

TIMOR-LESTE ROAD CLIMATE RESILIENCE PROJECT (TLRCRP)

RFP No.: RFP/021/MOPTC-2017

BRANCH ROAD SECTION OF THE DILI - AINARO ROAD NAMELY, AITUTO - HATUBUILICO - LETEFOHO - GLENO

Environmental and Social Management Plan (ESMP)

May 2019



AITUTO TO HATUBUILICO, STA. 0+000
BEGINNING POINT/JCT. AITUTO, NARROW ENTRANCE



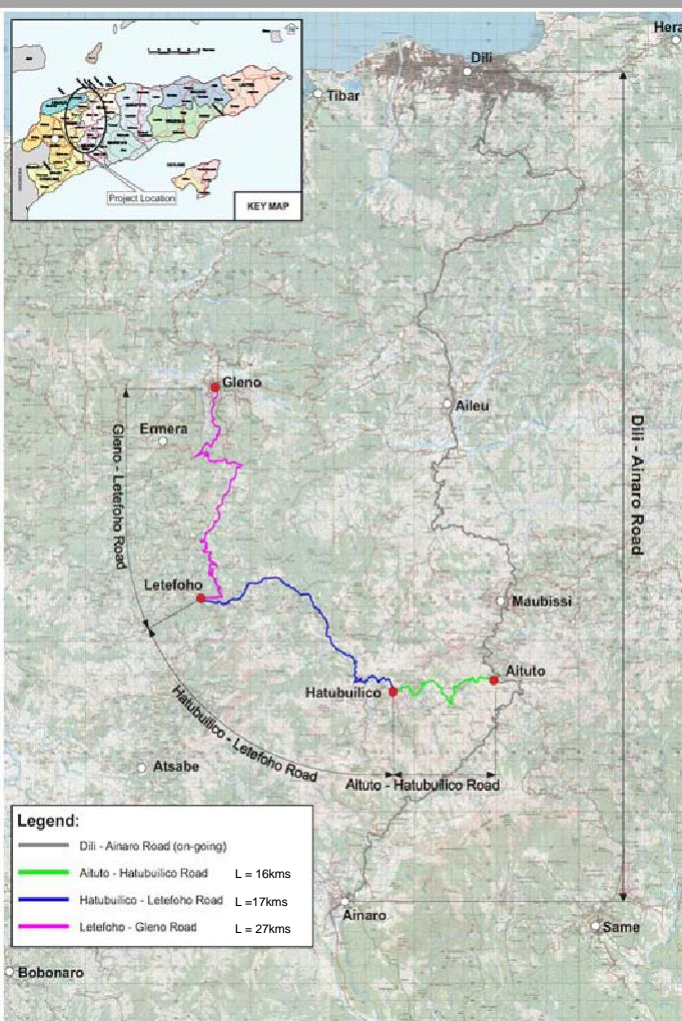
AITUTO TO HATUBUILICO, STA. 4+000
NARROW ROW, STEEP TERRAIN AND
STEEP GORGE SLOPE



AITUTO TO HATUBUILICO, STA. 5+500
RESIDENTIAL AREAS



HATUBUILICO TO LETEFOHO, STA. 15+000
ON-GOING ROAD WIDENING: MT. RAMELAU



HATUBUILICO TO LETEFOHO, STA. 24+000
EXISTING SEALED ROAD



HATUBUILICO-LETEFOHO, STA.29+000
BIG TREES AND COFFEE PLANTATION



LETEFOHO TO GLENO, STA. 42+000
GRAVEL ROAD



LETEFOHO TO GLENO, STA.54+200
RIMEU BRIDGE

Environmental and Social Management Plan (ESMP)

Timor Leste Road Climate Resilience Project (TLRCRP)

Branch Road Section Dili - Ainaro: Aituto – Hatubuilico – Letefoho – Gleno

May 2019

This Environmental and Social Management Plan is a document of the Proponent. The views expressed herein may be preliminary in nature.

In preparing the Environmental and Social Management Plan and making reference to a particular territory or geographic area in this document, the Proponent does not intend to make any judgments as to the legal or another status of any territory or area.

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Abbreviations and Acronyms

ANPM	–	National Authority for Petroleum and Minerals (MPMR)
CAFI	–	<i>Conselho de Administracao do Fundo Infraestrutura</i>
CESMP	–	Construction Environmental and Social Management Plan
DEIA	–	Department of Environmental Impact Assessment (in DNCPIA)
DNCPIA	–	<i>Direcao National Controlo Polusaun e Impacto Ambiental</i>
DRBFC	–	Directorate of Roads, Bridges and Flood Control
DSC	–	Design and Supervision Consultant
EA	–	Executing Agency
EARF	–	Environmental Assessment and Review Framework
EHS	–	Environmental Health & Safety Guidelines (of World Bank Group)
EIS	–	Environmental Impact Statement
ELL	–	Environmental Licensing Law (Decree No. 5/11)
ESMP	–	Environmental and Social Management Plan
ESO	–	Environment and Safety Officer (Contractor)
EO	–	Environment Officer (in PMU)
GBV	–	Gender-based Violence
GRC	–	Grievance Redress Committee
GRM	–	Grievance Redress Mechanism
GoTL	–	The Government of Democratic Republic of Timor-Leste
IA	–	Implementing Agency
IEE	–	Initial Environmental Examination
IEC	–	International Environmental Consultant (PISC)
IES	–	International Environmental Specialist (PMU)
IIC	–	Included in Contract
MAF	–	Ministry of Agriculture Fisheries
MOF	–	Ministry of Finance
MPMR	–	Ministry of Petroleum and Mineral Resources
MPW	–	Ministry of Public Works
NEC	–	National Environmental Consultant (PISC)
NES	–	National Environmental Specialist (PMU)
NGO	–	Non – Governmental Organization
PISC	–	Project Implementation and Supervision Consultant
PMU	–	Project Management Unit
ROW	–	Right-of-way
SEA	–	Sexual Abuse and Exploitation
LARP	–	Land Acquisition and Resettlement Plan
SEIS	–	Simplified Environmental and Social Impact Statement
TOR	–	Terms of Reference
WB	–	The World Bank

1. Executive Summary and Statement of Environmental Policy

1.1 Overview

1. This Environmental and Social Management Plan (ESMP) is prepared for the Branch Road Section Dili – Ainaro. The Project will rehabilitate and upgrade about 60 Km stretch of the road from Aituto to Hatubuilico section in Ainaro Municipality, and from Hatubuilico to Letefoho, and Letefoho up to Gleno section in Ermera Municipality that pass through the several settlements.
2. The Project Proponent is the Government of Timor-Leste (GoTL) and the implementing agency is the Ministry of Public Works (MPW). The Project Management Unit (PMU) is established within MPW to manage and implement the Project.
3. Environmental Impact Assessment Consultants from Katahira & Engineers International (KEI) has completed the environmental assessment and assisted the PMU to complete the final report. The impact study was carried out up to 50 m of both roadsides.
4. The legal framework requirements are governed by the Government of Timor-Leste environmental laws and regulations, as well as the World Bank's Operational Policy (OP) 4.01 Environmental Assessment. Environmental impacts summary in this ESMP is integrated with the corresponding mitigation measures, monitoring methods and reporting with the objective of avoiding and reducing the impacts to the acceptable levels during the pre- construction, construction and operation phase.
5. Social impact assessment focused on identifying risks and mitigation strategies as they relate with gender equality, social and disabilities inclusion, with a special focus on gender-based violence, and was carried out by JU,S Jurídico Social.
6. The Governing parameters are the IFC Environmental, Health, and Safety (EHS) General Guidelines (2007) which will apply to the implementation of the Project as the best internationally available practice for environmental standards and as required by the World Bank.
7. The requirements of the environmental monitoring program and reporting describe the protocols to systematically record the mitigation implementation in the ESMP that covering all activities to ensure they are in compliance with legal and corporate requirements. The monitoring program will determine mitigation effectiveness, and enhancement measures and facilitate management of unanticipated impacts.
8. The related parties have roles and responsibilities to implement the Project as the human and financial resources to do progress and achieve statutory compliance and implementation of the Contract and this Environmental and Social Management Plan (ESMP).
9. A preliminary emergency plan and decommissioning plan are included for the Contractor updating in the pre-construction stage. Subsequently, training and capacity development is included for the Contractor and national staff of the supervision consultant.
10. Public Consultation has conducted, it was focused to received feedback for elaborating the Environmental and Social Management Plan, to address issues raised by stakeholders. The ESMP document will be disclosed in a place and language accessible to stakeholders, including a mechanism for dealing with complaints and redress grievances.
11. The proposals for the work plan are identified and the executing cost of the ESMP is estimated, including the need and procedures for review of the Environmental and Social Management Plan implementation. The non-technical summary is provided in

