	7%	% of contract time	47,920	47,920
1D	Travel	Travel (Field trip to project sites in 6 municipalities (15 visits)	3,002	15	Trips	-	-	45,024	45,024
1E	Audio Visual & Print Prod Costs	Audio Visual & Print Prod Costs (Communication, printing, and publication including translation cost)	33,500	2	Years	-	-	67,000	67,000
1F	Training, Workshops and Conference	Training workshops in hazard modelling for MI-SSCP practitioners	50,000	1	Contract	-	-	50,000	75,000
		Training of MI-SSCP and municipality staff in socio-economic survey tools (workshops) and engagement of teams to undertake socio-economic surveys	25,000	1	Contract	-	-	25,000	
1G	Contractual Services - Companies	Contractual services for Flood hazard and risk maps which will be developed in line with international best practice. Accurate digital elevation models (DEM) in the form of LiDAR will be used for all modelling. Topographic survey of rivers through high risk areas will be undertaken. Historical	1,100,000	1	Contract	-	-	1,100,000	1,100,000

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
		hydro-hydrometric data for all Timor Leste required for all hazard and risk assessments will be utilized.							
		Contractual services for development of the risk and vulnerability surveying tool.	16,600	1	Contract	-	-	16,600	16,600
1H	Salary costs - NP staff	Provisional costs for support services provided by for UNDP CO staff (two persons) towards technical inputs for project implementation over six year project period as below: <ul style="list-style-type: none"> <li>- 18.5% for Output 1 the UNDP Technical and Policy Specialist will provide support specifically towards: technical advisory and quality assurance vetting for i) Climate risk information and vulnerability mapping; ii) Database system reconciliation; and iii) Policy/regulatory framework and standards integrating climate risk information as well as gender equality and inclusion are mainstreamed.</li> <li>- 81.5% for Output 2 the UNDP Technical Specialist will provide assistance to MAF and MSA in relation to i) (MSA) for integrating climate risk reduction measures into planning and budgeting cycle of Village and Municipal development plans; ii) (MSA) for vetting of climate-proofing small-scale rural infrastructure and; iii) (MAF) implementation and quality assurance for catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities</li> </ul>	7,250	6	Years	-	-	43,500	43,500
1I	Contractual Services - Individuals	National Project Manager (7% of contract time - \$27,369/annum). Technical input to all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 1.2	27,369	6	Years	7%	% of contract time	11,495	11,495
		Municipal Field Coordinators (x6) (7% of contract time-\$19,016/person/annum). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 1.2 specifically all local data inputs, local survey.	114,096	6	Years	7%	% of contract time	47,920	47,920
1J	Equipment and Furniture	Hover Drones x 6 (1 per pilot Municipality) Fixed wing Drone x 1. including training and spare parts (@11,667.00 each)	11,667	6	Items	-	-	70,002	70,002
		Purchase of modeling software for hydrological (flood and drought), hydraulic (flood) erosion modelling (2 x 50,000)	50,000	2	Items	-	-	100,000	100,000

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
1K	Training, Workshops and Conference	Training of MI-SSCP, MSA and municipality staff in asset condition inspection	25,000	1	Contract	-	-	25,000	25,000
1L	Contractual Services - Companies	Development of DRMApp (functionality will include mature knowledge management with inventory, reporting and feedback); Data Processing of Hover Data (4 times per year times 2 weeks each pass assumed); Fixed data (In house expert; 4 times per year (5cms to 8cms pixels) and Outsourcing processing	361,000	1	Contract	-	-	361,000	361,000
		Includes collection of asset register datasets, validation, data cleansing, conversion (\$21,000). Development of mobile GIS-based asset condition inspection methods and tools. International and national expert inputs for development of asset management system and engineer link to unified damage and loss database. Input from MI-SSCP to the development in introduction of guidelines (\$129,000).	149,094	1	Contract	-	-	149,094	149,094
1M	Salary costs - NP staff	<p>Provisional costs for support services provided by for UNDP CO staff (two persons) towards technical inputs for project implementation over six-year project period as below:</p> <ul style="list-style-type: none"> <li>- 18.5% for Output 1 the UNDP Technical and Policy Specialist will provide support specifically towards: technical advisory and quality assurance vetting for i) Climate risk information and vulnerability mapping; ii) Database system reconciliation; and iii) Policy/regulatory framework and standards integrating climate risk information as well as gender equality and inclusion are mainstreamed.</li> <li>- 81.5% for Output 2 the UNDP Technical Specialist will provide assistance to MAF and MSA in relation to i) (MSA) for integrating climate risk reduction measures into planning and budgeting cycle of Village and Municipal development plans; ii) (MSA) for vetting of climate-proofing small-scale rural infrastructure and; iii) (MAF) implementation and quality assurance for catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities (*Note: unit cost rounded to the nearest dollar)</li> </ul>	4,333*	6	Years	-	-	26,000	26,000
1N	Salary costs - NP staff	<p>Provisional costs for support services provided by for UNDP CO staff (two persons) towards technical inputs for project implementation over six-year project period as below:</p> <ul style="list-style-type: none"> <li>- 18.5% for Output 1 the UNDP Technical and Policy Specialist will provide support specifically towards: technical advisory and quality assurance vetting for i) Climate risk information and vulnerability mapping; ii)</li> </ul>	4,000	6	Years	-	-	24,000	24,000

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
		Database system reconciliation; and iii) Policy/regulatory framework and standards integrating climate risk information as well as gender equality and inclusion are mainstreamed. - 81.5% for Output 2 the UNDP Technical Specialist will provide assistance to MAF and MSA in relation to i) (MSA) for integrating climate risk reduction measures into planning and budgeting cycle of Village and Municipal development plans; ii) (MSA) for vetting of climate-proofing small-scale rural infrastructure and; iii) (MAF) implementation and quality assurance for catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities							
10	International Consultants	International experts - Develop Gender Responsive Climate Change Strategy and Action Plan which encompasses the priorities endorsed in the national documents as indicated in the upcoming National Climate Change Policy Extensive stakeholder consultations	28,910	2	Years	-	-	57,820	57,820
		International experts. Review and improve all standards, guidelines and specifications for rural infrastructure, encompassing both technical and functional standards to respond to climate risk reduction requirements, based on international best practices. Extensive stakeholder consultations	28,910	2	Years	-	-	57,820	57,820
		International experts input to developing Rural Roads Master Plan and Investment Strategy	25,000	2	Years	-	-	50,000	50,000
		International experts input to development of National Water Supply Policy and Strategic Plan	28,910	2	Years	-	-	57,820	57,820
		International experts input to development of guidelines and SOPs for PDIM and PNDS climate responsive development investment plans	25,000	2	Years	-	-	50,000	50,000
		International experts input to development of capacity development plan, road map and tools for integrating new policies, strategies, plans and guidelines into PDIM and PNDS	28,910	2	Years	-	-	57,820	57,820
		International experts input to capacity building for national and regional authorities	36,512	2	Years	-	-	73,024	73,024
		International experts to formulate and lead assessment surveys and undertake project monitoring and evaluation.	11,000	3	Contracts	-	-	33,000	33,000
1P	Local Consultants	National experts to undertake assessment surveys and project monitoring and evaluation (*Note: unit cost rounded to the nearest dollar)	3,667*	3	Contracts	-	-	11,000	11,000

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
1Q	Contractual Services - Individuals	National Project Manager (6% of contract time - \$27,369/annum). Technical input to all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 1.3	27,369	6	Years	6%	% of contract time	9,853	9,853
		Municipal Field Coordinators (x6) (6% of contract time - \$19,016/person/annum). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 1.3 specifically all local data inputs, local survey.	114,096	6	Years	6%	% of contract time	41,075	41,075
1R	Training, Workshops and Conference	Undertake Training of trainers at the National Institute for public administration (INAP) to implement DRM training	50,000	1	Contract	-	-	50,000	50,000
Co-f 1	-	MI-SSCP Co-financing - MI-SSCP financing for DRM activities based on an average annual expenditure of ~ \$894,011 per year over 5 years (*Note: unit cost rounded to the nearest dollar)	894,011*	5	Years	-	-	4,470,057	4,470,057
<b>TOTAL OUTPUT 1</b>									<b>7,717,317</b>
<b>Output 2</b>									
2A	Contractual Services - Individuals	National Project Manager (17% of contract time - \$27,369/annum). Technical input to all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 2.1	27,369	6	Years	17%	% of contract time	27,916	27,916
		Municipal Field Coordinators (x6) (17% of contract time - \$19,016/person/annum). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 2.1 specifically all local data inputs, local survey.	114,096	6	Years	16%	% of contract time	109,532	109,532
2B	Training, Workshops and Conference	Development and codification of detailed methodologies for incorporating CC considerations into risk assessments, strategies, policies and plans for all infrastructure relevant sectors using international best practice, for long term capacity strengthening of practitioners.	50,000	2	Contracts	-	-	100,000	100,000
		Training of EVAS engineers in climate resilient infrastructure design including bioengineering methods	50,000	2	Contracts	-	-	100,000	100,000
		Training and technical assistance to AP staff in climate resilient project prioritisation and feasibility studies	50,000	6	Contracts	-	-	300,000	300,000

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
		TA and training of municipal engineering using new CBA methods for project prioritization.	50,000	2	Contracts	-	-	100,000	100,000
		TA and training of municipal managers in investment planning, optioneering, project appraisal methods and development of long-term investment planning	50,000	2	Contracts	-	-	100,000	100,000
		TA and training of municipal engineers in climate resilient infrastructure design and EIA	50,000	2	Contracts	-	-	100,000	100,000
		TA and training of municipal engineers in bioengineering methods	50,000	2	Contracts	-	-	100,000	100,000
		TA and training of contractors in the development of pre-qualification criteria and CR construction methods	50,000	2	Contracts	-	-	100,000	100,000
2C	Salary costs - NP staff	<p>Provisional costs for support services provided by for UNDP CO staff (two persons) towards technical inputs for project implementation over six-year project period as below:</p> <ul style="list-style-type: none"> <li>- 18.5% for Output 1 the UNDP Technical and Policy Specialist will provide support specifically towards: technical advisory and quality assurance vetting for i) Climate risk information and vulnerability mapping; ii) Database system reconciliation; and iii) Policy/regulatory framework and standards integrating climate risk information as well as gender equality and inclusion are mainstreamed.</li> <li>- 81.5% for Output 2 the UNDP Technical Specialist will provide assistance to MAF and MSA in relation to i) (MSA) for integrating climate risk reduction measures into planning and budgeting cycle of Village and Municipal development plans; ii) (MSA) for vetting of climate-proofing small-scale rural infrastructure and; iii) (MAF) implementation and quality assurance for catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities</li> </ul>	8,100	6	Years	-	-	48,600	48,600
2D	International Consultants	Engineering inputs provide technical inputs to ensure best practices are incorporated in detailed design, procurement and implementation of 130 infrastructure (TA of international experts, community engagement, preparation of bill of quantities development, input to procurement process, construction supervision, construction hand over). Includes implementation of the ESMF Action plan	546,674	1	Contract	-	-	546,674	546,674
		International experts to formulate and lead assessment surveys and undertake project monitoring and evaluation.	11,000	3	Years	-	-	33,000	33,000
2E	Local Consultants	Engineering inputs to support international consultant and contribute local insights to detailed design, procurement and implementation of 130 infrastructure (TA of local	489,549	1	Year	-	-	489,549	489,549

