Safeguarding communities and their physical assets from climate induced disasters in Timor Leste

Environmental and Social Management Framework

17 December 2018

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EXECUTIVE SUMMARY

Timor Leste is a least developed country, a post-conflict society with a fast-growing population that remains dependent upon subsistence agriculture. Approximately 70 percent of Timor Leste's 1.2 million people who live in rural areas are highly vulnerable to climate change. Impacts of intensified extreme events on critical rural infrastructure which damage and degrade assets, particularly water supply infrastructure, drainage, embankment and river protection structures, and community level feeder roads and bridges leave the rural population without the basic services and in full isolation.

The project is seeking to address climate induced hydrometeorological threats to infrastructure and ecosystems in particularly vulnerable catchment areas

The project objective is to safeguard vulnerable communities and their physical and economic assets from climate change induced disasters and aims to address institutional, financial and legislative barriers and shift the baseline scenario towards climate resilience. The project will first, strengthen capacities of mandated institutions to assess and manage the risks of climate induced losses and damages, embed new skills, innovative methods and technologies in risk identification and mitigation and improve availability of risk information. Second, the project will invest in small-scale rural infrastructure to ensure their resilience to climate change induced extreme hazards. GCF funds will be used to improve engineering skills and practices for climate proofing of rural infrastructure that are essential for the reduction of prevalent social vulnerabilities and widespread economic disparities. Third, the project will invest in livelihoods and land use management that is conducive to a long-term resilience of the target communities and their physical and economic assets

The proposed investments in the 6 target municipalities. The project will upscale proven successful adaptation methods and technologies in climate proofing rural infrastructure against climate-induced hazards. The 6 target municipalities are highly susceptible to the main hydro-meteorological disasters of floods and flashfloods, landslide, erosion and droughts due to their topography, intensifying land degradation and increasing climate variability.

This Environmental and Social Management Framework (ESMF) has been prepared to support the project proposal and subsequent implementation.

1 INTRODUCTION

1. This Environmental and Social Management Framework (ESMF) has been prepared in support of a project proposal for "Safeguarding communities and their physical and economic assets from climte change induced disasters in Timor Leste" by the Government of Timor Leste to the Green Climate Fund (GCF). As this project is supported by UNDP in its role as a GCF Accredited Entity, the project has been screened against UNDP's Social and Environmental Standards Procedure and deemed a Moderate Risk (World Bank/International Finance Corporation Category B) project. As such, an Environmental and Social Management Framework has been prepared for the project.

1.1 BACKGROUND

2. The Government of Timor Leste with support from UNDP, is formulating a project on adaptation to climate change impacts such as floodiing, landslides, erosion and other extreme climate events for submission to the GCF. The project will seek to improve the resilience of vulnerable communities to climate change impacts.

3. Timor Leste occupies the eastern half of the island of Timor and is a very mountainous country characterized by steep slopes, overlain by shallow rocky soils that are alkaline, not particularly fertile, do not store water well, and are easily eroded. Timor Leste is prone to a number climate-induced hazards including floods, landslides, soil erosion and drought which results in frequent loss of lives and livelihoods.

4. Timor Leste is a least developed country[1], a post-conflict society with a fast-growing population that remains dependent upon subsistence agriculture. Approximately 70% of Timor Leste's 1.06 million people live in rural areas which are characterized by significant infrastructure deficit across all sectors including roads, water supply, irrigation and flood defenses.

5. Increasing climatic variability and unpredictability, particularly in relation to rainfall and extreme weather events, presents a significant risk to the lives and livelihoods of rural people in Timor Lest. Those living in the remote interior of the country as well as in coastal areas are highly exposed.

6. Climate change and poor agricultural practices such as slash and burn farming on steep slopes are resulting in changes to physical, hydrological and ecological processes that control floods, drought, soil erosion and landslides at the catchment scale and impacting on the frequency, intensity and spatial distribution of natural hazards. This intensifying of hazards is resulting in the accelerated deterioration of already limited physical infrastructure and impacting the livelihoods of rural agricultural communities. An assessment of the impact of climate-induced hydrometeorological hazards on Timor Leste, based on existing national-scale hazard maps and detailed socio-economic data on hazard receptors - people, property, agriculture and infrastructure (roads and bridges and water supply) has shown that there will be an increase in the areas affected as well as the number and length of key infrastructure affected, increases for all municipalities and for all hazards. In most cases, at least doubling in percentage terms. This will impose a significant additional financial burden on the government and affected population.

7. Rural Infrastructure Investment under the PDIM[2] and PNDS[3] planning (the local level planning and implementation processes), show priority investments in rural infrastructure through the government budgetary allocations since 2011. Small-scale rural infrastructure implemented under PDIM and PNDS do not currently systematically take account of climate risks and therefore do not include climate-proofing unless implemented by specific International Development Banks or donor implemented project such as UNDP-LDCF supported – Small Scale Rural Infrastructure (SSRI) project. This is due to a lack of norms, guidelines and methods for implementation of such measures, as well as a perceived higher cost of climate proofing.

[1] Timor Leste has a UN Human Development Index of 0.595 and ranks 133 out of 188 countries

[2] Maximum allocation of $150,000 USD per project (municipality level)

[3] Maximum allocation of $50,000 per project (village level)

8. Timor Leste needs to safeguard communities and their social and economic assets from climate change induced disasters. To enhance the climate resilience of the infrastructure, the government requires the knowledge, skills and capacity to secure functional longevity of the infrastructure under the conditions of changing climate. Main threats to infrastructure assets include physical damage or destruction caused by extreme weather events, which climate change may exacerbate; coastal flooding and inundation from sea level rise; changes in patterns of water availability; and effects of higher temperature on the overall performance of infrastructure.

9. While many Timorese are drawn to Dili, the capital, seeking employment, 70% still live in rural areas. These Timorese mostly reside in small towns and remote villages and practice a subsistence fishing and farming lifestyle.

10. The degree of geographic isolation/access to urban areas coupled with socio-economic conditions demonstrates that the majority of rural settlements in the country are highly vulnerable and susceptible to climate change induced risks. Of the 89 *sucos (villages)* with the lowest living standards, the average share of households with electricity is only 3%. This compares with an average share of 66% in the 89 *sucos* with the highest living standards. Access to improved water and improved sanitation is also much higher in *sucos* with high living standards.

11. Rural populations of Timor Leste are highly exposed to a number of hazards including flash floods, landslides, soil erosion, coastal flooding and drought, due to unfavorable terrain, socio-economic factors and intensification of these climate-induced hazards over time. In addition, anthropogenic factors such as poor, non-climate-resilient design and application of infrastructure construction standards and the limited investment in operation and maintenance, are exacerbating exposure and resulting in the failure of small scale rural infrastructure, which is essential to the development of rural communities. Impacts include isolation of communities when roads and bridges are damaged by localized extreme events, contamination of unprotected water sources, reduction in yield of water supply sources due to droughts, flooding of communities due to inadequate or failing flood defences. In addition, the institutional and financial capacity of Local Administrations and communities to adapt to the situation is weak. This includes the ability of municipality planning officials, engineers and decision makers to identify areas that are critically vulnerable to climate hazards, to draw the links between ecosystems management and infrastructure development, and to identify, appraise, prioritize, design, cost and 'budget in' greater resilience measures. There is also a weak ability to understand and address gender and climate change related development and equity issues at local level.

1.2 Overview of the Project

12. The project proposes to invest in climate proofing of small scale rural infrastructure in 6 municipalities to address the adaptation challenge. The project will upscale proven successful adaptation methods and technologies in climate proofing rural infrastructure against climate-induced hazards. The 6 target municipalities are highly susceptible to the main hydro-meteorological disasters of floods and flashfloods, landslide, erosion and droughts due to their topography, intensifying land degradation and increasing climate variability.

13. The target municipalities are shown in Figure 1. They are:

- Aileu
- Baucau
- Ermera
- Lautem
- Liquica
- Viqueque.

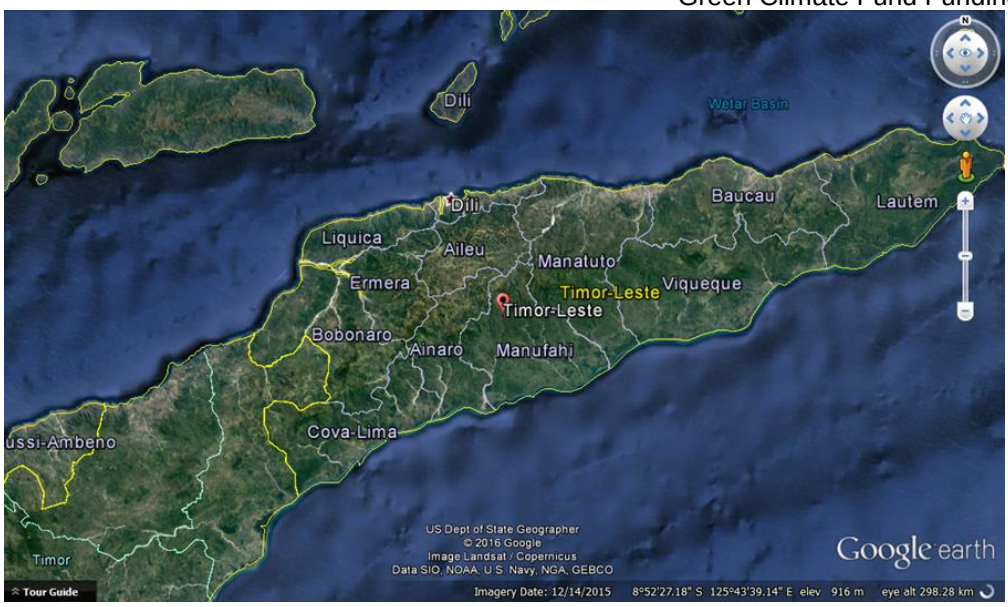

Figure 1 Map showing districts where interventions will be undertaken

14. The project impact potential is high, with 175,840 direct beneficiaries (15% of total population) of climate proofed infrastructure, 300 ha of reforested and rehabilitated land, up to $203 Million of avoided damages and losses from single hazardous events.

1.2.1 Programme Description and main activities

15. The Project will:

- strengthen capacities of mandated institutions to assess and manage the risks of climate induced physical damages and economic losses. GCF funds will be used to embed new technical skills, improve availability of risk information and create effective response mechanisms.
- invest in small-scale rural infrastructure to ensure their resilience to climate change induced hazards. GCF funds will be used to improve engineering skills and practices for climate proofing of rural infrastructure: roads and bridges; water supply and irrigation; and drainage and flood protection. These infrastructure units will be established as the means to address adaptation deficit where the social vulnerabilities and exposure to climate risks are particularly high.
- invest in livelihoods and land use management that is conducive to a long-term resilience of the target communities and their physical and economic assets. The project will enable land use and livelihoods that benefit from agro-forestry and forest products and contribute to forest rehabilitation and maintenance.

16. The following complementary outputs will be delivered:

- Policies and institutions strengthened to enable climate resilient small-scale rural infrastructure development and climate risk reduction in the particularly vulnerable communities;
- Climate resilient small-scale rural infrastructure deployed to benefit 175,840[4] people across six priority districts.

17. 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

[4] Total number of beneficiary households in the target municipality that will directly benefit from the prioritised infrastructure projects is 19,751 and the total number of beneficiaries is 175,840 based on an occupancy rate of 8.9.

infrastructure), transportation (through road and bridge construction and rehabilitation), increased crop productivity (through irrigation infrastructure), and flood defences resulting in better health and socio-economic development and protection of people, property and community assets from floods, landslide and erosion risks. In addition, farmers, by adopting adopt climate-resilient production practices through agro-forestry and will engage in diversified and integrated farming systems while addressing land degradation and thus protecting infrastructure. Support will be dedicated to addressing land degradation in infrastructure sub-catchments, to restore critical ecosystem services and increase overall long-term resilience of infrastructure and people against climate-induced hazards.

1.2.2 Summary of Activities

18. The proposed project will have the following activities:

19. **Output 1: Policies, regulations and institutions strengthened to enable climate resilient small-scale rural infrastructure development and climate risk reduction in the particularly vulnerable communities**.

20. This output will address the gaps in policy, regulations, and institutional capacity to deliver climate resilient small-scale infrastructure.

21. *Activity 1.1. Climate risk knowledge base developed and climate information services developed and delivered to all sectoral institutions*.

22. The GCF project 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. Importantly the hazard maps will provide the basis for the management of climate-induced hydrometeorological hazards across all sectors, in Timor Leste now and in the future.

23. The project will also develop 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 baseline model will form the basis of future appraisal-led disaster risk management and climate risk-informed infrastructure planning. Central government DRM, CCA 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.

24. Local Field Coordinators 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. A series of technical staff training 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.

25. *Activity 1.2. Climate change induced economic damage accounting methods and databases established*.

26. Estimate 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. The manual and digital templates, including the detailed guidelines and training for the MSS Field Coordinators 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. A series of trainings will be conducted on data management and analysis and data management standards and protocols will

be introduced. Data sharing protocols (e.g. through CliDE[5]) will be put in place at all data holder Ministries and Directorates.

27. Risk Management Application will be developed for the storage, analysis and management of disaster data. GCF resources will also contribute towards the application of an asset location and condition survey method (developed under an ongoing 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 MCIE, 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

28. *Activity 1.3. Ordinances, regulations and associated codes and standards defined to climate proof small-scale rural infrastructure*.

29. 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. Support the development of the Rural Roads Master Plan & Investment Strategy 2016–2020 to help embed climate resilience measures into road master planning. Embed climate resilience approaches in the National Water Supply Policy and Strategic Plan. 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.

30. *Activity 1.4. Enforcement acts for the national DRM and climate change framework policies to facilitate climate risk reduction measures across all the relevant sectors formulated*.

31. The gaps and deficiencies in DRM and climate change policy frameworks will be duly addressed, specifically in relation to catchment management, land use and infrastructure development policies. Formulate enforcement acts to facilitate climate risk reduction measures across all the relevant sectors. Review and revise Environmental and Social Impact Assessment policies and safeguard procedures to include climate risk reduction compliance requirements for all decentralized investments. Land and Forestry laws will be reviewed and revised[6] to account for climate change risk management.

32. Identify overlaps, contradictions and gaps in the existing policies, plans, strategies and national action programmes related to land use and development planning, environmental licensing, water resources management, forestry, agro-forestry, and public financing. Develop a framework or mechanism to harmonize the policies that either have already included climate change risk reduction or have potential to contribute to climate change adaptation. Support government in establishing and operationalizing the inter-ministerial coordination mechanisms at the ministerial level and at the directorate level as outlined in the National Climate Change Policy (draft, 2016). It will support the government in developing Climate Change Law and Gender Sensitive Climate Action Plan to give legal mandate and binding authority to mainstream climate into the sectoral programmes and plans. At the institutional level, it will help in further strengthening existing information sharing and knowledge dissemination systems to foster better generation, storage and dissemination of climate related information and data.

[5] CliDE is a Climate Data Management System (CDMS) developed as part of the Pacific Climate Change Science Program (PCCSP). CliDE provides each country (of the Pacific?) with a central database for climate records, with key entry forms, quality assurance tools, reports and data dumps. It is free and open-source software, using a web-based user interface and high reliability relational database system. With support of Australian Government CliDE has been put in place in a number of Timorese institutions, therefore it will be more effective to use the same system across all concerned government agencies.

[6] Land Law

33. Develop a climate financing and DRM financing mechanism and define procedures to integrate climate and DRM responsive activities into the national planning and budgeting system of the government.

34. **Output 2. Climate resilient small-scale rural infrastructure deployed to benefit 175,840[7] people across six priority districts**.

35. Work closely with the municipal and village level government investment programmes into the small scale rural infrastructure development through its PDIM and PNDS mechanisms at administrative sub-national-level, to climate proof the local infrastructure investments for geographic focus areas across all sectors of water supply, flood defences, roads and bridges, and irrigation. Physical investments will be accompanied by the development of essential capacities and setting-up institutional and procedural systems required for scaling up climate resilient approaches to infrastructure development in the country.

36. 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 fund the implementation of climate resilience measures to infrastructure to be rehabilitated or built within the six priority municipalities of Baucau, Ermera, Aileu, Viqueque and Lautem and Liquica following PDIM and PNDS priorities.

37. *Activity 2.1. 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*.

38. Introduce climate risk screening methods and embed climate risk reduction criteria across PDIM and PNDS planning and decision-making cycle. Provide 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 – FIELD; 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) will be trained to determine the likelihood and consequences of risk in relation to asset (infrastructure exposure and vulnerability).

39. Capacity development will be provided to enhance the ability to undertake engineering feasibility studies and will include incorporate climate-risk considerations into technical feasibility, 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.

40. Environmental impact assessment (EIA) will be introduced at the detailed design stage, in line with international good practice and will ensure that the potential impacts of the project are identified and examined at the detailed design (and not only at the early scoping stage before the actual works are designed as is currently done or after completion when it is too late) and that mitigation measures can be built into the design.

41. 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).

[7] Total number of beneficiary households in the target municipality that will directly benefit from the prioritised infrastructure projects is 19,751 and the total number of beneficiaries is 175,840 based on an occupancy rate of 8.9.

42. 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.

43. Support the development of manuals and guidelines for Climate-resilient Rural Infrastructure Projects in Timor Leste (SCRIPT). 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 types of rural infrastructure. Existing Guidelines and technical specifications for water supply systems will also be reviewed and enhanced to include climate resilient design.

44. *Activity 2.2. Municipal finance made available for the design and deployment of climate resilient infrastructure at a scale that directly benefits 175,840 people, 15% of the country population*.

45. Rural infrastructure in the target districts and villages will be climate proofed and cover priority sub-sectors of rural roads & bridges, water supply & irrigation and drainage & flood protection (protective gates, gabions, including bio-engineering).

46. Develop evidence-based engineering manuals and construction codes and standards to guide the EVAS engineers that provide design and construction supervision services to PDIM and PNDS.

47. Identify the mechanisms to finance climate-resilient features of target infrastructure units (e.g. divertors, drainage canals, reinforcements etc.) and related risk reduction measures to be absorb additional cost of climate proofing through public funding mechanisms for municipalities.

48. Develop long-term village and / or municipal investment plans to help leverage private sector finance into the climate resilient investments.

49. Target implementation of climate resilient infrastructure projects in the 6 target municipalities affected by multiple hazards: Baucau, Ermera, Aileu, Viqueque, Lautem and Liquica.

50. A total of 130 infrastructure sub-protects have been identified and are categorised in Table 1.

Table 1 Summary of proposed sub-projects.

Scheme Type	No. of Projects	No. of beneficiary households	Length (km)	Irrigation area (ha)
Irrigation	25	8,374	54.18	3,700.30
Flood Protection	20	1,758	14.15	
Rural Roads	47	5,459	216.94	
Water Supply	38	4,084	127.49	

51. 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.

52. Build climate resilience into infrastructure using a number of different approaches depending on the type of infrastructure:

- Water Supply systems (Figure 2), the climate-resilience approach will include:
- Identification of sources at risk from reduced supply due to droughts, and calculating requirements for upgrading sources and extending dependability of supply.
- Protection of water sources by revegetating land around sources, formalising informal sources (putting in pipes and collection/storage systems to enhance environmental protection and supply dependability)
- Installation of standpipes in villages and connection to existing sources.

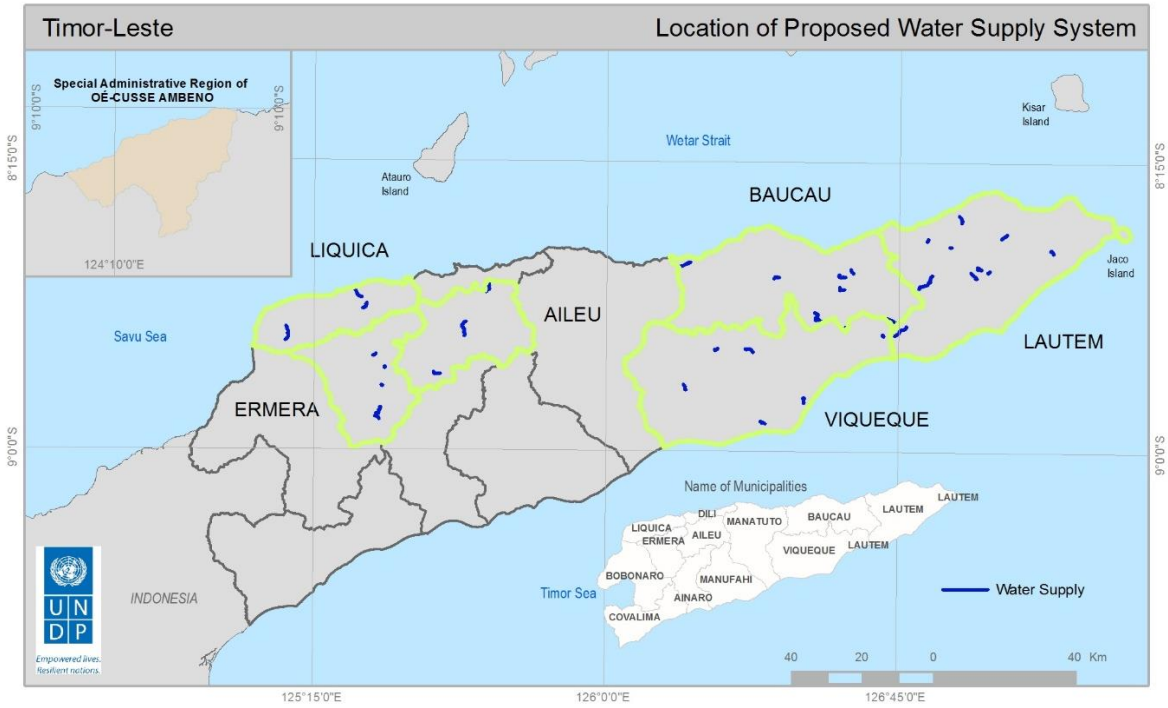

Figure 2 Location of proposed water supply systems

- For Roads and Bridges (Figure 3), the climate-resilience approach will include:
- Rehabilitation of bridges that are usually washed away in the rainy season using climate resilient materials, and protection of bridge openings with bioengineering methods (e.g. Vetivier grass) in combination with sustainable structural measures such as gabion baskets.
- Vegetation of road corridors with bioengineering material such as Vetivier grass.
- Re-sizing of road drainage systems that accommodate flows, taking account of climate change flows.
- Engagement of local communities in the vegetation of road embankments, as well as for wider catchment re-forestation to protect road works.

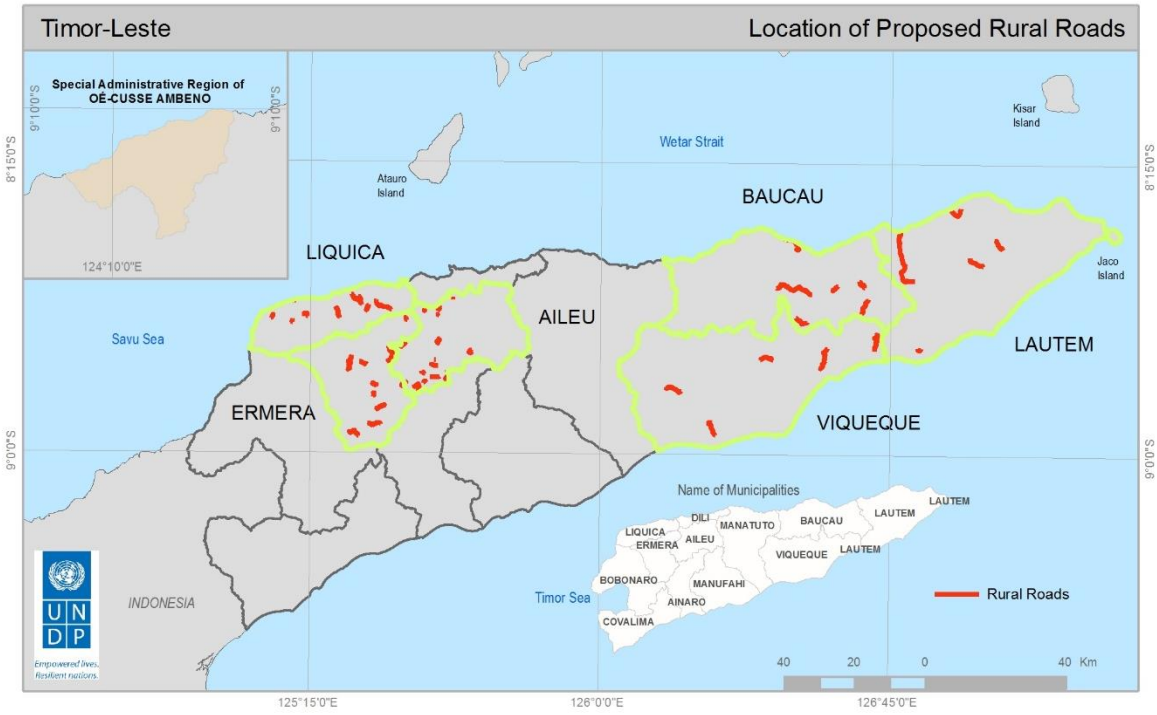

Figure 3 Location of rural road interventions

- For Flood defences (Figure 4), the climate-resilience approach will include:
- Development of flood management intervention measures on a catchment scale, which takes account of current risks upstream and downstream of affected communities under existing and climate change scenarios, thus ensuring that flood defences are not built in isolation and without consideration for impacts upstream and downstream of defences.
- Building of flood defences to protect communities currently at risk using bioengineering methods to protect flood embankments from erosion.
- Design of flood defences to flood levels and lengths that take account of climate change
- Consideration and design of non-structural flood management measures such as wetland-creation, floodplain storage areas and small-scale multi-use dams which provide flood storage as well as water supply benefits to communities.
- Use of check dams to control erosion and runoff.
- For Irrigation systems (Figure 5), the climate-resilience approach will include:
- Formalisation of existing, or construction of new irrigation schemes which include water storage systems to store water for use in the dry season and mitigate against drought with benefits to water efficiency and stability of supply for crop production. The designs will be based on climate risk from drought as well as detailed socio-economics assessment of likely benefits to local agricultural production from the constructions of new irrigation systems.