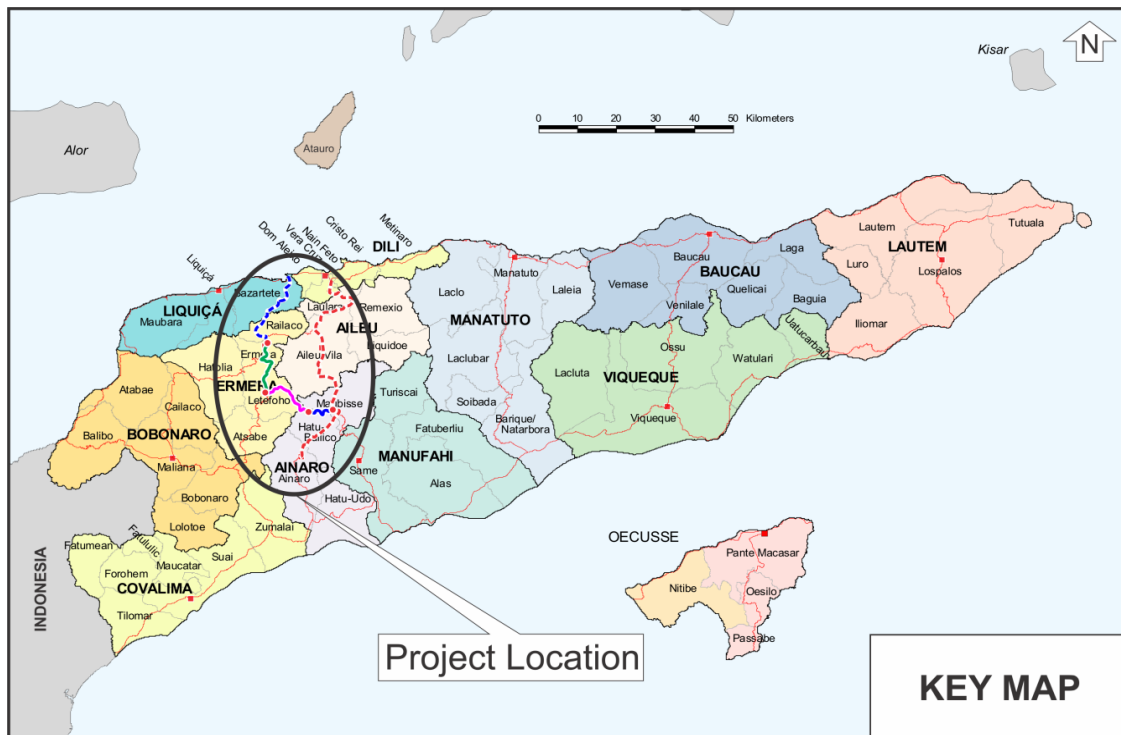
Tetum and English.

12. The Project operations will have overall beneficial impacts such as improving access to the health and education facilities as well the tourism access, reducing dust, reducing travel time and travel costs, including improving socio-economic conditions. It will have less insignificant negative impacts that will nevertheless be adequately mitigated and carefully monitored. A major benefit of the proposed Project is the accessibility to the social services in Dili being provided by faster access along the south mountainous road.
13. This ESMP covers all sections 1-3, however the planned investments under the Bank's funded Timor Leste Branch Roads Project will only cover Section 2 and 3. There will also be other activities under this project for the road safety improvements, institutional strengthening (technical assistance) and project management. The safeguard instruments for these activities are described in more detail in Section 4.1 and Appendices of this ESMP.
14. A series of public consultations at the village/*Suco* levels was undertaken as part of the SEIS/ESIA process. Prior to these consultations, information about project activities was disseminated to potentially impacted communities along the Branch Road corridor through *Suco* leaders and information boards as well as the general public and authorities through district meetings and survey assessments. A complete record of these consultations can be found in Annex 2.

1.2 Introduction

15. This Environmental and Social Management Plan (ESMP) for the Branch Road Section Dili- Ainaro consist of section 1 which start from Aituto to Hatubuilico, going up to Section 2 (Hatubuilico – Letefoho) and continue to Section 3 (Letefoho – Gleno). The Branch Road Project will improve and upgrade the Municipality road from Aituto – Hatubuilico – Letefoho – Gleno of about 60 Km in length. The ESMP is the primary environmental and social document for the implementation phase of the Branch Road Section of Dili – Ainaro of Timor-Leste Road Climate Resilience Project that is supported by other environmental and social requirements. This ESMP prepared by the proponent (MPW) through the Environmental Team in PMU, in responding the requirements for ESMP identified in the Simplified Environmental and Social Impact Statement (SEIS)/Environmental and Social Impact Assessment (ESIA) as required by the World Bank. The preparation of this ESMP also received support from Consultant working for the Feasibility Study and Detailed Design, Katahira & Engineers International.

Figure 1.1 – Map of Branch Road Section Dili - Ainaro



Source: KEI Consultant, 2018

16. The selected Contractor for the Branch Road Project will update this ESMP at the pre-construction phase and make a commitment to implement all the requirements of this ESMP under their contract. The Contractor required to deliver company environmental policy in the tender proposal and update this ESMP as necessary in the form of an Environmental Safeguards Implementation Plans (ESIPs or Construction ESMP) in the pre-construction phase.
17. This Environmental and Social Management Plan is presented by the Proponent as the first stage in the implementation process and in partial fulfillment of environmental obligations under the Environmental Licensing Law (Decree Law 05/2011). The ESMP accepted under the environmental laws of Timor Leste will be included in the Contract. Adherence to this ESMP will not absolve the selected Contractor from other obligations under the Laws of Timor-Leste as may be updated and amended from time

to time. This ESMP may also be updated and amended to considerate of any unforeseen impacts or changes in the requirements of GoTL guidelines and initiatives as may be promulgated from time to time.

18. This Environmental and Social Management Plan summarizes the impacts and mitigation measures required that were presented in the SEIS and in Bid Documents for considering by the Contractor at the earliest stage. The ESMP requirements will be part of the Contract and the details prescribed in the ESMP will be mandatory, both in nature as well as contractually. The ESMP will be equally applicable to Subcontractors, including nominated Subcontractors (if any).
19. At the stage of the bidding process, the Contractor will be instructed to carefully consider the requirements for environmental management contained in this ESMP when preparing the bid and pricing the items of Work. The Contractor will need to accept that the prescriptions and clauses detailed in the ESMP are an integral part of the Contract for relevant items of Work; unless separate items are included in the Bill of Quantities. The Contractor will need to accept that separate payment will not be made in respect to compliance with the ESMP. The Contractor should, therefore, be aware that in case the Contractor or Subcontractors fail to implement the ESMP recommendations, the Engineer shall take necessary action(s) to ensure that the ESMP is properly implemented and/or to rectify the damages caused by such negligence. Should there any cost, thus incurred will be recovered from the Contractor payments.
20. The road Project improvements will enhance the existing road network, hence the impacts are largely on-site and involve road improvement works along the existing road corridor. However, there will be impacts off-site as well, mainly at the Contractor construction camp, casting yard, batching plant, asphalt mixing plant (AMP) and waste disposal areas and other manufactured materials (quarry and crushers, etc.) from different sources that are permitted to operate under Government of Timor-Leste requirements. There will also be some areas of land required where the road geometry is changed. The Proponent will make arrangements to implement payment of compensation to affected people for lost assets.
21. All anticipations of environmental and social impacts, including recommended mitigation measures during the pre-construction, construction and operation phases as stipulated in the SEIS/ESIA have been accounted for and presented in this ESMP. Table 1.1 presents a summary of the key activities creating impacts, including mitigation measures. The ESMP will be presented to the Contractor in the Bid Documents alongside the specification for the implementation, and during the pre-construction meeting to emerge Contractor awareness. The Contractor will accept the prescriptions detailed in this ESMP are mandatory in nature and also contractually binding, and the ESMP will as well be equally applicable to the Contractor's Subcontractors.
22. The Contractor will responsible for the compliance of requirements of the ESMP and will implement and monitor all mitigation measures necessary for compliance with the ESMP. Furthermore, the implementation of the Environmental and Social Management Plan will be monitored by the PISC's Engineer and inspected by the PMU Environmental Team.
23. The Contractor will assist Project Implementation and Supervision Consultant (the Engineer, PISC) to execute their duties as required, includes:
 - a) maintain up to date records on the implementation of ESMP;

- b) submit Social and Environmental Monitoring Reports and data in a timely manner; and
- c) participate in meetings with the PISC (Engineer).