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
		experts, community engagement, preparation of bill of quantities development, input to procurement process, construction supervision, construction hand over). Includes implementation of the ESMF Action plan							
		National experts to undertake assessment surveys and project monitoring and evaluation (*Note: unit cost rounded to the nearest dollar)	3,667*	3	Years	-	-	11,000	11,000
		National Engineers - M&E and Supervision (National Engineers (SB-4: \$19,016/annum X 2 positions))	19,016	6	Years	2	Contracts	228,192	228,192
2F	Contractual Services - Individuals	National Project Manager (17% of contract time - \$27,369/annum). Technical input to all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 2.2	27,369	6	Years	17%	% of contract time	27,916	27,916
		Municipal Field Coordinators (x6) (17% of contract time - \$19,016/person/annum). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 2.2 specifically all local data inputs, local survey.	114,096	6	Years	17%	% of contract time	116,378	116,378
2G	Equipment and Furniture	Purchase of the following equipment							
		Vehicles	60,000	4	Items	-	-	240,000	240,000
		Motorbikes	5,500	6	Items	-	-	33,000	33,000
		DSLR (quality photo and video capacity) and accessories	9,000	2	Items	-	-	18,000	18,000
		Related maintenance expenses (*Note: unit cost rounded to the nearest dollar)	6,378*	6	years	-	-	38,269	38,269
2H	Contractual Services - Companies	Climate proofing of 51% of 130 CR infrastructure projects-Procurement and implementation of climate proofing measures (including mainly rehabilitation and formalization and also installation of additional units) of PDIM and PNDIS infrastructure.	12,079,679	1	Contract	-	-	12,079,679	12,079,679
2I	Salary costs - NP staff	Provisional costs for support services provided by for UNDP CO staff (two persons) towards technical inputs for project implementation over six-year project period as below: - 18.5% for Output 1 the UNDP Technical and Policy Specialist will provide support specifically towards: technical advisory and quality assurance vetting for i) Climate risk information and vulnerability mapping; ii) Database system reconciliation; and iii) Policy/regulatory framework and standards integrating climate risk	44,525*	6	Years	-	-	267,147	267,147

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
		<p>information as well as gender equality and inclusion are mainstreamed.</p> <ul style="list-style-type: none"> <li>- 81.5% for Output 2 the UNDP Technical Specialist will provide assistance to MAF and MSA in relation to i) (MSA) for integrating climate risk reduction measures into planning and budgeting cycle of Village and Municipal development plans; ii) (MSA) for vetting of climate-proofing small-scale rural infrastructure and; iii) (MAF) implementation and quality assurance for catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities</li> </ul> <p>(*Note: unit cost rounded to the nearest dollar)</p>							
2J	Salary costs - NP staff	<p>Provisional costs for support services provided by for UNDP CO staff (two persons) towards technical inputs for project implementation over six-year project period as below:</p> <ul style="list-style-type: none"> <li>- 18.5% for Output 1 the UNDP Technical and Policy Specialist will provide support specifically towards: technical advisory and quality assurance vetting for i) Climate risk information and vulnerability mapping; ii) Database system reconciliation; and iii) Policy/regulatory framework and standards integrating climate risk information as well as gender equality and inclusion are mainstreamed.</li> <li>- 81.5% for Output 2 the UNDP Technical Specialist will provide assistance to MAF and MSA in relation to i) (MSA) for integrating climate risk reduction measures into planning and budgeting cycle of Village and Municipal development plans; ii) (MSA) for vetting of climate-proofing small-scale rural infrastructure and; iii) (MAF) implementation and quality assurance for catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities</li> </ul>	16,200	6	Years	-	-	97,200	97,200
2K	Contractual Services - Individuals	National Project Manager (16% of contract time - \$27,369/annum). Technical input to all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 2.3	27,369	6	Years	16%	% of contract time	26,274	26,274
		Municipal Field Coordinators (x6) (17% of contract time - \$19,016/person/annum). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for Activity 2.3 specifically all local data inputs, local survey.	114,096	6	Years	17%	% of contract time	116,378	116,378



Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
2L	Travel	Travel - Field trip to project sites in 6 municipalities (55 visits x \$3,216 = \$176,880)	3,216	55	Trips	-	-	176,880	176,880
2M	Materials & Goods	Purchase of Seedlings, seeds, legume packets for agro-forestry	360,000	1	Contract	-	-	360,000	360,000
		Purchase of Seedlings, seeds, legume packets for re-forestation	164,844	1	Contract	-	-	164,844	164,844
2N	Audio Visual & Print Prod Costs	Communication, printing, and publication including translation cost (*Note: unit cost rounded to the nearest dollar)	24,833*	6	Years	-	-	149,000	149,000
20	Contractual Services - Companies	Local Labour for Land Preparation and Out-Planting, Monitoring and Reporting, Farmer Registration, Farm Registration, Product Registration (if the farmers decide to go purely organic), Tree Registration and Certification - for agro-forestry	419,800	1	Contract	-	-	419,800	419,800
		Maintenance of agro-forestry plantations	1,200,000	1	Contract	-	-	1,200,000	1,200,000
		Local Labour for Land Preparation and Out-Planting, Monitoring and Reporting, Farmer Registration, Farm Registration, Product Registration (if the farmers decide to go purely organic), Tree Registration and Certification - for reforestation	9,891	1	Contract	-	-	9,891	9,891
		Maintenance of re-forestation plantations	409,466	1	Contract	-	-	409,466	409,466
Co-f2	-	Procurement and implementation/construction of PDIM and PNDS infrastructure (multiple contracts) - GoTL funded (49% of 130 infrastructure units)	12,500,000	1	Contract	-	-	12,500,000	12,500,000
		MAF co-financing for re-forestation (Purchase of Seedlings, seeds, legume packets for re-forestation; Local Labour for Land Preparation and Out-Planting, Monitoring and Reporting, Farmer Registration, Farm Registration, Product Registration (if the farmers decide to go purely organic), Tree Registration and Certification; and Maintenance of re-forestation plantations)	12,000,000	1	Contract	-	-	12,000,000	12,000,000
		O&M for years 3-6 of project implementation (multiple contracts)	7,187,062	Multiple	Contracts	-	-	7,187,062	7,187,062
<b>TOTAL OUTPUT 2</b>									<b>50,131,646</b>
<b>Project Management</b>									
PM1	Services to Projects - GOE	Finance, Human Resources (HR), Procurement, Information Technology (IT) and Administrative services/support project in 6 years. This includes payments process, issues checks, recruitment, personnel mgt services, contract issuance, etc.	52,617*	6	Years	-	-	315,699	315,699

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
		(*Note: unit cost rounded to the nearest dollar)							
PM2	Contractual Services - Individuals	National Project Manager (SB-5) (30% of contract time).	27,369	6	Years	30%	% of contract time	49,264	49,264
		Procurement Officer (SB-4)	19,016	6	Years	100%	% of contract time	114,096	114,096
		Admin and Finance Officer (SB - 4)	19,016	6	Years	100%	% of contract time	114,096	114,096
PM3	Travel	Field travel by project staff in PMU	18,806	1	N/A	-	-	18,806	18,806
PM4	Equipment and Furniture	Equipment for project office including 15 laptops, 2 small printers, 1 copy machine, 1 scanner, 2 projectors, and other small equipment; office furniture, and refurbishment.	25,000	1	N/A	-	-	25,000	25,000
PM5	Communic & Audio Visual Equip	Communication and Internet costs	10,000	1	N/A	-	-	10,000	10,000
PM6	Training, Workshops and Conference	Project annual meetings and workshops	3,000	6	Years	-	-	18,000	18,000
Co-f 3	-	MI-SSCP co-financing for the followings:							
		- Provision of office space and maintenance for 17 pax for 6 years = ~\$231,265 (Note that this is cost sharing between UNDP and Govt. UNDP will pay \$53,316 whereas Govt will pay \$177,949)	177,949	-	-	-	-	177,949	177,949
		Drivers (SB - 1: \$5,718 x 3 positions)	5,718	5	Years	3	Positions	85,770	85,770
		National Project Coordinator (SB-4) - Technical coordination of all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities (\$19,016/annum for 6 years - total contract value \$114,096)	19,016	5	Years	-	-	95,080	95,080
		Municipal Field Coordinators (x6) (30% of contract time - \$19,016/person/annum - absorbed by co-finance. 5 years absorbed by MI-SSCP and 1 year UNDP). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for activity 1.1 specifically all local data inputs, local survey. (30% = \$205,373)	34,229	5	Years	-	-	171,144	171,144
Co-f 4	-	UNDP's co-financing in project management particularly to cover the following positions of central PMU staff:	27,325	6	Years	-	-	163,950	163,950
		Media and Communication Officer (\$19,016/annum)							

Budget note	Budget account description	Description of cost items	Unit cost (USD)	Quantity	Unit	Quantity	Unit	Amount (USD)	Total (USD)
		Admin support (\$8,309/annum)							
		Annual audit costs	6,000	6	Years	-	-	36,000	36,000
		HACT assessments for IP and RPs (after expiration of the current reports)	10,000	4	Agency reports	-	-	40,000	40,000
		Security* and ID cards for 17 pax for 6 years = \$36,335 *UNDP contributes/pay the UN Common Premises for security guard services and insurance	6,056	6	Years	-	-	36,335	36,335
		Provision of office space and maintenance for 17 pax for 6 years = ~\$231,265 (Note that this is cost sharing between UNDP and Govt. UNDP will pay \$53,316 whereas Govt will pay \$177,949)	53,316	-	-	-	-	53,316	53,316
		Drivers (SB - 1: \$5,718 x 3 positions) - first year	17,154	1	Year	-	-	17,154	17,154
		National Project Coordinator (SB-4) - Technical coordination of all the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities (\$19,016/annum for 6 years - total contract value \$114,096) first year absorbed by UNDP	19,016	1	Year	-	-	19,016	19,016
		Municipal Field Coordinators (x6) (30% of contract time \$19,016/person/annum - absorbed by co-finance. 5 years absorbed by MI-SSCP and 1 year UNDP). Coordinate of all field level activities contributing to the policy enabling environment activities, modelling and risk assessment, development of damage and loss accounting and capacity development activities for activity 1.1 specifically all local data inputs, local survey. (30% = \$205,373) - first year absorbed by UNDP	34,229	1	Year	-	-	34,229	34,229
<b>TOTAL PROJECT MANAGEMENT</b>									<b>1,594,904</b>

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## XI. LEGAL CONTEXT

### Option a. Where the country has signed the [Standard Basic Assistance Agreement \(SBAA\)](#)

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Timor Leste and UNDP, signed on 20 May 2002. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”

This project will be implemented by the Secretariat of State for Environment (“Implementing Partner”) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

By signing this UNDP GCF project document, the Implementing Partner also agrees to the terms and conditions of the GCF Funded Activity Agreement (FAA) included in Annex and to use the GCF funds for the purposes for which they were provided. UNDP has the right to terminate this project should the Implementing Partner breach the terms of the GCF FFA.