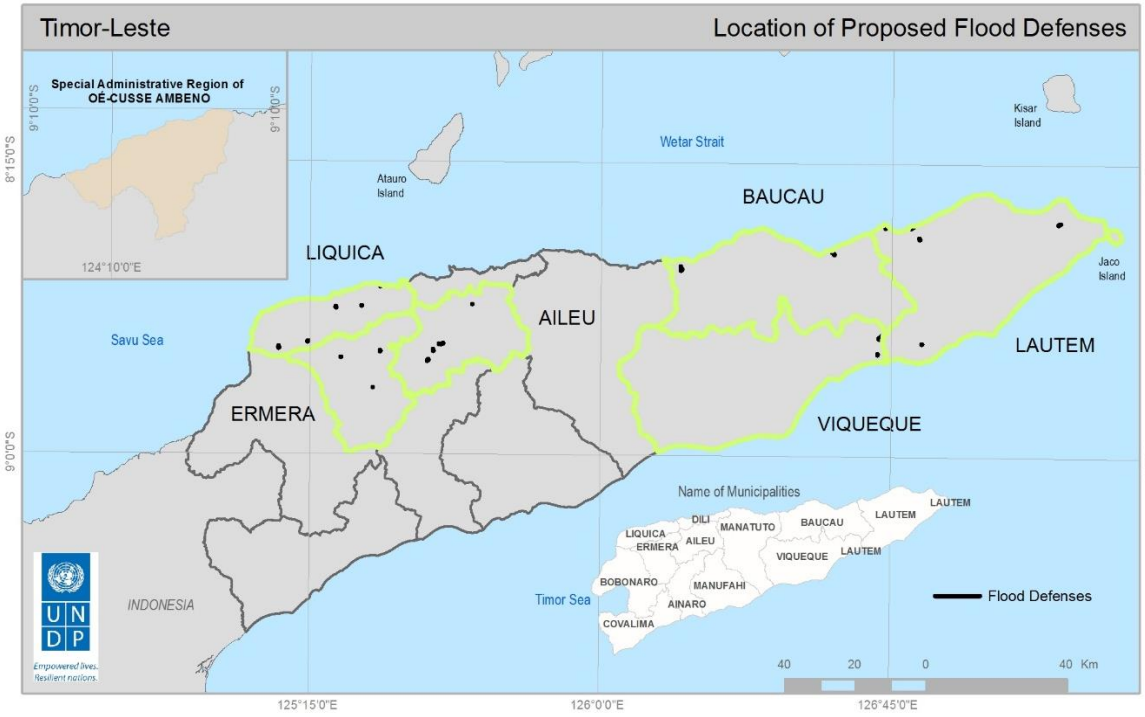

Figure 4 Location of proposed flood defenses

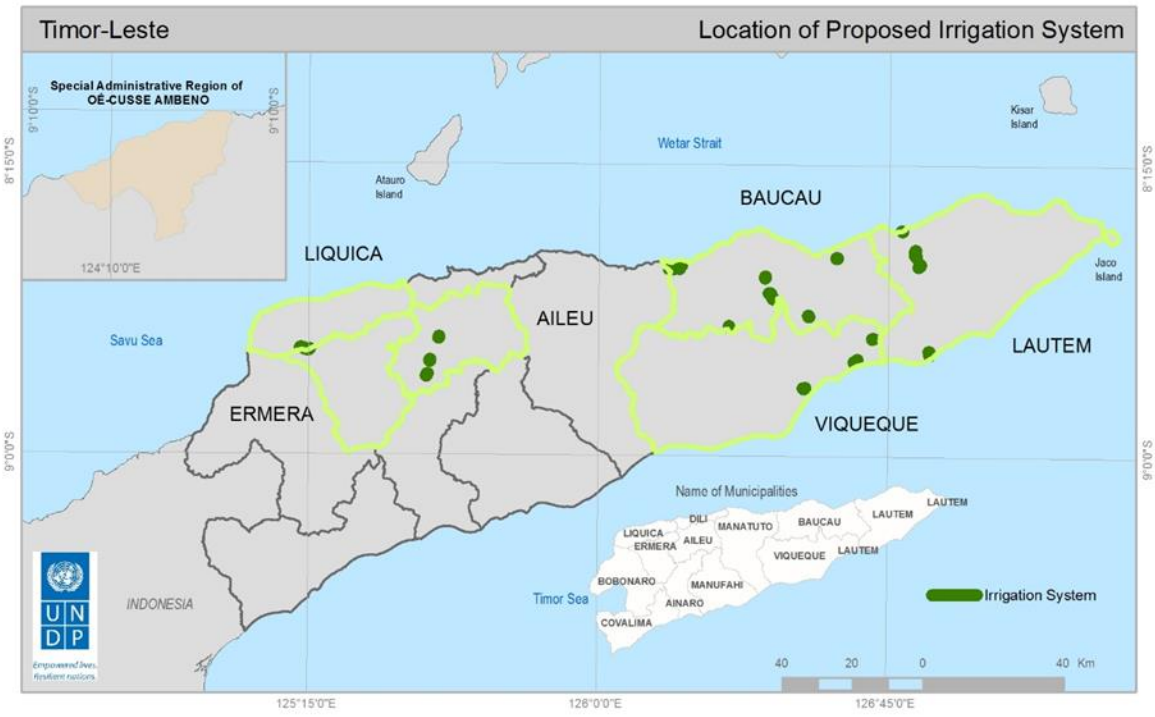

Figure 5 Location of proposed irrigation schemes.

53. For all projects, soil bioengineering interventions will be used and would include, but will not be limited to the following:

- Vegetated check-dams
- Vegetated Brushwood Retaining Wall
- Vegetated Bamboo Retaining Wall
- Vegetated Loose Stone Check Dams
- Live spurs/stakes
- Palisades

54. The type of interventions would depend on the soil characteristics, topography, gradient, weather pattern, hydrology etc.

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

56. Strategic investment in ecologically healthy and functioning catchments is needed to lengthen the life of built infrastructure and reduce or delay the need for additional built infrastructure. 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, by identifying and implementing agro-forestry measures.

57. Rehabilitation of hazardous areas by providing climate risk information and on-ground landscape restoration. Community development through support of agro-forestry strategies, including the identification of appropriate climate resistant varieties, full route to market analysis for all introduced agro-forestry species. Develop catchment rehabilitation strategies including agro-forestry strategies for upstream catchments of target infrastructure.

1.3 Environmental and Social Risk Assessment

58. As this project is supported by UNDP in its role as a GCF Accredited Entity, the project has been screened against UNDP's Social and Environmental Standards Procedure. The Social and Environmental Screening Template was prepared and the project deemed to be a moderate risk (Category B) project. Discussions on the impact assessment are provided in the Social and Environmental Screening Template, which provided the rationale for the project being classified as a moderate risk. This ESMF provides further discussion below.

59. An impact risk assessment was undertaken using the UNDP Social and Environmental Screening Procedure to assess the probability (expected, highly likely, moderately likely, not likely) and the impact of the risk (critical, severe, moderate, minor, negligible). From this, a significance value was attributed to the potential impact (negligible, low, medium, high and extreme).

Score	Rating
5	Expected
4	Highly Likely
3	Moderately likely
2	Not Likely
1	Slight

Table 2 Rating of Probability of Risk

Score	Rating	Definition
5	Critical	Significant adverse impacts on human populations and/or environment. Adverse impacts high in magnitude and/or spatial extent (e.g. large geographic area, large number of people, transboundary impacts, cumulative impacts) and duration (e.g. long-term, permanent and/or irreversible); areas impacted include areas of high value and sensitivity (e.g. valuable ecosystems, critical habitats); adverse impacts to rights, lands, resources and territories of indigenous peoples; involve significant displacement or resettlement; generates significant quantities of greenhouse gas emissions; impacts may give rise to significant social conflict
4	Severe	Adverse impacts on people and/or environment of medium to large magnitude, spatial extent and duration more limited than critical (e.g. predictable, mostly temporary, reversible). The potential risk impacts of projects that may affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples are to be considered at a minimum potentially severe.
3	Moderate	Impacts of low magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated accepted measures
2	Minor	Very limited impacts in terms of magnitude (e.g. small affected area, very low number of people affected) and duration (short), may be easily avoided, managed, mitigated
1	Negligible	Negligible or no adverse impacts on communities, individuals, and/or environment

Table 3 Rating of Impact of Risk

Impact						
	5	High	High	High	High	High
	4	Medium	Medium	High	High	High
	3	Low	Medium	Medium	Medium	Medium
	2	Low	Low	Medium	Medium	Medium
	1	Low	Low	Low	Low	Low
		1	2	3	4	5
		Probability				

Table 4 UNDP Risk matrix

60. When undertaking the risk assessment, all activities were assessed, including, hard/soft infrastructure and livelihood interventions. Specific measures for each matter eg water, erosion, noise etc are discussed along mitigation measures later in this ESMF.

Table 5 Risk assessment and proposed mitigations

Activity	Unmitigated Impacts	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post mitigation
Output 1: Policies, regulations and institutions strengthened to enable climate resilient small-scale rural infrastructure development and climate risk reduction in the particularly vulnerable communities				
Activity 1.1. Climate risk knowledge base developed and climate information services developed and delivered to all sectoral institutions.				
This activity involves the development of GIS based climate risk models and information services for use by public servants.	The activity itself does not have negative impacts, however consequential impacts could occur if activity not appropriately implemented: • GIS risk model flawed and decision based on incorrect or inappropriate data • Model not appropriately maintained, do data becomes out of date. • Information poorly disseminated or not well understood. • Gender and vulnerable groups not well represented in either models or training.	Probability: 2 Impact: 3 Risk: Moderate	Socio-economic data to be collected and updated using local labour/knowledge. Data sharing agreements to be put in place. Training on data interpretation and use to be provided to responsible public servants across mandated institutions. Consideration of and inclusion of gender and vulnerable groups wherever possible. Implement Gender Action Plan.	Probability: 1 Impact: 2 Risk: Low
Activity 1.2. Climate change induced economic damage accounting methods and databases established.				
This activity is focussed on damage accounting	Estimates of damage not consistent Data poorly managed	Probability: 3 Impact: 2	The development of tools, templates, methods and guidelines along with training	Probability: 2 Impact: 2

Activity	Unmitigated Impacts	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post mitigation
and estimating tools and databases. The activity itself is unlikely to have any adverse impacts	Gender and/or minority groups poorly represented	Risk: Moderate	will increase consistency of damage estimates. Drones will provide mapping for measurement of damage at catchment scale Training on data management to be provided and data sharing protocols to be developed. Implement Gender Action Plan	Risk: Low
Activity 1.3. Ordinances, regulations and associated codes and standards defined to climate proof small-scale rural infrastructure				
This activty is principally review, update and development of standards, guidelines and specifications.	The activity itself will not have direct adverse impacts. Consequential impacts could include: • Specifications and standards inappropriopriate. Ordinances, regualations etc not applied	Probability: 3 Impact: 3 Risk Moderate:	Existing documents will be reviewed and updated to allow for climate change. Where necessary, new ordinances, regulations and associated codes and standards will be developed. These will be based on sound scientific and engineering knowledge and practices. Local and nternational experience will be drawn upon. Training will be provided to users of ordinances and regulations. Information will be promulgated throughout responsible institutions. Application will be reinforced by Activitiy 1.4.	Probability: 1 Impact: 3 Risk: Low

Activity	Unmitigated Impacts	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post mitigation
Activity 1.4. Enforcement acts for the national DRM and climate change framework policies to facilitate climate risk reduction measures across all the relevant sectors formulated				
The activity is focussed on development of legal instruments.	As a desktop activity, there will be no physical impacts directly from the activitiy. Potential risks include: • Poor consultation resulting in instruments that are sub-optimal or are heavily resisted by community. • Systems and frameworks not harmonised • Gender and/or minority group inequity • Climate information and data poorly disseminated resulting in poor adherance to legal instruments.	Probability: 3 Impact: 2 Risk: Moderate	Continue to undertake wide consultation as part of activity. Develop a framework or mechanism to harmonize the policies etc Support establishment governmental coordination mechanisms. Implement Gender Action Plan and IPEMF Strengthen information sharing and knowledge dissemination systems to foster better generation, storage and dissemination of climate related information and data.	Probability: 2 Impact: 2 Risk: Low

Activity	Unmitigated Impacts	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post mitigation
Output 2. Climate resilient small-scale rural infrastructure deployed to benefit 175,840[8] people across six priority districts				
Activity 2.1. 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				
This activity focusses on planning aspects and incorporating climate change inot process and design.	No direct physical impacts from activity, however consequential impacts could result from: • Poor guidelines, checklists or technical knowledge • Lack of data/understanding of projects, options and social/environmental scenarios. • Poor contractor availability or skills • Failure to incorporate appropriate climate change resilience into projects	Probability: 2 Impact: 3 Risk: Moderate	Manuals, guidelines, checklists will be reviewed and updated to embed climate risk screening and climate risk reduction. Capacity building will be undertaken at various levels of both community and government. Training to enhance ability to undertake engineering feasibility studies (including climate, social, economic and environmental assessment). Introduction of Environmental Impac Assessment earlier in process to identify potential issue early and maximise ability to mitigate. Develop manuals and guidelines for Climate-resilient Rural Infrastructure Projects. These will be based on both in-country and international experience. Technical specifications will be reviewed and updated to ensure they are appropriate.	Probability: 2 Impact: 2 Risk: Low

[8] Total number of beneficiary households in the target municipality that will directly benefit from the prioritised infrastructure projects is 19,751 and the total number of beneficiaries is 175,840 based on an occupancy rate of 8.9.

Activity	Unmitigated Impacts	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post mitigation
Activity 2.2. Municipal finance made available for the design and deployment of climate resilient infrastructure at a scale that directly benefits 175,840 people, 15% of the country population				
This activity is focussed on implementing 130 sub-projects consisting of rural roads & bridges, water supply & irrigation and drainage & flood protection. For all projects, soil bioengineering interventions will be used and would include, but will not be limited to the following: • Vegetated check-dams • Vegetated Brushwood Retaining Wall • Vegetated Bamboo	Activity includes physical infrastructure works and therefore has potential direct social and environmental impacts. Disturbance/loss of vegetation at work sites. Potential for erosion and sedimentation Potential contamination during construction Public nuisance during construction eg noise, vibration, dust. Worker and public safety ie risk of injury during construction and maintenance. Potential to impact cultural heritage/sacred sites during construction. Potetential conflict associated with land tenure. Potential for exclusion of or adverse impacts to women and vulnerable groups.	Probability: 3 Impact: 3 Risk: Moderate	Implement ESMF All sub-projects will require permitting under Timorese environmental legislation. This will include undertaking environmental impact assessments for each project. Minimise unnecessary clearing and do not clear sensitive vegetation. Undertake revegetation as soon as possible. Develop and implement site specific Sed/Erosion Management Plans. Training for workers, PPE and appropriate protective actions to safeguard public. Assess sites during detailed design work to identify any culturally signficant elements. Engage with community to develop alternate strategies or heritage management plans. Identify land tenure for all impacted areas. Obtain land use approval prior to commencing any works – ensure that land parcel is clearly identified on land agreements.	Probability: 2 Impact: 3 Risk: Moderate

Activity	Unmitigated Impacts	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post mitigation
Retaining Wall • Vegetated Loose Stone Check Dams • Live spurs/stakes • Palisades	Risk of poor maintenance of infrastructure Spread of weeds			
Activity 2.3. Supporting catchment management and rehabilitation measures to enhance climate resilient infrastructure and communities				
This activity involves strategic investment in eco healthy and functioning catchments, through improved catchment management and agro-forestry, to make infrastructure more resilient.	Potential impacts include: • Lack of engagement between upstream and downstream communities • Disadvantaging wormen and vulnerable groups • Disputes over land tenure • Clearing of native vegetation for agro-forestry operations • Erosion and sedimentation • Inappropriate choice of plant species	Probability: 2 Impact: 3 Risk:Moderate	Engage community at a whole of catchment scale. Implement the Stakeholder Engagement Plan. Formation of community catchment management groups improves ownership of interventions Implement the Gender Action Plan Obtain landholder consent and engagement prior to undertaking any works – ensure that land parcel is clearly identified on agreement. Utilise areas that have already been cleared or are signifcantly degraded for agro-forestry purposes. Avoid clearing native vegetation.	Probability: 2 Impact: 2 Risk: Low

Activity	Unmitigated Impacts	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post mitigation
			Use species known to be successful in the local environment and for which there will be a market for products.	

1.3.1 Assumptions Underpinning the Development of the Environmental and Social Management Framework

61. The following assumptions have been made in the preparation of this ESMF:

- none of the interventions will require the displacement of people;
- none of the interventions will be conducted in protected areas or sensitive locations;
- appropriate erosion and sediment control will be undertaken during all stages of the projects; and
- there will be no release of pollution and/or chemicals as a result of the projects.

1.3.2 Purpose and Objectives of the Environmental and Social Management Framework

62. An ESMF is a management tool used to assist in minimising the impact to the environment and socially; and establish a set of environmental and social objectives. To ensure the environmental and social objectives of the projects are met, this ESMF will be used by the project implementers to structure and control the environmental and social management safeguards that are required to avoid or mitigate adverse effects on the environment and communities.

63. The environmental and social objectives of the projects are to:

- safeguard vulnerable communities and their physical and economic assets from climate change induced disasters;
- develop hazard and risk maps that will assist in making risk-informed decision-making for all aspects of development and risk management;
- better equip communities to deal with climate change hazards – to be able to better plan, avoid and recover from events;
- encourage good management practices through planning, commitment and continuous improvement of environmental practices;
- promote equity, in particular, support to women and vulnerable groups
- minimise or prevent the pollution of land, air and water pollution;
- protect native flora, fauna and important ecosystems;
- protect cultural heritage and places of special interest to communities, particularly indigenous peoples;
- comply with applicable laws, regulations and standards for the protection of the environment;
- adopt the best practicable means available to prevent or minimise environmental impact;
- describe monitoring procedures required to identify impacts on the environment; and
- provide an overview of the obligations of MCIE and UNDP staff and contractors in regard to environmental obligations.

64. The ESMF will be updated from time to time by the implementing Project Management Unit (PMU)/contractor in consultation with the UNDP staff and MCIE to incorporate changes in the detailed design phase of the projects.

1.3.3 Screening of Sub-Projects

65. The following outlines the framework for the assessment of sub-projects under UNDPs approved Social and Environmental Standards (SES). As part of UNDP's quality assurance role, UNDP requires adherence to the SES for Project activities implemented using funds channeled through UNDP's accounts.

66. Each sub-project will be screened using UNDPs Social and Envrionmental Screening Procedure[9] The objectives of the SESP are to: (a) Integrate the SES Overarching Principles (human rights, gender equality and environmental sustainability); (b) Identify potential social and environmental risks and their significance; (c) Determine the Project's risk category (Low, Moderate, High); and (d) Determine the level of social and environmental assessment and management required to address potential risks and impacts.

67. Screening of sub-projects will use the UNDP Screening Template and a project specific Sub-Project Screening Template (Appendix 6). Screening will enable the categorisation of proposed sub-projects into Low, Moderate or High risk. High risk projects will not be acceptable. Sub-rojects that include any of the following will automatically be considered high risk and therefore not acceptable:

- Sub-projects that would involve construction activities inside any protected areas of natural habitat;
- Sub-projects that would require displacement of people or involve involuntary land acquisition (i.e., no expropriation);
- subprojects involving civil works or construction activities on lands whose ownership is being disputed;
- sub-projects that would convert primary growth forests into agroforestry areas;
- sub-projects that would displace, damage or render inaccessible, any national or specific community's cultural heritage/property.

68. The sub-project screening also requires categorisation of acceptable sub-projects according to Timor Leste law into Cat A, B or C projects, which have corresponding levels of environmental and social impact assessment requirements

69. Sub-projects are required to be screened and the screening signed off by the Safeguards Officer and approved by UNDP.

70. This ESMF and the requirement to screen, applies to all sub-projects. Additional mitgation or safeguard measures may be added if new acceptable and manageable risks are identified during the screening of sub-projects.

71. As noted in Section 2.2, in addition to passing through the UNDP screening process, proposed sub-projects will also be subject to the requirements of the ELL, which includes a categorisation process to determine the level of environmental assessment required under Timorese law.

72. MCIE, as the Executive Senior Representative, and UNDP in its Project Assurance role, will be responsible for ensuring that screening is done prior to sub-projects proceeding. Screening may be done by the appropriate responsible party eg MCIE, MSA, MSS or MAF dependent upon the nature of the sub-project.

1.3.4 Land Issues

73. The issue of land rights and land claims is extremely complex and contentious due to the historical legacy of different legal regimes, people's displacements and traditional community lands are in a state of disarray. With support from international partners, the Government has drafted the land law and it is hoped that with its passing a system for land registration will be created, which is essential to increasing private investment.

74. The Constitution provides for rights to private property including the right to own and transfer private property. The Juridical Regime of Real Estate No. 11/2003 provides preliminary rules pertaining to land tenure and property rights. The Civil Code contains provisions governing decisions pertaining to land including the sale and lease of land. Decree Law No. 27/2011 Regime

[9] http://www.undp.org/content/undp/en/home/librarypage/operations1/undp-social-and-environmental-screening-procedure.html

for Regularization of Ownership of Immovable Property in Undisputed Cases enables those claiming private property rights to register undisputed claims where land has been surveyed and cadastred, and the Directorate of Lands, Property and Cadastral Services (DLPCS) has confirmed that the cases are indeed undisputed. New laws are needed to fully administer all land parcels, particularly those involving multiple claims. For this, the government has developed three new laws: (i) the Special Regime for the Definition of Ownership of Real Estate (2017); (ii) Law 8/2017 the Law on Expropriation; and (iii) the Law on Real Estate Financial Fund.

75. Most land to be used by the project is either government land or community land, for example all afforestation and infrastructure components will be undertaken on government land, while agroforestry will be focussed on community land. As the projects have been drawn from the PDIM list of projects that Sucos put together and then escalate up ultimately to a National level, there has been a participatory process undertaken that means that general agreement from landholders has already been given, or at least indicated to be acceptable.

76. Prior to projects commencing on-site, formal documentation of land use agreements will be obtained. No acquisition of land is required by the project. No involuntary resettlement or associated impacts will be caused by the project. Private land owners may participate in agroforestry components of the project, but this will not change the land use rights over the land. Owners willingness to participate will be documented.

1.3.5 Indigenous Peoples

77. With a population of just over 1.1 million, Timorese are linked closely. At the same time many indigenous groups exist, each with its own language and cultural practices. Tetun is the largest of these accounting for approximately 25% of the population. They live around Dili, Suai and Viqueque. Mambae make up a further 10% and are found in the central mountains. Other groups include the Kemak, Bunak and Fataluku amongst others, each accounting for 5% or less.

78. Appendix 3 contains a Social Inclusion Plan which outlines the content for plans to engage with indigenous people and ethnic minorities.

79. However, it should be noted that the projects have been selected from a national list of projects that is generated by communities at the Suco level. During detailed design, implementation of the Social Inclusion Plan will ensure that indigenous people are and continue to be appropriately represented.

1.4 Overview of Institutional Arrangements for the Environmental and Social Management Framework Plan

80. The ESMF and sub-project screening will be assessed for each sub-project by the MCIE and UNDP prior to any works being undertaken. The ESMF identifies potential risks to the environment and social matters from the projects and outlines strategies for managing those risks and minimising undesirable environmental and social impacts. Further, the ESMF provides a Grievance Redress Mechanism for those that may be impacted by the projects that do not consider their views have been heard.

81. The MCIE will be responsible for the supervision of the ESMF. The UNDP with gain the endorsement of the MCIE and will ensure the ESMF is adequate and followed. The PMU will ensure timely remedial actions are taken by the contractor where necessary.

1.4.1 Administration

82. The MCIE will be responsible for the revision or updates of this document during the course of work. It is the responsibility of the person to whom the document is issued to ensure it is updated.

83. The site supervisor will be responsible for daily environmental inspections of the construction site. The MCIE will cross check these inspections by undertaking monthly audits.

84. The contractor will maintain and keep all administrative and environmental records which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.
85. The contractor will be responsible for the day to day compliance of the ESMF.
86. The MCIE will be the implementing agency and will be responsible for the implementation and compliance with the ESMF via the collaborating partners and contractors. The ESMF will be part of any tender documentation.
87. The Supervising Engineer/Project Manager will supervise the contractor, while the MCIE will be responsible for environment and social issues.

2 LEGAL AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MATTERS

2.1 LEGISLATION, POLICIES AND REGULATIONS

88. The hierarchy of laws in Timor-Leste is as follows:

- The Constitution of Timor-Leste
- The Civil Code
- Laws passed by the National Parliament or by the government exercising its powers under Section 96 of the Constitution of Timor-Leste
- United Nations Transitional Administration in East Timor (UNTAET) Regulations
- Indonesian Law (applied before 25 October 1999)
- Customary Law

Adopted National Policies

89. The following legislation is relevant to the project:

- Constitution of the Democratic Republic of Timor Leste. - The right to a clean and healthy environment is a universally recognised human right and, as such, the constitution of the Democratic Republic of Timor Leste regards environmental protection from a dual perspective: as a core responsibility of the State and also as a fundamental right of all citizens.
- Decree-Law No.5/2011 on the Environmental Licensing System - this Decree-Law, consisting of 13 Chapters, establishes the requirements to be satisfied in order to request the environmental licence. It creates the environmental licensing system to perform any public or private project which may affect negatively the environment. The Environmental Licensing System is based on the potential environmental impact assessment of any project taking into consideration its dimension, technical characteristics and location.
- Law No. 6/2017 on Basic Law of Land Use Planning - This Law, consisting of 34 articles divided into four Chapters, approves the Basic Legislation of Land Use Planning. Land use planning is subject to the following general principles: Coordination of the various public interventions with a territorial impact and a fair balance between public and private interests; Sustainability of the solutions contained in the instruments of territorial planning, in the economic, social, cultural and environmental dimensions; Subsidiarity, and coordinating the processes.
- Law No. 9/2016 establishing rules for the organization, competence and functioning of the Sucos. -This Law, consisting of 98 articles divided into ten Chapters, establishes rules for the organization, competence and functioning of Sucos. Chapter II specifies the duties of Sucos, such as: contributing to the cohesion of the community members and national unity; ensuring peace and social harmony in the community; promoting the resolution of disputes arising within the community or between Suco's Villages; promoting and ensuring the traditional practices and customs of the community, etc.
- Governmental Decree No. 14/2017 establishing the Procedures for Submitting a Proposal for the Classification of Protected Area. - This Decree, consisting of 10 articles, establishes the applicable procedures for submitting a proposal for the classification of protected areas in the terms set forth in paragraph 4 of article 16 of Decree-Law no. 5/2016, of 16 March. It establishes the requirements to be satisfied in order to request a proposal for protected area.
- Decree-Law No. 8/2016 approving the State Secretariat for the Socio-Economic Support and Promotion of Women. - This Decree-Law, consisting of 20 articles divided into five Chapters, approves the State Secretariat for the Socio-Economic Support and Promotion of Women (SEM).

SEM is the central organ of the Government, whose mission is to design, coordinate and evaluate the policy, defined and approved by the Council of Ministers for related areas.

- Law No. 8/2017 on Land Expropriation for Public Utility. - This Law, consisting of 69 articles divided into five Chapters, defines the regime applicable to the expropriation of immovable property and establishes rules and procedures for cases in which the State, with a view to the pursuit of a public purpose, is impelled, in the absence of other viable alternative solutions, to call upon itself the ownership of immovable property in the private domain. It specifies the cases in which expropriation is allowed.
- Decree Law No.5/2016 creating the National System of Protected Areas - This Decree-Law, consisting of 55 articles divided into nine Chapters and one Annex, establishes the legal regime applicable to the creation and management of the National System of Protected Areas (SNAP). The legal regime established in this Decree-law is applicable to all national territory and waters under national jurisdiction, subject to the application of special regimes, regulated by international legislation.
- Decree-Law No. 14/2015 establishing the structure of the Ministry of Agriculture and Fisheries (MAP) - This Decree-Law, consisting of 5 Chapters, establishes the structure of the Ministry of Agriculture and Fisheries (MAP), which is the governmental department responsible for designing, executing, coordinating and assessing policies for the areas of agriculture, forestry, fisheries and livestock. It establishes composition, duties and responsibilities of the above mentioned Ministry.
- Decree-Law No. 5/2013 establishing the structure of the Ministry of Tourism (MT).
- Decree-Law No. 08/2013 on the National Development Programme of rural villages 'Sucos' (PNDS). - This Decree-Law, consisting of six Chapters divided in 30 articles, establishes the National Development Programme of rural villages, called 'Sucos' (PNDS). It defines the general framework of PNDS, setting out its guiding principles and implementation arrangements. PNDS primarily aims to improve the standard of living in Sucos by the introduction of a community development mechanism that complements other programs.
- Law No. 3/2012 on the legal authorization for Environmental Basic Legislation. - this Law, consisting of 5 articles, establishes the legal authorization for the production of the Environmental Basic Legislation. It specifies terms and conditions to be observed in order to regulate the sustainable use of environmental sector, in particular to protect and preserve the local ecosystems, to preserve and use in a sustainable way National natural resources. This authorization aims at: establishing a set of definitions and requirements related to the environmental sector.
- Decree-Law No. 26/2012 establishing the Environmental Basic Legislation. - This Decree-Law, consisting of 10 Chapters, establishes the Environmental Basic Legislation. It specifies the policy on environment and wildlife protection, including the basic principles for conservation, preservation and sustainable use of natural resources in order to improve the quality of life of the local populations. This Decree-Law applies for all the National territory, in particular for the land surface, internal waters, territorial sea, airspace, as well as for underground waters.
- Decree-Law No. 9/2008 on the Ministry for Economy and Development - This Decree-Law is composed of three Sections divided in 24 articles. It provides for main attributions, structure and competences of the Ministry for Economy and Development. Special attention is paid to its attribution to improve the cooperative systems and to recommend to the Government an environmental policy.
- Regulation No. 9/2007 approving the National Policy for the Forestry sector - This Regulation, consisting of 5 Chapters, establishes the requirements to be met in order to perform activities in the forestry sector. It specifies forest protecting measures and forest and land management criteria. Forest protection, including water basin conservation, contributes to improve the sustainable development of the agricultural sector and the food security of poor rural households.

- Decree-Law No. 5/2004 on Community Authorities in East Timor - This Decree-Law, composed of nine Sections, rules on Community Authorities. Community Authorities shall be the suco chiefs and the members of suco councils elected under the terms of Law No. 2/2004 of 18 February 2004. Community Authorities shall perform their functions and exercise their competencies with due respect for the Constitution and laws regarding State property, especially renewable and non-renewable natural resources.
- Decree-Law No. 4/2004 on water supply for public consumption - This Decree-Law, composed of 32 articles divided in seven Chapters, rules on water supply for public consumption. Potable water is defined as an exhaustible and vulnerable resource, essential to the sustenance of life and to the development of the environment and bears an economic value in all of its concurrent uses. It is therefore constitutionally incumbent upon the State to preserve and to enhance such economic value.