24. The Contractor will provide monthly reports to the Ministry of Public Work through Project Implementation and Supervision Consultant, relative to the implementation of the requirements contained in this Environmental and Social Management Plan and environmental performance monitoring.

Table 1.1. Summary of Project Activities & Key Environmental and Social Impacts

PROJECT ACTIVITIES RISE TO IMPACTS	ENVIRONMENTAL & SOCIAL IMPACTS	TYPE OF IMPACT	MITIGATION MEASURES	MONITORING RESPONSIBILITY
PRE-CONSTRUCTION				
Land acquisition and involuntary resettlement	Social disruption	Negative	Cash compensation for asset & resettlement for housing	PISC, PMU
Climate change resilience action	Decrease landslides and damage on to road infrastructure	Positive	Climate change adaptation measures incorporate into Detailed Engineering Design	PISC, PMU
Surveying and staking out of road corridor	Minor loss of vegetation during demarcation	Negative	Visual inspection	Contractor; PMU
Site clearing, digging, excavations	Discovery of cultural heritage & historical property	Positive	Stop work order and consultation with community and authority	Contractor; PMU
	Slope failure/landslide	Negative	Visual inspection; Prohibition of clearing, cutting, and excavating in the protected areas	Contractor; PMU
	Removal of trees and forest	Negative	Compensation and replanting	Contractor; PMU
Mobilization of Contractor	Social disruption	Negative	Consultation with community representatives, local authorities as well as local women representatives	Contractor, PMU
	Health, Safety and Environment Management	Positive	Observation and consultation	Contractor, PMU
	Employment opportunities for individuals at local level	Positive and Negative	Promote equal access to opportunities through minimum percentage of women and persons with disabilities in Bidding documents; Consultation with relevant CSOs and associations [Women Engineers, Women Business Association, ADTL, RHTO]	Contractor; PMU
	The spread of communicable diseases	Negative to Neutral	Pre-construction – awareness training - check records	Contractor; PMU
CONSTRUCTION				
Operation of construction equipment	Emissions and dust from plant and materials	Negative	Apply of emission filter & water sprayer to reduce	Contractor; PMU
Works adjacent to water bodies/drainage systems	Slope failure/landslide & physical changes to river bed, culverts & other areas	Negative	Check design, visual observation, and consultation with communities	Contractor; PMU

Sourcing of materials (river gravels and sands)	Extraction gravel and sand, altering channel and erosion; quarries or borrow pits	Negative	Visual inspection, and review of mineral extraction plan and rehabilitation to meet Government licensing requirements	Contractor; PMU
Spoil disposal or discarded macadam pavement	Impacts on habitats and watercourses	Negative	Visual inspection and define disposal location agreed by local authority & landowner, and waiver records kept. Prohibition of disposing or discharging materials in the protected areas.	Contractor; PMU
Clearing, cut and fill activities, embankments; Stockpile and staging areas	Slope failure/landslide and sediment contamination of rivers and turbidity	Negative	Visual inspection, and define disposal location agreed by local authority & landowner, and waiver records kept, bio-engineering using native species, proper soil compacting, installation of retaining walls	Contractor; PMU
Run-off, discharges, generation of liquid wastes	Impacts on water quality	Negative	Visual inspection, issue restriction to discharge liquid waste	Contractor; PMU
Presence of construction workers	Social disruption	Negative	Regular communication with local community representatives	Contractor; PMU
	Communicable diseases and community health	Negative	Awareness raising/preventative campaign to local community	Contractor; PMU
	Risk of Gender-Based Violence (GBV) and sexual harassment	Negative	Prevention awareness training to workers; awareness raising campaign and complaint procedure accessible local community; approval of Code of Conduct (follow World Bank guidance on “Good Practice Note For Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works “ (September 2018)	Contractor; PMU
General activities - solid & liquid waste arising	Uncontrolled unmanaged waste disposal	Negative	Visual inspection, issue restriction to discharge solid & liquid waste	Contractor; PMU
Use of hazardous materials	Spillage, leakage, accidents	Negative	Inspection of storage & review emergency response plan	Contractor; PMU
Accidental damage to existing services	Interference with existing infrastructure; water supply, power, telecommunications	Negative	Plan with utility providers and avoid/reprovision	Contractor; PCM
Activities outside road encroach habitats	Workers poach animals, eggs, feathers, gather fuelwood & impact habitats	Negative	Inspections to camp, fuel & work sites to check food supply, re-vegetation and no wild animal/parts collected	Contractor; PMU
Accidental impacts of historical/cultural sites	Impacts on PCR or cultural property sites	Negative	Stop work and deal with community appropriately	Contractor; PMU

Noisy construction plant and equipment	Impacts community and workers	Negative	Review work schedule & provide appropriate noise equipment, and GRM register from the community and resolve	Contractor; PMU
Vehicle parking, traffic safety and access to people's land	Traffic disruption and safety affected	Negative	Inspection, review traffic management and consult with landowners, installation of road safety measures such as signage, roadbumps, street	Contractor; PMU
General work activities	Health, Safety and Environment Risks	Positive	Inspection and review of HSE Plan in CESMP	Contractor; PMU
Presence of construction workers	Disruption, or antagonism, communicable diseases, and community health	Negative	Inspection, review contractor staff management as required, check awareness training	Contractor; PMU
The spread of communicable diseases	Roads act as the pathway for the spread of communicable diseases such as HIV and STIs	Negative to Neutral	Every 6 months, for 2-year, mid-term and post-evaluation. Consultations with villagers; Review health records (STIs data)	MPW/WB
Site office, water use, and electricity supplies	Stress on existing resources and infrastructure	Negative to Neutral	Consult with villages along road and power provider	Contractor; PMU
OPERATION PHASE				
Operation of vehicles creating emissions	Emissions increase locally but surface dust reduces	Negative to positive	Visual inspection & road maintenance	MPW
Routine and ongoing maintenance	Blocked drains; gravel repair materials	Positive	Routine maintenance records	MPW/WB
Drainage system maintenance	Alteration of natural flood cycles	Positive	Monitor wet periods and review flood occurrence	MPW/WB
Run-off from road	Loss of soils and water quality in streams & river	Negative	Routine maintenance	MPW/WB
Climate change issues	Unexpected and costly failure of road & Depletion	Positive	Visual inspection; review rainfall, flood, and landslide	PMU
Easy access to previously difficult to reach areas	Economy improves, hunting and poaching increase.	Positive & Negative	Monitoring and consultations	MPW
Increased traffic	Noise, nuisance, accidents	Negative	Monitoring and evaluation, data collection	MPW/WB
Any other	Unintended or unanticipated impacts	Negative/Positive	As above, as required	MPW/WB

25. The road Project will have overall beneficial impacts i.e. improving access, reducing dust, reducing travel time and travel costs. It will have less significant negative impacts that will nevertheless be carefully monitored and adequately mitigated. The road is an existing piece of infrastructure; thus, the Project will not create any impacts on cultural or heritage sites. The Contractor will be required to implement the Project carefully especially as it passes through residential areas, paying special attention to impact in women and children and other vulnerable groups. Implementation of appropriate measures during construction and maintenance will minimize negative impacts to acceptable levels. To ensure that these mitigation measures are implemented, and negative impacts avoided, the measures are included in the Contractor Contract.
26. The appointed Contractor will be required to follow standard construction practices and comply with a series of contractual requirements to follow the ESMP and Environmental License, which will be monitored and inspected by PISC and supervised by PMU. The construction impacts should be very predictable and manageable, with appropriate mitigation of a few residual impacts are likely. The appointed Contractor will allocate necessary human and financial resources in advance to progress and achieve statutory compliance with the Environmental License, the mitigation measures in the ESMP and implementation of the Contract. Contractors' conformity with contract procedures and specifications and implementation of the approved ESMP and Environmental License during construction will be carefully monitored.
27. This Environmental and Social Management Plan sets out the ways environmental issues will be addressed in a comprehensive and inclusive manner in the pre-construction phase for Branch Road Section as well in the construction and operation phases. Following the requirements of World Bank, this ESMP has the following components: (i) institutional arrangements for the implementation of the environmental and social safeguards requirements; (ii) environmental and social monitoring requirements; and (iii) mitigation measures (EMMP matrix) required to address the impacts. This ESMP, in its current form, is a dynamic living document which may require updating as the implementation of the works progresses. This ESMP will be further reviewed, evaluated and updated as required to make it compliant to the requirements of the World Bank and GoTL to reflect the current situation in the various Contract Packages. It will be the responsibility of the PMU, with the assistance of the PISC to regularly review and evaluate the ESMP and submit to the GoTL and World Bank in a timely manner.