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## XII. RISK MANAGEMENT

### Option a. Government Entity (NIM)

Consistent with the Article III of the SBAA [*or the Supplemental Provisions to the Project Document*], the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the Implementing Partner’s security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner’s obligations under this Project Document.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via [http://www.un.org/sc/committees/1267/aq\\_sanctions\\_list.shtml](http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml).

Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).

The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at [www.undp.org](http://www.undp.org).

In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

## **Annex A: GCF Funding Activity Agreement and Notice of Effectiveness**

- GCF Funding Activity Agreement can be accessed [here](#) (and attached as a separate annex)
- Notice of Effectiveness can be accessed [here](#) (and attached as a separate annex)

## **Annex B: GCF Board approved GCF Funding Proposal**

- Funding Proposal can be accessed [here](#) (and attached as a separate annex)

## **Annex C: Letter of agreement between the UNDP and Responsible Parties**

Note: This will be discussed at Inception Workshop



## Annex D: Letters of co-financing

### 1) Ministry for State Administration



MINISTÉRIO DA  
ADMINISTRAÇÃO  
ESTATAL



Gabinete do  
Vice-Ministro

**Data:** 19 December 2018

REF: 235 / VM-MAE / XII / 2018

**Para:** Mr. Claudio Providas,  
Country Director of UNDP

**Assunto:** Commitment of Co-Financing for the GCF-funded project titled 'Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste'

*Dear Mr. Providas,*

In reference to the aforementioned project, the Ministry of State Administration of the Government of Timor-Leste is pleased to confirm that a total of USD 19,687 million co-financing is committed for the project from our central government sources over the project implementation period to support the aforementioned GCF project. The MSA secures USD 12,5 million of grant funding in the six target municipalities for pre-identified 64 infrastructure units through the PDIM and PNDS and additional USD 7,187 million grant funding for the maintenance purposes. This co-financing is conditional upon the approval of the proposed project by the GCF Board.

The Project title: Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste

Project Duration: 2020-2025 (Six years)

The Ministry of State Administration would like to thank UNDP for its support in the formulation of this GCF project and look forward to commencing implementation, subsequent to consideration and approval by the GCF board.

I look forward for a continued collaboration and partnership with UNDP.

Sincerely yours,



Abilio José Caetano, MM  
Vice Minister for State Administration  
and Interim Minister

1/1

Ministério da Administração Estatal  
Rua Jacinto Cândido,  
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+670 (202) 333 9077  
gov.tl.mae@estatal.gov.tl

## 2) Ministry of Agriculture and Fishery



MINISTÉRIO DA  
AGRICULTURA  
E PISCAS



GABINETE DO  
SECRETARIO GERAL

No. *914* / GSG/ XII /2018

Dili, 17 December 2018

To : Mr. Claudio Providas, UNDP Country Director

Subject : *Commitment of Co-Financing for the GCF-funded project titled 'Safeguarding rural communities and their physical assets from climate induced disasters in Timor Leste.'*

Dear Mr. Providas,

In reference to the above-mentioned project, the Ministry of Agriculture and Fisheries (MAF) is pleased to confirm that a total USD 12 million co-financing is committed to support the aforementioned project. As per the MAF SDP (2011-2030), the re-forestation and catchment management schemes will continue to be implemented in 6 target municipalities which contain 19 sub-catchments in total. Therefore, the MAF is committed to secure a total of USD 12 Millions in six targeted municipalities over the period of 5 years of project implementation through the re-forestation and catchment management scheme.

The Project title: Safeguarding rural communities and their physical assets from climate induced disasters in Timor Leste

Project Duration: 2020-2025 (Six years)

We would like to thank UNDP for supporting the formulation of this GCF project and look forward to commencing implementation, subsequent to consideration and approval by the GCF board.

Your sincerely,



On behalf of MAF  
Eng. César José da Cruz  
Secretary General  
Ministry of Agriculture and Fishery

Cc:

1. H.E. Mr. Joaquim José Gusmão dos Reis Martins, Minister of State and Minister for Agriculture and Fisheries
2. Mr. Manuel Mendes, Director General for Forestry, Coffee and Industrial Plants

### 3) Ministry of Social Solidarity



## MINISTÉRIO DA SOLIDARIEDADE SOCIAL

### *Direção Geral dos Serviços Corporativos*

No. de Ref.: 02/GDGSC-MSS/IV/2018

Dili, 2 April 2018

To : Mr. Claudio Providas  
UNDP Country Director

**Subject:** Co-financing letter of the Government of Timor-Leste (Ministry of Social Solidarity) for the Green Climate Fund Proposal

Dear Mr. Providas,

I am pleased to reaffirm the government of Timor-Leste's commitment to the implementation of the proposed project "*Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste*" being prepared by UNDP for funding from the Green Climate Fund (GCF). We strongly believe the disaster risk management is an essential for long-term resilience and safeguarding investment and communities against climate induced disasters.

According to the Ministry of Social Solidarity (MSS) Strategic Development Plan 2011-2030, Disaster Risk Management remain one of the main programmes to be implemented throughout the country including the 6 target municipalities. Hereby, we are committed to the proposed GCF project for co-financing of USD 5 Million in six targeted municipalities over the period of 5 years of project implementation through the measures of preparedness, prevention, mitigation, as part of the programme of National Disaster Operation Center (NDOC), which will incorporate the new hazard and risk maps into preparedness planning and prevention, and implement as part of asset management and mitigation of disaster impacts.

Hereby, we are committed to the proposed GCF project for co-financing of USD 5 Million in six targeted municipalities over the period of 5 years of project implementation through the measures of preparedness, prevention, mitigation, as part of the programme of National Disaster Operation Center (NDOC) .

I look forward for a continued collaboration and partnership with UNDP.

Your sincerely,

  
**Rui Manuel Gago Exposto**

General Director of Corporate Services-MSS

#### 4) United Nations Development Programme



*Empowered lives.  
Resilient nations.*

Dili, 13 December 2018

Dear Mr. Pinto,

**Subject: UNDP co-financing commitment to the Green Climate Fund (GFC) project  
"Safeguarding rural communities and their physical assets from climate induced disasters in  
Timor Leste"**

I would like to confirm that the aforementioned project is in accordance with the Timor-Leste National Development Plan and the United Nations Development Assistance Framework (UNDAF) for Timor-Leste. Therefore, UNDP is committed to make available a total of USD 400,000 co-financing to support the above-mentioned project over the six-year period of implementation as grant contribution.

The Project title: Safeguarding rural communities and their physical assets from climate induced disasters in Timor Leste  
Project Duration: 2020-2025 (Six years)

We would like to thank you for the great partnership and look forward to commencing implementation, subsequent to consideration and approval by the GCF board.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Claudio Providas'.

Claudio Providas  
Country Director  
UNDP Timor-Leste

Mr. Augusto Manuel Pinto (GCF Focal Point)  
Director  
National Directorate for Climate Change



MINISTÉRIO DA  
ADMINISTRAÇÃO  
ESTATAL



Gabinete do  
Vice-Ministro

REF: .....18/VM-MAE/11/2019

Data: 16 Janeiro 2019

Para: Mr. Claudio Providas,  
Country Director of UNDP

Assunto: Commitment of Co-Financing for the GCF-funded project titled 'Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste.'

Dear Mr. Providas,

The Ministry of State Administration of the Government of Timor-Leste is committed to participate in the GCF project "*Safeguarding rural communities and their physical assets from climate induced disasters in Timor-Leste*".

We reiterated our commitment to supporting the operations and maintenance of the 130 infrastructure units to be implemented under the project with a total commitment of \$ 29.4 Million USD. This will cover the O&M required during the project from year 3 to year 6 of \$7.187 Million USD and post project O&M of US\$ 22,213 Million over 16 years.

The post-project O&M commitment reflects MSA's commitment to the long-term sustainability of the infrastructure units to be implemented.

I look forward to continued partnership with UNDP and commencing of the project implementation, subsequent to consideration and approval by the GCF board.

Sincerely yours,



Abílio José Cactano, MM  
Vice-Minister of State Administration  
and Acting Minister for State Administration

1/1



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**ANNEX E: TIMETABLE OF PROJECT IMPLEMENTATION**

Output/Activity	2020				2021				2022				2023				2024				2025				2026	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>Output 1. Climate risk information is developed, monitored and integrated into policies, regulations and institutions to inform climate resilient small-scale rural infrastructure planning and management</b>																										
Activity 1.1 Develop and deliver climate risk information services and vulnerability mapping to all sectoral institutions			x		Project Spatial Data Infrastructure (SDI)	GIS-based tools developed to integrate spatial socio-economic data with the hazard maps. Tools, methods, guidelines and procedures developed for recording disaster events; undertaking post-event surveys	Methods and tools for undertaking socio-economic surveys developed and codified;	Topographic, geological, soil and land use surveys completed and ToI delivered; and socio-economic surveys for 6 target municipalities in TL completed.	Training in hazard & multi-hazard modelling methods and tools as well as socio-economic modelling methods and tools delivered	4 sets of national hazards maps covering all of Timor-Leste for floods, landslides, erosion, and drought	X															
Activity 1.2 Establish a database system for monitoring, recording and accounting climate induced damages in order to inform climate risk reduction planning and budgeting			x	x	6 Drones procured and user-training delivered		x	Harmonised and unified damage and loss recording and accounting system developed.	x	Asset management system linked to Damage and loss database. Asset inspection guidelines, methods and approaches	Training program in damage and loss and asset management methods and tools delivered to MI-SSCP staff															

Output/Activity	2020				2021				2022				2023				2024				2025				2026	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Activity 1.3 Refine ordinances, regulations and associated codes and standards to enable climate proofing small-scale rural infrastructure			x	Capacity development plan and roadmap for national and regional authorities to integrate new policies, plans and strategies and guidelines into PDIM and PNDS	Standards, guidelines and specifications for climate resilient small-scale rural infrastructure as well as Climate risk-informed guidelines and SOPs for all infrastructure PDIM and PNDS investments plans.	Training and support delivered to National Institute for Public Administration (INAP) to implement Disaster Risk Management Training Manual	Capacity development and training plan implemented at national and regional authorities	Climate resilient measures embedded into Rural Roads Master Plan & Investment Strategy 2016–2020	Climate resilience approaches embedded into National Water Supply Policy and Strategic Plan supply	Training and support delivered to National Institute for Public Administration (INAP) to implement Disaster Risk Management Training Manual																