2.2 Environmental Impact Assessment in Timor Leste

90. Environmental assessment is required under Decree Law 5/2011 Environmental Licensing Law (ELL). In accordance with the Law, there are two types of environmental assessment procedures:
    - Environmental Impact Assessment (EIA) for Category A projects, which produces an environmental impact statement (EIS) and environmental management plan (EMP); and
    - Initial Environmental Examination (IEE) for Category B projects, which produces a simplified environmental impact statement (SEIS) and environmental management plan (EMP).
91. Regulations apply to all proposed projects in accordance with the ELL. The Regulation sets out the clear steps of the environmental assessment procedures from classification of the proposed project to the decision whether or not to grant an Environmental License. The steps involved include:
    - Classification of the proposed project (screening)
    - Preparation of the Terms of Reference (ToR) for the study to be carried out to produce the EIS and the EMP – for category A projects only
    - The minimum contents of the EIS – for Category A projects only
    - The minimum contents of the SEIS – for Category B projects only
    - The minimum contents of the EMP – for both Category A and Category B projects.
92. Article 4 of the ELL sets out the 3 different categories of proposed projects: A, B and C. Category C projects are not required to go through any environmental assessment procedure (other than classification). The classification of projects is done mainly by reference to the categories of activities set out in Annexes 1 and 2 of the ELL. Annex 1 lists the projects types that would be classified as Category A. Sub-categories I to XII list specific types of activities (with thresholds). Sub-category XII lists location factors that would apply to any type of activity. Annex 2 lists eleven sub-categories of project types that fall within Category B.
93. Article 4.2 of the ELL allows for the classification of projects which do not fall within any of the list of activities listed in Annexes 1 or 2 of the ELL. It also allows for, what is effectively, the re-classification of a project depending on the significance of any adverse impacts.
94. Articles 5 and 6 of the ELL set out the basic procedure for classification of projects.
95. Chapter 2 of the Regulation sets out the procedures and requirements for screening (classification) of proposed projects. The project proponent must submit to the Environmental Authority sufficient information for the Environmental Authority to make a decision on the classification of the proposed project (Category A, B or C).
96. Annex 1 of the Regulation sets out the format for the submission of the Project Document for classification of the proposed project. The Project Document must contain, as relevant:

- Details of the project proponent

- Location and scale of the project, including maps and plans showing existing features in the area of the proposed project
- Information about the district and villages in the area of the proposed project
- Plans and technical drawings of the proposed project
- The feasibility study
- Information about land and water uses
- A brief description of likely environmental impacts, including biophysical and socio-economic effects
- Information about any public consultations that have already taken place
- Information about any consultations with other authorities
- The proponent's proposal for classification of the project.
- Executive Summary

97. Annexure 7 contains the Application Form for an Environmental License and Annexure 8 contains the Project Document checklist (a Project Document must accompany the application as noted above).

98. The Environmental Authority must then make a determination of the actual classification of the proposed project. In making its determination the Environmental Authority must take into account the Project Document submitted by the proponent, any opinions or other documents coming from other authorities, the Annexes 1 and 2 of the ELL, and the criteria set out in Annex 2 of the Regulation.

99. .The sub-projects under this proposed project will require permits under the ELL, as such environmental impact assessments will be undertaken. An example of EIA is contained within Annexure 5.

100. Prior to submission to MCIE, all sub-projects safeguard documents shall also be reviewed and approved by the UNDP. This will ensure that all sub-projects are subjected to appropriate environmental and social vetting.

2.3 Multilateral Agreements and Biodiversity Protocols

101. Timor Leste is a signatory to a number of international and regional agreements and conventions, which are related to the environment. They include:

- 1956 Plant Protection Agreement For The Asia And Pacific Region
- 1992 Convention On Biological Diversity
- 1994 Convention To Combat Desertification In Those Countries Experiencing Serious Drought And/Or Desertification, Particularly In Africa
- 1997 Kyoto Protocol To The United Nations Framework Convention On Climate Change
- 003-05-21 World Health Organization Framework Convention On Tobacco Control
- 2015-12-12 Paris Agreement under the United Nations Framework Convention on Climate Change
- 1999 Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer
- 1985 Vienna Convention for the Protection of the Ozone Layer
- 1976 Agreement establishing the International Fund for Agricultural Development

- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Convention on the Conservation of Migratory Species of Wild Animals (CMS)
- International Plant Protection Convention (IPPC)
- International Convention for the Prevention of Pollution from Ships (MARPOL Convention)
- International Treaty on Plant Genetic Resources for Food and Agriculture (Plant Treaty)
- Convention on Wetlands of International Importance (Ramsar Convention)
- World Heritage Convention

3 IMPLEMENTATION AND OPERATION

3.1 GENERAL MANAGEMENT STRUCTURE AND RESPONSIBILITIES

102. The project will be implemented following UNDP's National Implementation Modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and Government of Timor Leste, the Country Programme Action Plan (CPAP), and as policies and procedures outlined in the UNDP POPP (see https://info.undp.org/global/popp/ppm/Pages/Defining-a-Project.aspx).

103. The national executing entity - also referred to as the national 'Implementing Partner' in UNDP terminology - is required to implement the project in compliance with UNDP rules and regulations, policies and procedures, including the NIM Guidelines. These include relevant requirements on fiduciary, procurement, environmental and social safeguards, and other performance standards. In legal terms, this is ensured through the national government's signature of the UNDP Standard Basic Assistance Agreement (SBAA), together with a UNDP project document which will be signed by the Implementing Partner to govern the use of the funds. The (National) Implementing Partner for this project will be the Ministry of Commerce, Industry and Environment (MCIE) accountable to UNDP for managing the project, including monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.

104. A high level project management structure is shown in Figure 6. The key roles are discussed below.

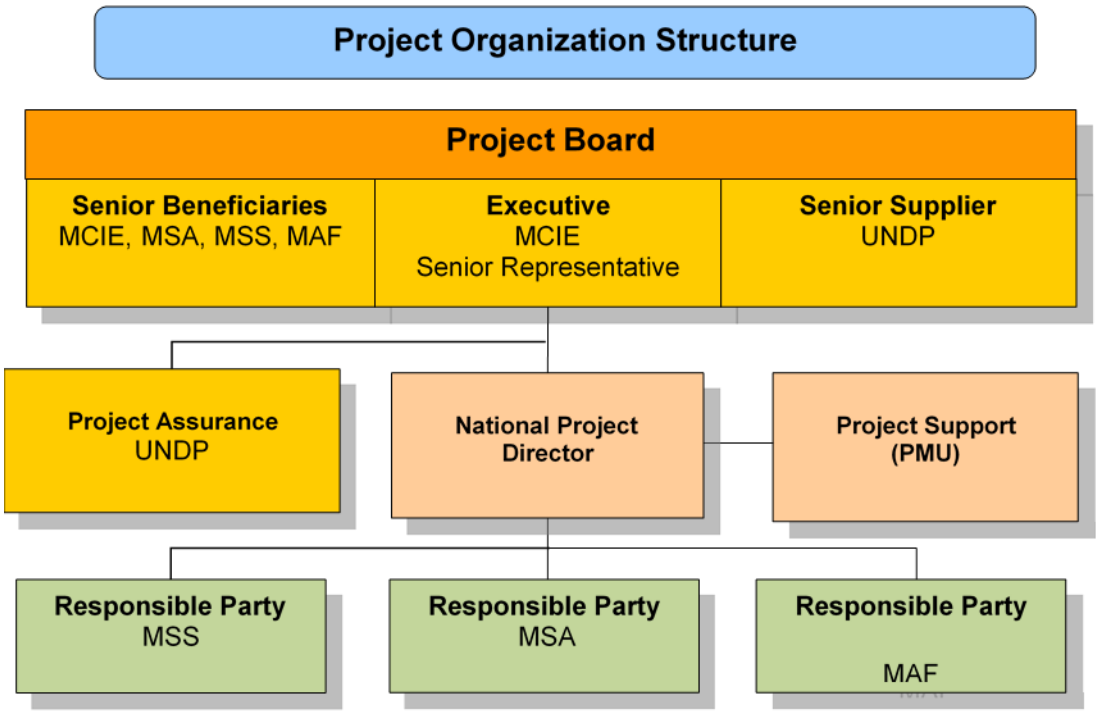

Figure 6 Project organisation structure

105. The **Project Board** is comprised of the following organizations: MCIE, MSA, MSS, MAF, MI, MWS and UNDP. The Project Board is responsible for making, by consensus, management decisions when guidance is required by the National Project Director. Project Board decisions will 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 a consensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Country Director. The Project Board will meet every six months.

106. The **National Project Director** will oversee the implementation on behalf of and as a representative of the Sponsor (MCIE) and according to the agreed workplan, guided by the Project Board. The National Project Director function will end when the final project terminal evaluation report, and other documentation required by the GCF and UNDP, has been completed and submitted to UNDP. National Project Director is responsible for day-to-day management and decision-making for the project. The National Project Director'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.

107. The **Chief Technical Advisor** (CTA) will provide regular technical guidance to the project management and technical teams in managerial and technical issues. He/she will be hired for a long-term during the entire project implementation period by UNDP based on UNDP recruitment procedures.

108. The **Project Manager** (PM) will lead the Project Implementation Unit and run the project on a day-to-day basis on behalf of the MCIE within the constraints laid down by the Project Steering Committee. The Project Manager function will end when the final project terminal evaluation report, and other documentation required by the GCF and UNDP, has been completed and submitted to UNDP. 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 PM will be a local staff contracted by UNDP and located at MCIE. Both Project Manager and National Project Director will both be represented in the Project Steering Committee.

109. **Project Support**: The PM will be supported by a core team of technical and support staff forming the Project Implementation Unit (PIU) 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 (finance and administrative officer and monitoring and evaluation officer). 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 Management Unit, with the mandate to vet the project deliverables and provide technical inputs and validation.

110. In addition to the Technical Committee, a separate donor coordination group will be set up to ensure there are synergies and coordination and 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 coordinate work planning and implementation with overall coordination by National Project Manager and supported by the CTA.

3.1.1 Project Assurance

111. The 'project assurance' function of UNDP is to support the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project assurance has to be independent of the Project Manager. Furthermore, as the Senior Supplier, UNDP provides quality assurance for the project; ensures adherence to the NIM guidelines and ensures compliance with GCF and UNDP policies and procedures.

112. A UNDP Programme Officer, or M&E Officer, typically holds the Project Assurance role on behalf of UNDP.

3.2 Project Delivery and Administration

3.2.1 Project Delivery

113. The project will be delivered on the ground via the MCIE through its subsidiary departments and the MCIE. In addition, collaboration with atoll councils, existing NGOs and local communities is expected UNDP.

3.2.2 Administration of Environmental and Social Management Framework

114. As the implementing agency, MCIE will be responsible for responsible for the implementation with the ESMF via the delivery organisations.

115. The ESMF will be part of any tender documentation. The MCIE will be responsible for the revision or updates of this document during the course of work. It is the responsibility of the person to whom the document is issued to ensure it is the most up to date version.

116. The UNDP and MCIE are accountable for the provision of specialist advice on environmental and social issues to the delivery organisations (eg contractors and/or NGOs) and for environmental and social monitoring and reporting. The MCIE or its delegate will assess the environmental and social performance of the delivery organisations (eg contractors) in charge of delivering each component throughout the project and ensure compliance with the ESMF. During operations the delivery organisations will be accountable for implementation of the ESMF. Personnel working on the projects have accountability for preventing or minimising environmental and social impacts.

117. The Field Coordinator will be responsible for daily environmental inspections of the project/construction site. The MCIE or its delegate will cross check these inspections by undertaking monthly audits.

118. The delivery organisation eg contractor will maintain and keep all administrative and environmental records, which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.

119. The delivery organisation will be responsible for the day to day compliance of the ESMF

3.2.3 Environmental procedures, site and activity-specific work plans/instructions

120. Environmental procedures provide a written method describing how the management objectives for a particular environmental element are to be obtained. They contain the necessary detail to be site or activity-specific and are required to be followed for all construction works. Site and activity-specific work plans and instructions are to be issued and will follow the previously successful work undertaking similar projects by the UNDP, ADB, GIZ and WB.

3.2.4 Environmental incident reporting

121. Any incidents, including non-conformances to the procedures of the ESMF are to be recorded using an Incident Record and the details entered into a register. For any incident that causes or has the potential to cause material or serious environmental harm, the Field Coordinator shall notify the Project Manager as soon as possible. The delivery organisation/contractor must cease work until remediation has been completed as per the approval of MCIE.

3.2.5 Daily and weekly environmental inspection checklists

122. A daily environmental checklist is to be completed at each work site by the relevant Field Coordinator and maintained within a register. A weekly environmental checklist is to be completed and will include reference to any issues identified in the daily checklists completed by the Field Coordinators. The completed checklist is to be forwarded to MCIE for review and follow-up if any issues are identified.

3.2.6 Corrective Actions

123. Any non-conformances to the ESMF are to be noted in weekly environmental inspections and logged into the register. Depending on the severity of the non- conformance, the Field Coordinator may specify a corrective action on the weekly site inspection report. The progress of all corrective actions will be tracked using the register. Any non-conformances and the issue of corrective actions are to be advised to MCIE.

3.2.7 Review and auditing

124. The ESMF and its procedures are to be reviewed at least every two months by UNDP staff and MCIE. The objective of the review is to update the document to reflect knowledge gained during the course of project delivery/construction and to reflect new knowledge and changed community standards (values).

125. The ESMF will be reviewed and amendments made if:

- There are relevant changes to environmental conditions or generally accepted environmental practices; or
- New or previously unidentified environmental risks are identified; or
- Information from the project monitoring and surveillance methods indicate that current control measures require amendment to be effective; or
- There are changes to environmental legislation that are relevant to the project; or
- There is a request made by a relevant regulatory authority; or
- Any changes are to be developed and implemented in consultation with UNDP Staff and MCIE. When an update is made, all site personnel are to be made aware of the revision as soon as possible eg through a tool box meeting or written notification.

3.3 TRAINING

126. Delivery organisations have the responsibility for ensuring systems are in place so that relevant employees, contractors and other workers are aware of the environmental and social requirements for construction, including the ESMF.

127. All project personnel will attend an induction that covers health, safety, environment and cultural requirements.

128. All workers engaged in any activity with the potential to cause serious environmental harm (e.g. handling of hazardous materials) will receive task specific environmental training.

4 COMMUNICATION

4.1 PUBLIC CONSULTATION AND ENVIRONMENTAL AND SOCIAL DISCLOSURE

129. The ESMF includes public consultation as part of the stakeholder engagement plan (refer Proposal Annex XIII (d2) – Stakeholder Engagement Plan). The project was discussed with a wide range of stakeholders including relevant government departments, industry groups, NGOs, and individual community members and approved by Government (Annexure 1). Extensive on-ground consultation has been undertaken during the design of the project (as well as during the earlier projects that this project is aiming to upscale) and it is expected that consultation with any affected communities will continue. It is anticipated that based on the communities' needs, the projects will be fully accepted.

130. The UNDP and MCIE will develop and release updates on the project on a regular basis to provide interested stakeholders with information on project status. Updates may be via a range of media eg print, radio, social media or formal reports. A publicized telephone number will be maintained throughout the project to serve as a point of contact for enquiries, concern, complaints and/or grievances. All enquiries, concern, complaints and/or grievances will be recorded on a register and the appropriate manager will be informed. All material must be published in Tetum, Portuguese, and English as appropriate.

131. Where there is a community issue raised, the following information will be recorded:

- time, date and nature of enquiry, concern, complaints and/or grievances;
- type of communication (e.g. telephone, letter, personal contact);
- name, contact address and contact number;
- response and investigation undertaken as a result of the enquiry, concern, complaints and/or grievances; and
- actions taken and name of the person taking action.

132. Some enquiries, concern, complaints and/or grievances may require an extended period to address. The complainant(s) will be kept informed of progress towards rectifying the concern. All enquiries, concerns, complaints and/or grievances will be investigated and a response given to the complainant in a timely manner. A grievance redress mechanism has been included in the ESMF to address any complaints that may not be able to be resolved quickly.

133. Nominated PMU/contractor staff will be responsible for undertaking a review of all enquiries, concern, complaints and/or grievances and ensuring progress toward resolution of each matter.

4.2 COMPLAINTS REGISTER AND GRIEVANCE REDRESS MECHANISM

134. During the construction and implementation phases of any project, a person or group of people can be adversely affected, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as eligibility criteria and entitlements, disruption of services, temporary or permanent loss of livelihoods and other social and cultural issues. Grievances may also be related to environmental issues such as excessive dust generation, damages to infrastructure due to construction related vibrations or transportation of raw material, noise, traffic congestions, decrease in quality or quantity of private/ public surface/ ground water resources during irrigation rehabilitation, damage to home gardens and agricultural lands etc.

135. Should such a situation arise, there must be a mechanism through which affected parties can resolve such issues in a cordial manner with the project personnel in an efficient, unbiased, transparent, timely and cost-effective manner. To achieve this objective, a grievance redress mechanism has been included in ESMF for this project.

136. The project allows those that have a complaint or that feel aggrieved by the project to be able to communicate their concern, complaints and/or grievances through an appropriate process. The Complaints Register and Grievance Redress Mechanism set out in this ESMF are to be used as part of the project and will provide an accessible, rapid, fair and effective response to concerned stakeholders, especially any vulnerable group who often lack access to formal legal regimes.

137. While recognising that many complaints may be resolved immediately, the Complaints Register and Grievance Redress Mechanism set out in this ESMF encourages mutually acceptable resolution of issues as they arise. The Complaints Register and Grievance Redress Mechanism set out in this ESMF has been designed to:

- be a legitimate process that allows for trust to be built between stakeholder groups and assures stakeholders that their concerns will be assessed in a fair and transparent manner;
- allow simple and streamlined access to the Complaints Register and Grievance Redress Mechanism for all stakeholders and provide adequate assistance for those that may have faced barriers in the past to be able to raise their concerns;
- provide clear and known procedures for each stage of the Grievance Redress Mechanism process, and provides clarity on the types of outcomes available to individuals and groups;
- ensure equitable treatment to all concerned and aggrieved individuals and groups through a consistent, formal approach that, is fair, informed and respectful to a concern, complaints and/or grievances;
- to provide a transparent approach, by keeping any aggrieved individual/group informed of the progress of their complaint, the information that was used when assessing their complaint and information about the mechanisms that will be used to address it; and
- enable continuous learning and improvements to the Grievance Redress Mechanism. Through continued assessment, the learnings may reduce potential complaints and grievances.

138. Eligibility criteria for the Grievance Redress Mechanism include:

- Perceived negative economic, social or environmental impact on an individual and/or group, or concern about the potential to cause an impact;
- clearly specified kind of impact that has occurred or has the potential to occur; and explanation of how the project caused or may cause such impact; and
- individual and/or group filing of a complaint and/or grievance is impacted, or at risk of being impacted; or the individual and/or group filing a complaint and/or grievance demonstrates that it has authority from an individual and or group that have been or may potentially be impacted on to represent their interest.

139. Local communities and other interested stakeholders may raise a grievance/complaint at all times to the MCIE. Affected local communities should be informed about the ESMF provisions, including its grievance mechanism and how to make a complaint.

4.2.1 Complaints Register

140. Where there is a community issue raised, the following information will be recorded:

141. A complaints register will be established as part of the project to record any concerns raised by the community during construction. Any complaint will be advised to the UNDP and MCIE within 24 hours of receiving the complaint. The complaint will be screened. Following the screening, complaints regarding corrupt practices will be referred to the UNDP for commentary and/or advice along with the MCIE.

142. Wherever possible, the project team will seek to resolve the complaint as soon as possible, and thus avoid escalation of issues. However, where a complaint cannot be readily resolved, then it must be escalated.

143. A summary list of complaints received and their disposition must be published in a report produced every six months.

4.2.2 Grievance Redress Mechanism

144. The Grievance Redress Mechanism has been designed to be problem-solving mechanism with voluntary good-faith efforts. The Grievance Redress Mechanism is not a substitute for the legal process. The Grievance Redress Mechanism will as far as practicable, try to resolve complaints and/or grievances on terms that are mutually acceptable to all parties. When making a complaint and/or grievance, all parties must act at all times, in good faith and should not attempt to delay and or hinder any mutually acceptable resolution.

145. In order to ensure smooth implementation of the Project and timely and effectively addressing of problems that may be encountered during implementation, a robust Grievance Redress Mechanism, which will enable to the Project Authorities to address the grievances of the stakeholders of the Project has been established.

146. All complaints and/or grievances regarding social and environmental issues can be received either orally (to the field staff), by phone, in complaints box or in writing to the UNDP, MCIE or the Construction Contractor. A key part of the grievance redress mechanism is the requirement for the MCIE/PMU and construction contractor to maintain a register of complaints and/or grievances received at the respective project site offices. All complainants shall be treated respectfully, politely and with sensitivity. Every possible effort should be made by the MCIE/PMU and construction contractor to resolve the issues referred to in the complaint and/or grievance within their purview. However, there may be certain problems that are more complex and cannot be solved through project-level mechanisms. Such grievances will be referred to the Grievance Redress Committee. It would be responsibility of the MCIE to solve these issues through a sound / robust process.

147. The Grievance Redress Mechanism has been designed to ensure that an individual and/or group are not financially impacted by the process of making a complaint and/or grievance. The Grievance Redress Mechanism will cover any reasonable costs in engaging a suitably qualified person to assist in the preparation of a legitimate complaint and/or grievance. Where a complaint and/or grievance is seen to be ineligible, the Grievance Redress Mechanism will not cover these costs.

148. Information about the Grievance Redress Mechanism and how to make a complaint and/or grievance must be placed at prominent places for the information of the key stakeholders.

149. The Safeguards officer in the PMU will be designated as the key officer in charge of the Grievance Redress Mechanism. The Terms of Reference for these positions (as amended from time to time) will have the following key responsibilities:

- coordinate formation of Grievance Redress Committees before the commencement of constructions to resolve issues;
- act as the focal point at the PMU on Grievance Redress issues and facilitate the resolution of issues within the PMU;
- create awareness of the Grievance Redress Mechanism amongst all the stakeholders through public awareness campaigns;
- assist in redress of all grievances by coordinating with the concerned parties;
- maintain information on grievances and redress;
- monitor the activities of MCIE on grievances issues; and
- prepare the progress for monthly/quarterly reports.

150. A two tier Grievance Redress Mechanism structure has been developed to address all complaints and/or grievances in the project. The first trier redress mechanism involves the receipt of a complaint and/or grievance at the site and/or adminstrative district level. The stakeholders are

informed of various points of making a complaint and/or grievance (if any) and the PMU collect the complaints and/or grievances from these points on a regular basis and record them. This is followed by coordinating with the concerned people to redress the grievances. The Safeguards Officer of the PMU will coordinate the activities at the respective District level to address the grievances and would act as the focal point in this regard. The Community Development Officer of the Local Authority or in the absence of the Community Development Officer, any officer given the responsibility of this would coordinate with the Safeguards and Gender Manager of the PMU and MCIE in redressing the grievances. The designated officer of the Local Authorities is provided with sufficient training in the procedure of redress to continue such systems in future.

151. The grievance can be made orally (to the field staff), by phone, in complaints box or in writing to the UNDP, MCIE or the Construction Contractor. Complainants may specifically contact the Safeguards Officer and request confidentiality if they have concerns about retaliation. In cases where confidentiality is requested (i.e. not revealing the complainant's identity to UNDP, MCIE and/or the Construction Contractor). In these cases, the Safeguards Officer will review the complaint and/or grievance, discuss it with the complainant, and determine how best to engage project executing entities while preserving confidentiality for the complainant.

152. As soon as a complaint and/or grievance is received, the Safeguards Officer would issue an acknowledgement. The Community Development Officer receiving the complaint and/or grievance should try to obtain relevant basic information regarding the grievance and the complainant and will immediately inform the Safeguards Officer in the PMU.

153. The PMU will maintain a Complaint / Grievance Redress register at the Administrative District Level. Keeping records collected from relevant bodies is the responsibility of PMU.

154. After registering the complaint and/or grievance, the Safeguards Officer will study the complaint and/or grievance made in detail and forward the complaint and/or grievance to the concerned officer with specific dates for replying and redressing the same. The Safeguards Officer will hold meetings with the affected persons / complainant and then attempt to find a solution to the complaint and/or grievance received. If necessary, meetings will be held with the concerned affected persons / complainant and the concerned officer to find a solution to the problem and develop plans to redress the grievance. The deliberations of the meetings and decisions taken are recorded. All meetings in connection with the Grievance Redress Mechanism, including the meetings of the Grievance Redress Committee, must be recorded. The Safeguards Officer for the Grievances Redress Mechanism will be actively involved in all activities.

155. The resolution at the first tier will be normally be completed within 15 working days and the complaint and/or grievance will be notified of the proposed response through a disclosure form. The resolution process should comply with the requirements of the Grievance Redress Mechanism in that it should, as far as practicable, be informal with all parties acting in good faith. Further, the Grievance Redress Mechanism should, as far as practicable, achieve mutually acceptable outcomes for all parties.

156. Should the grievance be not resolved within this period to the satisfaction of the complainant, the grievance will be referred to the next level of Grievance Redress Mechanism. If the social safeguard and gender officer feels that adequate solutions can be established within the next five working days, the officer can decide on retaining the issue at the first level by informing the complainant accordingly. However, if the complainant requests for an immediate transfer to the next level, the matter must be referred to the next tier. In any case, where the issue is not addressed within 20 working days, the matter is referred to the next level.

157. Any grievance related to corruption or any unethical practice should be referred immediately to the Timor Leste Office of the Attorney General and/or Ombudsman and the Office of Audit and Investigation within the UNDP in New York.

158. The Safeguard Officer from the PMU will coordinate with the respective Commissioner of Local Government in getting these Committees constituted for each State and get the necessary circulars issued in this regard so that they can be convened whenever required.

159. The Terms of Reference for the Grievance Redress Committee are:

- providing support to the affected persons in solving their problems;
- prioritize grievances and resolve them at the earliest;
- provide information to the PMU and MCIE on serious cases at the earliest opportunity;
- Coordinate with the aggrieved person/group and obtain proper and timely information on the solution worked out for his/her grievance; and
- study the normally occurring grievances and advise PMU, National and District Steering Committee on remedial actions to avoid further occurrences.

160. The Grievance Redress Committee will hold the necessary meetings with the aggrieved party/complainant and the concerned officer and attempt to find a solution acceptable at all levels. The Grievance Redress Committee would record the minutes of the meeting.

161. Grievance Redress Committee will communicate proposed responses to the complainant formally. If the proposed response satisfies the complainant, the response will be implemented and the complaint and/or grievance closed. In cases where a proposed response is unsatisfactory to the complainant, the Grievance Redress Committee may choose to revise the proposed response to meet the complainant's remaining concerns, or to indicate to the complainant that no other response appears feasible to the Grievance Redress Committee. The complainant may decide to take a legal or any other recourse if s/he is not satisfied with the resolutions due to the deliberations of the three tiers of the grievance redress mechanism.

162. In addition to the project-level and national grievance redress mechanisms, complainants have the option to access UNDP's Accountability Mechanism, with both compliance and grievance functions. The Social and Environmental Compliance Unit investigates allegations that UNDP's Standards, screening procedure or other UNDP social and environmental commitments are not being implemented adequately, and that harm may result to people or the environment. The Social and Environmental Compliance Unit is housed in the Office of Audit and Investigations, and managed by a Lead Compliance Officer. A compliance review is available to any community or individual with concerns about the impacts of a UNDP programme or project. The Social and Environmental Compliance Unit is mandated to independently and impartially investigate valid requests from locally impacted people, and to report its findings and recommendations publicly.

163. The Stakeholder Response Mechanism offers locally affected people an opportunity to work with other stakeholders to resolve concerns, complaints and/or grievances about the social and environmental impacts of a UNDP project. Stakeholder Response Mechanism is intended to supplement the proactive stakeholder engagement that is required of UNDP and its Implementing Partners throughout the project cycle. Communities and individuals may request a Stakeholder Response Mechanism process when they have used standard channels for project management and quality assurance, and are not satisfied with the response (in this case the project level grievance redress mechanism). When a valid Stakeholder Response Mechanism request is submitted, UNDP focal points at country, regional and headquarters levels will work with concerned stakeholders and Implementing Partners to address and resolve the concerns. Visit www.undp.org/secu-srm for more details. The relevant form is attached at the end of the ESMF.