2. Project Proponent

28. The Project Proponent is the Government of Timor-Leste (GoTL). The Executing Agency for the rehabilitation and improvement of the project is Conselho de Administração do Fundo Infrastructure (CAFI), while the Implementing Agency is the Ministry of Public Works (MPW). Subsequently, the Project Management Unit (PMU) was established within MPW to manage and implement projects financed by the Government of Timor-Leste's development partners.
29. The Project Management Unit will responsible for day to day management of the Project, including the implementation of required safeguards measures and requirements. The detail of the project proponent is presented in Table 2.1.

Table 2.1. Project Proponent

Address:	REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE, MINISTÉRIO DAS OBRAS PUBLICAS Avenida da Patria, Mandarin, Dili, Timor Leste.
Telephone:	3311038 / +670 77422259
Name	Ms. Odete da Costa, Project Manager
Email:	pmu_tlcrp@yahoo.com

3. Environmental and Social Impact Assessment Consultant

30. Environmental and Social Impact Assessment was carried out by the environmental and social specialists in the Environmental and Social Team in PMU, who received full support from the Feasibility Study and Design Consultant. The PMU secured the services of ESIA consultants to assist in the preparation of this Environmental and Social Management Plan, who conducted the environmental and social assessment in the mid of 2018, and the Tracer Study for section 3 as required by the World Bank. The consultants worked under the coordination of Ms. Rahayu Ning Tyas. Subsequently, the PMU Environmental and Social Team were guided in the preparation of the environmental and social assessment by the PMU International Environmental Specialist (IES) in order that the environmental and social assessment would meet the requirements of GoTL and the World Bank. Furthermore, the Environmental and Social Team in PMU will work cooperatively to update and fine-tune the environmental and social assessment and prepare the ESMP. The ESIA Consultants presents in Table 3.1.

Table 3.1. The ESIA Consultants

NAME	CONSULTANT	QUALIFICATIONS
David Green	IES PMU MPWTC GoTL	BSc, PhD
Rahayu Ning Tyas	Katahira & Engineers International	BEng, MSc
Jose Paulo Angelo S. S. Pinto	NES PMU MPWTC GoTL	BEng
Joao Veniata G. Barreto	NET PMU MPWTC GoTL	Dip CLM

31. The Social Impact Assessment counted with the support of JU,S Jurídico Social Consultoria, a Timorese social enterprise with experience in supporting assessments and reviews of development partners programs from a human rights and gender equality perspective. Analysis was undertaken of the potential impact of the project in the area of gender-based violence and social inclusion.

4. Location and Scale of the Project

4.1 Identification of the Project

32. Timor Leste Branch Roads Project consists of two components and they are described in detail below.
33. **Component 1: Gleno–Maubisse Corridor Upgrading and Road Safety Improvements (US\$72.8 million of which expected IDA financing is US\$55.0 million).** This component consists of the civil works activities to be undertaken on the Gleno–Maubisse corridor and the road safety activities on the rest of the network. The activities include:
- a **Sub-component 1.1: Gleno–Letefoho and Letefoho–Hatubuilico Junction roads sections upgrading (US\$70.8 million).** This component would upgrade the Gleno–Letefoho (25.8 km) and Letefoho–Hatubuilico Junction (18.5 km) road sections of the Gleno–Maubisse corridor (66.1 km) to National roads standards. The designs will incorporate climate resilience considerations, considering: (i) pavement upgrading with selective widening to bring the project roads to national standards; (ii) improvement of drainage structures to meet forecasted rainfall volumes and intensities; and, (iii) construction or reinforcement of slope stabilization structures.

Where roads serve pass through urban areas, attention will be given to safety improvements, orientation signage, bus stops, and sidewalks. As a first phase of a program to improve the Gleno–Maubisse corridor, the two project roads sections (totaling 44.3 km) have been proposed based on the prioritization results of the feasibility study and the readiness for implementation. The second phase of the upgrading of the Gleno–Maubisse corridor¹ will be defined during implementation and it is envisaged that will be financed under an additional financing to BRP or as a new standalone project. This sub-component will also finance the construction of the upgrading works and related supervision consultancy.

- b **Sub-component 1.2: Road Safety Improvements (US\$2.0 million).** This sub-component will cover civil works and/or goods to address road safety issues on roads other than on the Gleno–Maubisse corridor roads, such as road signage and pavement markings or black spot improvements at locations to be identified by GoTL. The scope of sub-component 1.2 will be decided during implementation with support of a road safety advisor to be hired under the project. Standard Operating Procedures (SOPs) has been prepared as safeguard instruments for minor civil works in addressing road safety issues, please refer to Appendix 8.
34. Component 2: Institutional Strengthening and Project Management (US\$4.0 million of which expected IDA financing is US\$4.0 million). This component aims at helping strengthening capabilities within MPW and DRBFC on issues related to road assets management, road safety and road maintenance. It will finance technical assistance, equipment, and operational costs associated with the implementation of the Project. It will also finance studies required for the preparation of potential future investments in the road sector. This component is split into three sub-components, as detailed below.
- a **Sub-component 2.1: Technical Assistance (US\$1.6 million).** This sub-component involves knowledge, capacity building, data and funding to support transport sector development. Technical Assistance activities include: (i) data collection on road inventory, traffic and condition on national and Municipality roads (approximately 2,240 km) to update the Road Asset Management System² for supporting monitoring, planning and programming of road works; (ii) piloting of multi-year performance based maintenance contracts on national roads³ (two years of maintenance on approximately 125 km) through contractors using community-based groups with female participation, including strengthening supervision activities done by DRBFC; (iii) road safety capacity building program within MPW through the hiring of a road safety advisor to DRBFC;⁴ and, (iv) geotechnical capacity building program within MPW through the hiring of a geotechnical advisor to DRBFC.⁵ In conjunction with the Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank (issued January 2014), this is a Type 1 TA Building Client Capacity and no safeguard instrument is required.

¹ The remaining roads to be improved on the Gleno–Maubisse corridor are: (i) Hatubuilico Junction to Aituto road section (11.9 km); and (ii) the links to the corridor of the towns of Ermera (4.8 km) and Hatubuilico (5.2 km). The road section between Aituto and Maubisse (9.9 km) was already improved under RCRP.

² The Road Asset Management System is being developed with ILO, ADB and JICA support.

³ The maintenance contracts will be implemented on Lots 1 and 3 of the ongoing RCRP (around 40 km) and other national roads to be selected by MPW.

⁴ The tasks would include: training of MPW staff, assessment of national and Municipality roads for road safety risks, preparation of road safety improvement works program, and road safety audits of project designs. The assignment is expected to last for 12 months spread over two years.

⁵ The tasks would include: training of MPW staff, assessment of national and Municipality roads for geotechnical hazards, preparation of road geotechnical remedies works program, and geotechnical audits of project designs. The assignment is expected to last for 8 months spread over two years.