Output 2. Climate risk reduction and climate-proofing measures for small-scale rural infrastructure are implemented to build the resilience of vulnerable communities in six priority districts

Output/Activity	2020				2021				2022				2023				2024				2025				2026		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Activity 2.1 Climate risk reduction measures for small-scale rural infrastructure are fully integrated into the planning and budgeting cycles of Village and Municipal development plans																											
						X																					



Output/Activity	2020				2021				2022				2023				2024				2025				2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Activity 2.2 Implementation of climate-proofing measures for small- scale rural infrastructure			x	x			x	x			x	x			x	x			x	x			x	x				
					Detailed design, procurement and implementation of 130 climate-proofed infrastructure (Avg. implementation approximately 30/year)								Detailed design, procurement and implementation of 130 climate-proofed infrastructure (Avg. implementation approximately 30/year)															
													Detailed design, procurement and implementation of 130 climate-proofed infrastructure (Avg. implementation approximately 30/year)															
																	Detailed design, procurement and implementation of 130 climate-proofed infrastructure (Avg. implementation approximately 30/year)											

Output/Activity	2020				2021				2022				2023				2024				2025				2026	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Activity 2.3 Supporting catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities			x	x	Agroforestry and reforestation strategy for infrastructure sub-catchments drafted	Validation and piloted implementation of agroforestry and reforestation strategy for infrastructure sub-catchments	Agroforestry and reforestation strategy for infrastructure sub-catchments	Total at least 25 hectares of agroforestry and reforestation measures implemented in accordance with the strategy for infrastructure sub-catchments	x	x	x	Total at least 75 hectares of agroforestry and reforestation measures implemented in accordance with the strategy for infrastructure sub-catchments.	x	x	x	Total at least 100 hectares of agroforestry and reforestation measures implemented in accordance with the strategy for infrastructure sub-catchments	x	x	x	Total at least 200 hectares of agroforestry and reforestation measures implemented in accordance with the strategy for infrastructure sub-catchments	x	x	x	Total at least 300 hectares of agroforestry and reforestation measures implemented in accordance with the strategy for infrastructure sub-catchments		
<b>Project Management, Monitoring and Evaluation</b>																										
Project Management, Monitoring and Evaluation	Inception Report and Baseline Assessments				APR				APR				APR & Interim Evaluation				APR				APR				Completion Report	Final Evaluation

APR = Annual Performance Report

\* In addition to this monitoring requirements, the Funded Activity is also subject to financial reporting per the AMA/FAA, such as Unaudited/Audited Financial Statements, Financial information reports, and other reports as defined in the FAA.

## ANNEX F: PROCUREMENT PLAN

### PROCUREMENT AND HUMAN RESOURCES PLAN

The procurement and human resources plan will cover a plan to address the project requirements. The National Implementation Agency shall update the procurement plan throughout the duration of the project at least annually by including contracts previously awarded. All procurement plans, their updates or modifications shall be published on the website of the National Implementation Agency.

<b>Project Name:</b>	
<b>Country: Timor Leste</b> <b>Project Name: Safeguarding rural communities and their physical assets from climate induced disasters in Timor Leste</b> <b>Grant amount: US\$ 22,356,805</b> <b>Date of First Procurement Plan: June 2018</b>	<b>Executing Agency: Secretariat of State for the Environment (SEA), under the Coordinating Minister of Economic Affairs</b> <b>Date of this Procurement Plan: December 2018</b>

#### A. The following UNDP procurement thresholds are applicable to procurement of goods, services and works:

Procurement method	Contract value	Type of requirement	Method of solicitation	Type of competition
<b>Micro-purchasing</b>	Below US \$10,000	Goods, services or simple works	Canvassing (by phone, Internet, shopping, etc.)	Limited international or national
<b>Request for quotation</b>	US \$10,000 to \$149,999	Goods, services or simple works	Written request for quotation	Limited international or national
<b>Invitation to bid</b>	US \$150,000 and above	Goods or works	Advertisement in international media	Open international
<b>Request for proposal</b>	US \$150,000 and above	Services	Advertisement in international media	Open international

<b>Other</b>	Below US \$100,000	Individual Services	Consultancy	Direct invitation from Roster or Advertisement	None or Open as applicable
<b>Other</b>	Above US \$100,000	Individual Services	Consultancy	Advertisement in international media	Open international

**B. The Following UNDP HR rules are applicable to recruitment of personnel under Services Contracts/ Staff Contracts/ UN Volunteers:**

Human Resources Recruitment Method	Type of Requirement
Advertisement	Services Contracts/ Staff Contracts/ UN Volunteers

**C. Prior or Post Review Requirements to Procurement:**

Please refer to *Annex 1* for UNDP prior or post review requirements which shall apply to the various procurement and consultancy recruitment methods used for the project.

**D. Overall Procurement and Human Resources including Project Direct Costs Plan for the whole Project Duration:**

General description	Description of Input	TOTAL (USD)
Travel (Field trip to project sites in 6 municipalities (15 visits x 3,216 USD = \$45,024)	Climate risk knowledge base developed and climate information services developed and delivered to all sectoral institutions	45,024
Provision of training in hazard modelling to at least 20 practitioners at national and local government level and identify long-term training needs	Climate risk knowledge base developed and climate information services developed and delivered to all sectoral institutions	50,000
Development and delivery of training programme in socio-economic modelling methods and tools to MI-SSCP staff	Climate risk knowledge base developed and climate information services developed and delivered to all sectoral institutions	25,000

General description	Description of Input	TOTAL (USD)
Development and delivery of training programme in damage and loss and asset management methods and tools to MI-SSCP staff	Damage and Loss accounting methods and databases established	25,000
Support the National Institute for Public Administration (INAP) to implement Disaster Risk Management Training Manual, which has recently been launched by Ministry of Social Solidarity and INAP.	Ordinances, regulations and associated codes and standards defined to climate proof small-scale rural infrastructure	50,000
Develop step-by-step guidelines for climate risk reduction measures for all categories of small-scale rural infrastructure (water supply, road and bridges, irrigation, flood defences) through PDIM manual – CAMP; Community-based management and maintenance – GMF manual, KAM – municipal procurement guidelines and administrative post and the Ministerial Technical Committee review checklists	Village and Municipal development plans (PDIM and PNDS) fully integrates climate change risk considerations into their annual planning and budgeting cycle for small scale rural infrastructure	100,000
Train team of technical staff of Equipment Verification, Evaluation and Supervision (EVAS) to determine the likelihood and consequences of risk in relation to asset (infrastructure exposure and vulnerability). Their skills to engineer climate resilient designs and apply various methods of bioengineering (e.g. by use of local vetiver plants to stabilize the slopes and gabion structures) will be developed	Village and Municipal development plans (PDIM and PNDS) fully integrates climate change risk considerations into their annual planning and budgeting cycle for small scale rural infrastructure	100,000
Provide capacity development Services to enhance the ability to undertake engineering feasibility studies and incorporate climate-risk considerations into technical feasibility. At municipal level, introduce climate risk criteria into the prioritization process, and include other methods of measuring benefits of projects based on the introduction of appraisal-led project prioritisation using socio-economic cost-benefit analysis methods and tools to be developed under Activity 1.1. Undertake detailed CBA for 130 prioritised infrastructures projects in 6 target municipalities.	Village and Municipal development plans (PDIM and PNDS) fully integrates climate change risk considerations into their annual planning and budgeting cycle for small scale rural infrastructure	100,000
Provision of Consultancy Services to Introduce investment feasibility considerations, socio-economic cost-benefit analysis, optioneering and options appraisal methods as well as environmental impact assessment that integrate climate change impact scenarios, to strengthen the feasibility process, safeguard investments and optimize engineering solution. Develop long-term municipality investment plans for PDIM and PNDS	Village and Municipal development plans (PDIM and PNDS) fully integrates climate change risk considerations into their annual planning and budgeting cycle for small scale rural infrastructure	100,000
Provision of technical assistance services at the detailed design level, to introduce climate change considerations into design of infrastructure to ensure that they will accommodate likely changes of environmental variables (frequency and intensity of occurrence) expected with climate change. Environmental	Village and Municipal development plans (PDIM and PNDS) fully integrates climate change risk	100,000

General description	Description of Input	TOTAL (USD)
impact assessment (EIA) will be introduced at the detailed design stage, in line with international good practice	considerations into their annual planning and budgeting cycle for small scale rural infrastructure	
Train municipality engineers in the new climate-risk informed infrastructure detailed design methods and include specific training in the design of bio-engineering methods relevant to Timor Leste. Bioengineering training will be done through technical assistance and by providing dedicated trainings on bio-engineering.	Village and Municipal development plans (PDIM and PNDS) fully integrates climate change risk considerations into their annual planning and budgeting cycle for small scale rural infrastructure	100,000
Provision of Consultancy Services to Introduce processes for pre-qualifying contractors, based on specific criteria such as certification in prior trainings on implementation of climate-resilient projects, experience of implementing climate-resilient projects, experience of contract management of such climate-resilient projects and access to engineering expertise aligned with the types of climate resilient measures to be built into infrastructure (such as bioengineering methods)	Village and Municipal development plans (PDIM and PNDS) fully integrates climate change risk considerations into their annual planning and budgeting cycle for small scale rural infrastructure	100,000
Communication, printing, and publication including translation cost	Climate risk knowledge base developed and climate information services developed and delivered to all sectoral institutions	67,000
Communication, printing, and publication including translation cost	Supporting catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities.	149,000
Hover Drones x 6 (1 per pilot Municipality) Fixed wing Drone x 1. including training and spare parts (@11,667.00 each); Purchase of modelling software for hydrological (flood and drought), hydraulic (flood), erosion modelling (2 x 50,000)	Procurement of Drones, IT hardware and software, Procurement of modelling, databases, hardware for multi-hazard modelling to be embedded in MI-SSCP, and other equipment	170,002
Training and technical assistance to AP staff in climate resilient project prioritization and feasibility studies	Provide technical assistance to Administrative Post (AP) staff in prioritizing projects at this level and in undertaking an appropriate level of feasibility studies on which to base climate-risk informed project prioritization.	300,000
Purchase of six motorbikes and 4 vehicles in support to project implementation, 2 DSLR camera and other related communication equipment	Equipment	329,268
Field trip to project sites in 6 municipalities (55 visits x 3,216 USD = \$176,880)	Travel	176,880
Purchase of Seedlings, seeds, legume packets for agro-forestry	Purchase of materials and goods for agro-forestry	360,000
Purchase of Seedlings, seeds, legume packets for re-forestation	Purchase of materials and goods for re-forestation	164,844