5 KEY ENVIRONMENTAL AND SOCIAL INDICATORS

164. This section identifies the key environmental and social indicators identified for the project and outlines respective management objectives, potential impacts, control activities and the environmental performance criteria against which these indicators will be judged (i.e. audited).

165. This section further addresses the need for monitoring and reporting of environmental performance with the aim of communicating the success and failures of control procedures, distinguish issues that require rectification and identify measures that will allow continuous improvement in the processes by which the projects are managed.

5.1 CLIMATE

166. .The climate of Timor Leste is characterized by extreme conditions. In the north of the island there is little or no rain for almost eight months of the year. The island has a monsoon climate, typical for the Asian tropics. There are two distinct rainfall patterns: the northern monomodal rainfall pattern, which produces a 4–6 months wet season beginning in December that affects most of the northern side of the country and tapers to the east; and the southern bimodal rainfall pattern, which produces a longer (7–9 month) wet season with two rainfall peaks starting in December and again in May, which affects the southern side of the country. Annual rainfall is very low along the northern coast of East Timor (<1000 mm y^{-1}), low to moderate throughout the central and elevated areas (1500–2000 mm y^{-1}), and moderate (>2500 mm y^{-1}) in high altitude areas. As is common in most tropical locations, extremely heavy rainfall occasionally occurs in Timor Leste during relatively short time intervals.

167. There is little temperature variation on either a diurnal or a seasonal basis, with monthly mean temperatures varying by no more than 3ºC between the coolest months of July and August to the warmest months of October and November. Diurnal (daily) temperature variations range from 7ºC to 13ºC. Temperature variations mainly occur with altitude. Average annual temperatures decrease from 27ºC at sea level to 24ºC at 500 m; 21ºC at 1000 m; 18ºC at 1500 m and 14ºC at 2000 m. Relative humidity varies between 70 and 80 percent, which makes the climate humid in general, but pleasant.[10]

168. Variability in East Timor's climate is significantly influenced by the El Niño Southern Oscillation, which in El Niño years changes the timing and volume of rainfall. El Niño suppresses rainfall in the January–March wet season, with some places experiencing only 25% of the rainfall usually received in these months. In general, the wet season is delayed by 2 to 3 months in El Niño years.

[10] http://gov.east-timor.org/MAFF/English/climate_and_hydrology.htm accessed 20/7/17

5.2 ECOLOGY

5.2.1 Background

169. Located in a crossover zone between Asia and Australia, Timor Leste contains animals common to both regions. The varied terrain of mountains, thousands of miles of coastline, dry forest, grasslands, and a tropical climate provide habitats that sustain many different species.

170. Timor Leste is part of the Timor and Wetar Deciduous Forests terrestrial ecoregion, which contains a very distinctive fauna representing a mix of Asian and Australasian species; the Lesser Sunda Islands freshwater ecoregion, which may contain as many as 10 endemics eg *Oryzias timorensis* is restricted to Timor; the Sunda Islands coral reef hotspot, and the Wallacea biodiversity hotspot.[11]

171. . The primary forest area of Timor leste has been reduced to around 88,000 hectares (220,000 acres), or 1% of the territory. Dense forests are found only on the south coast or in mountainous areas. The vegetation consists mostly of secondary forests, savannah, and grasslands. Flora includes ironwood, eucalyptus, black eucalyptus, redwood, sandalwood, cendana, and lontarwood. Fauna include deer, monkeys, cockatoos, horses, cows, and beo kakoaks.[12]

172. There's only one dry forest left in the country, located in Nino Konis Santana National Park. The forest is home to many of the over 250 species of birds in the nation, at least 10% of them thought to be unique to Timor Leste. Some of these birds face the threat of extinction, including the Yellow-crested Cockatoo, the Timor sparrow, the Timor Imperial-pigeon, the Timor Green-pigeon, the Black Cukoo-dove, the Wetar ground dove, and the Iris lorikeet.[13]

173. . The main environmental threats come from the widespread use of slash-and-burn agriculture, which has led to deforestation and soil erosion. According to a 2006 report issued by the International Union for Conservation of Nature and Natural Resources (IUCN), threatened species included seven species of birds, one type of reptile, and three species of fish.

174. There are about 15–20 amphibian species and 40 or more reptiles on Timor including six geckos, two monitor lizards, about 10 skinks, at least one blind snake, three pythons, one viper snake, about eight colubrid snakes, one file snake, at least four primitive sea snakes, one crocodile, one freshwater turtle and four sea turtles (BirdLife International 2007).

175. Among over a dozen recently discovered undescribed species of reptiles from Timor Leste is a bent-toed gecko of the genus Cyrtodactylus. The endemic Timor gliding lizard (*Draco timorensis*), is generally a common species in woodlands, villages, and tall closed forests. Snakes, on the other hand, are recorded to have 15 species. None of Timor Leste's snakes is presently globally

176. Bats are the best represented group with at least 34 species, including 12 fruit-bat species. The Timorese Horseshoe Bat (*Rhinolophus montanus*) is known only from the Quoto Lou Caves (south of Ermera, near Village of Lequi Mia). There are at least seven species of rats and mice and fi ve species of shrews; two of these shrew species are native to Timor: thin shrew (*Crocidura tenuis*) andTimor rat (*Rattus timorensis*). These are the only native mammals on Timor other than bats.

177. Endemic freshwater fish include a hardyhead *Craterocephalus laisapi* from the Ira Siquero River and apparently an undescribed species of goby Lentipes from the Vero River. Recently described marine fishes known only from Timor Leste include Santana's Dwarf Goby (*Eviota santanai*) and a triplefin blenny (*Helcogramma atauroensis*).

178. Insects known solely from Timor Leste include the butterflies *Delias splendida* and *Delias eileenae*, and an ant *Tetramorium rekhefe*. Other invertebrates currently known only from Timor

[11] http://Intreasures.com/timorleste.html

[12] http://www.encyclopedia.com/places/asia/indonesian-political-geography/east-timor#FLORA_AND_FAUNA

[13] *http://www.listofcountriesoftheworld.com/tt-animals.html*

Leste include the land snails (*Parachloritis afranio)* and (*Parachloritis herculea*) and the amphipod crustaceans *Ampithoe atauro* and *Quadrimaera metinaro*.

179. Two recently described orchids are known only from Timor Leste: *Habenaria ankylocentron* and *Pterostylis timorensis*. Other plants known solely from Timor Leste include *Eucalyptus orophila* and *Strobilanthes orientalis*.

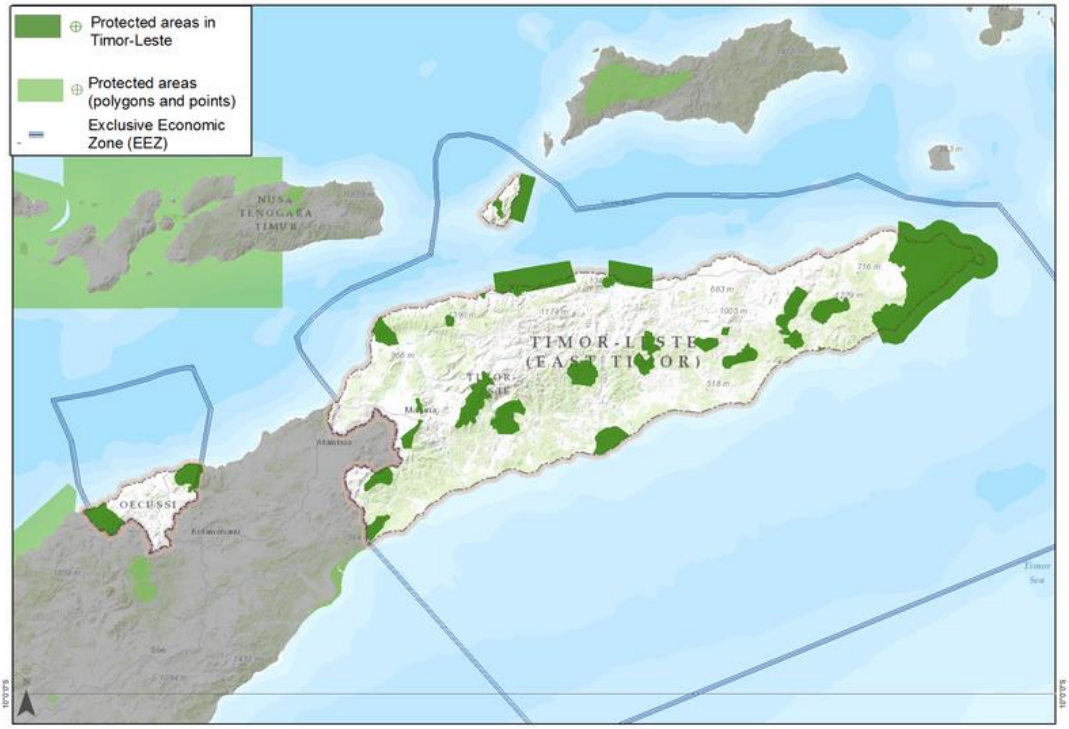

Figure 7 Protected Areas of Timor Leste[14]

[14] http://www.biodiversitya-z.org/content/Timor Leste

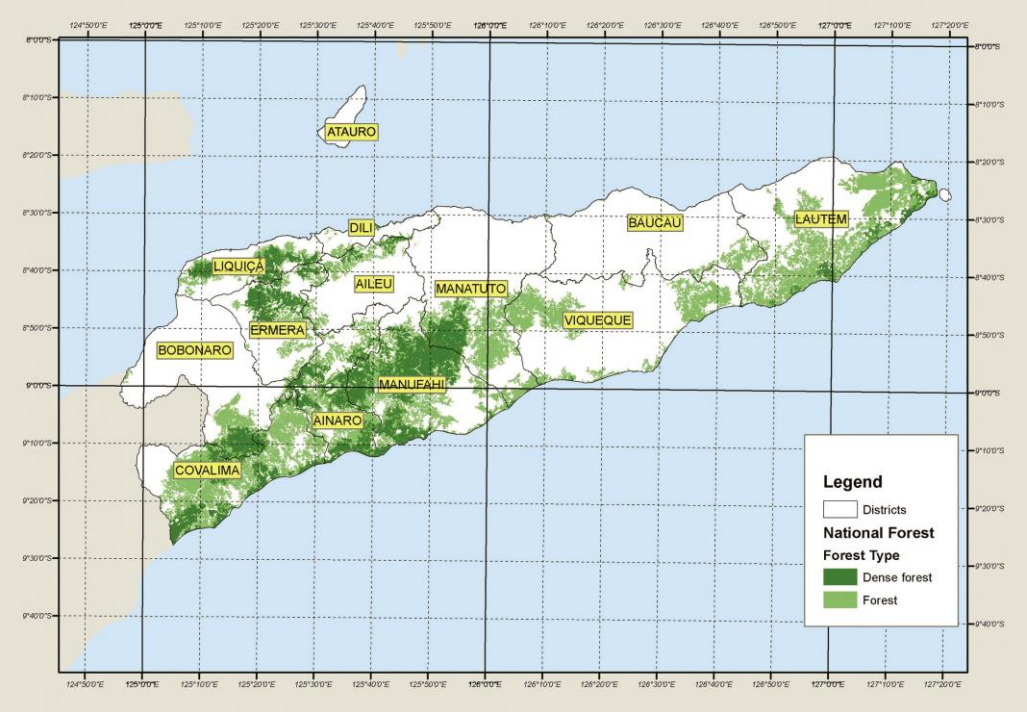

Figure 8 Forest Cover in Timor Leste[15]

5.2.2 Performance Criteria

180. The following performance criteria are set for the construction of the projects:

- no clearance of vegetation outside of the designated clearing boundaries;
- no death to native fauna as a result of clearing activities;
- no deleterious impacts on aquatic environments and terrestrial habitats;
- no introduction of new weed species as a result of construction activities ; and
- no increase in existing weed proliferation within or outside of any project footprint as a result of construction activities.

5.2.3 Monitoring

181. A flora and fauna monitoring program will be implemented (Table 6).

182. Weed monitoring will be undertaken and appropriate action taken in the event of alien or noxious species being identified.

183. The delivery organisation will when undertaking works, compile a weekly report to MCIE outlining:

- any non-conformances to this ESMF;
- the areas that have been rehabilitated during the preceding week; and
- details of the corrective action undertaken.

[15] Timor Leste's Fourth National Report to the UN Convention on Biological Diversity (2011)

5.2.4 Reporting

184. All flora and fauna monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The MCIE must be notified in the event of any suspected instances of death to native fauna and where vegetation if detrimentally impacted.

Table 6 Flora and Fauna Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF1: Protected areas	F1.1: Undertake screening of sub-project using Screening Form (Appendix 6). Reject any subproject that encroaches on protected areas or converts primary forest to other uses.	Pre-construction	UNDP	Maintain record
FF2. Habitat loss and disturbance of fauna	FF2.1 Limit vegetation clearing and minimise habitat disturbance through adequate protection and management of retained vegetation.	During construction	Field Coordinator	Daily and maintain records
	FF2.2: Minimise noise levels and lighting intrusion throughout construction and operation in the vicinity of any sensitive locations.	During construction	Field Coordinator	Daily and maintain records
	FF2.3: Ensure that all site personnel are made aware of sensitive fauna/habitat areas and the requirements for the protection of these areas.	During construction	Contractor	Daily and maintain records
	FF2.4 Minimise disturbance to on-site fauna and recover and rescue any injured or orphaned fauna during construction and operation.	During construction	Contractor	Daily and maintain records, report
FF3. Introduced flora and weed species	FF3.1: Implement an ESCP (refer Annexure 4) to reduce the spread of weeds through erosion and sediment entering any waterways and therefore spreading.	Pre and during construction	Contractor	Maintain records
	FF3.2: Revegetate disturbed areas using native and locally endemic species that have high habitat value.	During construction	Field Coordinator	As required and maintain records
	FF3.3: Minimise disturbance to mature remnant vegetation, particularly canopy trees.	During construction	Field Coordinator	Daily and maintain records
	FF3.4: Seed is to be weed free	Operation	Field Coordinator	Maintain records

	FF3.5 Species selected for bio-engineering and agroforestry should not be species that could become weed species in the future.	Design and operation	MCIE	Maintain records

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF3. Introduced flora and weed species	FF3.6: Environmental weeds and noxious weeds within the project footprints shall be controlled.	During and post construction	Field Coordinator	Weekly and maintain records

5.3 GROUNDWATER

5.3.1 Background

5.3.1.1 Groundwater

185. Groundwater is an important and vulnerable resource on Timor Leste. Figure 9 shows the location of the key groundwater zones on Timor Leste.

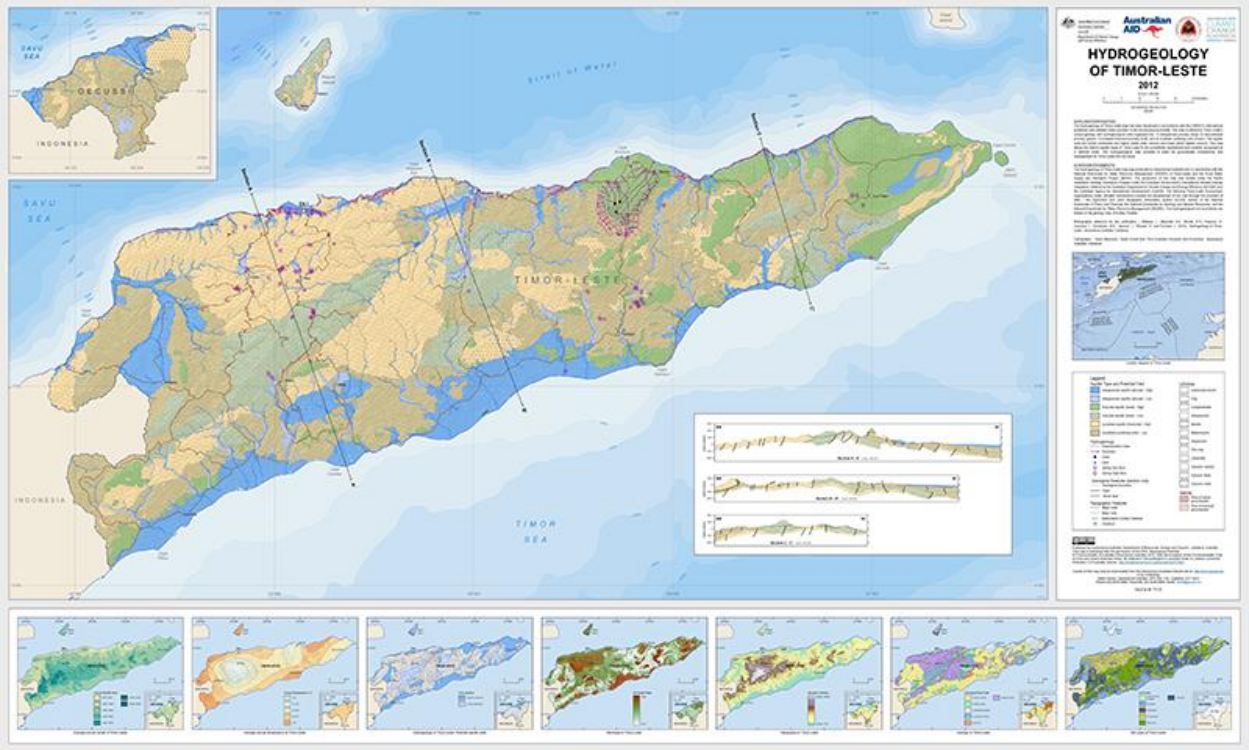

Figure 9 Hydrogeology of Timor Leste[16]

186. Project specific groundwater studies have not been undertaken, and the project does not intend to utilise or interact directly with groundwater resources.

187. None the less, there is potential for groundwater resources to be impacted as a result of the project eg through construction related fuel spills or irrigation impacts.

5.3.1 Performance Criteria

188. The following performance criteria are set for the project:

a. no significant decrease in the quality and quantity of groundwater as a result of construction and operational activities in proximity to the projects;

b. effective implementation of site-specific EDSCPs and other measures to protect groundwater.

1. [16] http://www.ga.gov.au/about/projects/water/vulnerability-of-groundwater-to-climate-change-impacts-in-Timor Leste

189. By following the management measures set out in the ESMF the project will not have a significant impact on water quality across the broader area.

5.3.2 Monitoring

190. Refer to Table 7 for the monitoring requirements for groundwater.

5.3.3 Reporting

191. All water quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The MCIE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to water quality is exceeded.

Table 7 Groundwater management measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
GW 1: Increase of gross pollutants, hydrocarbons, metals and other chemical pollutants into the groundwater and/or surface water environment.	GW1.1: Conduct regular surface and groundwater quality monitoring in locations where the groundwater is likely to be impacted, including assessing the changes to groundwater quality.	Construction and operation phase	Field Coordinator	Weekly and as required with reporting to MCIE and UNDP
	GW1.2: Prevent contaminated surface water from entering aquifers via boreholes and wells - protect from runoff and flooding and keep surrounds clean.	All phases	All Personnel	Weekly
	GW1.3: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should have compacted impermeable bases and be surrounded by a bund to contain any spillage. Refuelling to be undertaken in areas away from water systems.	Entire construction and operation phase	All Personnel	Weekly with reporting to MCIE and UNDP
	GW1.4: Check all vehicles, equipment and material storage areas daily for possible fuel, oil and chemical leaks. Undertake refuelling at designated places away from water systems.	All phases	All Personnel	Daily and maintain records
	GW 1.5: Minimise the use of herbicides, pesticides and other chemicals and use only biodegradable herbicides that have minimal impact on water quality and fauna. Use only as per directions	All phases	All Personnel	Weekly reporting to MCIE and UNDP

5.4 SURFACE WATER

5.4.1 Background

192. Timor-Leste has been broadly divided into twelve 'Hydrologic Units', which are groupings of climatologically and physiographically similar and adjacent river basins. Each of these hydrologic units comprise a number of rivers, 29 main river systems in total, of which 12 in the north and 17 in the south. All rivers are generally short and fast-flowing.[17]

193. The largest river system is Loes river system with a total area of 2,184 km^2 (covering almost 15 percent of the country). It is also the longest river (80 km long), followed by the Laclo river system and the Clere and Belulic river system with 2,024 km^2 and 1,917 km^2 respectively. Given the temporal variations in rainfall and the low capacity of upland areas to hold water, very few rivers flow all year round, most being ephemeral but generally with significant underbed flows in the lower reaches.[16]

194. Average annual rainfall is around 1,500 mm, varying from 565 mm at Manatuto along the north coast to 2,837 mm at Lolotai in the central-western mountains (Figure 10). As is common in most tropical locations, extremely heavy rainfall occasionally occurs in Timor-Leste during relatively short time intervals.

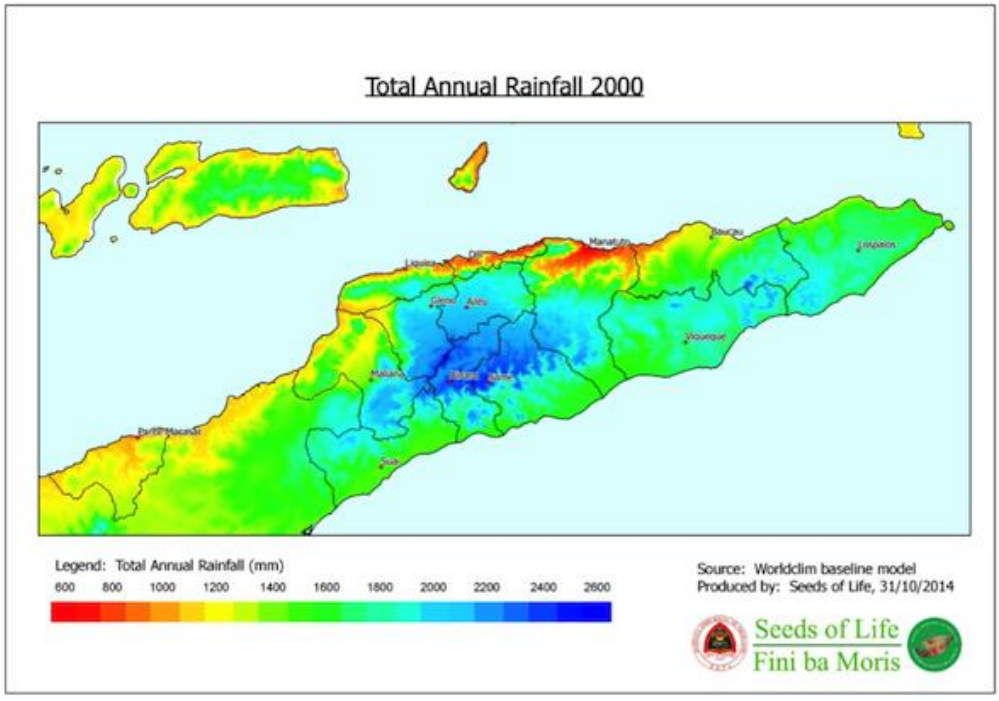

Figure 10 Annual rainfall patterns in Timor Leste[18]

195. As a result, Timor Leste is prone to flooding, especially on the southern side of the country. Cova Lima, Manufahi, and Viqueque each receive more rainfall than northern districts, and experience two wet seasons each year. Intense rainfall events often cause flooding in these places.

196. Flood in Timor-Leste results from a combination of heavy monsoon rain, steep topography and widespread deforestation. There are three types of flooding in Timor-Leste: (1) flash flooding that

[17] http://www.fao.org/nr/water/aquastat/countries_regions/TLS/
[18] http://seedsoflifetimor.org/climatechange/climate-change-in-timor-leste/

occurs when high intensity seasonal rainfall occurs on steep slopes; (2) riverine flooding that occurs when water accumulates in lowland or upland flood plains and river banks have insufficient capacity to contain the flow resulting in an overflow of the river and (3) Urban or pluvial flooding when urban drainage system have insufficient capacity to accept high intensity rainfall which results in surface water flooding in paved areas (mainly in Dili and Baucau).

197. Conversely, lack of water in the dry season is already common, particularly on the northern side of the island, affecting agricultural production.

198. The intense rainfall and dry spells, coupled with steep terrain, soil types and deforestation can have a significant effect on erosion and therefore water quality.

5.4.2 Performance Criteria

199. The following performance criteria are set for the construction of the projects:

- no significant decrease in water quality as a result of construction and operational activities;
- water quality shall conform to any approval conditions stipulated by UNDP, MCIE and/or other government departments, or in the absence of such conditions follow a 'no worsening' methodology; and
- effective implementation of site-specific EDSCPs.

5.4.3 Monitoring

200. Having water of a quality that is fit for purpose is important. Water quality can affect plant growth, livestock health, soil quality, farm equipment and domestic use. The quality of a water source is also variable depending upon weather and external inputs.

201. Evaporation increases the concentrations of salts while a flush of water dilutes salts but may increase sediment and fertilisers, and manure or nutrient runoff. Monitoring should be done regularly and more frequently in summer or in periods of prolonged moisture stress.

202. Table 8 outlines the monitoring required.

5.4.4 Reporting

203. All water quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The MCIE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to water quality is exceeded.

Table 8 Water Quality Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
W1: Elevated suspended solids and other contaminants in surface water systems.	W1.1: Develop and implement a site specific Erosion, Drainage and Sediment Control Plan (EDSCP) to address drainage control, sediment and erosion controls and stockpiling of materials including soil during construction of all components of the projects. EDSCP measures to be inspected regularly to ensure all devices are functioning effectively.	Pre Earthworks	Field Coordinator	Initial set up and then as required with reporting to MCIE and UNDP
	W1.2: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should have compacted impermeable bases and be surrounded by a bund to contain any spillage. Refuelling to be undertaken in areas away from water systems.	Entire construction and operation phase	All Personnel	Weekly with reporting to MCIE and UNDP
	W1.3: Conduct regular surface and groundwater quality monitoring in location where the groundwater is likely to be impacted including assessing the changes to groundwater quality.	Entire construction and operation phase	Field Coordinator	Weekly and as required with reporting to MCIE and UNDP
	W1.4: Schedule works in stages to ensure that disturbed areas are revegetated and stabilised progressively and as soon as practicable after completion of works.	Avoid undertaking bulk earthworks during wet season	Field Coordinator and MCIE	Maintain records
	W1.5: Construction materials will not be stockpiled in proximity to aquatic environment that may allow for release into the environment. Construction equipment will be removed from in proximity to the aquatic environment at the end of each working day or if heavy rainfall is predicted	Entire construction and operation phase	Field Coordinator	Maintain daily records

5.5 AIR QUALITY

5.5.1 Background

204. The project areas are predominantly village or rural in character. Existing air quality reflects those environments, with dust being the main air quality nuisance.

205. The proposed projects are not expected to contribute significantly to air pollution and as suchlong-term adverse impacts to air quality are not aniticapated as a result of the projects. None the less, all construction activities have the potential to cause air quality nuisance.

206. Workers involved in construction and operation activities should be familiar with methods minimising the impacts of deleterious air quality and alternative construction procedures as contained in Timor Leste legislation or good international industry practice.

5.5.2 Performance Criteria

207. The following performance criteria are set for the construction of the projects:

- release of dust/particle matter must not cause an environmental nuisance;
- undertake measures at all times to assist in minimising the air quality impacts associated with construction and operation activities; and
- corrective action to respond to complaints and/or grievances is to occur within 48 hours.

5.5.3 Monitoring

208. A standardised air monitoring program has been developed for the projects (Table 9). The program is subject to review and update at least every two months from the date of issue. Importantly:

- the requirement for dust suppression will be visually observed by site personnel daily and by MCIE and UNDP staff when undertaking routine site inspections; and
- Vehicles and machinery emissions – visual monitoring and measured when deemed excessive.

5.5.4 Reporting

209. All air quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The MCIE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to air quality is exceeded.

210.