- b **Sub-Component 2.2: Design of Future Projects (approximately US\$1.4 million).** This sub-component will finance feasibility/technical studies and designs required for the preparation of potential future investments in the road sector (approximately 40 km). The road section to be designed will be selected from the following roads that GoTL showed an interest in receiving the Bank's support for feasibility/technical studies and designs future road investments. These road sections to be designed will be selected during project implementation and as of the date of the project preparation, road links to Hatubuilico town and Ermera town (total 10 km) are being considered. Additional 30 km of road design has not been determined. In conjunction with the Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank (issued January 2014), Term of References (TORs) for these environmental and social studies has been developed and included in Appendix 9.
 - c **Sub-component 2.3: Project Support (US\$1.0 million).** This sub-subcomponent will finance operational costs associated with implementation of the Project, training of MPW staff, GVB and SEA prevention measures, and goods needed by the Project. It also includes yearly audits of the project accounts to be submitted to the Bank.
- 35. **Component 3: Contingent Emergency Response (US\$0 million).** Since Timor-Leste will remain vulnerable to climate change and severe weather events, even with the successful implementation of the first two components, supporting post-disaster recovery is an important feature of the project. This zero-dollar component is designed to provide swift response in the event of an Eligible Crisis or Emergency, by enabling GoTL to request the Bank to reallocate project funds to support emergency response and reconstruction. Safeguards requirement will follow the Bank Procedure on the Preparation of Investment Project Financing Under Situation of Urgent Need of Assistance or Capacity Constraint issued on October 1st, 2018. The project will prepare a CERC Project Operations Manual, including safeguard approval process, within six months of project effectiveness. Under this component, relevant safeguards provisions for activities to be included in the CERC, which will be determined later based on future needs, are provided in Appendix 14.
- 36. The subsequent chapters in this ESMP focus on Component 1.1. The SEIS/ESIA and ESMP covers all sections 1-3, however the planned investments under the existing Timor Leste Branch Roads project will only cover Section 2 (Hatubuilico - Letefoho) and Section 3 (Letefoho – Gleno). The ESMP has also incorporated labor influx management procedures, including child labor and GBV prevention procedures and safeguards incident response procedure (see Appendix 10, 11 and 12).
- 37. This Environmental and Social Management Plan covers ± 60 Km of road improvement Project that consists of the 3 sections within Ainaro Municipality and Ermera Municipality. The Project starts from the junction of Aituto and straight ascends to the west to Hatubuilico, subsequently turn down to the northwest to Letefoho, subsequently turn to the north to Gleno City.
- 38. The Project is a branch road link to the Dili – Ainaro Road, that will upgrade to support climate resilience, and serves as part of the link between the north and the south of Timor-Leste. The Timor-Leste Road Climate Resilience Project (TLRCRP) provides emergency repairs and upgrading of the road network of Timor-Leste between Municipality and town.
- 39. The Project is financed by the World Bank to Timor-Leste Road Climate Resilience that included a feasibility study and Detailed Engineering Design of the Branch road of

Ainaro – Hatubuilico – Letefoho – Gleno. Resurfacing and upgrading of this road is urgently needed to support road transport links to the major population centers between Ainaro and Gleno, as well as to provide access for tourism and economic development generally. The existing bitumen road will be improved and resurfaced to bring it up to National Road Standard. Detailed design for the Project being prepared.

4.2 Category of the Project

40. For the purpose of environmental licensing categorization under Decree Law No.05/2011 (Annex II, Cat B Projects) the Project is classified as Category B, due to Project is only to rehabilitate and improvement existing road. The potential adverse environmental impacts are site-specific, few (if any) of them are irreversible, moreover, mitigation measures can be designed readily. This project category will be subject to World Bank's appraisal.
41. The Project involves rehabilitation and resurfaces of the existing road which includes slope stabilization, and improvement of crossing and side drains. The existing road infrastructure needs to be improved because the standards and conditions of many roads in Timor-Leste are inadequate to meet the rapidly growing demand for efficient travel. This situation impacts to national development and economic growth.

4.3 Location and Scale of Project

42. The Project road corridor is within 2 Municipalities i.e. Ainaro and Ermera Municipality. It begins at Km 0+00 at Aituto on the intersection from Maubessie to Ainaro, ± 38 Km south of Dili. Project ascends from the junction of Aituto runs in a westerly direction up to the mountainous area at an elevation around 2,107 m, a.s.l. adjacent to the "protected area" southeastern of Mt. Ramelau.
43. The existing road alignment intermittently passes by some villages, especially when runs down toward the direction of Letefoho administrative post. Eventually, this road will join another existing Municipality road, on the way from the section of Letefoho administrative post to Gleno City. The GPS coordinates at the beginning of this project at Aituto are S $-8^{\circ} 54' 1''$ and E $125^{\circ} 35' 34''$, and the end of the branch road is on the Gleno City at $-8^{\circ} 43' 26.00''$ S and $125^{\circ} 26' 10.00''$ E.

4.4 Project Boundary

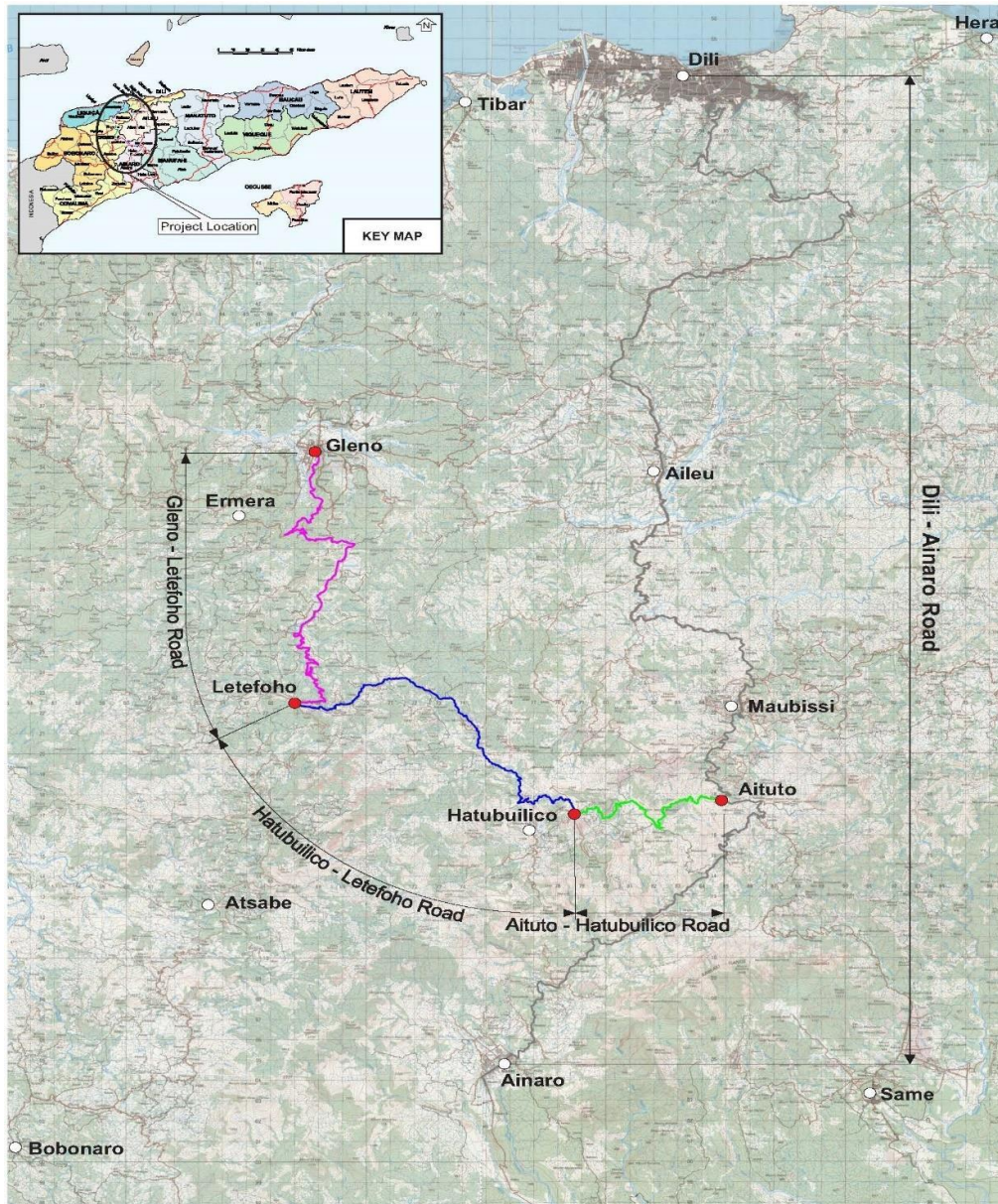
44. The Branch Road consists of 3 sections, the 1st Section will start from Aituto to Hatubuilico road is about 11.9 Km long and ascends along a winding route and steep gorge from south to west direction to Hatubuilico administrative post within Ainaro Municipality. Subsequently, around 18.5 Km of Section 2 start from Hatubuilico descends through some unstable ground to Letefoho within Ermera Municipality. Section 3 will run straight to the north passing through steep terrain and instability slope condition on the way to Gleno City, as the end of Branch Road.
45. The rehabilitation will use the existing alignment and do widening to comply with proposed improvement up to formation width of 7.0 meter, including 1.0 m for both shoulders. Refer to the inventory of impacts, the environmental and social assessment will concern an area of 50 meter- wide on both roadsides of the entire section. Especially when there are houses, community crops, livestock's farms, cultural activities, as well as slope instability and waterway within that range.
46. The existing road from Aituto to Hatubuilico as well as from Hatubuilico to Letefoho are mostly a standard 3.0 m to 4.0 m wide carriageway, though actual width varies.