General description	Description of Input	TOTAL (USD)
Data gathering and organisation into project GIS (SDI system), various data gathering, physical (e.g. topographic and geological) surveys.	Survey teams (contractors) Data gathering, data digitisation systematization, storage and analysis within the SDI GIS system for use in hazard and risk analyses to support the hazard and risk modelling and mapping. Undertake detailed surveys for all hazard modelling	100,000
Contractual services for development of the risk and vulnerability surveying tool.	Develop and codify methods and tools for undertaking socio-economic surveys for collection of necessary information to fully map the socio-economic conditions of the rural poor within the catchment; Using the methods developed, undertake detailed socio-economic surveys for 6 target municipalities in TL	16,600
Engagement of local teams to undertake socio-economic surveys	Undertake socio-economic and vulnerability assessment to fully map existing vulnerability within TL	126,976
Contractual Services for the collection of asset register datasets, validation, data cleansing, conversion (\$21,000). Development of mobile GIS-based asset condition inspection methods and tools. International and national expert inputs for development of asset management system and engineer link to unified damage and loss database. Input from MI-SSCP to the development in introduction of guidelines (\$129,000).	Develop and implement an asset management system linked to Damage and loss database	149,094
International experts. Extensive stakeholder consultations	Develop Gender Responsive Climate Change Strategy and Action Plan which encompasses the priorities endorsed in the national documents as indicated in the upcoming National Climate Change Policy.	57,820
International experts. Extensive stakeholder consultations	Review and improve all standards, guidelines and specifications for rural infrastructure, encompassing both technical and functional standards to respond to climate risk reduction requirements, based on international best practices.	57,820
International experts input to developing Rural Roads Master Plan and Investment Strategy.	Input to the development of the Rural Roads Master Plan & Investment Strategy 2016–2020 to help embed climate resilience measures into road master planning.	50,000
International experts input to development of National Water Supply Policy and Strategic Plan	Input to the development of a National Water Supply Policy and Strategic Plan to provide the medium to long-term vision for the sector and to provide a framework for	57,820

General description	Description of Input	TOTAL (USD)
	the institutional arrangements, overall operation and management of DNSA and coordination with other sectoral agencies and partners, to ensure that climate resilience approaches are embedded in the policy and strategy for water supply. Implement capacity building and training based on CDP for national and regional authorities	
International experts input to development of guidelines and SOPS for PDIM and PNDS climate responsive development investment plans	Develop guidelines and SOPs for all infrastructure investments to be carried out under the municipal (PDIM) and village (PNDS) development plans to make these plans climate responsive	50,000
International experts input to development of capacity development plan, road map and tools for integrating new policies, strategies, plans and guidelines into PDIM and	PNDS Develop a capacity building plan and roadmap for national and regional authorities to integrate new policies, plans and strategies and guidelines into PDIM and PNDS. This would include the development of tools that will be needed for implementation and enforcement of new methods and guidelines for CR infrastructure development planning and implementation	57,820
International experts input to capacity building for national and regional authorities	Implement capacity building and training based on CDP for national and regional authorities	73,024
Salary Costs - NP staff	Technical inputs of UNDP experts on technical analysis on development of policies/regulation and institutional strengthening	93,500
M&E - International Consultants	International experts to conduct HACT assessment/spot checks, MTR, and TE	66,000
M&E - Local consultants.	National experts to support HACT assessment/spot checks, MTR, TE, and M&E related work	22,000
Contractual services for Flood hazard and risk maps which will be developed in line with international best practice. Accurate digital elevation models (DEM) in the form of LiDAR will be used for all modelling. Topographic survey of rivers through high risk areas will be undertaken. Historical hydro-hydrometric data for all Timor Leste required for all hazard and risk assessments will be utilized.	Using the most appropriate modelling techniques, establish numerical models for flood modelling, landslide and erosion and drought for all major river basin in TL based on surveys of the physical characteristics of the river basins. Produce high resolution hazard maps	1,100,000
Setting up of the project GIS (SDI system), engagement of national expert, travel-related costs, data review and data modelling inputs, GIS work, printing and	Establish a project Spatial Data Infrastructure (SDI) and provide project GIS support throughout. Develop a GIS-	250,000



General description	Description of Input	TOTAL (USD)
production of reports and maps; International expert for development of the GIS-based risk and vulnerability modelling tool based on hazard data, physical data (receptor data), socio-economic data from new survey methods.	based tool to integrate various spatial socio-economic data with the hazard maps, perform vulnerability assessment, produce vulnerability maps which will include damages and loss of life estimates and to test risk management interventions options. Tools, methods, guidelines and procedures for recording disaster events, undertaking post-event surveys.	
Development of DRMapp (functionality will include mature knowledge management with inventory, reporting and feedback); Data Processing of Hover Data (4 times per year times 2 weeks each pass assumed); Fixed data (In house expert; 4 times per year (5cms to 8cms pixels) and Outsourcing processing	Detailed review of existing damage and loss databases and accounting technologies (Disaster Risk Management Portal, SIGAS accounting system, and Desinventar database). Development and implementation of a harmonised and unified damage and loss recording and accounting system in the form of a Disaster Risk Management Application (DRMApp) which will provide a real time system to all tracking the observation data, verification data and compensatory responses, including a Meta database to collate and track disparate reporting. Available at National sub-national and municipal and suco level. DRMapp will include development of electronic (online, mobile handheld proformas etc.) and manual damage and loss recording templates	361,000
Engineering inputs to detailed design, procurement and implementation of 130 infrastructure (TA of international experts, community engagement, preparation of bill of quantities development, input to procurement process, construction supervision, construction hand over). Includes implementation of the ESMF Action plan.	Detailed design of 130 CR infrastructure projects - International Consultants	546,674
Engineering inputs to detailed design, procurement and implementation of 130 infrastructure (TA of local experts, community engagement, preparation of bill of quantities development, input to procurement process, construction supervision, construction hand over). Includes implementation of the ESMF Action plan	Detailed design of 130 CR infrastructure projects - Local Consultants	489,549
Small-scale rural infrastructure Construction works of PDIM and PNDS (water supply, road and bridges, irrigation, flood defences) (multiple contracts)	Construction of 130 CR infrastructure projects	12,079,679
Local Labour for Land Preparation and Out-Planting, Monitoring and Reporting, Farmer Registration, Farm Registration, Product Registration (if the farmers	Implement Agro-forestry and reforestation strategy for infrastructure sub-catchments	429,691

<b>General description</b>	<b>Description of Input</b>	<b>TOTAL (USD)</b>
decide to go purely organic), Tree Registration and Certification (\$419,800 for agro-forestry and \$9,891 for reforestation)		
Maintenance of agro-forestry plantations	Maintenance of agro-forestry plantations	1,200,000
Maintenance of re-forestation plantations	Maintenance of re-forestation plantations	409,466
Salary Costs - NP staff - input to design of agro-forestry strategy	Technical inputs of UNDP experts on technical analysis on conceptualizing on climate-resilient infrastructures	412,947
National Project Manager.	Project Management and Technical Inputs	164,214
Procurement Officer	Project Management	114,096
Admin and Finance Officer	Project Management	114,096
National Engineers (x2)	Project Management	228,192
Municipal Field Coordinators (x6) (70% GCF and 30% co-financed)	Project Management and Technical Inputs	479,204
Communication and internet costs	Project Management	10,000
Equipment and Furniture	Project Management	25,000
Project Management - Training, Workshops and conferences	Project Management	18,000
Project Management - Travel	Project Management	18,806
CO staff - Services to project. Finance, HR, Procurement, IT and Admin services/support project in 6 years. This includes payments process, issues checks, recruitment, personnel mgt services, contract issuance, etc.	Services to Project – General Operating Expenses	315,699
<b>Total estimate of procurement goods and services costs</b>		<b>22,356,805</b>

## Annex 1: UNDP Policy on Prior and Post Review

	<b><u>Level 1 (Country Level):</u></b>	<b><u>Level 2 (Regional):</u></b>	<b><u>Level 3 (HQ):</u></b>
	Contracts, Assets and Procurement Committee	Regional Advisory Committee on Procurement (country offices only)	Advisory Committee on Procurement
<b>Competitive procurement process</b>			
Any contract or series of contracts including amendments to be awarded to a vendor <i>in a calendar year</i> that in aggregate has a cumulative value:	Above US \$50,000 (above US \$100,000 for Individual Contracts) and up to the standard delegated procurement authority – Direct Review by PMU Chairperson  Above the standard delegated procurement authority and up to any increased delegated procurement authority – by PMU Committee	Above the delegated procurement authority and up to US \$2 million (applies per year for Long-Term Agreements)	Country offices: above US \$2 million (applies per year for Long-Term Agreements)
<b>Direct contracting</b>			
Any contract or series of contracts, including amendments to be awarded to a vendor <i>in a calendar year</i> that in aggregate has a cumulative value:	Above US \$50,000 and up to 50 percent of the standard delegated procurement authority – Direct Review by PMU Chairperson  Above 50 percent of the standard delegated procurement authority and up to 50 percent of any increased delegated procurement authority – by PMU Committee	Above 50 percent of the delegated procurement authority and up to US \$2 million (applies per year for long-term agreements)	Headquarters units: above 50 percent of the delegated procurement authority  Country offices: above US \$2 million (applies per year for long-term agreements)
<b>Amendment of all contracts</b>			

	<b><u>Level 1 (Country Level):</u></b> Contracts, Assets and Procurement Committee	<b><u>Level 2 (Regional):</u></b> Regional Advisory Committee on Procurement (country offices only)	<b><u>Level 3 (HQ):</u></b> Advisory Committee on Procurement
Any amendment or series of amendments to a contract which, in aggregate, increases the contract value by 20 percent or the delegated procurement authority, whichever is less:	Above US \$50,000 and up to the standard delegated procurement authority – Direct Review by PMU Chairperson. Above the standard delegated procurement authority and up to the increased delegated procurement authority - by PMU Committee	Above the delegated procurement authority and up to US \$2 million (applies per year for long-term agreements)	Country offices: above US \$2 million (applies per year for long-term agreements)
<b>Ex ante review</b>			
Ex ante review refers to the review of the procurement strategy roadmap prior to commencement of the procurement process for complex procurement actions with a value:	N/A	Above US \$1 million and up to US \$2 million (applies per year for long-term agreements)	Above US \$2 million (applies per year for long-term agreements)
Notes:	<ol style="list-style-type: none"> <li>1. The procurement support unit shall participate when requested in the committee review of ex ante submissions.</li> <li>2. An ex ante review is not required if: <ol style="list-style-type: none"> <li>(a) The business unit has had a previous successful experience in the procurement of similar goods/services/works that was already subject to an ex ante review; or</li> <li>(b) There is sufficient specific corporate guidance and templates on the procurement of the said goods/services.</li> </ol> </li> <li>3. Irrespective of the above, the procurement authority may submit the cases for ex ante review if significant risks are perceived.</li> </ol>		

## **Annex G: Terms of References for Project Board and Project Team**

TORs can be accessed is shared in a separate annex

**Annex H: UNDP Social and Environmental and Safeguards screening procedure (SESP) and Environmental and Social Management Framework (ESMF)**

SESP can be accessed [here](#) and is shared in a separate annex

ESMF can be accessed [here](#) and is shared in a separate annex

## **Annex I: Stakeholder Engagement Plan**

Stakeholder Engagement Plan can be accessed [here](#) and is shared in a separate annex