Table 9 Air Quality Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
A.1 Increase in dust levels at sensitive receptors	A1.1: Implement effective dust management measures in all areas during design, construction and operation.	Pre and during construction	All Personnel	Daily and maintain records
	A1.2: Restrict speeds on roads and access tracks.	During construction	Field Coordinator	Daily and maintain records
	A1.3: Manage dust/particulate matter generating activities to ensure that emissions do not cause an environmental nuisance at any sensitive locations	During construction	Field Coordinator	Daily and maintain records
	A1.4: Construction activities should minimise risks associated with climatic events (check forecasts).	During construction	Field Coordinator	Daily and maintain records
	A1.5: Implement scheduling/staging of proposed works to ensure major vegetation disturbance and earthworks are minimised.	Entire construction	Contractor	Daily and maintain records
	A1.6: Locate material stockpile areas as far as practicable from sensitive receptors. Cover if appropriate.	During construction	Field Coordinator	Daily and maintain records
	A1.7: Source sufficient water of a suitable quality for dust suppression activities complying with any water restrictions.	During construction	Field Coordinator	Daily and maintain records
	A1.8: Schedule revegetation activities to ensure optimum survival of vegetation species.	During construction	Field Coordinator	Maintain records
	A1.9: Rubbish receptacles should be covered and located as far as practicable from sensitive locations	During construction	Field Coordinator	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
A2. Increase in vehicle / machinery emissions	A2.1 Ensure vehicles/machines are switched off when not in use.	During construction	Field Coordinator	Daily and maintain records
	A2.2 Ensure only vehicles required to undertake works are operated onsite.	During construction	Field Coordinator	Daily and maintain records
	A2.3 Ensure all construction vehicles, plant and machinery are maintained and operated in accordance with design standards and specifications.	During construction	Field Coordinator	Daily and maintain records
	A2.4 Develop and implement an induction program for all site personnel, which includes as a minimum an outline of the minimum requirements for environmental management relating to the site.	Pre and during construction	Contractor	Daily and maintain records
	A2.5 Locate construction vehicle/plant/equipment storage areas as far as practicable from sensitive locations.	During construction	Field Coordinator	Daily and maintain records
	A2.6 Direct exhaust emissions of mobile plant away from the ground.	During construction	Field Coordinator	Daily and maintain records

5.6 NOISE AND VIBRATION

5.6.1 Background

211. Due to the limited urban development and heavy industry, existing background environmental noise is relatively low.

212. All construction and operation activities have the potential to cause noise nuisance. Vibration disturbance to nearby residents and sensitive habitats is likely to be caused through the use of vibrating equipment. Blasting is not required to be undertaken as part of this project.

213. The use of machinery or introduction of noise generating facilities could have an adverse effect on the environment and residents if not appropriately managed.

214. Contractors involved in construction activities should be familiar with methods of controlling noisy machines and alternative construction procedures as contained within specific TIMOR LESTE legislation or in its absence, good international industry practice may be used if the legislation has not been enacted.

215. The detail, typical equipment sound power levels, provides advice on project supervision and gives guidance noise reduction. Potential noise sources during construction may include:

- heavy construction machinery;
- power tools and compressors;
- delivery vehicles.

5.6.2 Performance Criteria

216. The following performance criteria are set for the construction of the projects:

- noise from construction and operational activities must not cause an environmental nuisance at any noise sensitive place;
- undertake measures at all times to assist in minimising the noise associated with construction activities;
- no damage to off-site property caused by vibration from construction and operation activities; and
- corrective action to respond to complaints and/or grievances is to occur within 48 hours.

5.6.3 Monitoring

217. A standardised noise monitoring program has been developed for the projects (Table 10). The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will:

- ensure equipment and machinery is regularly maintained and appropriately operated; and
- carry out potentially noisy construction activities during ‘daytime’ hours only.

5.6.4 Reporting

218. All noise monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The MCIE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to noise is exceeded

Table 10 Noise and Vibration Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
N1: Increased noise levels	N1.1: Select plant and equipment and specific design work practices to ensure that noise emissions are minimised during construction and operation including all pumping equipment.	All phases	Contractor	Maintain records
	N1.2: Specific noise reduction devices such as silencers and mufflers shall be installed as appropriate to site plant and equipment.	Pre and during construction	Contractor	Maintain records
	N1.3 Minimise the need for and limit the emissions as far as practicable if noise generating construction works are to be carried out outside of the hours: 7am-5.30pm	Construction phase	All Personnel	Daily and maintain records
	N1.4: Consultation with nearby residents in advance of construction activities particularly if noise generating construction activities are to be carried out outside of 'daytime' hours: 7am-5.30pm.	Construction phase	All Personnel	Daily and maintain records
	N1.5 The use of substitution control strategies shall be implemented, whereby excessive noise generating equipment items onsite are replaced with other alternatives.	Construction phase	All Personnel	Daily and maintain records
	N1.6 Provide temporary construction noise barriers in the form of solid hoardings where there may be an impact on specific residents.	Construction phase	Field Coordinator	Daily and maintain records
	N1.7 All incidents complaints and non-compliances related to noise shall be reported in accordance with the site incident reporting procedures and summarised in the register.	Construction phase	Field Coordinator	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
N1: Increased noise levels	N1.8 The contractor should conduct employee and operator training to improve awareness of the need to minimise excessive noise in work practices through implementation of measures.	Pre and during construction	Contractor	Maintain records
N2. Vibration due to construction	N2.1: Identify properties, structures and habitat locations that will be sensitive to vibration impacts resulting from construction and operation of the project.	Pre and during construction	Contractor	Maintain records
	N2.2: Design to give due regard to temporary and permanent mitigation measures for noise and vibration from construction and operational vibration impacts.	Pre-construction	Contractor	Maintain records
	N2.3: All incidents, complaints and non-compliances related to vibration shall be reported in accordance with the site incident reporting procedures and summarised in the register.	Construction phase	Field Coordinator	Maintain records
	N2.4: During construction, standard measure shall be taken to locate and protect underground services from construction and operational vibration impacts.	Construction phase	Field Coordinator	Maintain records

5.7 Erosion, Drainage and Sediment Control

5.7.1 Background

219. Soil is a valuable resource of Timor Leste. The nature of soil in a place is largely influenced by such factors as underlying geology, climate, and natural vegetation.

220. Poor management of soils can lead to erosion and subsequent loss of soils and the habitats and livelihoods that it supports. Activities that will be undertaken by the project have the potential to cause erosion, changes in drainage patterns and subsequent sedimentation.

5.7.2 Geology

221. The island of Timor sits at the eastern end of and just south of the archipelago of volcanic islands, the Banda Arc, running eastwards from the Indonesian island of Bali. This volcanic arc is the surface expression of lithospheric subduction currently taking place as the Australian crustal plate moves north eastwards towards and underneath the Eurasian plate.

222. The island of Timor was formed from the collision of the Indo-Australian tectonic plate with the Eurasioan plate to the north. Calcareous rock from old coral reefs were forced out of the ocean tand the underlying igneous (volcanic) and metamorphic (deep, heated and hard) rock layers from underneath the surface were exposed. This has resulted in a complex soils structure laid over extensively fractured parent materials.

223. Figure 11 shows a simplified map of the geology of Timor Leste.

224.

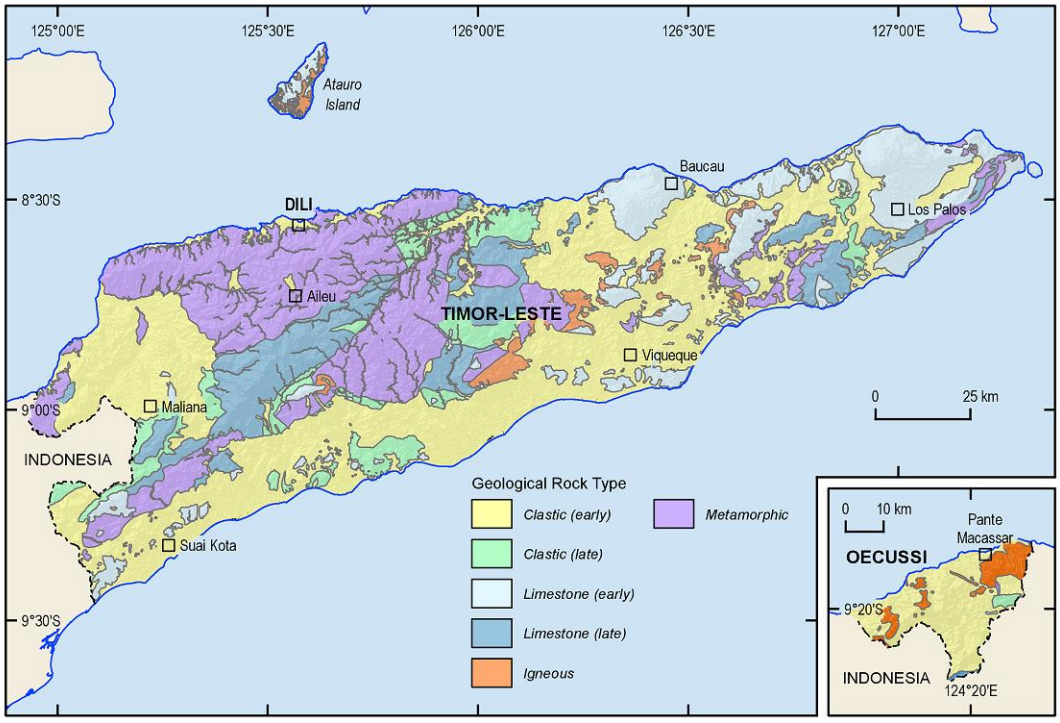

Figure 11 Geology of Timor Leste[19]

[19] https://upload.wikimedia.org/wikipedia/commons/7/7e/Geology_of_Timor Leste.png

5.7.3 Topography

225. The topography consists of a narrow plain around the coast and a central mountain range dominating the country (Figure 12). The central chain of mountains reaches a height of 2980 m at Mount Ramelau (or Tatamailau), which is located approximately 70 km south of Dili in the district of Ainaro.

226. Almost half of Timor's land has a slope of 40° or more[20]. Extensive steep slopes and high rainfall lead directly to extensive soil creep and downhill slumping and soil erosion which in severe cases often gives rise to major landslips which are also abetted by the highly sheared and therefore weak nature of the bedrock.

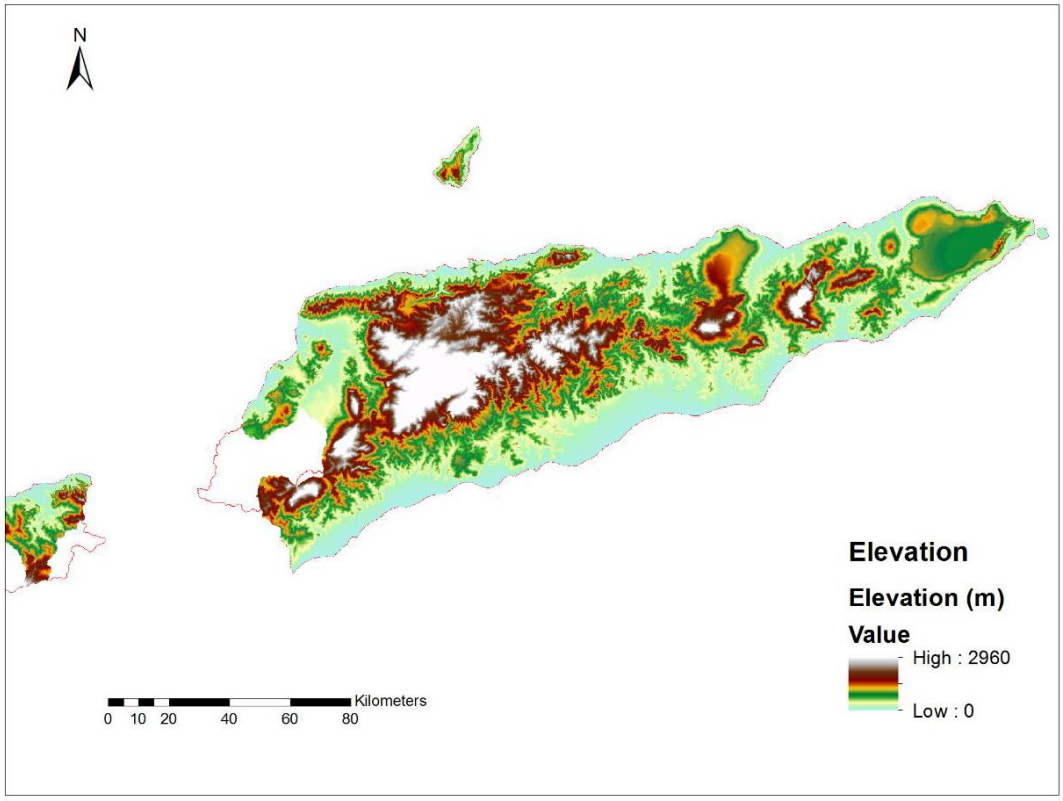

Figure 12 Topography of Timor Leste

5.7.4 Soils

227. On a regional scale, there is some correlation between soil types and soil source rocks. However, in Timor Leste climate and, more importantly, the topography and therefore excessive soil erosion and movement, will be amongst the most important factors controlling soil development.

228. Due to the steep slopes of the central spine of the island, classic soil profiles have rarely developed. On and across steep slopes soil profiles are chaotic and rock strewn without obvious profile Development, such soils are better called 'Regolith'

229. Soil in Timor Leste belongs mainly to 6 soil Orders of the USDA soil classification system[21] (Figure 13). The broad types of soil found in Timor Leste are:

[20] Thompson, S.J. (2011) Geology and Soils in Timor Leste

[21] Seeds of Life (2015) *Developing a Digital Map of the Soils of Timor Leste*, Dili, Timor Leste.

- *Inceptisols* – soils of semi-arid to humid environments with only moderate degrees of weathering and development (young soils with limited profile development). They are mostly formed from colluvial and alluvial materials;
- *Mollisols* – soils with a dark coloured surface horizon and higher organic matter content. Rich in nutrients, found in steap areas of Timor Leste;
- *Entisols* – soils from recentluy deposited materiasl such as on flood plains. Deep soils with little development of soil layers under surface.
- *Vertisols* – soils with high content of expanding clay materials. The soils crack widely during the dry season and become very sticky in the wet season. There is little leaching of nutrients when wet so they tend to be fertile.
- *Alfisols* – soils resulting from weathering processes that leach clay minerals out of the surface layer and into the subsoil. Form in semi-arid to humid areas, typically under a hardwood forest cover. "Alf" refers to aluminium (Al) and iron (Fe);
- *Histosols* – soils that have high organic matter content and are damp for most of the year. Commonly known as peat or bogs.

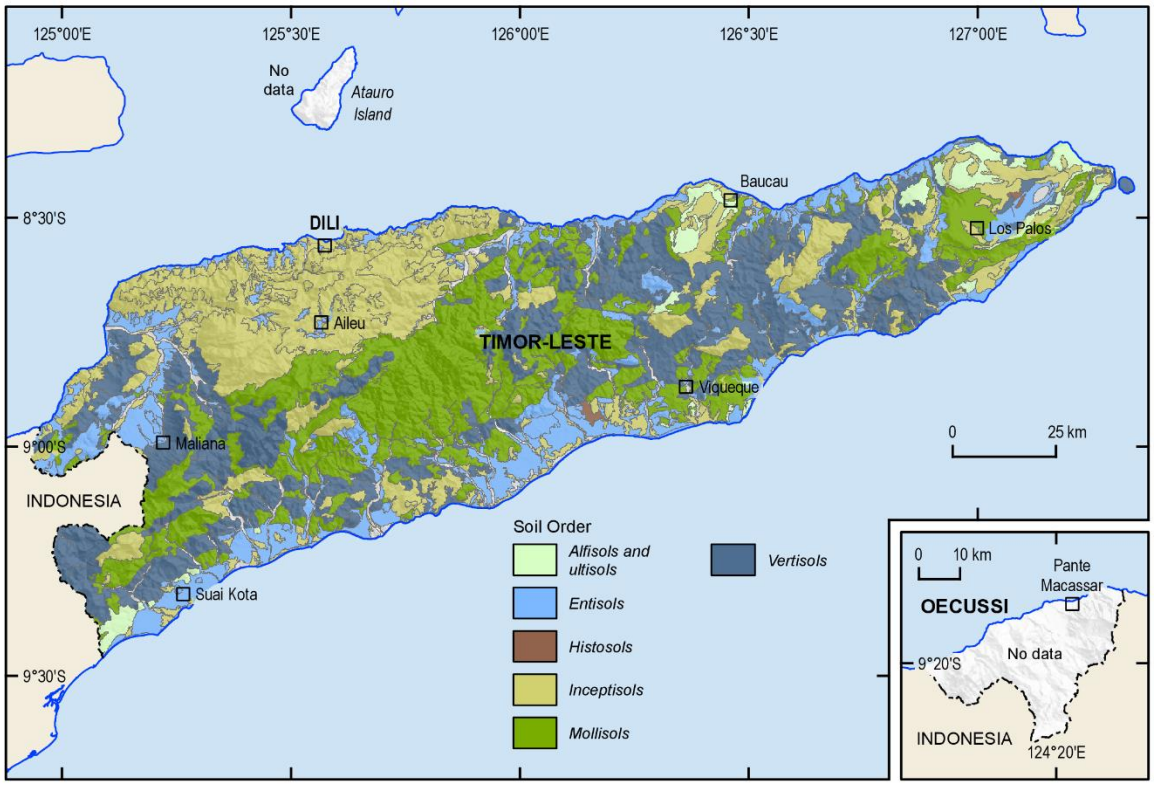

Figure 13 Soils of Timor Leste[22]

230. Soil erosion depends on several parameters such as type of soil, slope, vegetation, the nature of topography and rainfall intensity. The loss of soil stability and soil erosion can takes place due to the removal of vegetation cover, and numerous construction activities. It can cause the loss of soil fertility and induce slope instability. Land preparation for the project could result in blockage or alteration of natural flow paths causing changes in the drainage patterns in the area. Effective and efficient mitigation measures can not only reduce, but could improve the conditions over the existing conditions.

[22] Seeds of life (Seeds of Life) [CC BY-SA 3.0 (http://creativecommons.org/licenses/by-sa/3.0)], via Wikimedia Commons

231. Areas of high, medium and low erosion hazard are shown in Figure 14.

Figure 14 Erosion Hazard (UNDP/CARE 2015 data)

232. Rainfall can have a significant impact on the ability to manage environmental impacts, particularly in terms of managing drainage, erosion and sedimentation. Therefore activities which involve significant disturbance of soil or operating with drainage lines and waterways should be planned to be undertaken during the driest months. It is also important to ensure that all required erosion and sediment control mechanisms are in place before the onset of the wet season.

233. Activities that have the potential to cause erosion should be undertaken with the likely weather conditions in mind.

5.7.5 Performance Criteria

234. The following performance criteria are set for the projects:

- no build-up of sediment in the aquatic environments and/or surface and/or groundwater as a result of construction and operation activities;
- no degradation of water quality on or off site of all projects;
- all water exiting the project site and/or into groundwater systems is to have passed through best practice erosion, drainage and sediment controls; and
- effective implementation of site-specific EDSCP.

235. By following the management measures set out in the ESMF, construction and operation activities of the projects will not have a significant impact as a result of sedimentation across the broader area.

5.7.6 Monitoring

236. A standardised sediment control monitoring program has been developed for the projects (Table 11). The program is subject to review and update at least every two months from the date of issue. The Field Coordinator will be required to:

- conduct site inspections on a weekly basis or after rainfall events exceeding 20mm in a 24 hour period;

- develop a site-specific checklist to document non-conformances to this ESMF or any applicable EDSCPs; and
- communicate the results of inspections and/or water quality testing and ensure that any issues associated with control failures are rapidly rectified and processes are put in place to ensure that similar failures are not repeated.

5.7.7 Reporting

237. All sediment and erosion control monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The MCIE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to erosion and sediment control is exceeded.

Table 11 Erosion, Drainage and Sediment Control Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.1: Develop and implement an EDSCP for any surface works, embankments and excavation work, water crossings and stormwater pathways.	Construction phase	All Personnel	Maintain records
	E1.2: Ensure that erosion and sediment control devices are installed, inspected and maintained as required.	Construction phase	All Personnel	Maintain records
	E1.3: Schedule/stage works to minimise cleared areas and exposed soils at all times.	Pre and during construction	Field Coordinator	Maintain records
	E1.4: Incorporate the design and location of temporary and permanent EDSC measures for all exposed areas and drainage lines. These shall be implemented prior to pre-construction activities and shall remain onsite during work	Pre and during construction	Field Coordinator	Maintain records
	E1.5: Schedule/stage proposed works to ensure that major vegetation disturbance and earthworks are carried out during periods of lower rainfall and wind speeds.	Pre and during construction	Field Coordinator	Maintain records
	E1.6: Strip and stockpile topsoil for use during revegetation and/or place removed soils back on to agricultural lands.	Pre and during construction	Field Coordinator	Maintain records
	E1.7: Schedule/stage works to minimise the duration of stockpiling topsoil material. Vegetate stockpiles if storage required for long periods.	During construction	All Personnel	Maintain records
	E1.8: Locate stockpile areas away from drainage pathways, waterways and sensitive locations.	Pre and during construction	Field Coordinator	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.9: Design stormwater management measures to reduce flow velocities and avoid concentrating runoff.	Pre and during construction	Field Coordinator	Maintain records
	E1.10: Include check dams in drainage lines where necessary to reduce flow velocities and provide some filtration of sediment. Regularly inspect and maintain check dams.	Pre and during construction	Field Coordinator	Maintain records
	E1.11: Mulching shall be used as a form of erosion and sediment control and where used on any slopes (dependent on site selection), include extra sediment fencing during high rainfall.	During construction	All Personnel	Maintain records
	E1.12: Bunding shall be used either within watercourses or around sensitive/dangerous goods as necessary.	During construction	All Personnel	Maintain records
	E1.13: Grassed buffer strips shall be incorporated where necessary during construction to reduce water velocity.	During construction	Field Coordinator	Maintain records
	E1.14: Silt fences or similar structures to be installed to protect from increased sediment loads.	During construction	Contractors	Maintain records
	E1.15: Excess sediment in all erosion and sediment control structures (eg. sediment basins, check dams) shall be removed when necessary to allow for adequate holding capacity.	During construction	Contractors	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E2: Soil Contamination	E2.1: If contamination is uncovered or suspected (outside of the project footprints), undertake a Stage 1 preliminary site contamination investigation. The contractor should cease work if previously unidentified contamination is encountered and activate management procedures and obtain advice/permits/approval (as required).	Construction phase	All Personnel	Daily and maintain records
E2: Soil Contamination	E2.2: Adherence to best practice for the removal and disposal of contaminated soil/ material from site (if required), including contaminated soil within the project footprints.	Construction phase	All Personnel	Daily and maintain records
	E2.3: Drainage control measures to ensure runoff does not contact contaminated areas (including contaminated material within the project footprints) and is directed/diverted to stable areas for release.	Construction phase	All Personnel	Daily and maintain records
	E2.4: Avoid importing fill that may result in site contamination and lacks accompanying certification/documentation. Where fill is not available through on site cut, it must be tested in accordance with geotechnical specifications.	Construction phase	All Personnel	Daily and maintain records
E3: Disposal of excess soil/silt	E3.4: Silt removed from dams/canals/weirs during rehabilitation / maintenance is to be beneficially reused eg composted, returned to farm land, brick making etc. Silt should be tested to confirm suitability for proposed use	Construction and operation phases	MCIE	Maintain records

5.8 WASTE MANAGEMENT

5.8.1 Background

238. As the implementing agency, the MCIE advocate good waste management practice. The preferred waste management hierarchy and principles for achieving good waste management is as follows:

- waste avoidance(avoid using unnecessary material on the projects);
- waste re-use (re-use material and reduce disposing);
- waste recycling (recycle material such as cans, bottles, etc.); and
- waste disposal (all petruscible and/or contaminated waste to be dumped at approved landfills).

239. The key waste streams generated during construction are likely to include residual sediment and construction wastes such as:

- the excavation wastes unsuitable for reuse during earthworks;
- wastes from construction equipment maintenance. Various heavy vehicles and construction equipment will be utilised for the duration of the construction phase. Liquid hazardous wastes from cleaning, repairing and maintenance of this equipment may be generated. Likewise leakage or spillage of fuels/oils within the site needs to be managed and disposed of appropriately;
- non-hazardous liquid wastes will be generated through the use of workers' facilities such as toilets; and
- general wastes including scrap materials and biodegradable wastes.

240. Workers involved in construction and operational activities should be familiar with methods minimising the impacts of clearing vegetation to minimise the footprint to that essential for the works and rehabilitate disturbed areas. By doing these activities, the projects should minimise the impact of waste generated by the project.

5.8.2 Performance Criteria

241. The following performance criteria are set for the construction of the projects:

- waste generation is minimised through the implementation of the waste hierarchy (avoidance, reduce, reuse, recycle);
- no litter will be observed within the project area or surrounds as a result of activities by site personnel;
- no complaints received regarding waste generation and management;
- any waste from on-site portable sanitary facilities will be sent off site for disposal by a waste licensed contractor; and
- waste oils will be collected and disposed or recycled off-site, local oil companies or shipped for recycling.

5.8.3 Monitoring

242. A waste management monitoring program has been developed for the projects (Table 12). The program is subject to review and update at least every two months from the date of issue.

5.8.4 Reporting

243. The MCIE as implementing agency must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to waste is exceeded.

Table 12 Waste Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
WT1: Production of wastes and excessive use of resources	WT1.1: Preference shall be given to materials that can be used to construct the project that would reduce the direct and indirect waste generated.	Pre and during construction	Contractor	Maintain records
	WT1.2: Daily waste practices shall be carried out unless these are delegated to the activities of external waste management bodies.	During construction	Field Coordinator	Daily and maintain records
	WT1.3: The use of construction materials shall be optimised and where possible a recycling policy adopted.	During construction	Field Coordinator	Weekly and maintain records
	WT1.4: Separate waste streams shall be maintained at all times i.e. general domestic waste, construction and contaminated waste. Specific areas on site shall be designated for the temporary management of the various waste streams.	During construction	Field Coordinator	Weekly and maintain records
	WT1.5: Any contaminated waste shall be disposed of at an approved facility.	During construction	Field Coordinator	Weekly and maintain records
	WT1.6: Recyclable waste (including oil and some construction waste) shall be collected separately and disposed of correctly.	During construction	Field Coordinator	Weekly and maintain records
	WT1.7: Waste sites shall be sufficiently covered to ensure that wildlife does not have access.	During construction	Field Coordinator	Daily
	WT1.8: Disposal of waste shall be carried out in accordance with the Government of Timor Leste requirements.	During construction	Field Coordinator	Weekly and maintain records
	WT1.9: Fuel and lubricant leakages from vehicles and plant shall be immediately rectified.	During construction	Field Coordinator	Daily and maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
WT1: Production of wastes and excessive use of resources	WT1.10: Major maintenance and repairs shall be carried out off-site whenever practicable.	During construction	Field Coordinator	Weekly and maintain records
	WT1.11: Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations.	During Construction	Field Coordinator	Daily and maintain records
	WT1.12: On-site storage of fuel and chemicals shall be kept to a minimum.	During Construction	Contractor	Daily, maintain records and report any incidents
	WT1.13: Any waste oils and lubricants are to be collected and transported to recyclers or designated disposal sites as soon as possible.	During Construction	Field Coordinator	Daily and maintain records
	WT1.14: Any dangerous goods stored on site shall be stored in accordance with Timor Leste regulations.	During Construction	Contractor	Daily and maintain records

5.9 SOCIAL MANAGEMENT

5.9.1 Background

244. Timor Leste is among the youngest countries in the world that gained independence only in 2002. It is a least developed country, a post-conflict society with a fast-growing population that remains dependent upon subsistence agriculture. Timor Leste has a UN Human Development Index of 0.595 and ranks 133 out of 188 countries, which puts Timor Leste in the medium human development category.

245. The total population is 1.2 Million, with 70% of the population living in rural areas. Life expectancy is 68.2 years which is an increase of 33.8 years on the life expectancy in 1980. Population is concentrated in the westerns part of the country, and in Dili and Baucau.

246. Despite being an oil rich country, Timor Leste is still one of the poorest countries in the Asia-Pacific. In Timor Leste 64.3% of the population (694,000 people) are multidimensionally poor while an additional 21.4 percent live near multidimensional poverty (231, 000 people). The breadth of deprivation (intensity) in Timor Leste, which is the average of deprivation scores experienced by people in multidimensional poverty, is 50.1%. The multidimensional poverty headcount is 29.4% points higher than income poverty. This implies that individuals living above the income poverty line may still suffer deprivations in education, health and other living conditions.