Meanwhile, existing carriageway from Letefoho – Gleno are varying around 5.0 m to 7.0 m wide, and soft shoulders are present mostly in all areas. The proposed improvement up to 6.0 m wide of the carriageway of all road sections, and 0.5 m of the shoulder on each side, hence total Right of Way is around 7.0 m.

47. The Project's boundary has been defined by considering direct and indirect potential impacts, exclude any additional areas needed for spoil disposal and temporary stockpiles. Furthermore, the specific area needs to be defined for associated facilities such as engineers offices and laboratory facilities, contractor camp and yard, including quarries, borrow pits, manufacturing areas (crushers, batching plant and asphalt mixing plant) etc.
48. The associated facilities are an integral part of the Project and are required in the contract. The temporary stockpiles will be at the side of the road. Associated facilities such as engineers offices and laboratory facilities, contractor camp and yard are usually located near the project road within 1,000 m to minimize travel time and fuel consumption.
49. There will be many disposal areas of construction material needed as there is a majority of road widening. Location of disposal areas should take into consideration the Protected Natural Areas (PNA), as well as trees and steep slope that adjacent to Project site. The associated facilities, including the location of disposal areas, will only be determined during the project implementation and to the extent possible, reflected in the DED being prepared to enable identification of potential impacts. The latter will be subject to future assessments whereby their mitigation measures will be developed prior to any construction and physical works once the locations have been selected. The PMU and World Bank will retain review and clearance functions for any environmental and social assessments and mitigation measures developed during project implementation by the contractors.

50. The quarries and borrow pits will be located at relevant material sources as close as possible to the Project road (generally within 5, 000 m) to minimize travel. The manufacturing areas (crushers, batching plant, and asphalt mixing plant) etc. will generally be located near the relevant material sources. The potential quarries and borrow pits have been identified during DED, there are seven borrow pits located between section 2 and 3 that potential for material sources. Nevertheless, materials resources should be located and obtained under the licensing procedures of the Government of Timor-Leste based on the Ministerial Diploma No. 64/2016.
51. The locations for associated facilities will be identified at the pre-construction stage after the contractor has mobilized. Nevertheless, this SEIS/ESIA includes mitigation measures for the main road works and the associated facilities because the type and scale of the activities are broadly known. This information is usually updated at the pre-construction stage and included in the updated Construction ESMP (CESMP) that will be prepared for WB in the pre-construction stage.

Figure 4.1 – Location of Branch Road: Aituto – Hatubuilico – Letefoho – Gleno



Source: KEI Consultant, 2018

52. This ESMP includes mitigation measures for the main road works and the associated facilities; because the type and scale of the activities are broadly known, though the location of the associated facilities has not been known. This information is usually updated at the pre- construction phase and included in the Updated ESMP (Construction ESMP) that will be prepared for the World Bank in the pre-construction phase.

4.5 Villages

53. The Project road crosses Aituto hamlet (part of Maubisse administrative post) and Hatubuilico administrative post within Ainaro Municipality, as well as Letefoho and Ermera administrative post in Ermera Municipality. The impact of alternative 3 will cover most of the area along the road section from Aituto to Gleno. Based on the identification, there are three (3) sucos within the administrative post area of Maubisse and Hatobuilico that served by this Project. On the other side, there are eleven (8) sucos within both administrative posts of Letefoho and Ermera in Ermera Municipalities.
54. While there is a widely-used suco boundary map in Timor Leste, it should be noted that within the country, suco affiliation is more of a cultural concept rather than a geographic boundary. Communities might reside within the geographical boundary of one Suco but identify themselves as residents of a different suco. Therefore, based on Public Consultation and interview made by the social team, there 11 sucos that will be affected by the Project.
55. The SEIS/ESIA, which forms the foundation of this ESMP, covers the entire Maubisse-Gleno corridor and hence, the assessment covers all Sucos and hamlets along the corridor.
56. The Branch Roads play an important role for central Timor-Leste, linking its east to its west, while also serving transit traffic along the project road and onward connections to the Dili–Ainaro and the Gleno–Tibar corridors. The Gleno–Maubisse corridor starts at the city of Gleno, passes through the towns of Ermnera, Letefoho, Hautubuilico, and Aituto and ends at the town of Maubisse. Gleno is a city 30 km to the southwest of Dili and is the capital of the municipality of Ermera. Maubisse is a historic town in the hills 70 km south of Dili, in Ainaro District. It is a popular tourist destination and a weekend visiting spot for people from the capital. Agricultural activities are evident along the corridor. Coffee producers are concentrated particularly in Ermera district. The Hatubuilico town is on the route to Timor-Leste’s top tourist destination, Mount Ramelau. It is anticipated that, in addition to enhancing connectivity in the project areas, the project will help develop the agricultural and tourism sector by improving road access specifically to the country’s highest coffee producing areas and tourist destination. The BRP will improve the Gleno- Letefoho and Letefoho- Hatubuilico Junction sections of the corridor, while the Hatubuilico Junction-Aituto section and the links to the towns of Ermnera and Hatubuilico will be improved at a second phase of the project. The section between Aituto and Maubisse was already improved.
57. Based on the identification, there are three (3) sucos within the administrative post area of Maubisse and Hatobuilico that served by this Project. On the other side, there are eleven sucos within both administrative posts of Letefoho and Ermera in Ermera Municipality. Since the BRP only covers sections 2 and 3 within the proposed corridor, project impacts are anticipated to affect five Sucos (villages) in these sections, namely Haupu, Guololo, Eraulo, Estado, and Humboe. These sections will pass schools, markets, as well as sacred sites and hence, pre-construction and construction related impacts are anticipated.

Table 4.1. Affected Municipalities and Villages

Municipality:	Ainaro	Ermera
Administrative post:	Maubisse and Hatubuilico	Letefoho and Ermera
Village/Sucos:	<i>Horai-Quic, Mulo, and Nunomogue</i>	<i>Catrai-Caraic, Haupu, Ducurai, Goulolo, Eraulo, Estado, Humboe, and Riheu.</i>
Hamlets/Aldeias:	<i>Horai-Quic (4 aldeias); Mulo (8 aldeias); and Nunomogue (8 aldeias)</i>	<i>Catrai-Caraic (9 aldeias); Haupu (12 aldeias); Ducurai (13 aldeias); Goulolo (4 aldeias); Eraulo (6 aldeias); Estado (12 aldeias); Humboe (4 aldeias); and Riheu (5 aldeias).</i>