## **Annex J: Gender Analysis and Action Plan**

Gender Analysis and Action Plan can be accessed [here](#) and is shared in a separate annex



**ANNEX K: UNDP RISK LOG**

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1.	Political instability or regional conflicts	During project formulation – 2017 Parliamentary Election	Other	P = 3 I = 2	The project will develop and implement an emergency management/contingency plan in line with UNDP CO's crisis management requirements. This may reduce the level of impact of the risk to medium to low level	Project manager	Programme Analyst	7 November 2019	<i>There will be several elections in the next 3 years (Municipality, Presidential, and Parliamentary) election which may effect the project implementation</i>
2	Project-implemented infrastructure is destroyed by catastrophic hazardous event	During project formulation	Social and environmental	P = 1 I = 2	The project will develop and implement an emergency management/contingency plan in line with UNDP CO's crisis management requirements. During the design and construction of relevant infrastructure, disaster risks will be taken into consideration and climate proofing elements will be included in all stages of design and construction. These activities will reduce the level of impact from hazardous events and lower the probability that the infrastructure will be destroyed to the minimum level.	Project manager	Programme Analyst	7 November 2019	<i>Reducing</i>

3	Reduced government priority for climate change adaptation and DRR due to political, financial and technical re-focus, resulting in reduced ability to fully embed infrastructure climate proofing and DRR intervention measures into policies and enabling frameworks.	During project formulation	Technical and operational	P = 1 I = 2	The project will have constant consultations with high-level government representatives and will carry out lobbying and advocacy campaigns in support of CC adaptation and DRR. This will reduce the impact of the risk to the minimum level.	Project Manager	Programme Analyst	7 November 2019	No change
4	Absorption and operational capacities of project responsible parties are inadequate to properly implement climate-proofing of infrastructure and management	During project formulation	Technical and operational	P = 5 I = 5	The project will pay close attention to the capacity building of all relevant agencies through carrying out a training of trainers, conducting on-the-job and field trainings of the staff of relevant agencies, introducing/strengthening internships within responsible parties and particularly municipalities, and developing technical guidelines and methodologies for the sustainable design, construction and maintenance of climate	Project Manager	Programme Analyst	7 November 2019	Increasing

	of disaster risk beyond the project				resilient infrastructure. Capacity building throughout the project will reduce the probability and impact of this risk to the minimum level.				
5.	Due to poor financial performance of the government, and particularly ministries and agencies engaged in the project as responsible parties, significant budget and staff cuts occur in these state organizations.	During project formulation	Financial	P = 3 I = 3	The project will assist government authorities to develop and implement sustainable long-term financial planning for the design and implementation of climate resilient infrastructure, including identification of potential private sector contributors and accessing international donor financing.	Project Manager	Programme Analyst	7 November 2019	No change
6.	Local communities are not interested in being engaged in community-based agro-forestry and reforestation activities for enhanced	During project formulation	Social and environmental	Low (<5% of project value) Low (<5% of project value) P = 1 I = 2	The project will conduct extensive awareness campaigns at the grassroots' level on climate-induced natural hazards, vulnerabilities, and risks. In addition, the benefits of reducing these risks to infrastructure by implementing agro-forestry, reforestation and catchment management will be highlighted. Awareness raising will be based on tried and trusted methods of community	Project Manager	Programme Analyst	7 November 2019	Reducing

	catchment management				engagement established by the existing SSRI project. The project will also make significant efforts to mobilize and empower local communities in the implementation of community-based agro-forestry. This will reduce the impact and probability of the risk to the minimum level.				
7.	Agro-forestry implemented on land previously used primarily for agriculture.	During project formulation	Social and environmental	P = 1 I = 2	Stakeholder consultation will be undertaken prior to the final selection of agroforestry sites within the infrastructure catchments to minimise conflicts with pasture land. The economic benefits to communities from implementing agro-forestry - from protecting infrastructure and agricultural land to the environmental and ecological benefits of overall catchment rehabilitation - are expected to be higher than opportunity costs related to current agricultural yields from the already degraded land.	Project Manager	Programme Analyst	7 November 2019	No change

## Annex L: LOA with the government (DPCs)

### Annex N. Country Office Support Services (COSS) Agreements

#### AGREEMENT BETWEEN UNDP AND THE GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES

1. Reference is made to consultations between officials of the Government of Timor-Leste, the Secretary of State for the Environment (SSE) (hereinafter referred to as "the Government") and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant project document, as described below.
2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.
3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:
  - a. Identification and/or recruitment of project and programme personnel as well as technical expertise;
  - b. Identification and facilitation of training and meeting/workshop activities;
  - c. Procurement of goods and services;
  - d. Any other type of activities/services as per prevailing UNDP Universal/Local Price List.
4. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in the annual/multi-year work plan (UNDP as a Responsible Party) as described in the project document. If the requirements for support services by the country office change during the life of a programme or project, the annual/multi-year work plan in the project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.
5. The relevant provisions of the Standard Basic Assistance Agreement (SBAA) signed on 20 May 2002 between the United Nations Development Programme and the Democratic Republic of Timor-Leste. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annual/multi-year work plan of the project document.
6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the above-mentioned agreements.
7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall refer to the prevailing UNDP Universal/Local Price List.
8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.



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**Munkhtuya Altangerel**  
Resident Representative  
UNDP Timor-Leste  
Date: 14/02/2020



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**Deometrio do Amaral do Carvalho**  
Secretary of State for Environment  
Government of Timor-Leste  
Date: 14/02/2020



## DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Ministry of Commerce, Industry, and Environment, the institution designated by the Government of Timor-Leste and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project "Safeguarding communities and their physical assets from climate induced disasters in Timor Leste"

2. In accordance with the provisions of the letter of agreement signed on 14 - 02 - 2020 and the project document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided:

Support services	Schedule for the provision of support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
Estimated Direct Project Costs based on UNDP Timor-Leste Price List as of 01 <sup>st</sup> June 2018			
Services related to <b>Procurement of consultants, goods and services, and travel arrangements</b> (including but not limited to): i) Development of scope of work and review of terms of reference; advertisement; preliminary review; evaluation; vendor management; contracting; commitment of funds; disposal of equipment; and contract closing for - Low-value actions (<\$100,000); and - Intermediate and High value actions (>\$100,000) ii) Travel arrangement; authorization; requisition; service provider management; reconciliation; reporting; and processing refund of entitlements	Ongoing throughout project implementation when applicable	\$91,562	UNDP will charge direct project costs directly to the project budget.
Services related to <b>Finance</b> (including but not limited to): Transaction processing (voucher creation, approval, payments processing); vendor management and reconciliation, as needed ( <i>monthly and periodical actions</i> )		\$50,831	
Services related to <b>Staff and Personnel management</b> (including but not limited to): o Staff selection and recruitment process: advertising, shortlisting and interviewing ( <i>one-time action</i> ) o Staff benefits administration and management ( <i>one-time + monthly recurring action</i> ) o Staff payroll; vendor management, banking reconciliation and reporting ( <i>monthly and periodic actions</i> ).		\$134,906	
Service related to <b>ICT and communication</b> (including but not limited to): o Provision of email accounts, productivity software (e.g., MS Office license) to project personnel; help desk support in multiple locations; disaster recovery; data backup; provision of audio/video conferencing software.		\$38,400	
<b>Sub total</b>		<b>\$315,699</b>	

<p><b>Provide technical support</b> pertaining to (but not limited to) following areas:</p> <ul style="list-style-type: none"> <li>o Regular facilitation and dialogue with development partners in aligning the project results with SDGs and other international frameworks Paris agreement and Sendai Framework.</li> <li>o Policy analysis and technical support towards project's alignment and coordination with other adaptation initiatives supported by UNDP, other UN Agencies and the development partners including facilitating synergies post-implementation.</li> <li>o Technical inputs to climate resilient infrastructure model informed by lessons learnt from previous adaptation project, including enabling scale and replication beyond the project.</li> <li>o Policy analysis and technical support on strategic options for climate resilient infrastructure and coordinating with government counterparts at national and sub-national agencies as well as other stakeholders such as donors and academia.</li> <li>o Technical analysis and strategic support on integrated cascade approach and catchment conservation planning process with communities, building on UNDP efforts.</li> <li>o Facilitation and dialogue to ensure private sector engagement in the development and dissemination of climate information to enable sustained scale beyond the project.</li> <li>o Technical Analysis and inputs on options, strategic approach, and action plan, based on best practices, to implement project exit strategies and provide policy support to government to replicate and scale the project approaches.</li> <li>o Technical support to synthesize lessons learned and provide substantive guidance and support to develop knowledge products in the project and guidance based on best practice.</li> <li>o Provide direct technical inputs in all project training materials; act as resource person/training facilitator in relevant training programmes under the project.</li> </ul>	<p>Ongoing throughout implementation when applicable</p>	<p>As per percentage of pro-forma costs based on percentage of time required: \$506,447</p> <ul style="list-style-type: none"> <li>• NoB to provide technical assistance to MAF (\$ 222,186 over 6 years)</li> <li>• NoC as Technical and Policy specialist (\$ 284,261 over 6 years)</li> </ul>	<p>UNDP will directly charge the project upon the approval of annual work plan. Actual charge will include staff cost and relevant general operating expense.</p>		
<b>Sub total</b>		<b>\$506,447</b>			
<b>Total DPC over 6 years</b>		<b>\$822,146</b>			
<b>Average DPC over 6 years:</b>		<b>US\$137,024.33/year</b>			
<b>DPC Schedule/year</b>					
2019	2020	2021	2022	2023	2024
137,024.33	137,024.33	137,024.33	137,024.33	137,024.33	137,024.33



## **Annex M: HACT micro assessments**

**HACT assessment reports can be accessed via the links below and are shared in separate annex folder:**

[Final Report Micro Assessment MAF.pdf](#)

[Final Report Micro Assessment Mol.pdf](#)

[Final Report Micro Assessment MSA.pdf](#)

[Final Report Micro Assessment SEA, CMEA.pdf](#)

# PROJECT QA ASSESSMENT: DESIGN AND APPRAISAL

## OVERALL PROJECT

EXEMPLARY (5) ●●●●●	HIGHLY SATISFACTORY (4) ●●●●○	SATISFACTORY (3) ●●●○○	NEEDS IMPROVEMENT (2) ●●○○○	INADEQUATE (1) ●○○○○
At least four criteria are rated Exemplary, and all criteria are rated High or Exemplary.	All criteria are rated Satisfactory or higher, and at least four criteria are rated High or Exemplary.	At least six criteria are rated Satisfactory or higher, and only one may be rated Needs Improvement. The Principled criterion must be rated Satisfactory or above.	At least three criteria are rated Satisfactory or higher, and only four criteria may be rated Needs Improvement.	One or more criteria are rated Inadequate, or five or more criteria are rated Needs Improvement.