5.9.2 Land use and tenure

247. Sub-projects have been drawn from the PDIM list of projects that Sucos put together and then escalate up ultimately to a National level. This means that there has already been a participatory process undertaken and that general agreement for land use has already been given, or at least indicated to be acceptable.

248. The project and its sub-projects do not require involuntary resettlement or acquisition of land. Land to be used by the project is either government land or community land, for example all afforestation and infrastructure components will be undertaken on government land, while agroforestry will be focussed on community land. Agroforestry activities will be undertaken on both land owned by the community (ie communally owned) and on private land where landholders wish to participate (ie participation is voluntary). Land use rights will not changed by the project. Owner agreement to participate will be documented."

249. As described in this ESMF, before sub-projects can proceed they require screening as well as approval under the ELL. As part of this process, any potential land issues would be identified eg whether there are indigenous claims over the land or if land is protected or of cultural signficance. In such instances, the sub-project would not proceed until such issues were resolved, that is prior to sub-projects commencing on-site, formal documentation of land use agreements (owners consent, deed of donation etc) will be obtained. If this could not be obtained then the sub-project would not proceed under the GCF project.

250. Not withstanding the above, Timorese laws relevant to land and the securing of tenure would apply, including the Constitution, the Juridical Regime of Real Estate No. 11/2003, the Civil Code, Decree Law No. 27/2011 Regime for Regularization of Ownership of Immovable Property in Undisputed Cases, the Special Regime for the Definition of Ownership of Real Estate, Law 8/2017 the Law on Expropriation; and the Law on Real Estate Financial Fund. For example Law 8/2017 anticipates the need for the creation of administrative easements (rights of way, etc.) and provides for a mechanism of negotiation and payment of adequate compensation.

5.9.3 Disabled and Vulnerable People

251. 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.

252. 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.

253. 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.

5.9.4 Gender

254. Climate change affects women and men differently. The differential impact mainly emanates from differences in the power structures and power imbalances underlying gender relations. Understanding and addressing how gender relations shape women's and men's lives is critical to effective climate change adaptation and disaster risk reduction.

255. Timor Leste has a Gender Development Index[23] of 0.868, indicating inequality for females against the three main indicators. Labour force participation is less than 40% overall, with only 24.6% of females making up the labour force compared to 50% of males. Only 56.6% of the school-age population receives secondary education and adult literacy is 58.3%.

256. In Timor Leste, women are often excluded from certain activities due to customary norms or lack of capital and ownership arrangements that confer all rights to men in the family. Women hold very few leadership positions within the districts. In cases where women do participate in local level planning, they are in the minority. An important aspect of gender mainstreaming in Timor Leste is therefore to increase involvement of women in formal and informal decision-making processes.

257. Gender equality is fundamental to the Project, which seeks equal participation, access and benefit of women and men from all project outcomes. Gender equality issues are incorporated into the design, planning, implementation, monitoring and evaluation of the Project.

258. In Timor Leste, rural populations are greatly exposed to a range of hazards, including flash floods, landslides, soil erosion, coastal flooding and drought due to unfavourable terrain, socio-economic factors and intensification of these climate-induced hazards over time. Disasters and related risks and vulnerabilities have social as well as physical dimensions. The impact of disasters and related risks are different for women and men. Shaped by gender roles and relations this is reflected in their differential capacity to respond to disaster. Gender inequality and women's disempowerment are the determining factors behind women and girls being disproportionately affected by climate change and disasters; and at the same time their 'skills and life experiences are not identified as resources, and, therefore, are not incorporated into risk reduction and disaster preparedness, relief or recovery efforts'. Unless these inequalities are adequately assessed and incorporated into climate change adaptation and DRR measures, the disparities are likely to be exacerbated.

259. The Gender Action Plan (GAP) provideds concrete actions that will assist in fulfilling Timor Leste's commitment to gender equity and international obligations on gender responsive climate

[23] GDI - based on the sex-disaggregated Human Development Index, defined as a ratio of the female to the male HDI, measures gender inequalities in achievement in three basic dimensions of human development: health (measured by female and male life expectancy at birth), education (measured by female and male expected years of schooling for children and mean years for adults aged 25 years and older); and command over economic resources (measured by female and male estimated GNI per capita).

change and disaster risk measures. The GAP draws on lessons learnt from the UNDP SSRI project include the need for gender responsive planning and implementation. It includes 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. Indigenous, Ethnic and Minority Groups

260. The Indigenous Peoples that comprise Timor Leste's ethnic groups fall into two main categories of origin: Malayo-Polynesian and Papuan origin. The ethnic groups of Malayo-Polynesian origin are the Tetum, the Mambai, the Tukudede, the Galoli, the Kenmak, and the Baikeno. The Tetum comprise the largest Malayo-Polynesian group at around 100,000. They are followed by the Mumbai at about 80,000, the Tukudede are estimated at 63,170, the Galoli and Kemak both fall around 50,000, and the Baikeno at about 20,000. The ethnic groups of Papuan origin are the Bunak, the Fataluku, and the Makasae. The Bunak are estimated at 50,000, while the Fataluku are around 30,000 and the Makasae are about 70,000. Timor Leste endorsed the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2007.[24]

261. Timor Leste has many spoken languages reflecting past migration, colonialism and other occupation. Tetun and Portuguese languages have been given official status, with Indonesian and English considered working languages. Another fifteen or more indigenous languages also are spoken.

262. The project has been designed with the assistance of stakeholders and aims to provide benefits to the broader community. Notwithstanding, as with any project that involves construction, some dissatisfaction can occur and conflicts may arise. It is important that potential areas of tension are recognised early and appropriate actions taken to avoid or minimise conflict.

5.9.5 Performance Criteria

263. The following performance criteria are set for the project:

- the community has been consulted and project elements have been designed with their informed consultation and participation throughout the project;
- public disclosure conforms with GCF requirements;
- all stakeholders are appropriately represented;
- avoid adverse impacts to local community during construction and operations and where not possible, minimise, restore or compensate for these impacts;
- cultural heritage is not adversely impacted;
- community health and safety is protected and overall well-being benefits derived from the project;
- complaint and grievance mechanisms are put in place and proactively managed; and
- long-term social benefits are achieved.

264. Local stakeholders and community members have a key role to play in the implementation and monitoring of the project.

265. Consultation with stakeholders will continue. This will help ensure that stakeholders continue to be aware of the project, its progress and any changes in the project. It will also assist in identifying any issues as they arise.

[24] Cultural Survival (2016) Observations on the State of Indigenous Human Rights in Timor Leste. Prepared for: The 26th Session of the United Nations Human Rights Council Universal Periodic Review March 2016.

266. MCIE will be responsible for advisory support and extensions services to local beneficiaries along with being responsible for distributing material inputs and providing technical training and backstopping in the implementation of programme activities.

5.9.6 Reporting

267. Records of all consultations are to be kept and reported on monthly basis.

268. The MCIE must be notified in the event of any individual or community complaint or dissatisfaction and ensure the Grievance Redress Mechanism is complied with.

Table 13: Social Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
SM1: Involuntary resettlement or associated impacts	SM1.1: Undertake screening of sub-project using Screening Form (Appendix 6). Reject any sub-projects that result in involuntary resettlement or associated impacts.			
SM2: Community Engagement	SM2.1: Implement Stakeholder Engagement Plan. Maintain engagement activities throughout life of project.	All phases	MCIE	Maintain records
	SM 2.2: Carry out community consultation on the purpose and benefits of making changes to land use	Pre-construction	MCIE	Maintain records
	SM 2.3: Get community buy-in on any change of land use	Pre-construction	MCIE	Maintain records
	SM 2.4: Ensure compliance with the Grievance Redress Mechanism process	Entire construction and operation phase	MCIE	Maintain records
	SM2.4: Public disclosue – ensure that disclosure of information on sub-projects conforms with the disclosure requirements of GCF	All phases	MCIE	Maintain records
SM3: Public nuisance caused by construction/operation activities (eg noise, dust etc)	SM 3.1: Carry out community consultation prior to undertaking activities	Pre-construction	MCIE	Maintain records
	SM 3.2: Implement appropriate management plans (refer to Noise, Air, ESCP, and Waste sections of the ESMF)	Construction and operation	Site supervisor and MCIE	Daily and maintain records
	SM 3.3: Ensure compliance with the Grievance Redress Mechanism process	All phases	MCIE	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
SM4: Women, youth, disabled and other vulnerable people	SM4.1: Implement Gender Action Plan	All phases	MCIE	Maintain records
	SM4.2: Ensure that needs of disabled people and other vulnerable groups is taken into account during planning, design and execution of the project.	All phases	MCIE	Maintain records
	SM4.3: Ensure adequate representation of vulnerable groups in all stakeholder engagement activities	All phases	MCIE	Maintain records
	SM4.4: Ensure compliance with the Grievance Redress Mechanism	All phases	MCIE	Maintain records

5.10 Archaeological and Cultural Heritage

5.10.1 Background

269. Cultural history, folklore, assets and places are important matters for future planning. There is a need to understand the implications of cultural heritage assets on affecting future urban structure and land uses. Cultural heritage sites, areas, places and practices should be protected and celebrated via subsequent planning tools as an important feature of local identity and sense of place.

270. While no cultural heritage places, buildings and monuments are known to exist in areas where the project will be undertaken, further investigation of places and practices of cultural and historic heritage significance should be undertaken as part of the preparation process.

5.10.2 Performance Criteria

271. The following performance criteria are set for cultural heritage issues related to the project:

- There will be no impact on any important Archaeological, Indigenous and/or Cultural Heritage sites;
- Manage any specific sites of important Archaeological, Indigenous and/or Cultural significance (significant sites);
- Where there is a mix of modern development and traditional ‘fale’ areas within villages use community engagement to confirm options of enabling future development as nominated by the participants and protecting culturally significant traditional areasand
- Work with the village communities to differentiate between traditional village areas of cultural significance (uses and physical form) within each of the Village fono boundary areas during the construction phase of the project.

5.10.3 Monitoring

272. Local stakeholders and community members have a key role to play in the implementation and monitoring of the project.

273. Consultation with stakeholders will continue. This will help ensure that stakeholders continue to be aware of the project, its progress and any changes in the project. It will also assist in identifying any issues as they arise.

274. MCIE will be responsible for advisory support and extensions services to local beneficiaries along with being responsible for distributing material inputs and providing technical training and backstopping in the implementation of programme activities.

5.10.4 Reporting

275. Records of all consultations are to be kept and reported on monthly basis.

Table 14: Archaeological and Cultural Heritage

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
CH1: Damage or disturbance to significant important Archaeological, Indigenous and/or Cultural Heritage during the earth disturbances and land clearing activities	CH1.1: Should any important Archaeological, Indigenous and/or Cultural Heritage sites, immediately cease work within the area that the site has been observed and consult with the relevant Museum/traditional owner groups, UNDP, MCIE and archaeologist available for implementation during construction.	Pre and during construction	Contractor	Daily, maintain records and immediately notify UNDP and MCIE of any find

5.11 Emergency Management Measures

276. In the event of actions occurring, which may result in serious health, safety and environmental (catastrophic) damage, emergency response or contingency actions will be implemented as soon as possible to limit the extent of environmental damage.

277. The delivery organisation will need to incorporate emergency responses into the project complying with the requirements under the Occupational, Health and Safety Policy of the delivery organisation and the relevant TIMOR LESTE legislation.

5.11.1 Performance Criteria

278. The following performance criteria are set for the construction of the projects:

- no incident of fire outbreak;
- no failure of water retaining structures;
- no major chemical or fuel spills;
- no preventable industrial or work related accidents;
- provide an immediate and effective response to incidents that represent a risk to public health, safety or the environment; and
- minimise environmental harm due to unforeseen incidents.

5.11.2 Monitoring

279. An emergency response monitoring program has been developed for the projects (Table 15). The program is subject to review and update at least every two months from the date of issue. Importantly, visual inspections will be conducted by Field Coordinator daily with reporting to MCIE and UNDP staff on a weekly basis (minimum) noting any non-conformances to this ESMF.

5.11.3 Reporting

280. The MCIE and UNDP staff must be notified immediately in the event of any emergency, including fire or health related matter including those that have resulted in serious environmental harm.

281.

Table 15 Emergency Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1. Fire and Emergency management and prevention strategies implemented	E1.1: Flammable and combustible liquids bunding/storage areas to be designed in accordance with appropriate international standards	Pre and during construction	Contractor	Daily and maintain records
	E1.2: Fire extinguishers are to be available on site	During construction	Contractor	Daily and maintain records
	E1.3: No open fires are permitted within the project area	During construction	Field Coordinator	Daily and maintain records
	E1.4: Communication equipment and emergency protocols to be established prior to commencement of construction activities.			
	E1.5: Train all staff in emergency preparedness and response (cover health and safety at the work site). Coordinate with NDMO.	During construction	Field Coordinator	Daily and maintain records
	E1.6: Check and replenish First Aid Kits	During construction	Field Coordinator	Daily and maintain records
	E1.7: Use of Personal Protection Equipment	During construction	All Personnel	Daily and maintain records

6 BUDGET FOR ESMF IMPLEMENTATION

282. A budget has been prepared for the implementation of the ESMF as follows:

Item	Cost
ESMF Updating and Auditing	$10,000
General ESMF Expenses	$20,000
Ecological Monitoring/Wildlife rescue	$90,000
Water Quality Monitoring (field-based)	$60,000
Waer supply quality testing (incl lab costs) 38 x $2000	$76,000
Groundwater monitoring (where appropriate), including lab costs	$80,000
Erosion, Drainage and Sediment Control	$200,000
Cultural Heritage Management	$25,000
Stakeholder Engagement Workshops – 3 x six	$180,000
Grievance Redress Mechanism	$50,000
Indigenous Peoples Plans	$50,000
Total	**$841,000**

ANNEXURE ONE: COMMUNITY CONSULTATION AND STAKEHOLDER ENGAGEMENT INFORMATION

OVERVIEW

The GCF project was developed in close collaboration with the National Designated Authority (NDA) and informed by stakeholder consultations which are detailed below:

- Initial consultations (25th July 2016 to 3rd August 2016)
- Ministry Commerce, Industry and Environment (MCIE)
- Ministry of State Administration (MSA)
- Ministry of Social Solidarity (MSS)
- Ministry of Agriculture, Forestry and Fisheries (MAFF)
- Ministry of Planning and Strategic Investment – Mega Projects (MPIE)
- TL-National Commerce Bank (BNCTL)
- TL-Central Bank (BCTL)
- Ministry of Public Works, Transportation & Communication (MoPTC)
- Prime Minister Office (OPM)
- Chamber of Industry and Commerce – Timor Leste (CCI-TL)
- Bilateral and interdepartmental consultations (2nd November to 11th November 2916); MCIE, MSA, MAFF, MSS, MPIE, MoPTC (mainly Directory Generals), OPM, ILO GIZ, CCI-TL
- Community consultations and field surveys (28th July); District Administrators from the following municipalities (Bauca, Ermera, Aileu, Dili and Maliana)

National workshop. (7th November 2016)

Participating stakeholders - Govt: Directors/Focal Persons from MoF, MSA, MCIE, MoPTC, MPIE, MSS, MAF, OPMDP: UNDP, ILO, IFC

Summary of workshop – The key activities within the project concept were presented to the audience and the technical feasibility was debated with the technical directors present. Broad agreement was reached on all activities.

High level ministerial consultation (9th November 2016)

Consultees - Minister of MCIE, Minister of MSS, Minister of MSA, Secretary of State of MSA

Summary of workshop – The key activities within the project concept were presented to the audience and the technical feasibility was debated with ministers, and Secretary of State present. Broad agreement was reached on all activities. Main issues raised were regarding the implementation arrangements for the project. Also, questions regarding the number of municipalities being included in the project and whether it could include all municipalities.

Final workshop to validate the concept note (30th March 2017).

Participating stakeholders - Minister of MCIE, Secretary of State of MSA, Directors/Focal Persons from MSA, MCIE, MoPW, MSS, MAF, UNDP, ILO, IFC

Summary of workshop – The further elaborated key activities within the project concept were presented to the audience and the technical feasibility was debated with the technical directors present. Broad agreement was reached on all activities. MCIE was confirmed as Implementing Party and all Responsible Parties confirmed as outlined in the implementation arrangements diagram.

CONSULTATION WITH MUNICIPALITIES – PROJECT IDENTIFICATION

Stage 1 - National Level Consultation

Workshop

A workshop was conducted to explain the background and context of the GCF proposal including the criteria for the selection and identification of proposed infrastructure projects with due consideration to the changing climate related hazards that will compromise the projects.

Desk Review

Desk review of municipal projects as proposed part of the PDIM documents. Projects listed in the PDIM document that falls within the criteria of Small-Scale infrastructure and likewise offers greater benefit to vulnerable families or families and properties at risk due to Climate Change related hazards were initially selected.

Stage 2 - Municipal Level Consultation

Projects initially selected were validated to confirm that they meet the criteria of falling within areas that are highly at risk as a result of Climate Change and if said infra will reduce vulnerabilities of livelihood systems and other lifelines as well. GIS using hazard map layers and google earth images and local knowledge were used in this activity.

Stage 3 - Community consultation

Community leaders were contacted and met to validate the social acceptability of proposed projects. The team also conducted visual inspection of the proposed sites together with community members and municipal engineers.

Different teams of SSRI engineers and GIS experts covered the Eastern part and Western municipalities.

Consultation Meeting Notes on the Agroforestry Component of the GCF Proposal

- The following topics were explained as part of the introductory remarks before the formal consultation:
    - A brief background of the GCF proposal and how the project will contribute to the improvement of the condition of potential project beneficiaries;
    - The maps showing the specific location of the proposed projects;
    - The reason why the projects were selected and proposed and why there is a need to protect them from climate change related hazards and why are they at risk;
    - The basic concept Agroforestry and its potential as a mitigating measure (in addition to bio-engineering).
    - The catchment approach as a methodology of defining the target sites for Reforestation and Agroforestry as a mitigating measure;

- The possible roles of the government during the implementation of the Agroforestry intervention

- The list of participants during the consultation meetings is shown in Annex 1.
- After the discussion, the consultant also explained how the Fruits Trees will function as a component of the Agroforestry Intervention and how it will discourage farmers from cutting them or burning the farm
- It was also mentioned that the GCF project would assist in marketing the produce of their farm.
- The Municipal officials also showed their willingness to promote Agroforestry and the planting of the Agroforestry trees identified.

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
National Level Consultation-		
• Petronilo P. Munez, Jr. – UNDP Consultant • Adelino Rojario, Head of the Department of Reforestation/ Afforestation and Soil and Water Conservation, MAF-NDF	• Is there a written and approved national strategy for the implementation of Agroforestry projects or interventions? In there an operational guideline how to implement it?	• MAF has no specific written strategy on Agroforestry. However, even in the absence of the written documents, MAF is continuing to promote and encourage farmers to engage in it.
	• How are Agroforestry projects implemented being promoted/implemented by MAF?	• MAF managed a number central and community nurseries and is regularly engaged in distributing trees of forest and fruit bearing trees of high value. • Currently MAF is testing a new approach of directly hiring selected farmers to manage agroforestry farms. • As part of its mandate, MAF continuous to provide free technical assistance to development partners who implementing Agroforestry projects/activities
• Director of Forestry and Watershed Management	• Is the directorate interested and willing to take the lead in implementing a reforestation project, using Climate Change tools	• The response received was affirmative.

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
	for planning and strategizing, to protect infrastructures	
Municipal Consultation - Lautem		
• Petronilo P. Munez, Jr. – UNDP Consultant • Devindranauth Bissoon – Project Manager, UNDP-SSRI • Nelson Pereira Vicente – Engineer, UNDP-SSRI • Zeferino dos Santos Sequeria – President of Municipal Authority • Tibursio dos Santos – Chief, Panning Department • Jose Monteiro – Chief, Social and Economic Department • Eduardo da Costa - Director, Agriculture • Venancio Ximenes - Chief, Department of Extension, Agriculture	• What are the potential Agroforestry main crops of high economic value that will provide sustainable economic benefits to farmers (and local economy) as well as protect small-scale rural infrastructures?	• The species recommended were: ○ Mango ○ Coconut ○ Soursop ○ Cashew ○ Rambutan
	• What is the best scheme to implement the agroforestry interventions?	• Engage families and farmers groups directly. • Groups of farmers can also effectively manage a maximum area of 5 hectares. • The President of the Municipality is keen of directly participating and becoming one of the Agroforestry farmers
	• How are agroforestry projects implemented in the municipality?	• Seedlings of tree and fruit tree species are raised in municipal and community nurseries • Under the supervision of the Municipal Agriculture Office Suco Extension Workers (MSEW) seedlings are distributed to individuals, farmers or farmer groups • The size of the area planted were

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
		○ based on actual counting of seedlings planted and the spacing of planting. ○ based on just the list and number of seedlings distributed.
	• What additional support provided by MAF to the farmers who received the seedlings?	• Free technical assistance provided by MSEWs who are assigned in each Suco
	• Based on your experienced, what species of Agroforestry plants/trees are most suitable and viable to grow in the municipality?	• The species recommended were: ○ Coconut ○ Candle nut ○ Coffee ○ Cacao ○ Avocado ○ Rambutan ○ Mahogany ○ Teak ○ Narra ○ Casuarina
	• Where the Agroforestry projects successful?	• Most of the agroforestry interventions were unsuccessful due to: ○ Low survival rate of planted seedlings due to inability of farmers to maintain them effectively. ○ Some Agroforestry areas were burned intentionally or unintentionally ○ MSEWs were unable to monitor and assist most farmers because of limited budget (i.e. fuel allocation for

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
		motorbikes specially when an MSEW covers 2 Sucos)
	• Can MSEWs take additional responsibilities if the GCF project starts implementing the Agroforestry interventions?	• The response was affirmative, saying that MSEW are always ready to accept additional responsibilities if they will also be provided with fuel allowance.
	• Are MSEWs technical skills enough to effectively implement and supervise Agroforestry projects?	• The response was also affirmative though it was recommended having the MSEWs attend refresher course would help them become more successful service providers.
Municipal Consultation - Baucau		
• Petronilo P. Munez, Jr. – UNDP Consultant • Devindranauth Bissoon – Project Manager, UNDP-SSRI • Nelson Pereira Vicente – Engineer, UNDP-SSRI • Eduardo F. Ximenes – Chief, Planning • Maria Celestina Vegas - Municipal Secretary • Therasa da Costa – Chief, Horticulture and Industrial Plants, MAO	• What are the potential Agroforestry main crops of high economic value that will provide sustainable economic benefits to farmers (and local economy) as well as protect small-scale rural infrastructures?	• The species recommended were: ○ Sandal wood ○ Candle nut ○ Coconut ○ Breadfruit • Currently there is a youth group volunteer that promotes marking and protection of sandal wood trees in Watulari
	• What are the other Agroforestry species that are practically viable and suitable to grow in the municipality aside from those identified by municipal officials	• The species that were recommended are: ○ Teak ○ Gmelina ○ Casuarina ○ Mahogany

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
		○ Trembesi
	• What is your recommendation to effectively implement the Agroforestry intervention?	• Agroforestry activities should be implemented through existing farmer groups of MAF under the supervision of the Administrative Post Extension Coordinator (APEC) and the MSEWs • The seedlings should be raised near the target sites or in the communities
	• Are MSEWs technical skills enough to effectively implement and supervise Agroforestry projects?	• The response was affirmative
Municipal Consultation - Viqueque		
• Petronilo P. Munez, Jr. – UNDP Consultant • Devindranauth Bissoon – Project Manager, UNDP-SSRI • Nelson Pereira Vicente – Engineer, UNDP-SSRI • Gregorio Henriques – President of Municipal Authority • Paulino Pinto – Chief, Planning • Januario – Municipal Engineer	• Does the municipality have any plans to protect roads and other infrastructures from the negative impact of climate change like erosion, landslide/slip etc?	• The response of the Municipal President was not direct instead he emphasized that they are very keen to support the GCF proposal because the municipality requires assistance.
	• Based on your experienced, what species of Agroforestry plants/trees are most suitable and viable to grow in the municipality?	• The species recommended were: ○ Coconut ○ Cacao ○ Tangerine ○ Rambutan ○ Salak ○ Pineapple ○ Sandal Wood

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
• Fernando Joaquim – Director, Agriculture • Sr. Vasco Amaral – Forest Guard, Agriculture		○ Casuarina
	• What is your recommendation to effectively implement the Agroforestry intervention?	• The response was the same as in Baucau
	• Are MSEWs technical skills enough to effectively implement and supervise Agroforestry projects?	• Ditto
Municipal Consultations - Liquica		
• Petronilo P. Munez, Jr. – UNDP Consultant • Reinaldo Soares da Costa, UNDP-SSRI • Renato Nunes Serao – Deputy Administrator • Francisco dos Santos Pereira – Chief, Planning • Mario da Silva - Director, Agriculture	• What are the potential Agroforestry main crops of high economic value that will provide sustainable economic benefits to farmers (and local economy) as well as protect small-scale rural infrastructures?	• The species recommended were: ○ Mango ○ Guava ○ Soursop ○ Breadfruit ○ Tangerine ○ Rambutan
	• What is your recommendation to effectively implement the Agroforestry intervention?	• The response was the same as in Baucau
	• Are MSEWs technical skills enough to effectively implement and supervise Agroforestry projects?	• Ditto
Municipal Consultations - Ermera		
• Petronilo P. Munez, Jr. – UNDP Consultant • Reinaldo Soares da Costa, UNDP-SSRI • Jose Martinho dos Santos Soares –	• What are the potential Agroforestry main crops of high economic value that will provide sustainable economic benefits to farmers (and local economy) as well as protect small-scale infrastructures?	• The species recommended were: ○ Orange ○ Jackfruit ○ Mango ○ Avocado

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
President of Municipal Authority • Constantino Exposto – Chief, Planning • Sr. Jose de Deus – Director, Agriculture		○ Soursop ○ Rambutan
	• What is your recommendation to effectively implement the Agroforestry intervention?	• The response was the same as in Baucau
	• Are MSEWs technical skills enough to effectively implement and supervise Agroforestry projects?	• Ditto
Municipal Consultations - Aileu		
• Petronilo P. Munez, Jr. – UNDP Consultant • Devindranauth Bissoon – Project Manager, UNDP-SSRI • Reinaldo Soares da Costa, UNDP-SSRI • Vitoria Mesqúita do Rêgo – Deputy Administrator • Antonio Sarmento - Chief, Planning Department • Liborio de Orlheians Rodrigues, Municipal Engineer • Gallieni S. F.da C. Galhos – Director, Agriculture	• What are the potential Agroforestry main crops of high economic value that will provide sustainable economic benefits to farmers (and local economy) as well as protect small-scale infrastructures?	• The species recommended were: ○ Orange ○ Rambutan ○ Jackfruit ○ Avocado ○ Moringa
	• What is your recommendation to effectively implement the Agroforestry intervention?	• The response was the same as in Baucau • The assignment of a Technical Advisor in the municipality to assist in the project management was recommended

Level of Consultation/Key Persons	Topic and Questions raised?	Remarks/Response
	• What is the existing coordination mechanism to implement Agroforestry Intervention	• The Law on De-Concentration was mentioned and there exist a smooth coordination and collaboration among service providers of the municipality

GCF Formulation Mission 1 – 25th July to 3rd August 2016. Meeting notes – Summary of Mission findings

MCIE

- Issue of concept note being prepared in parallel with readiness for GCF (would like to wait and see if they can gain accreditation before participating in proposal development)
- Asked if MSA is the right institution to lead SSRI projects under GCF?
- Question of capacity to implement (UNDP questioned MCIE capacity to implement)
- Want to spread the no. of partners who implement projects on their behalf

MPI

- Deal with procurement and execution of funds for mega projects (> 1 Million)
- Project owned by respective line ministries
- They get involved at PPG stage. Project appraisal to prioritise funding at which stage two issues are raised (importance of project and readiness to execute)
- EIA is part of readiness
- MPI reviews all documents which would include (feasibility, EIA, detailed engineering design etc.) prepared by project owner (or consultant to project owner)
- Environmental licensing requirements started in 2011 under environmental law so come mega project might not have and EIA in which case they must prepare an environmental management study and plan and project in monitored by directorate.
- EIAs include all types of impacts
- MPI challenged the project formulation team to include the CR approach to mega projects and would like to see a component for this within the project.