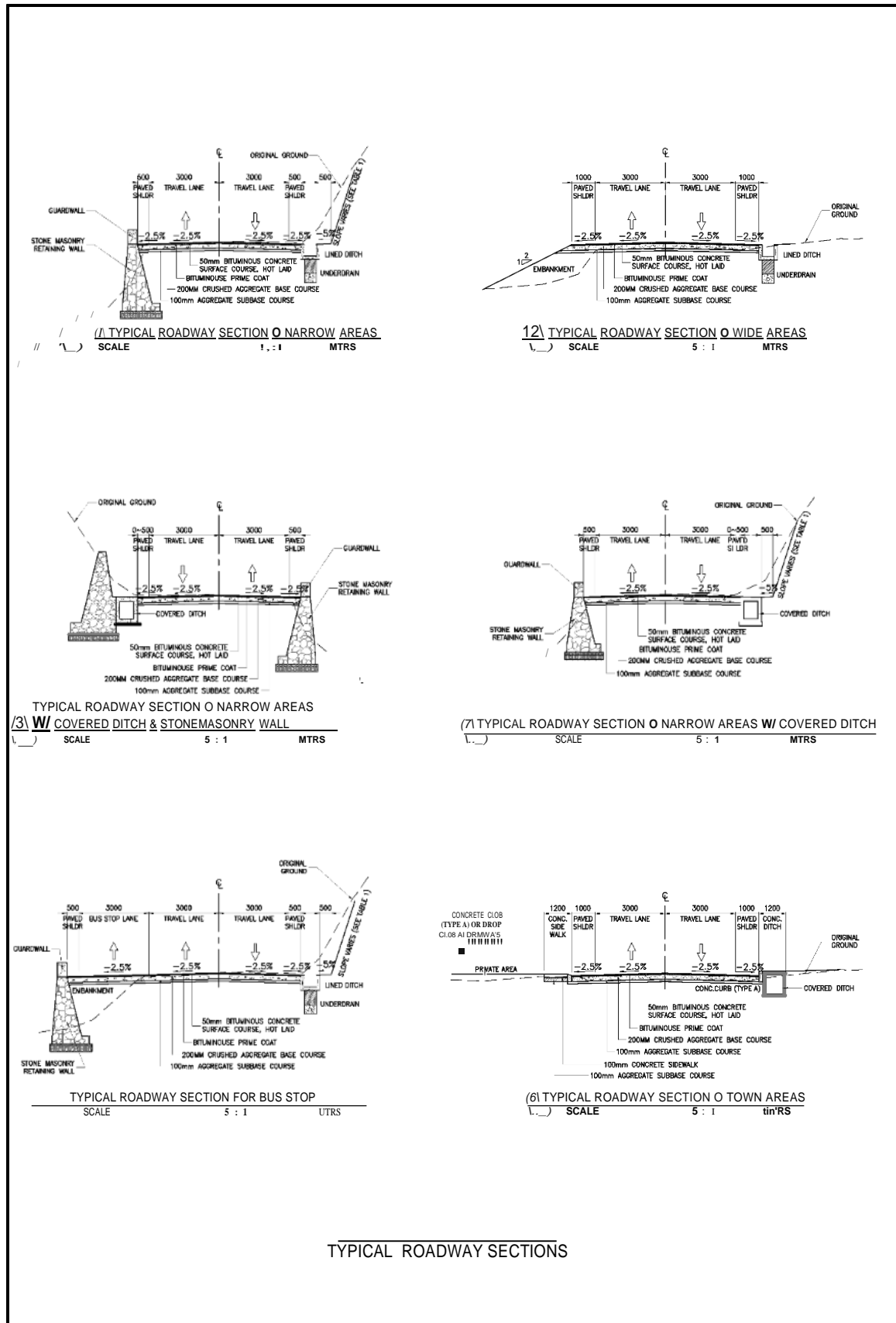
58. Commencement of pre-construction activities usually takes place after the contractor procurement and the completion of the Construction Environmental and Social Management Plan (CESMP). In addition, setting up of construction camp, equipment yard; development and operation of the construction camp will take place in the pre-construction phase. The construction camp will include contractor's office equipment store and maintenance yard, material stockpiles, warehouse, workshop and staff accommodation etc. Location of the construction camp will be defined prior to the start of construction, due to the site plan of the construction camp is part of the CESMP.
59. Associated facilities such as quarries, spoil disposal areas, borrow pits, stone crushers, batching plants and asphalt mixing plants will be required in the construction phase. The contractor needs to access construction materials from more than one location to support pavement construction. Commercial asphalt plants and suppliers of aggregates have not been identified in the vicinity of Project area. There are some rivers adjacent to the Project site which have many aggregates. Meanwhile, many of these facilities are located at some distance from the road works and the appointed Contractor may decide to open up additional quarries and sources of construction materials as well as facilities associated for processing the construction materials.
60. All of the asphalt and aggregate suppliers must have a valid license to operate and eligible by GoTL to supply the Project. When the Contractor decides to operate its own plant, the Contractor needs to follow the requirements of the environmental license such as obtain location approvals, secure mineral licenses; including complete a Site-Specific Environment and Social Management Plan to the satisfaction of the authorities for each, and every new location from which construction materials are obtained for this project. The Contractor has to submit a site plan and operational methodology to the Supervision Consultant as part of the CESMP.

4.6 Project Construction

61. Project road construction works will include the following activities:
 - Land clearing, including removal of trees and macadam layer
 - Hauling and disposal of old macadam materials
 - Hauling of construction materials, including removal of unsuitable materials
 - Excavation and carriageway widening
 - Improvement of embankment
 - Slope stabilization strengthening

- Improvement of drainage and culverts
 - Laying and compaction of sub-base and base course
 - Application of a prime coat
 - Laying and compaction of asphalt
 - Installation of Road Safety features
 - Marking of pavement (side and center)
 - Installation of rumble strips and traffic signs
62. Recruitment and mobilization of manpower needed for construction activity will include the provision of site engineers, technicians, and surveyors, heavy equipment operators and assistants, mechanics, general laborers, and security. Given the manpower from local should be considered, hence as far as possible some of the manpower will be sourced from local people or villager, especially for semi-skilled and unskilled work according to the Contractor requirements. As part of the GoTL's commitment, a minimum 30% of women shall be engaged as workers, which shall not fall below 20% for technical and management positions. Design of internal procedures to ensure effective incorporation of women need to be developed due to entrenched social gender norms that expect women are main carers of children.
63. The initial Project activity is a land clearing of the existing carriageway to remove surplus materials and obstructions including trees and stumps. Some available topsoil will be stockpiled for later use. Subsequently, roots, logs, vegetation, wastes, and debris will be disposed of at designated and approved locations. Meanwhile, tree timber will be returned to the owner reuse.
64. The contractor will remove the whole or part of structures and obstructions, then backfilling the trenches, and pits. They will carry out satisfactory disposal at designated and approved locations of all building materials such as fences, structures, old pavements, pipelines, ditches, culverts, bridge sections and any other obstructions which are not permitted to remain at Project site.
65. Relocation of utilities will likely be necessary for certain sections. The utilities will be mainly power lines and community water supply lines and water tanks. Relocation of power lines will generally be the responsibility of the EDTL (*Electricidade de Timor Leste*), while relocation of community water lines and rebuild of water tank shall be done by the assistance of the Contractor.
66. Contractor's obligation during the pre-construction phase is the preparation of a Construction Environmental and Social Management Plan (CESMP), which is a detailed plan by the Contractor on how they will implement the Construction ESMP that accompanies this ESMP. Guidelines on the specification for the CESMP are presented in Appendix 3.
67. The typical design of pavement types will be 5 cm wearing course with 15 cm base course. Sub-base will be repaired and replaced where necessary at different places along the Letefoho – Gleno road section. The cross sections of the several pavements designed are shown in Figure 4.2. (following pages).