## DECISION

- **APPROVE** – the project is of sufficient quality to be approved in its current form. Any management actions must be addressed in a timely manner.
- **APPROVE WITH QUALIFICATIONS** – the project has issues that must be addressed before the project document can be approved. Any management actions must be addressed in a timely manner.
- **DISAPPROVE** – the project has significant issues that should prevent the project from being approved as drafted.

## RATING CRITERIA

For all questions, select the option that best reflects the project

## STRATEGIC

<p>1. Does the project specify how it will contribute to higher level change through linkage to the programme's Theory of Change?</p> <ul style="list-style-type: none"> <li>• <b>3:</b> The project is clearly linked to the programme's theory of change. It has an explicit change pathway that explains how the project will contribute to outcome level change and why the project's strategy will likely lead to this change. This analysis is backed by credible evidence of what works effectively in this context and includes assumptions and risks.</li> <li>• <b>2:</b> The project is clearly linked to the programme's theory of change. It has a change pathway that explains how the project will contribute to outcome-level change and why the project strategy will likely lead to this change.</li> <li>• <b>1:</b> The project document may describe in generic terms how the project will contribute to development results, without an explicit link to the programme's theory of change.</li> </ul> <p><i>*Note: Projects not contributing to a programme must have a project-specific Theory of Change. See alternative question under the lightbulb for these cases.</i></p>	<b>3</b>	2
	1	
	<p><b>Evidence</b></p> <p><b>The project has clear Theory of Change and strategy to achieve expected results including assumptions and risks.</b></p>	
<p>2. Is the project aligned with the UNDP Strategic Plan?</p>	<b>3</b>	2
	1	

<ul style="list-style-type: none"> <li>• <b>3:</b> The project responds to at least one of the development settings as specified in the Strategic Plan<sup>35</sup> and adapts at least one Signature Solution<sup>36</sup>. The project's RRF includes all the relevant SP output indicators. <i>(all must be true)</i></li> <li>• <b>2:</b> The project responds to at least one of the development settings as specified in the Strategic Plan<sup>4</sup>. The project's RRF includes at least one SP output indicator, if relevant. <i>(both must be true)</i></li> <li>• <b>1:</b> The project responds to a partner's identified need, but this need falls outside of the UNDP Strategic Plan. Also select this option if none of the relevant SP indicators are included in the RRF.</li> </ul>	<p><b>Evidence</b></p> <p>The project contributes to UNDP Strategic Plan development outcome 3: <b>Build resilience to shocks and crises</b>, in order to safeguard development gains and adapts <b>Output/signature solution 3: Enhance national prevention and recovery capacities for resilient societies.</b></p>	
<p><b>3. Is the project linked to the programme outputs? (i.e., UNDAF Results Group Workplan/CPD, RPD or Strategic Plan IRRF for global projects/strategic interventions not part of a programme)</b></p>	<p><b>Yes</b></p>	<p><b>No</b></p>
<p><b>RELEVANT</b></p>		
<p><b>4. Does the project target groups left furthest behind?</b></p> <ul style="list-style-type: none"> <li>• <b>3:</b> The target groups are clearly specified, prioritising discriminated and marginalized groups left furthest behind, identified through a rigorous process based on evidence.</li> <li>• <b>2:</b> The target groups are clearly specified, prioritizing groups left furthest behind.</li> <li>• <b>1:</b> The target groups are not clearly specified.</li> </ul> <p><i>*Note: Management Action must be taken for a score of 1. Projects that build institutional capacity should still identify targeted groups to justify support</i></p>	<p><b>3</b></p>	<p><b>2</b></p>
<p><b>1</b></p>		
<p><b>5. Have knowledge, good practices, and past lessons learned of UNDP and others informed the project design?</b></p> <ul style="list-style-type: none"> <li>• <b>3:</b> Knowledge and lessons learned backed by credible evidence from sources such as evaluation, corporate policies/strategies, and/or monitoring have been explicitly used, with appropriate referencing, to justify the approach used by the project.</li> <li>• <b>2:</b> The project design mentions knowledge and lessons learned backed by evidence/sources, but have not been used to justify the approach selected.</li> <li>• <b>1:</b> There is little or no mention of knowledge and lessons learned informing the project design. Any references made are anecdotal and not backed by evidence.</li> </ul> <p><i>*Note: Management Action or strong management justification must be given for a score of 1</i></p>	<p><b>3</b></p>	<p><b>2</b></p>
<p><b>1</b></p>		
<p><b>Evidence</b></p> <p>The project builds on the success and lesson learnt from the previous UNDP's Small-Scale Rural Infrastructure project and Dili to Ainaro Road Development Corridor (See page 12 of the Project Document – Result and Partnership Section)</p>		

<sup>35</sup> The three development settings in UNDP's 2018-2021 Strategic Plan are: a) Eradicate poverty in all its forms and dimensions; b) Accelerate structural transformations for sustainable development; and c) Build resilience to shocks and crises

<sup>36</sup> The six Signature Solutions of UNDP's 2018-2021 Strategic Plan are: a) Keeping people out of poverty; b) Strengthen effective, inclusive and accountable governance; c) Enhance national prevention and recovery capacities for resilient societies; d) Promote nature based solutions for a sustainable planet; e) Close the energy gap; and f) Strengthen gender equality and the empowerment of women and girls.

<p><b>6. Does UNDP have a clear advantage to engage in the role envisioned by the project vis-à-vis national/regional/global partners and other actors?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> An analysis has been conducted on the role of other partners in the area where the project intends to work, and credible evidence supports the proposed engagement of UNDP and partners through the project, including identification of potential funding partners. It is clear how results achieved by partners will complement the project's intended results and a communication strategy is in place to communicate results and raise visibility vis-à-vis key partners. Options for south-south and triangular cooperation have been considered, as appropriate. <i>(all must be true)</i></li> <li><b>2:</b> Some analysis has been conducted on the role of other partners in the area where the project intends to work, and relatively limited evidence supports the proposed engagement of and division of labour between UNDP and partners through the project, with unclear funding and communications strategies or plans.</li> <li><b>1:</b> No clear analysis has been conducted on the role of other partners in the area that the project intends to work. There is risk that the project overlaps and/or does not coordinate with partners' interventions in this area. Options for south-south and triangular cooperation have not been considered, despite its potential relevance.</li> </ul> <p><i>*Note: Management Action or strong management justification must be given for a score of 1</i></p>	<p style="text-align: center;"><b>3</b></p> <p style="text-align: center;"><b>2</b></p> <p style="text-align: center;"><b>1</b></p> <p style="text-align: center;"><b>Evidence</b></p> <p style="text-align: center;">Stakeholder engagement plan</p>
<b>PRINCIPLED</b>	
<p><b>7. Does the project apply a human rights-based approach?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> The project is guided by human rights and incorporates the principles of accountability, meaningful participation, and non-discrimination in the project's strategy. The project upholds the relevant international and national laws and standards. Any potential adverse impacts on enjoyment of human rights were rigorously identified and assessed as relevant, with appropriate mitigation and management measures incorporated into project design and budget. <i>(all must be true)</i></li> <li><b>2:</b> The project is guided by human rights by prioritizing accountability, meaningful participation and non-discrimination. Potential adverse impacts on enjoyment of human rights were identified and assessed as relevant, and appropriate mitigation and management measures incorporated into the project design and budget. <i>(both must be true)</i></li> <li><b>1:</b> No evidence that the project is guided by human rights. Limited or no evidence that potential adverse impacts on enjoyment of human rights were considered.</li> </ul> <p><i>*Note: Management action or strong management justification must be given for a score of 1</i></p>	<p style="text-align: center;"><b>3</b></p> <p style="text-align: center;"><b>2</b></p> <p style="text-align: center;"><b>1</b></p> <p style="text-align: center;"><b>Evidence</b></p> <p style="text-align: center;">UNDP Social and Environmental and Safeguards screening procedure (SESP) and Environmental and Social Management Plan or Framework (ESMP or ESMF)</p> <p style="text-align: center;">Annex H of the ProDoc</p>
<p><b>8. Does the project use gender analysis in the project design?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> A participatory gender analysis has been conducted and results from this gender analysis inform the development challenge, strategy and expected results sections of the project document. Outputs and indicators of the results framework include explicit references to gender equality, and specific indicators measure and monitor results to ensure women are fully benefitting from the project. <i>(all must be true)</i></li> <li><b>2:</b> A basic gender analysis has been carried out and results from this analysis are scattered (i.e., fragmented and not consistent) across the development challenge and strategy sections of the project document. The results framework may include some gender sensitive outputs and/or activities but gender inequalities are not consistently integrated across each output. <i>(all must be true)</i></li> <li><b>1:</b> The project design may or may not mention information and/or data on the differential impact of the project's development situation on gender relations, women and men, but the gender inequalities have not been clearly identified and reflected in the project document.</li> </ul> <p><i>*Note: Management Action or strong management justification must be given for a score of 1</i></p>	<p style="text-align: center;"><b>3</b></p> <p style="text-align: center;"><b>2</b></p> <p style="text-align: center;"><b>1</b></p> <p style="text-align: center;"><b>Evidence</b></p> <p style="text-align: center;">Gender Analysis and Action plan</p>
<p><b>9. Did the project support the resilience and sustainability of societies and/or ecosystems?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> Credible evidence that the project addresses sustainability and resilience dimensions of development challenges, which are integrated in the project strategy and design. The project reflects the interconnections between the social, economic and environmental dimensions of sustainable development. Relevant shocks, hazards and adverse social and environmental impacts have been identified and rigorously assessed with appropriate management and mitigation measures incorporated into project design and budget. <i>(all must be true)</i>.</li> <li><b>2:</b> The project design integrates sustainability and resilience dimensions of development challenges. Relevant shocks, hazards and adverse social and environmental impacts have been identified and assessed, and relevant management and mitigation measures incorporated into project design and budget. <i>(both must be true)</i></li> <li><b>1:</b> Sustainability and resilience dimensions and impacts were not adequately considered.</li> </ul>	<p style="text-align: center;"><b>3</b></p> <p style="text-align: center;"><b>2</b></p> <p style="text-align: center;"><b>1</b></p> <p style="text-align: center;"><b>Evidence</b></p> <p style="text-align: center;">Project Risk Log (Annex K of the ProDoc)</p>