MoPW – Meeting with Deputy Minister

- Proposal should focus on road bridges, flood defences and water supply.
- Issue of quality of construction of infrastructure should be addressed under the project

Meeting with MAF – DG forestry

- Experience of micro-financing through community grants (seeds for reforestation)

- Policy and Institutional strengthening for forestry – would like project to provide support to policy implementation
- LDN – Land degradation neutrality – Consultant to be hired soon to provide technical support to this programme
- Intend to set up forestry data base
- For last 1—15 years NGO led reforestation
- Now forestry department to deal with mitigation and adaptation
- Starting to plant sandalwood and forestry for animal feed, water storage and involvement of women important in water use and storage – 100 hectares completed
- 200 hectares to be planted in total
- Currently don't use any risk mapping for identification of areas for implementation (work based on experience and their own knowledge of the areas). Would benefit from RS e.g. drone technology which they are planning to use to help map the forest cover
- DARC project implementation
    - Success and lessons learned? Very good and well-designed non-structural and structural measures.
    - Results take time
    - Currently preparing seedlings for agro-forestry
    - Watershed management
- Other project examples for agro-forestry approaches
    - CBNRM – JICA – best practices
    - World Vision – Aileu – natural regeneration
    - Best practices from these projects include:
        - Community benefits
        - Can plant fruits etc. for consumption and profit
        - Sustainable forest management
    - EVOS and NGO implemented watershed management and conservation
        - Community and local authority involved in the concept
- Capacity building – request to support a trip to neighbouring country to visit
- Important watershed e.g. for JICA projects are: Viqueque & Baucau most important for watershed management
- In river basins where river beds are dry need reforestation to retain water and rehabilitate watershed functions
- Government doing investment plan for industrial plantation with benefits to communities
- Suggest that we should look at plan and target communities there
- Forestry department plan for future – teak sandalwood, rosewood, toona surene species. Already approved by cabinet in 25-year investment plan to 2042

- Areas identified – 85,000 hectares of government state land
    - 50,000 hectares – sandalwood
    - 15,00 hectares – teak
    - 20,000 hectares – toona surene
    - 20,000 hectares – rosewood
    - Depends on land law being finalised
    - Discussing whether to involve public and private sector
- Note: Project formulation team to review new forestry policy and see if it meets CR requirements of if it needs to be strengthened by project
- DG asked for project to support implementation of the policy. Get more details about specific activities he envisages for this.

Meeting with Secretary of State - MSA

- Lessons learned from SSRI
    - New approaches offered by SSRI project has resulted in significant impact to community
    - Bioengineering approach very good for TL which loses top soil and is vulnerable to erosion and landslides (e.g. Baucau)
    - Country context – 70% mountainous and 20% rivers
    - Land degradation in Indonesian times and no regeneration since
- Stakeholders
    - Under Social business component SMEs with capacity to build business but also project should provide training in financial management, business thinking etc. Not just a loan-building capacity to do business.
    - Agrees with loan guarantee scheme approach and thinks rules should be clearly laid out
    - Make sure we target most appropriate people to give loans to
    - MCIE and MSA have their methods for assessment of which is eligible for such funds (means testing???)

Meeting with BCTL

- Silvia – UNDP consultant who helped develop the social business loan –guarantee scheme
- + 1other
- Bank currently developing a loam scheme for livestock
- Policy that reflects climate resilience
- BCTL as regulator will develop the policies and rules and advocate for commercial banks to implement scheme
- Procedure and policy for livestock already developed but awaiting governmental approval
- Funds will sit in BCTL and can be accessed by banks
- In Malaysia, specific schemes for projects on CC
- Central Bank of Malaysia gave support to TL to setup loan guarantee fund

- Need to use livestock scheme as example of how we can implement
- Risks
    - Increased loan losses
    - Lack of technical advice for borrowers (project to assist with TA)
    - Suggest pilot study
    - Project to setup business incubator to support commercial banks (and would-be borrowers)
- Idea – set up criteria to include
    - Business case – should be very specific
    - Whether in infrastructure corridor
    - CCA or environmentally beneficial business
    - Whether the borrower has undergone incubator training
- Project can provide funds for potential SME's to bridge training gap and to introduce methods for identifying CR projects in rural areas
- Considers that there are no SMEs in TL currently
- IADE – gov't training which provides business incubator training for banks
- Project can be strengthened by putting a gender criterion to it.
- Control and monitoring of scheme
    - How to avoid people assessing two or more different loan schemes
    - Problem with currently developing policy, no special provision for CC or sustainable development
    - Policy should be approved by December

Meeting with Minster Pinto

- Explained GCF and readiness in parallel with current proposal preparation
- Explained the project components to him
- His requested the concept note so that he can review
- Wants to speak to his technical staff about issues related to how project is implemented and the role of MCIE. He also wants to discuss issues of partnerships with others

Meeting with Minister of MSS and technical staff

- Additional priorities for DRM and gaps
    - Policy and legislation – decree law broader than CC
    - Implementing mechanism – DRR to be integrated into planning process
    - Hazard mapping already done (GIS-based community mapping) of floods, landslides and strong winds (national) plus forest, earthquake for DARC
    - Suggested not re-inventing the wheel! Use existing hazard and vulnerability mapping approach
    - CBDRM –

  - Advocacy for mainstreaming contingency planning into DRM law is very high level, including how NGOs will operate in DRM.
  - Project can help to draft sub-laws e.g. for CBDRM

- Component 1 – L&D database – already exists (see NDND portal) however they want support for finalising the platform.
- TOMAK – similar elements to component 3 (AUSAID funding)

Meeting with District Administrators (note that meeting was entirely in Tetum and I was provided only very minimal translation during the meeting)

- Baucau
  - Would like an extension of the SSRI project in Baucau
  - Road extension projects to sucos should include climate resilience measures
  - Budget mechanisms should enable direct access to funds of Das in through the PDIM and PDID process. Would like direct access to funds from UNDP
  - Better minimum condition monitoring required.
- Liquica
  - Would like extension of SSRI project in Liquica
  - More budget
  - More Capacity Building
  - Lessons learned – enhance technical coordination in field
- Emera
  - Would like an extension of the project in Emera
- Alieu
  - Coordination with municipality important
  - Human resources – Community
  - Competency for involvement in project needs to be considered not just at national level.
  - Need to consider maintenance aspects

Meeting with UNFCC Focal point

- Training requirements for CCBC
  - Modelling on Climate modelling, crop modelling,
  - Loss and damages support through NAPA
  - Need to include NAP capacity building activities
- Problem
  - Need a decree law to enable and set up a coordinating body for CC (according to NAPA)
  - Need monitoring and evaluation framework
  - CC policy and law needed
- To put into project

- Policy, institutional arrangements (e.g. national commission on CC secretariat headed by PM)
- Legal basis with roles and responsibilities in place
- Inter-ministerial working group with a mandate to integrate CC into sectoral policies
- To enable strong implementation of CC into sectoral policies and address issues of poor penetration of CC into sectoral policies
- Training for CC negotiations

Meeting with SNGDP

- New decree law on decentralisation (document on harmonisation will be shared)
- Includes changes to Institutional arrangements for PDID
- New structure – main difference is municipality authority and municipality institutions
- Authority Chair = President (same level as SoS) with 3 secretaries, and direct budgeting (no need to await national approval of budgets. Responsible for won budget allocation)
- Institution Chair = Administrator (Same level as DG) with 1 secretary, indirect budget (national approval of budgets required).
- Any changes in finances will be between Min. of Finance and MSA
- Public finance system
  - 2nd September – new implemented system will be in place
  - Training for staff already done on new system
- Changes to PDID – re-establishment of Municipality Development committee reappointment of AP
- Climate resilience – in ministerial dispatch but not yet in ministerial decree. Can be put into decree when revised
- Joint ministerial decree
  - GCF Project can help to influence by helping to mainstream CC into the whole project cycle

Meeting with DG Miguel Carvalho

Component 1 - Policy and Legislation

- Include in project and activity to advocate for a revision for PDIM and PDID
- DRM policy includes CC and DRM decree deals with competences of each sector to deal with DRM. Municipal authorities will have DRM units (under article 6) to manage role currently undertaken by MSS
- Manual of SSRI will be included in PDIM and PDID legislation
- In his opinion, policy and legislation in place from DRM and CC

Component 2

- Local NGO's should be included in DRM and CC implementation and their role should be reflected in the policy and legislation

- Inclusion of CCR in mega projects – in his opinion the GCF project can help with developing the policy for this.

Project governance

- MSA will be happy to help with project governance discussion and advocacy
- Will discuss roles on project implementation with all relevant bodies
- Interested in being involved in the policy aspects to ensure that climate change and climate resilience approaches are fully embedded in the planning process for SSRI
- With respect to the inclusion of mega projects he thinks there will not be a political will particularly on government funded schemes to include CR into infrastructure. He thinks it is important and is encouraged that MPI director sees the introduction of CR into Mega projects as essential, but he is skeptical that it would have political backing. Suggest we include as advocacy and policy formulation at this stage.

Component 3

- See this as important to ensuring the introduction of livelihoods in the areas of SSRI and important to compensate for losses in livelihoods due to CC.

Meeting with EU

- Undertaking projects similar to component 3. Mainly on agro-forestry policy and capacity building of government
- Advises focusing on enforcement of existing legislation (not introducing new ones)
- Engage NGOs in implementation
- EU has project on small infrastructure, undertook review of rural roads (ILO report)
- Private sector component – EU in same types of project. Next year will be implementing 27-30 Million project (project document to be provided) on commercial wood sector. Involving youth, and support for implementation of the land law
- With respect to forestry law – EU money has been reserved for enabling environment for forestry development and training on implementation enabling environment.
- Undertaking agro-forestry research in the following districts – Bobonara, Viqueque, South of the Island (?), Lautem
- Bigger development partners already working in other areas (e.g. project of 30 Million in Baucau). Will be working at Municipal level (project will be implemented in 2018)
- GCCA – EU climate change project
- In Baucau working with forestry for replanting and distribution on trees
- Mangroves project with University of South Wales
- Working implementation of 14 weather stations
- Working with MCIE on Capacity building and INDC

Meeting with BNCTL

Component 3

- Keen to get into private sector stimulation
- Fits with BNCTL plans
- SME is the backbone of economy and more robust and resistant to economic shocks
- Reduces risk to bank and provides some confidence to borrower
- UNDP TA and Monitoring will be important
- Agreement (General principles and conditions only (on implementation of previous UNDP sustainable livelihoods scheme) but being reviewed by Ministry
- Once signed BNCTL will be able to implement
- Private sector currently comprises mainly contractors reliant on government grants (so not strictly private sector)
- Legal framework for private sector financing (land law, solvent, bankruptcy law etc.) not in place in TL.
- Rural areas – normally community land cannot be used as collateral (and with no land law, only community land available)
- Want to move away from collateral-based or security-based loans
- Want to move to cash-flow based loans. Therefore, a strong business case is important
- This in line with UNDP proposed scheme which will do both (provide collateral, and enhance business case production as well as provide business incubator training)
- Within business plans entire route to market needs to be mapped out for bank to approve cash-flow based loans
- < 10% of BNCTL loans are currently in rural areas
- Costly to do microfinancing (some charge 30% for micro-financing)
- Physical banking infrastructure in rural areas is poor
- BNCTL strategy – branches in districts and mobile banking units (vans) to reach sucos
- Interest rates currently 6-40% but micro-credit (few hundred to thousand dollars) < 10% interest rates can be obtained e.g. respected borrowers on good credit get rates of 6-8% (types of business includes agric., SME's and small market stall vendors)
- Problem with defaulters ($500-$3,000) among market vendors due to poor market administration (people disappear after taking loans and close stalls).
- Field staff in mobile units do informal education in financing and business diversification when they are out on field. (e.g. coffee growers receive advise).
- Bank also provides formal financial literacy and business management through programmes
- With respect to bank physical infrastructure in rural areas – need to create mechanisms to get closer to clients
- Mobile phone banking coming soon (BNCTL working in this)
- For SMEs interest rates can be reduced for small loans and they currently do rescheduling
- Bank would be open to using climate data to help identify likely climate-related finance repayment issues seasonally, for example due to imminent droughts or floods. Climate services to banks would be very welcomed. Can use climate information to adjust payment arrangements seasonally.

Technical Validation Workshop for GCF Project Formulation "Safeguarding communities and their physical and economic assets from climate change induced disasters in Timor-Leste"

Date: Tuesday, 8 November 2016, 09:00 – 12:00 TL time, Venue: Hotel Timor, Dili

Agenda:

TIME	ACTIVITY	RESPONSIBLE
08:30-08:50	Registration	Protocol/MC
09:00-09:10	Opening remarks from UNDP	UNDP Representative
09:10-09:20	Opening remarks from Government	MSA/DG of Urban Organization
09:20-09:30	Remarks from TL GCF FP	MCIE/DG of Environment
09:30-10:00	Presentation from Consultant	Project Formulation Team Leader Ms. Margaretta Ayoung
10:00-12:15	Q & A	MC
12:30-13:30	Closing and Lunch	

1. **Opening remarks from UNDP representative, Mr. Jose Belo (ACD/Head of RBU):**

Mr. Jose Belo welcome the participants and sited main objectives of the formulation of the five-year project for the GCF through scaling up the good practices from the ongoing UNDP projects such as Small Scale Rural Infrastructure (SSRI), Dili-Ainaro project and Social Business project.

2. **Opening remarks from Ministry of State Administration (MSA), Mr. Miguel de Carvalho, Director General for Urbanization, MSA**

Mr. Miguel de Carvalho, a key counterpart for the ongoing SSRI project with UNDP affirmed that SSRI is a unique project which differs from other district integrated development projects (PDID). SSRI bring in the bio-engineering approach to protect infrastructure. It has ensured that all the BOQs for its projects has climate change element. He added that it has been a good advantage to include climate change in the project. He also highlighted that SSRI good practices worth to be replicated and requested active participation of the workshop participants to help validate the project framework for the GCF project formulation.

3. **Opening Remarks from UNDP by Ministry of Commerce, Industry and Environment (MCIE), National Designated Authority (NDA), Mr. Joao Carlos, Director General for Environment, MCIE**

Mr. Joao Carlos started his remarks by informing that the new GCF focal point is Mr. Augusto Pinto (National Director for Climate Change, MCIE). He mentioned that the three are different mechanism for countries to access funds such as the GEF for LDCs and SIDS and new funding mechanism through the GCF. He affirmed that UNDP has been working with MCIE with different projects which were based on

the international climate change treaties sand agreements such as the Paris agreement. UNDP has been the agencies which have implemented most of the GEF projects in the countries aside from other 4 agencies such as FAO and others.

4. **Presentation on the project concept note by GCF formulation Team lead by Dr. Margaretta Ayoung (Annex 2)**

5. **Discussion (Q&A)**

Mr. Crispin Fernandes, Director for Mega Projects under Ministry of Planning Investment and Strategy (MPIS) concern about the status of the proposal which now still in the form of concept note. He suggested the team to have a look on the list of infrastructures that are implemented by the government and do the long listing and shortlisting in terms of those that are not climate resilient yet. He also suggested to distribute copy of presentation before the meeting to help the audience understand the content and ready for discussion. He also mentioned about the reference to the dripping irrigation system in Hera that used to sustain water.

Mr. Joao from Ministry of Public Works, Transport and Communication (MoPTC) recommended that include strengthening coordination among line ministries for sustainable capacity building through trainings and innovative activities using ICT.

Ms. Signi form MPIE requested information on the proposed project budget and its duration which not mentioned in the presentation.

Mr. Adolfo from National Director for Disaster Management (NDMD) of Ministry of Social Solidarity (MSS) requested the team to start with defining priorities and conduct an in-depth assessment in terms of defining area of interventions and number of beneficiaries.

Mr. Acacio, Lecturer from National University and representative form the Climate Change and Biodiversity Center (CCCB) highlighted importance of analyzing the existing publicized references/documents to help identify gaps. He reminded that one of the challenge in Timor-Leste is on the population settlement. He also added that it important to have intersectoral approach among line ministries. He also suggested to have references on the type of species (native and alien) that can grow in the country e.g. vetiver. He affirmed that Small Medium Enterprises (SMEs) is an important sector in Timor-Leste linking with the production (quality and quantity) of agricultures and crop resistant for climate change.

Mr. Mario Nunes, Director General for Forestry, Ministry of Agriculture and Fisheries (MAF) expressed that most of the poverty in the country caused by lack of water. It is important to focus on water and harvesting system. MAF is currently developing a project on it where can be a reference to the GCF project formulation. He suggested to consider intervention for adaptation and mitigation in one place that will help us to see immediate impact. Also, ensure participation of women. He also requested the team to have a look on the JICA data in 2013 on ecosystem services linking to the forestry law. Water is also very much link with El Nino which has caused water stressed and dead of animals.

Mr. Gil from Office of Prime Minister recommended to also involve other government institutions such as the Institute for Petroleum and Geophysics (IPG) to be able to attain the GIS data for the high sediments link with erosion. He also asked if there are possibilities for the government to get the access to the GCF.

6. **Closing**

LINKS ON FACEBOOK AND TWITTER ABOUT GREEN CLIMATE FUND IN TIMOR-LESTE

- A series of posts have been made regarding the project on Facebook and Twitter to assist those interested in the project keep abreast of its development. The following posts have been made to date:On Nov 8, 2016 posted by UNDP - Validation Workshop. https://web.facebook.com/UNDPTimorLeste/posts/1129564920426819

- On Feb 9, 2017 posted by MCIA - Inception Workshop Regarding Green Climate Fund Readiness Project. https://web.facebook.com/mcia.gov.tl/posts/404728479865431
- On Feb 9, 2017 Facebook posted by Shanti - Inception Workshop of Green Climate Fund (GCF) Readiness Project of Timor-Leste implemented by Ministry of Commerce, Industry and Environment with support from GCF and Technical support from UNDP. https://www.facebook.com/shanti.karanjitojha/posts/10101499674013054
- On Mar 8, 2016 Tweeter posted by UNDP - Brainstorming session on Green Climate Fund #GCF #ClimateChange with Timor-Leste sectoral ministries staff. https://twitter.com/UNDPTimorLeste/status/707389697928994816
- On Mar 9, 2017 Facebook posted by UNDP - Keti Chachibaia, our Regional Technical Specialist shares information on Green Climate Fund to UNDP and government staff. https://www.facebook.com/UNDPTimorLeste/posts/972650649451581
- On March 30, 2017 Facebook posted by Shanti - Happening Now: Validation Workshop for Project Concept Note for Green Climate Fund. @UNDPTimorLeste, in its role as an Accredited entity for GCF is supporting government of Timor-Leste to develop TL's first national level project Concept Note to access GCF to support Climate Change Adaptation. https://www.facebook.com/shanti.karanjitojha/posts/10101559082128714
- On Mar 30, 2017 Facebook posted by Alamgir - UNDP Timor Leste is assisting the Government of Timor Leste to design a project addressing climate change issues. The project will be submitted to the Green Climate Fund soon. https://www.facebook.com/permalink.php?story_fbid=610919072446483&id=100005851868742
- On Apr 19, 2017 Facebook posted by UNDP - The Ministry of State Administration and UNDP held a meeting to discuss the new Green Climate Fund (GCF) project proposal “safeguarding communities and their physical and economic assets from climate change induced disasters in Timor-Leste” this afternoon. https://web.facebook.com/UNDPTimorLeste/posts/1278197672230209

ANNEXURE TWO GUIDANCE FOR SUBMITTING A REQUEST TO THE SOCIAL AND ENVIRONMENTAL COMPLIANCE UNIT AND/OR THE STAKEHOLDER RESPONSE MECHANISM

Empowered lives.
Resilient nations.

Guidance for Submitting a Request to the Social and Environmental Compliance Unit (SECU) and/or the Stakeholder Response Mechanism (SRM)

Purpose of this form

- **If you use this form, please put your answers in bold writing to distinguish text**
- **The use of this form is recommended, but not required. It can also serve as a guide when drafting a request.**

This form is intended to assist in:

(1) Submitting a request when you believe UNDP is not complying with its social or environmental policies or commitments and you are believe you are being harmed as a result. This request could initiate a 'compliance review', which is an independent investigation conducted by the Social and Environmental Compliance Unit (SECU), within UNDP's Office of Audit and Investigations, to determine if UNDP policies or commitments have been violated and to identify measures to address these violations. SECU would interact with you during the compliance review to determine the facts of the situation. You would be kept informed about the results of the compliance review.

and/or

(2) Submitting a request for UNDP "Stakeholder Response" when you believe a UNDP project is having or may have an adverse social or environmental impact on you and you would like to initiate a process that brings together affected communities and other stakeholders (e.g., government representatives, UNDP, etc.) to jointly address your concerns. This Stakeholder Response process would be led by the UNDP Country Office or facilitated through UNDP headquarters. UNDP staff would communicate and interact with you as part of the response, both for fact-finding and for developing solutions. Other project stakeholders may also be involved if needed.

Please note that if you have not already made an effort to resolve your concern by communicating directly with the government representatives and UNDP staff responsible for this project, you should do so before making a request to UNDP's Stakeholder Response Mechanism.

Confidentiality If you choose the Compliance Review process, you may keep your identity confidential (known only to the Compliance Review team). If you choose the Stakeholder Response Mechanism, you can choose to keep your identity confidential during the initial eligibility screening and assessment of your case. If your request is eligible and the assessment indicates that a response is appropriate, UNDP staff

will discuss the proposed response with you, and will also discuss whether and how to maintain confidentiality of your identity.

Guidance

When submitting a request please provide as much information as possible. If you accidentally email an incomplete form, or have additional information you would like to provide, simply send a follow-up email explaining any changes.

Information about You

Are you…

1. A person affected by a UNDP-supported project?

Mark "X" next to the answer that applies to you: Yes: No:

2. An authorized representative of an affected person or group?

Mark "X" next to the answer that applies to you: Yes: No:

If you are an authorized representative, please provide the names of all the people whom you are representing, and documentation of their authorization for you to act on their behalf, by attaching one or more files to this form.

3. First name:
4. Last name:
5. Any other identifying information:
6. Mailing address:
7. Email address:
8. Telephone Number (with country code):
9. Your address/location:
10. Nearest city or town:
11. Any additional instructions on how to contact you:
12. Country:

What you are seeking from UNDP: Compliance Review and/or Stakeholder Response

You have four options:

- Submit a request for a Compliance Review;
- Submit a request for a Stakeholder Response;
- Submit a request for both a Compliance Review and a Stakeholder Response;
- State that you are unsure whether you would like Compliance Review or Stakeholder Response and that you desire both entities to review your case.

13. Are you concerned that UNDP's failure to meet a UNDP social and/or environmental policy or commitment is harming, or could harm, you or your community? Mark "X" next to the answer that applies to you: Yes: No:

14. Would you like your name(s) to remain confidential throughout the Compliance Review process?

Mark "X" next to the answer that applies to you: Yes: No:

If confidentiality is requested, please state why:

15. Would you like to work with other stakeholders, e.g., the government, UNDP, etc. to jointly resolve a concern about social or environmental impacts or risks you believe you are experiencing because of a UNDP project?

Mark "X" next to the answer that applies to you: Yes: No:

16. Would you like your name(s) to remain confidential during the initial assessment of your request for a response?

Mark "X" next to the answer that applies to you: Yes: No:

If confidentiality is requested, please state why:

17. Requests for Stakeholder Response will be handled through UNDP Country Offices unless you indicate that you would like your request to be handled through UNDP Headquarters. Would you like UNDP Headquarters to handle your request?

Mark "X" next to the answer that applies to you: Yes: No:

If you have indicated yes, please indicate why your request should be handled through UNDP Headquarters:

18. Are you seeking both Compliance Review and Stakeholder Response?

Mark "X" next to the answer that applies to you: Yes: No:

19. Are you unsure whether you would like to request a Compliance Review or a Stakeholder Response? Mark "X" next to the answer that applies to you: Yes: No:

Information about the UNDP Project you are concerned about, and the nature of your concern:

20. Which UNDP-supported project are you concerned about? (if known):

21. Project name (if known):

22. Please provide a short description of your concerns about the project. If you have concerns about UNDP's failure to comply with its social or environmental policies and commitments, and can identify these policies and commitments, please do (not required). Please describe, as well, the types of environmental and social impacts that may occur, or have occurred, as a result. If more space is required, please attach any documents. You may write in any language you choose

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-
-
-

23. Have you discussed your concerns with the government representatives and UNDP staff responsible for this project? Non-governmental organisations?

Mark "X" next to the answer that applies to you: Yes: No:

If you answered yes, please provide the name(s) of those you have discussed your concerns with

Name of Officials You have Already Contacted Regarding this Issue:

First Name	Last Name	Title/Affiliation	Estimated Date of Contact	Response from the Individual

24. Are there other individuals or groups that are adversely affected by the project?

Mark "X" next to the answer that applies to you: Yes: No:

25. Please provide the names and/or description of other individuals or groups that support the request:

First Name	Last Name	Title/Affiliation	Contact Information

Please attach to your email any documents you wish to send to SECU and/or the SRM. If all of your attachments do not fit in one email, please feel free to send multiple emails.

Submission and Support

To submit your request, or if you need assistance please email: project.concerns@undp.org

ANNEXURE THREE: INDIGENOUS PEOPLE'S AND ETHNIC MINORITIES PLANNING FRAMEWORK

INTRODUCTION

1. This Indigenous People's and Ethnic Minorities Planning Framework (IPEMPF) has been prepared in support of a project proposal for "Safeguarding Communities and Their Physical and Economic Assets from Climate Change Disasters in Timor Leste" by the Government of Timor Leste to the Green Climate Fund (GCF). Ethnic minorities are known to live within the project area, and as such, an IPEMPF has been prepared for the project.
2. Following national policies on Indigenous Peoples and Ethnic Minorities, this IPEMPF has been prepared to guide the formulation of project components, ensuring equal distribution of project benefits between Indigenous Peoples and Ethnic Minorities and non-Indigenous Peoples/Ethnic Minorities who are affected by the Project. The principal objectives of the IPEMPF are to:

- Screen project components early to assess their impacts on Indigenous Peoples and Ethnic Minority households;
- ensure meaningful participation and consultation with Indigenous Peoples/Ethnic Minorities living in the project locations in the process of preparation, implementation, and monitoring of project activities;
- provide a framework to mitigate any possible and unintended adverse impacts to ethnic minorities;
- ensure that Indigenous Peoples/Ethnic Minorities receive culturally appropriate social and economic benefits from the project;
- outline the monitoring and evaluation process of the review and implementation of the plan.

Overview of the Project

3. The project objective is to safeguard vulnerable communities and their physical and economic assets from climate change induced disasters and aims to address institutional, financial and legislative barriers and shift the baseline scenario towards climate resilience.
4. The project is seeking to address climate induced hydrometeorological threats to infrastructure and ecosystems in particularly vulnerable catchment areas to enable Local Administrations, to supply and maintain critical small scale rural infrastructure for rural communities currently vulnerable to extreme hydrometeorological event, leading to measurable increases in household income as well as increased food insecurity and health issue.
5. The project will first, strengthen capacities of mandated institutions to assess and manage the risks of climate induced losses and damages, embed new skills, innovative methods and technologies in risk identification and mitigation and improve availability of risk information. Second, the project will invest in small-scale rural infrastructure to ensure their resilience to climate change induced extreme hazards. Third, the project will invest in livelihoods and land use management that is conducive to a long-term resilience of the target communities and their physical and economic assets.

PRESENCE OF INDIGENOUS PEOPLES/ETHNIC MINORITIES IN THE PROJECT AREA

6. With a population of just over 1.1 million, Timorese are linked closely. At the same time, is both multiethnic and multilingual, with 20 individual languages in use - 19 indigenous languages and one

non-indigenous[25]. Timor-Leste endorsed the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2007.

7. In Timor Leste, ethnic groups fall into two main categories of origin: Malayo-Polynesian and Papuan origin. The ethnic groups of Malayo-Polynesian origin are the Tetum, the Mambai, the Tukudede, the Galoli, the Kenmak, and the Baikeno.
8. The largest Malayo-Polynesian group are the Tetum (100,000), who live around Dili, follwed by the Mambai (80,000) in the mountains, the Tukudede (63,000) around Liquica and Maubara, the Galoli (50,000), the Kemak (50,000) in north-central Timor island, and the Baikeno (20,000)[26].
9. The main groups of Papuan origin are the Bunak (50,000) in the central region of Timor Island, the Fataluka (30,000) near Lospalos and the Makasae at the eastern end of the island.
10. There is also a large population of people of mixed East Timorese and Portuguese origin called mesticos, and a small Chinese minority.
11. While there is some regional separation of groups, Timor Leste is a very small country, so mixing also occurs.
12. It is worth noting that, after the devastation of the war, considerable efforts have been made to promote a sense of solidarity, that is, to have the population consider themselves Timorese first and foremost, while continuing to recognise that almost 50% of the population could also identify as indigenous. None the less, the importance of cultural identities is recognised by the government as demonstrated by initiatives such as the teaching in local/indigenous languages during early school years to reduce the disadvantage that students who do not speak main languages face.

Assumptions Underpinning the Development of the Indigenous People's Planning Framework

- This framework has been prepared on the basis that none of the interventions will require the displacement/resettlement of people.
- Sub-projects will be screened using the process described in the ESMF and the presence of any indigenous people in the sub-project area and whether an Indigenous people/Ethnic Minority Plan (IPEMP) is required (ie whether the sub-project may affect rights, lands, territories and resources of indigenous peoples) identified through this process.
- That if necessary, an IPEMP will be prepared for sub-projects where required, based on the outline contained in this IPEMF.

LEGAL AND INSTITUTIONAL FRAMEWORK FOR INDIGENOUS PEOPLES

Legislation, Policies and Regulations

13. The following legislation is relevant to the project with respect to indigenous people:

- Constitution of the Democratic Republic of Timor Leste. - The right to a clean and healthy environment is a universally recognised human right and, as such, the constitution of the Democratic Republic of Timor Leste regards environmental protection from a dual perspective: as a core responsibility of the State and also as a fundamental right of all citizens.
- Law 9/2002 Law on Citizenship
- Law 1/2003 The Juridical Regime of Real Estate

[25] https://www.ethnologue.com/country/tl
[26] http://worldpopulationreview.com/countries/Timor Leste-population/

- Law 14/2008 Base Law for Education

Multilateral Agreements and Protocols relevant to Indigenous Peoples

14. The Government of Timor Leste is a signatory to a number of international and regional agreements and conventions, which are related to ethnic minorities. They include:

- Convention on the Rights of Persons with Disabilities
- Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment
- International Covenant on Economic, Social and Cultural Rights
- Convention on the Elimination of All Forms of Discrimination Against Women
- International Covenant on Economic, Social and Cultural Rights
- Convention for the Projection of All Persons from Enforced Disappearance
- International Convention on the Elimination of All Forms of Racial Discrimination

Institutional Arrangements and Implementation of IPEMPs

15. The IPEMPs will follow the same institutional arrangements and implementation modalities outlined in the ESMF.
16. The grievance mechanism outlined in the ESMF will apply to all aspects of the project.
17. As with environmental aspects (ESMPs), site specific IPEMPs will be prepared as necessary during the detailed design stage.

Free, Prior and Informed Consent (FPIC)

18. Numerous international and regional instruments have affirmed FPIC as a legal norm imposing clear affirmative duties and obligations on States that should be pursued in a wide range of circumstances. While there is no single internationally agreed definition of FPIC, there is a sufficient and growing consensus around what FPIC is comprised of, and regarding the bare minimum measures that a State must take to guarantee its respect, protection and enjoyment. At a very general level, FPIC may be understood as the right of indigenous peoples to approve or reject certain proposed actions that may affect them and that the process for reaching such a decision must possess certain characteristics.
19. While all consultations with indigenous peoples should be carried out in good faith with the objective of achieving agreement, Standard 6 of the UNDP SES stipulates circumstances in which FPIC *must* be pursued and secured before proceeding with the specified actions:

- **Rights, lands territories, resources, traditional livelihoods:** FPIC will be ensured on any matters that may affect the rights and interests, lands, resources, territories (whether titled or untitled to the people in question) and traditional livelihoods of the indigenous peoples concerned. Sub-project activities that may adversely affect the existence, value, use or enjoyment of indigenous lands, resources or territories shall not be conducted unless agreement has been achieved through the FPIC process.
- **Resettlement:** No relocation of indigenous peoples will take place without the free, prior and informed consent (FPIC) of the indigenous peoples concerned and only after agreement on just and fair compensation, and where possible, with the option of return. Note, no resettlement is proposed as part of this project.

- **Cultural Heritage:** UNDP will respect, protect, conserve and not take or appropriate the cultural, intellectual, religious and spiritual property of indigenous peoples without their free, prior and informed consent.

20. The following checklist should be used to assist in helping to determine whether sub-project activities may require an FPIC process.

Checklist for appraising whether an activity may require an FPIC process	Yes/No
Will the activity involve the relocation/resettlement/removal of an indigenous population from their lands?	
Will the activity involve the taking, confiscation, removal or damage of cultural, intellectual, religious and/or spiritual property from indigenous peoples?	
Will the activity adopt or implement any legislative or administrative measures that will affect the rights, lands, territories and/or resources of indigenous peoples (e.g. in connection with the development, utilization or exploitation of mineral, water or other resources; land reform; legal reforms that may discriminate de jure or de facto against indigenous peoples, etc.)?	
Will the activity involve natural resource extraction such as logging or mining or agricultural development on the lands/territories of indigenous peoples?	
Will the activity involve any decisions that will affect the status of indigenous peoples' rights to their lands/territories, resources or livelihoods?	
Will the activity involve the accessing of traditional knowledge, innovations and practices of indigenous and local communities?	
Will the activity affect indigenous peoples' political, legal, economic, social, or cultural institutions and/or practices?	
Will the activity involve making commercial use of natural and/or cultural resources on lands subject to traditional ownership and/or under customary use by indigenous peoples?	
Will the activity involve decisions regarding benefit-sharing arrangements, when benefits are derived from the lands/territories/resources of indigenous peoples (e.g. natural resource management or extractive industries)?	
Will the activity have an impact on the continuance of the relationship of the indigenous peoples with their land or their culture?	

21. If the answer to any of the above questions is 'Yes', it is likely that FPIC will be required of the potentially affected peoples for that specific activity that may result in the impacts identified in the questions.

Undertaking an FPIC process

22. When an FPIC process is required, a stakeholder consultation and validation exercise to define the parameters of the FPIC process will need to be initiated. The FPIC process should be launched as early as possible. In all cases, no activities predicated on the granting of FPIC should be initiated until the outcomes of the FPIC process are validated and any required mitigation measures are in place.

23. The indigenous peoples who may be affected by the Project will have a central role in defining the FPIC process. A facilitator should support this process, a person who will be available throughout the Project, who speaks the necessary languages and is aware of the project context, and is culturally and gender-sensitive. If possible, the facilitator should be identified by the affected

indigenous peoples. It will also be helpful to involve any actors which are likely to be involved in implementing the FPIC process, such as local or national authorities.

24. Facilitators, in cooperation with the government and stakeholders, are responsible for ensuring, among other things, that the following key arrangements are part of the FPIC process:

- Full, accurate information regarding the Project (e.g. positive and negative, potential risks and short and/or long term impacts, benefits) is communicated in the most appropriate language and medium, ensuring that is easily understandable and accessible (innovative and creative forms of communication may be required)
- Information reaches all members of affected indigenous community and is consistent with the community's mechanisms for information sharing
- A secure, culturally appropriate and trusted environment for discussions is provided
- Decision-making processes, timelines, and languages for communicating are determined by the affected indigenous peoples without interference
- Customary laws and practices of the affected indigenous peoples are respected.

25. The overall aim of the FPIC process with all stakeholders is to obtain a signed agreement or oral contract witnessed by an independent entity agreed to by both parties, ensuring that the greatest number of community members are involved and represented, including potentially marginalized groups. The community's customs and norms for participation, decision making and information sharing are to be respected.

26. While the objective of the FPIC process is to reach an agreement (consent) between the relevant parties – be it a signed agreement or otherwise formalized oral contract – this does not mean that all FPIC processes will lead to the consent of and approval by the rights-holders in question. At the core of FPIC is the right of the peoples concerned to choose to engage, negotiate and decide to grant or withhold consent, as well as the acknowledgement that under certain circumstances, it must be accepted that the sub-project will not proceed and/or that engagement must be ceased if the affected peoples decide that they do not want to commence or continue with negotiations or if they decide to withhold their consent to the sub-project.

OUTLINE OF THE INDIGENOUS PEOPLES PLAN

27. An Indigenous and Ethnic Minority People's Plan (IEMPP) is required for all projects with impacts on Indigenous Peoples/Ethnic Minorities. Its level of detail and comprehensiveness is commensurate with the significance of potential impacts on Indigenous Peoples. This outline guides the preparation of an Indigenous Peoples Plan, although not necessarily in the order shown.

Executive Summary of the Indigenous Peoples Plan

28. This section concisely describes the critical facts, significant findings, and recommended actions.

Project Description

29. This section provides a general description of the project; discusses project components and activities that may bring impacts on Indigenous Peoples/Ethnic Minorities; and identify project area.

Social Impact Assessment

30. This section:

- reviews the legal and institutional framework applicable to Indigenous Peoples/Ethnic Minorities in project context;
- provides baseline information on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples/Ethnic Minorities; the land and territories that they have traditionally owned or customarily used or occupied; and the natural resources on which they depend;

- identifies key project stakeholders and elaborate a culturally appropriate and gender-sensitive process for meaningful consultation with Indigenous Peoples/Ethnic Minorities at each stage of project preparation and implementation, taking the review and baseline information into account;
- assesses, based on meaningful consultation with the affected Indigenous Peoples/Ethnic Minority communities, and the potential adverse and positive effects of the project. Critical to the determination of potential adverse impacts is a gender-sensitive analysis of the relative vulnerability of, and risks to, the affected Indigenous Peoples/Ethnic Minority communities given their particular circumstances and close ties to land and natural resources, as well as their lack of access to opportunities relative to those available to other social groups in the communities, regions, or national societies in which they live;
- includes a gender-sensitive assessment of the affected Indigenous Peoples/Ethnic Minorities' perceptions about the project and its impact on their social, economic, and cultural status; and
- identifies and recommends, based on meaningful consultation with the affected Indigenous Peoples/Ethnic Minorities communities, the measures necessary to avoid adverse effects or, if such measures are not possible, identifies measures to minimize, mitigate, and/or compensate for such effects and to ensure that Indigenous Peoples/Ethnic Minorities receive culturally appropriate benefits under the project.

Information Disclosure, Consultation and Participation

31. This section:

- describes the information disclosure, consultation and participation process with the affected Indigenous Peoples/Ethnic Minority communities that can be carried out during project preparation;
- summarizes their comments on the results of the social impact assessment and identifies concerns raised during consultation and how these have been addressed in project design;
- in the case of project activities requiring broad community support, documents the process and outcome of consultations with affected Indigenous Peoples/Ethnic Minority communities and any agreement resulting from such consultations for the project activities and safeguard measures addressing the impacts of such activities;
- describes consultation and participation mechanisms to be used during implementation to ensure Indigenous Peoples/Ethnic Minorities participation during implementation;
- Where FPIC has been identified as being required, FPIC processes to be outlined and strategy to obtain to be clearly stated; and
- confirms disclosure of the draft and final to the affected Indigenous Peoples/Ethnic Minority communities.

Beneficial Measures

32. This section specifies the measures to ensure that Indigenous Peoples/Ethnic Minorities receive social and economic benefits that are culturally appropriate, and gender responsive.

Mitigative Measures

33. This section specifies the measures to avoid adverse impacts on Indigenous Peoples/Ethnic Minorities; and where the avoidance is impossible, specifies the measures to minimize, mitigate and compensate for identified unavoidable adverse impacts for each affected Indigenous Peoples/Ethnic Minorities.

Capacity Building

34. This section provides measures to strengthen the social, legal, and technical capabilities of (a) government institutions to address Indigenous Peoples/Ethnic Minorities issues in the project area;

and (b) Indigenous Peoples/Ethnic Minority organizations in the project area to enable them to represent the affected Indigenous Peoples/Ethnic Minorities more effectively.

Grievance Redress Mechanism

35. This section describes the procedures to redress grievances by affected Indigenous Peoples/Ethnic Minority communities. It also explains how the procedures are accessible to Indigenous Peoples/Ethnic Minorities and culturally appropriate and gender sensitive. It is anticipated this would utilized the already developed Grievance Redress Mechanism established under the Indigenous Peoples Planning Framework.

Monitoring, Reporting and Evaluation

36. This section describes the mechanisms and benchmarks appropriate to the project for monitoring, and evaluating the implementation of the Indigenous Peoples Plan. It also specifies arrangements for participation of affected Indigenous Peoples/Ethnic Minorities in the preparation and validation of monitoring, and evaluation reports.

Institutional Arrangement

37. This section describes institutional arrangement responsibilities and mechanisms for carrying out the various measures of the Indigenous Peoples Plan. It also describes the process of including relevant local organizations and/or NGOs in carrying out the measures of the Indigenous Peoples Plan.

Budget and Financing

38. This section provides an itemized budget for all activities described in the Indigenous Peoples Plan.

ANNEXURE FOUR: EROSION, DRAINAGE AND SEDIMENT CONTROL MANAGEMENT PLAN AND CONTAMINATED SOIL DISPOSAL MANAGEMENT PLAN OUTLINE

PROJECT DESCRIPTION

- Provide a comprehensive description of the project; and
- Include an overview of the pre-construction, construction, and operational phases of the project.

PURPOSE, SCOPE AND OBJECTIVE

The section should include:

- Scope of the Erosion, Drainage and Sediment Control Management Plan (EDSCP) and Contaminated Soil Disposal Management Plan (CSDMP) ;
- Establish objectives for general EDSCP and CSDMP;
- Establish specific objectives for site specific EDSCP and CSDMP;
- Relationship to specific mitigation measures.

STATUTORY AND REGULATORY REQUIREMENTS

- Legislative requirements as prescribed in the Project Environmental and Social Management Framework (ESMF) and Environmental and Social Management Plan (ESMP).

POTENTIAL IMPACTS

- Overview of impacts identified in ESMF and ESMP.

EROSION AND SEDIMENT CONTROL IMPACTS AND MITIGATIONS

Tabulate the following information:

- Source of Impact
- Potential Impact and Relevant Management Plan Objective
- Mitigation and Management (Design Feature/ Specific Measure)
- Mitigation Measure
- Activity/ Monitoring
- Frequency
- Duration
- Responsibility
- Evidence.

PROJECT IMPLEMENTATION (HUMAN RESOURCES, PARTNERS, AND ORGANISATIONAL RESPONSIBILITIES)

- Describe human resources for implementation of the plan and component programs/interventions;
- Clearly define roles and responsibilities and organisational structure;
- Discuss training that will be provided; and
- Describe potential partners (NGOs, government, etc.) and their respective roles and responsibilities.

RESOURCES

- Equipment requirements including erosion and sediment control devices (sediment fencing, silt curtains, etc) water quality monitoring equipment; and on-site weather monitoring station;
- Staff involved including Construction Environmental Officer; Environmental Coordinator; Monitoring Officer; Environmental and Regulatory Manager; and
- Registers including water quality monitoring record; and non-conformance register.

SCHEDULE

- Multi-year schedule of implementation for the component programs/ interventions and the overall plan.

MONITORING AND EVALUATION

- Overall monitoring and evaluation framework that integrates the monitoring and evaluation requirements for the component programs/ interventions.

REPORTING AND NOTIFICATION

- Contractor's monthly report including results of the surveys and inspections; and number and results of verification inspections, including but not limited to landform stability inspections, sediment control structure and stockpile inspections and control measures implemented to manage failing sediment control structures and stockpiles.

BUDGET

- Budgets for the component programs/ interventions and the total cost of the plan.

ANNEXURE FIVE: EXAMPLE OF ENVIRONMENTAL IMPACT ASSESSMENT UNDERTAKEN FOR SIMILAR PROJECTS

ANNEXURE SIX: SUB-PROJECT SOCIAL AND ENVIRONMENTAL SCREENING FORM

Green Climate Fund Project

Safeguarding communities and their physical and economic assets from climate change induced disasters in Timor Leste

Sub-Project Environmental and Social Screening Template

[*This Screening Form should always accompany the Subproject EIA Package for review by UNDP and assessment by MCIE***]**

A. Activity and Site Information

Sub-Project Name:	
Activity/Site Name:	
Type of Activity:	
Name of Reviewer and Summary of Professional Qualifications:	
Date of Review:	

B. Screening

Screening Question	**Yes /No**	**If Yes or True, Requirements/Measures**
A. Sub-Project Eligibility		

Screening Question	Yes /No	If Yes or True, Requirements/Measures
1. Would the subproject encroach into or be located in officially declared Protected Areas of natural habitats (e.g. natural parks)?		Subproject is not eligible for funding under the project
2. Would the subproject result in the significant conversion of any critical natural habitats (i.e. primary forest, critical wetlands, endangered species habitat, etc.) eg conversion of primary growth forests into agroforestry areas?		Subproject is not eligible for funding under the Project
3. Would the sub-project require displacement of people or involve involuntary land acquisition?		Subproject is not eligible for funding under the Project
4. Would the subproject involve civil works or construction activities on lands whose ownership is being disputed?		Subproject is not eligible for funding under the Project
5. Would the sub-project displace, damage or render inaccessible, any national or specific community's cultural heritage/property?		Subproject is not eligible for funding under the Project
B. Type of Assessment		
7. Is the sub-project a Category A as per Timor Leste Environmental Licensing Law (2011) screening criteria?		EIA for Category A sub-projects: an environmental impact statement (EIS) and environmental management plan (EMP) is required
8. Is the sub-project a Category B as per Timor Leste Environmental Licensing Law (2011) screening criteria?		IEE for Category B sub-projects: a simplified environmental impact statement (SEIS) and environmental management plan (EMP) required
9. Is the sub-project a Category C as per Timor Leste Environmental Licensing Law (2011) screening criteria?		Category C projects are not required to go through any environmental assessment procedure (other than classification)

Screening Question	Yes /No	If Yes or True, Requirements/Measures
12. Is the sub-project site located close to any protected areas designated by government (national park, forest reserve, world heritage site, etc.)?		Prepare an ESMP that includes measures to ensure that project activities do not encroach into protected areas and measures to minimize or mitigate any impacts of subproject activities in the nearby protected area.
C. Cultural Properties		
15. Is the proposed sub-project site near a known archaeological or paleontological site; or is it within a potential archaeological or paleontological site?		Adopt the Chance Find Procedure; Attach a Chance Find Procedure to the Sub-project Proposal
F. Involuntary Resettlement and Land Acquisition		
16. Would the sub-project adversely affect lands, crops, structures, other properties and/or livelihoods.		The subproject cannot proceed until the risk of involuntary resettlment impacts has been removed. (1) Project Affected Persons (PAP) Survey; (2) Minutes and other Evidence of consultation being conducted on the PAPs, included in the subproject proposal package
17. Would the sub-project displace people's homes and/or people's livelihood or restrict access to traditional economic resources?		The subproject cannot proceed until the risk of involuntary resettlment impacts has been removed. (1) Project Affected Persons (PAP) Survey; (2) Minutes and other Evidence of consultation being conducted on the PAPs, included in the subproject proposal package
18. Would the subproject involve, require or result in acquisition of land, right-of-way and/or easements rights?		Project is not to proceed if land acquisition is required.
19. Are there any existing ownership or land use disputes on the proposed land?		Sub-project cannot proceed unless issues resolved. Evidence of acceptable resolution will be required.
19. Is the land to be use still classified under public land?		Clearance from authorities.

Screening Question	Yes /No	If Yes or True, Requirements/Measures
20. Is the land privately owned?		Document owners willingness to participate in sub-project (agroforestry).
G. Indigenous Peoples		
20. Is the Subproject site inside any IP Ancestral Domain?		The subproject proponent must undergo FPIC process and secure Certificate of Precondition (CP).
21. If the subproject is not within any ancestral domain, are there any IP community/ies in the subproject's influence area to be affected (either positively or adversely) by the subproject?		The subproject must undergo free and prior informed consultation with the IP community/ies and must show evidence of the attainment of broad community support. Documents required: (1) Minutes or other evidence of consultation conducted among IPs; (2) Evidence of broad IP community support.

Screening Result Summary

(To be filled up by the Screening Officer)

Check the box that applies:

☐ The sub-project is not eligible for funding under the Project due to (state reason briefly):

☐ The sub-project proposal currently does not qualify for the Project funding, but may be resubmitted for consideration after complying with the following requirements/actions (check all that applies based on the above screening table):

____Change of location/site (Please state specific reason i.e. avoiding protected area of natural habitat, purchase of pesticides from project funds, cultural heritage property sites):_____

____Change in the sub-project design to address the following (please specify required changes): _____

[Note that sub-projects that are revised and resubmitted will be subjected again to the above screening checklist.]

☐ The sub-project as proposed is eligible for funding and may proceed to comply with processing and preparation of the following safeguard instruments (check only those that apply based on the above screening):

____ EIS with ESMP

____ SEIS with ESMP

____ Evidence of Free Prior Informed Consent among IP Communities

____ Evidence of Broad IP Community Support (Resolution, Endorsement, Letter, etc.)

____ Land Acquisition and Resettlement/Compensation Plan

____ Chance Find Procedure

[Note that the specific issues/recommended measures identified in the above screening checklist shall also be addressed in the relevant safeguard instruments. During the review, the instruments will be checked against the above checklist.]

Name and Signature of Screening Officer: _____

Date Completed: _____

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SAFEGUARD CLEARANCE (To be filled only after review of the sub-project proposal package)

☐This Subproject is deemed ineligible because of the following reasons [*State valid reasons such as erroneous Screening*]:

_____

☐ This Sub-project is not yet cleared of Safeguards requirements pending compliance of the following [*Write down pending requirements and sign with initials of the reviewing officer*]:

_____

☐ This Sub-project is given conditional clearance and may proceed to implementation subject to the compliance of the following requirements on or before the deadlines specified. [*Write down requirements and their agreed deadlines. Note that this option should only be resorted to when the pending requirements are already underway and will not have implications on the implementation of the subproject*]:

Requirement	Deadline
_____	_____
_____	_____

☐This Sub-project is cleared of Safeguards requirements and may proceed with implementation.

_____

Safeguards Screening Officer

- **SESP Attachment 1. Social and Environmental Risk Screening Checklist**

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		**Answer (Yes/No)**
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? [27]	
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	
5.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	
6.	Is there a risk that rights-holders do not have the capacity to claim their rights?	
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? *For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being*	
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?	

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

	For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes	
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	
1.4	Would Project activities pose risks to endangered species?	
1.5	Would the Project pose a risk of introducing invasive alien species?	
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? *For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.*	
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant[28] greenhouse gas emissions or may exacerbate climate change?	
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	

[28] In regards to CO_2, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	
5.3	Is there a risk that the Project would lead to forced evictions?[29]	
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	

[29] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? *If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.*	
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol*	
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	

Annexure Seven: Application Form for Environmental License

DEMOCRATIC REPUBLIC OF TIMOR-LESTE
MINISTRY OF COMMERCE, INDUSTRY AND ENVIRONMENT
STATE SECRETARIAT FOR ENVIRONMENT
National Directorate for Environment

APPLICATION FOR ENVIRONMENTAL LICENCE

This is an official form under *Decree Law 05/2011 on Environmental Licensing*. This form should be completed in its entirety and submitted to the National Directorate for Environment, along with all required supporting documentation.

Proponent Information

Proponent: _____ Business Registration No.: _____

Contact name for Proponent: _____

Proponent's address for correspondence: _____

_____

Telephone (fixed): _____ Telephone (mobile): _____ Fax: _____

Give details of any group(s) of companies that the Proponent forms part of:

_____

Activity/Project Information

New development? ○ Modification, amendment or rehabilitation? ◉ Proposed start date: _____

Location Subdistrict: _____ Suco: _____ Aldeia: _____

Longitude/Latitude: _____

Sensitive location factors (multiple choices permitted)

☐ Sensitive or valuable ecosystems	☐ Unique and valuable landscape	☐ Archaeological and/or historical site	☐ Densely populated areas
☐ Presence of cultural communities	☐ Sensitive geographical areas	☐ Any kind of protected areas	☐ Other

Further description of location:

_____

Type of project (Choose the most suitable development type)*

☐ Mining	☐ Petroleum Industry	☐ Energy	☐ Industry
☐ Transport	☐ Construction	☐ Sanitation	☐ Water
☐ Agriculture/ Livestock/Forestry	☐ Tourism	☐ Defense and Security	
☐ Other			

Size and scale of project/development: _____

_____

Potential adverse impacts by the proposed project (multiple choices permitted)**

☐ Air pollution	☐ Water pollution	☐ Solid waste	☐ Waste water	☐ Noise and vibration
☐ Soil contamination	☐ Land subsidence	☐ Odors	☐ Land degradation	☐ Soil erosion
☐ Sedimentation	☐ Water use change	☐ Health and safety	☐ Climate change	☐ Socio-economic
☐ Other				

Application continues on next page

Environmental Licence Application, continued

Describe briefly the potential adverse impacts.

Describe briefly the activities that may cause these impacts.

Has any community consultation been conducted? If so, please provide details.

Declaration of Compliance

I, the undersigned Proponent (or representative, there of), hereby state that the information provided in/with this application is accurate and complete. I declare that I, and my agents, will comply with all applicable laws, regulations and guidelines relevant to this project.

Signature: _____ Date: _____

Print name: _____

Attach required information, including: 1) maps, plans, and drawings that detail the proposal; 2) detailed description of the activity/project; 3) copies of any existing license, agreement, or memorandum established with the RDTL government; 4) the results of any technical/ feasibility studies completed for the proposal.

*Criteria of development type: please refer to Annex I and Annex II of *Decree Law 05/2011 on Environmental Licensing* for guidance on the classification of projects.

**Type of adverse impacts

[Air pollution]	Air emissions from vehicles, construction equipment, industrial plants and so on
[Water pollution]	Water emissions from chemical/agrochemical, fertilizer, oil, heated water, waste water, so on
[Solid waste]	Hazardous/non-hazardous, combustible/non-combustible waste
[Waste water]	Hazardous/non-hazardous liquid waste, domestic waste water, waste oil from factories, and so on
[Noise and vibration]	Noise and vibration from vehicles, construction activities, machinery noise, and so on
[Soil contamination]	Leachate from solid waste, toxic material, and so on, into soil
[Land subsidence]	Pumping underground water, building a facility on unstable land
[Odors]	Pollution (water and air), solid/liquid waste, sedimentation, and so on, creating negative odors
[Land degradation]	Land clearing, large-scale plantations, erosion and so on
[Soil erosion]	Earth works causing cleared or sloped land, deforestation, and so on
[Sedimentation]	Sedimentation by disposal of untreated waste water
[Water use change]	Various activities using large volumes of water; agriculture, industrial processes, hydro power plant, potable water and so on
[Health and safety]	Activities potentially causing accidents such as vehicles, construction equipments, operation facilities and so on
[Climate change]	Activities using fossil fuels, or causing emissions of greenhouse gases

1 **FOR OFFICE USE ONLY**

Date received: Reference number:

Recorded by: Classification: (Category A ☐ B ☐ or C ☐)

Additional comments, notes or recommendations (attached if necessary):

[Socio-economic]	Activities affecting society and/or economy, including land acquisition causing involuntary resettlement, population movement into the affected area, and so on.

ANNEXURE EIGHT: PROJECT DOCUMENT CHECKLIST

Sample Checklist for the Project Document to be submitted for screening

I. Review criteria of each area

No.	Items	Page	Rating
1	Details of proponent		
1.1	Name, address and contact details (phone number and e-mail address, and so on) of the proponent are adequately described.		
Comments on Section 1			
2	Location and scale of the project		
2.1	The maps or plans of the location of the project are at the appropriate scale to help determine the relative size of the proposed project, components and activities.		
2.2	[Recommended] GPS coordinates is provided.		
2.3	Maps or plans relative to existing features, including but not limited to; i. Watercourses and water bodies ii. Linear and transport components iii. Other features of existing or past land use iv. Community lands and nearby communities v. National parks, protected areas, or other environmentally sensitive areas vi. Fisheries and fishing areas vii. Hunting areas. d. Photographs of the proposed project location, where possible e. Description of the legal ownership of the land to be used for the proposed project, including any title, deed or documentation, or lease or other authorization.		
2.4	[Recommended] Photographs of the proposed project location are provided.		
2.5	Legal ownership of the land to be used for the proposed project, including any title, deed or documentation, or lease or other authorization is described.		
Comments on Section 2			
3	District and villages		
3.1	The name of the districts and villages in the proposed project and surrounding area where would be affected is provided.		
Comments on Section 3			
4	Technical drawing		
4.1	Plans and technical drawing of the proposed project are described.		
Comments on Section 4			
5	Feasibility studies of the proposed project		
5.1	[Recommended] Summary of the technical studies on the feasibility of the proposed project is described.		
Comments on Section 5			