<p>*Note: Management action or strong management justification must be given for a score of 1</p>					
<p><b>10. Has the Social and Environmental Screening Procedure (SESP) been conducted to identify potential social and environmental impacts and risks?</b> The SESP is not required for projects in which UNDP is Administrative Agent only and/or projects comprised solely of reports, coordination of events, trainings, workshops, meetings, conferences and/or communication materials and information dissemination. [if yes, upload the completed checklist. If SESP is not required, provide the reason for the exemption in the evidence section.]</p>	<table border="1"> <tr> <td data-bbox="1181 264 1358 309">Yes</td> <td data-bbox="1358 264 1469 309">No</td> </tr> <tr> <td colspan="2" data-bbox="1181 309 1469 577">Annex H of the ProDoc</td> </tr> </table>	Yes	No	Annex H of the ProDoc	
Yes	No				
Annex H of the ProDoc					
<p align="center"><b>MANAGEMENT &amp; MONITORING</b></p>					
<p><b>11. Does the project have a strong results framework?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators that measure the key expected development changes, each with credible data sources and populated baselines and targets, including gender sensitive, target group focused, sex-disaggregated indicators where appropriate. <i>(all must be true)</i></li> <li><b>2:</b> The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators, but baselines, targets and data sources may not yet be fully specified. Some use of target group focused, sex-disaggregated indicators, as appropriate. <i>(all must be true)</i></li> <li><b>1:</b> The project's selection of outputs and activities are not at an appropriate level; outputs are not accompanied by SMART, results-oriented indicators that measure the expected change and have not been populated with baselines and targets; data sources are not specified, and/or no gender sensitive, sex-disaggregation of indicators. <i>(if any is true)</i></li> </ul> <p>*Note: Management Action or strong management justification must be given for a score of 1</p>	<table border="1"> <tr> <td data-bbox="1181 640 1358 674">3</td> <td data-bbox="1358 640 1469 674">2</td> </tr> <tr> <td colspan="2" data-bbox="1181 674 1469 1111"> <p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p>The project's outputs are accompanied by results-oriented indicators that measures the key expected development changes, each with credible data sources, baselines and targets (Project Result Framework).</p> <p>Disaggregation will be addressed in the baseline survey</p> </td> </tr> </table>	3	2	<p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p>The project's outputs are accompanied by results-oriented indicators that measures the key expected development changes, each with credible data sources, baselines and targets (Project Result Framework).</p> <p>Disaggregation will be addressed in the baseline survey</p>	
3	2				
<p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p>The project's outputs are accompanied by results-oriented indicators that measures the key expected development changes, each with credible data sources, baselines and targets (Project Result Framework).</p> <p>Disaggregation will be addressed in the baseline survey</p>					
<p><b>12. Is the project's governance mechanism clearly defined in the project document, including composition of the project board?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> The project's governance mechanism is fully defined. Individuals have been specified for each position in the governance mechanism (especially all members of the project board.) Project Board members have agreed on their roles and responsibilities as specified in the terms of reference. The ToR of the project board has been attached to the project document. <i>(all must be true).</i></li> <li><b>2:</b> The project's governance mechanism is defined; specific institutions are noted as holding key governance roles, but individuals may not have been specified yet. The project document lists the most important responsibilities of the project board, project director/manager and quality assurance roles. <i>(all must be true)</i></li> <li><b>1:</b> The project's governance mechanism is loosely defined in the project document, only mentioning key roles that will need to be filled at a later date. No information on the responsibilities of key positions in the governance mechanism is provided.</li> </ul> <p>*Note: Management Action or strong management justification must be given for a score of 1</p>	<table border="1"> <tr> <td data-bbox="1181 1111 1358 1144"><b>3</b></td> <td data-bbox="1358 1111 1469 1144">2</td> </tr> <tr> <td colspan="2" data-bbox="1181 1144 1469 1541"> <p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p><b>ToR is annexed to the ProDoc (Annex G)</b></p> </td> </tr> </table>	<b>3</b>	2	<p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p><b>ToR is annexed to the ProDoc (Annex G)</b></p>	
<b>3</b>	2				
<p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p><b>ToR is annexed to the ProDoc (Annex G)</b></p>					
<p><b>13. Have the project risks been identified with clear plans stated to manage and mitigate each risk?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> Project risks related to the achievement of results are fully described in the project risk log, based on comprehensive analysis drawing on the programme's theory of change, Social and Environmental Standards and screening, situation analysis, capacity assessments and other analysis such as funding potential and reputational risk. Risks have been identified through a consultative process with key internal and external stakeholders. Clear and complete plan in place to manage and mitigate each risk, reflected in project budgeting and monitoring plans. <i>(both must be true)</i></li> <li><b>2:</b> Project risks related to the achievement of results are identified in the initial project risk log based on a minimum level of analysis and consultation, with mitigation measures identified for each risk.</li> <li><b>1:</b> Some risks may be identified in the initial project risk log, but no evidence of consultation or analysis and no clear risk mitigation measures identified. This option is also selected if risks are not clearly identified and/or no initial risk log is included with the project document.</li> </ul> <p>*Note: Management Action must be taken for a score of 1</p>	<table border="1"> <tr> <td data-bbox="1181 1541 1358 1574"><b>3</b></td> <td data-bbox="1358 1541 1469 1574">2</td> </tr> <tr> <td colspan="2" data-bbox="1181 1574 1469 1964"> <p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p><b>Project Risk Log (Annex K of the ProDoc)</b></p> </td> </tr> </table>	<b>3</b>	2	<p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p><b>Project Risk Log (Annex K of the ProDoc)</b></p>	
<b>3</b>	2				
<p align="center"><b>1</b></p> <p align="center"><b>Evidence</b></p> <p><b>Project Risk Log (Annex K of the ProDoc)</b></p>					

EFFICIENT		
<p><b>14. Have specific measures for ensuring cost-efficient use of resources been explicitly mentioned as part of the project design? This can include, for example: i) using the theory of change analysis to explore different options of achieving the maximum results with the resources available; ii) using a portfolio management approach to improve cost effectiveness through synergies with other interventions; iii) through joint operations (e.g., monitoring or procurement) with other partners; iv) sharing resources or coordinating delivery with other projects, v) using innovative approaches and technologies to reduce the cost of service delivery or other types of interventions.</b></p> <p><i>(Note: Evidence of at least one measure must be provided to answer yes for this question)</i></p>	<p>Yes (3)</p> <p>Project Theory of Change</p>	<p>No (1)</p>
<p><b>15. Is the budget justified and supported with valid estimates?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> The project's budget is at the activity level with funding sources, and is specified for the duration of the project period in a multi-year budget. Realistic resource mobilisation plans are in place to fill unfunded components. Costs are supported with valid estimates using benchmarks from similar projects or activities. Cost implications from inflation and foreign exchange exposure have been estimated and incorporated in the budget. Adequate costs for monitoring, evaluation, communications and security have been incorporated.</li> <li><b>2:</b> The project's budget is at the activity level with funding sources, when possible, and is specified for the duration of the project in a multi-year budget, but no funding plan is in place. Costs are supported with valid estimates based on prevailing rates.</li> <li><b>1:</b> The project's budget is not specified at the activity level, and/or may not be captured in a multi-year budget.</li> </ul>	<p>3</p> <p>1</p> <p>Evidence</p> <p>Project multi-year work plan including co-financing</p>	<p>2</p>
<p><b>16. Is the Country Office/Regional Hub/Global Project fully recovering the costs involved with project implementation?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> The budget fully covers all project costs that are attributable to the project, including programme management and development effectiveness services related to strategic country programme planning, quality assurance, pipeline development, policy advocacy services, finance, procurement, human resources, administration, issuance of contracts, security, travel, assets, general services, information and communications based on full costing in accordance with prevailing UNDP policies (i.e., UPL, LPL.)</li> <li><b>2:</b> The budget covers significant project costs that are attributable to the project based on prevailing UNDP policies (i.e., UPL, LPL) as relevant.</li> <li><b>1:</b> The budget does not adequately cover project costs that are attributable to the project, and UNDP is cross-subsidizing the project.</li> </ul> <p>*Note: Management Action must be given for a score of 1. The budget must be revised to fully reflect the costs of implementation before the project commences.</p>	<p>3</p> <p>1</p> <p>Evidence</p>	<p>2</p>
EFFECTIVE		
<p><b>17. Have targeted groups been engaged in the design of the project?</b></p> <ul style="list-style-type: none"> <li><b>3:</b> Credible evidence that all targeted groups, prioritising discriminated and marginalized populations that will be involved in or affected by the project, have been actively engaged in the design of the project. The project has an explicit strategy to identify, engage and ensure the meaningful participation of target groups as stakeholders throughout the project, including through monitoring and decision-making (e.g., representation on the project board, inclusion in samples for evaluations, etc.)</li> <li><b>2:</b> Some evidence that key targeted groups have been consulted in the design of the project.</li> <li><b>1:</b> No evidence of engagement with targeted groups during project design.</li> </ul>	<p>3</p> <p>1</p> <p>Evidence</p> <p>Several consultation meetings/workshops were conducted and participated by the targeted people (Stakeholder consultation reports) and a Stakeholder Engagement Plan has been developed</p>	<p>2</p>
<p><b>18. Does the project plan for adaptation and course correction if regular monitoring activities, evaluation, and lesson learned demonstrate there are better approaches to achieve the intended results and/or circumstances change during implementation?</b></p>	<p>Yes (3)</p>	<p>No (1)</p>
<p><b>19. The gender marker for all project outputs are scored at GEN2 or GEN3, indicating that gender has been fully mainstreamed into all project outputs at a minimum.</b></p> <p>*Note: Management Action or strong management justification must be given for a score of "no"</p>	<p>Yes (3)</p> <p>Evidence</p>	<p>No (1)</p>

SUSTAINABILITY & NATIONAL OWNERSHIP		
<p><b>20. Have national/regional/global partners led, or proactively engaged in, the design of the project?</b></p> <ul style="list-style-type: none"> <li>• <b>3:</b> National partners (or regional/global partners for regional and global projects) have full ownership of the project and led the process of the development of the project jointly with UNDP.</li> <li>• <b>2:</b> The project has been developed by UNDP in close consultation with national/regional/global partners.</li> <li>• <b>1:</b> The project has been developed by UNDP with limited or no engagement with national partners.</li> </ul>	3	<b>2</b>
	1	
	<b>Evidence</b>	
<p><b>21. Are key institutions and systems identified, and is there a strategy for strengthening specific/comprehensive capacities based on capacity assessments conducted?</b></p> <ul style="list-style-type: none"> <li>• <b>3:</b> The project has a strategy for strengthening specific capacities of national institutions and/or actors based on a completed capacity assessment. This strategy includes an approach to regularly monitor national capacities using clear indicators and rigorous methods of data collection, and adjust the strategy to strengthen national capacities accordingly.</li> <li>• <b>2:</b> A capacity assessment has been completed. There are plans to develop a strategy to strengthen specific capacities of national institutions and/or actors based on the results of the capacity assessment.</li> <li>• <b>1:</b> Capacity assessments have not been carried out.</li> </ul>	<b>3</b>	2
	1	
	<b>Evidence</b>	
<p><b>22. Is there is a clear strategy embedded in the project specifying how the project will use national systems (i.e., procurement, monitoring, evaluations, etc.,) to the extent possible?</b></p>	<b>Yes (3)</b>	No (1)
	Country Office Support Service modality where national system will be used to the extent possible	
<p><b>23. Is there a clear transition arrangement/ phase-out plan developed with key stakeholders in order to sustain or scale up results (including resource mobilisation and communications strategy)?</b></p>	<b>Yes (3)</b>	No (1)
	Operations and maintenance plan	