Figure 4.2 – Typical Cross Section Types

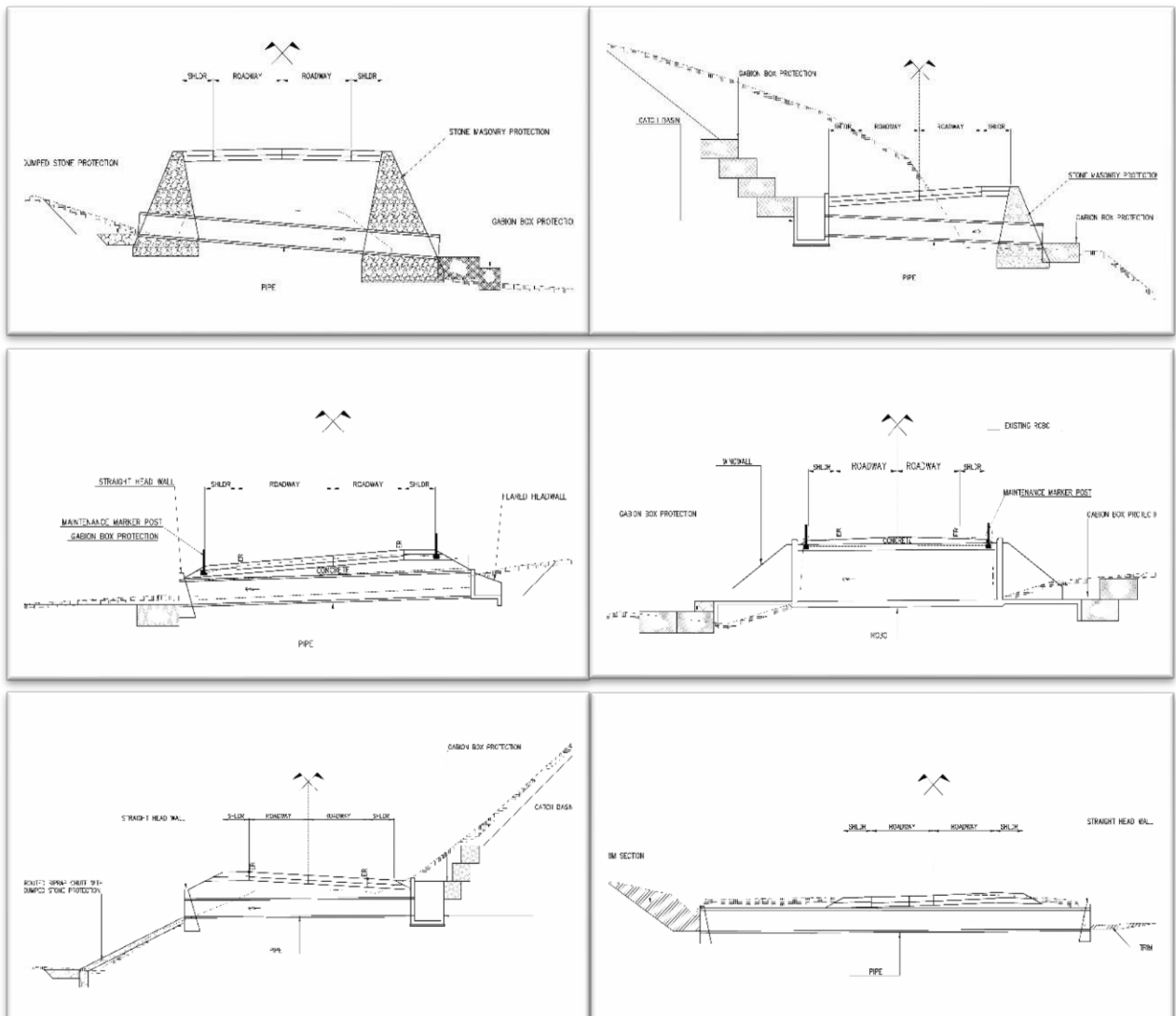


TYPICAL ROADWAY SECTIONS

Source: KEI Consultant, 2018

68. Drainage structures consist of culverts and roadside ditches. Some of the culvert link to natural waterways such as small tributary that run into downstream. Several of the culverts are insecure and inappropriate condition due to landslide and slope instability. Engineers have evaluated to accommodate the design of run-off culverts, and line drains will be cleaned and repaired and likely replace or build some new culverts and line drains. Typical of drainage structures to be applied on the Branch Road Project presents in Figure 4.3.
69. Improvement for culverts that will be retained shall through cleaning and repair of concrete in the wing and headwalls and protect catch basin as deemed necessary. Headwalls and wing walls may be added at the end of culvert barrels for the following reasons:
- To improve hydraulic efficiency by streamlining the flow towards the opening;
 - To support structural stability by increasing the seepage path;
 - To retain fill materials and reduce erosion of embankments slopes;
 - To offset the effect of uplift forces.

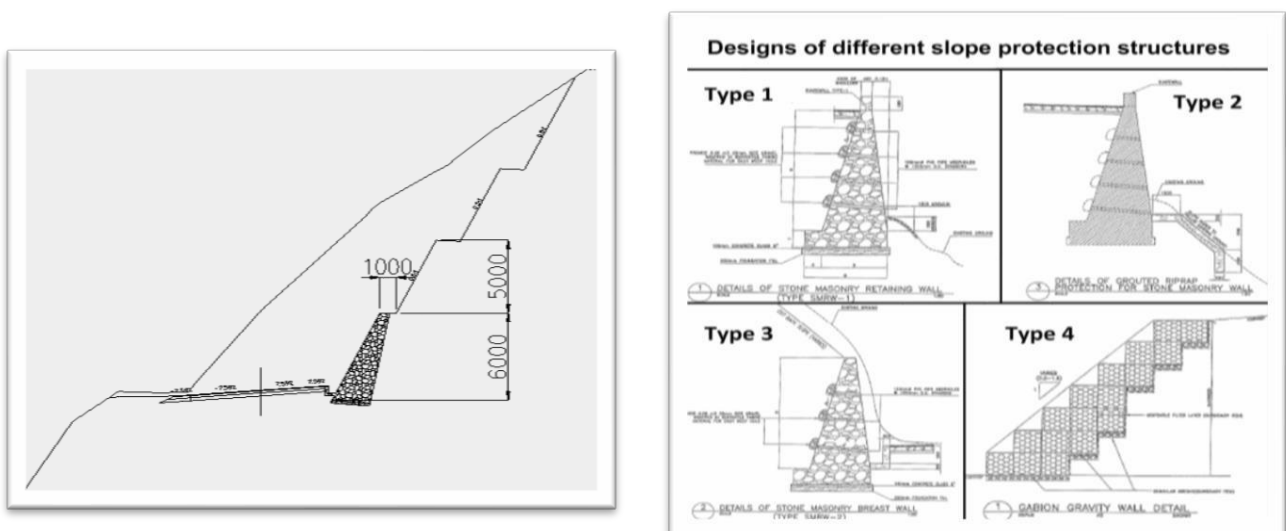
Figure 4.3 – Typical Drainage Structures

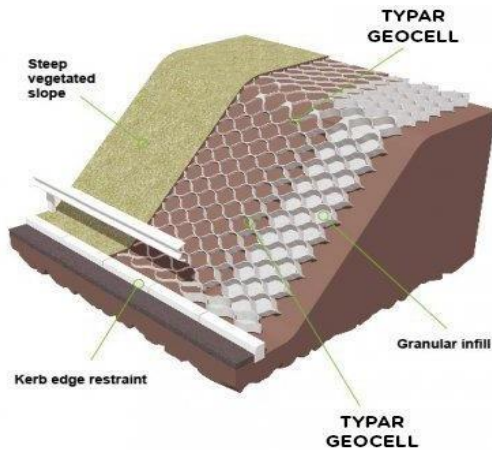


Source: KEI Consultant, 2018

70. The condition of several sections along the project road is unstable, moreover, in some locations, the road was damaged. Stabilization of the road has been made through the installation of gabion walls, while several only propped up by logs. Various factors might contribute to the situation of road damage, such as surface water run-off, inadequate compaction and the use of inhomogenous filling material during previous rehabilitation work.
71. Problems of road stabilization will be addressed through the carefully detailed engineering design incorporating different measures. In regard to water-related damage, this includes constructing rehabilitating and repairs for road-side drainage and clearing and repair of culvert structures. Stronger embankment will be introduced in a few places as well as cleaning drainage structures to allow for better draining of the road during storms/hard rainy.
72. Existing condition of roadway causes excessive levels of traffic noise because of its unfavorable surface quality and generates airborne dust during periods of high wind and when vehicles pass. Surface runoff is also generated during the wet season when rainfall washes across the currently unpaved surface. These negative environmental impacts of the existing roadway would be eliminated by the proposed improvement project.
73. Typical of slope stabilization structures and bio-engineering are shown in Figure 4.4. The types of structure will consider the nature of slope structures which include existing gabions.
74. Whereas instability soil condition along the hilly terrain will be addressed through the combination or additional slope stabilization measures such as the construction of retaining walls and stone masonry, further slope cut and bio-engineering works.
75. Road safety measures for this project involves provision for adequate and reflective pavement markings that will delineate the boundary between opposing and parallel traffic and pedestrians; covered drains adjacent to the road asphalt paved shoulders where pedestrians especially school children can walk; adequate road signs that will serve as warnings and information signs. Road safety features are shown in Figure 4.5.
76. In addition, road safety features shall be provided such as metal guardrails, road signs, and guideposts. Locations of these improvements shall be decided during the fine-tuning of the design during implementation.

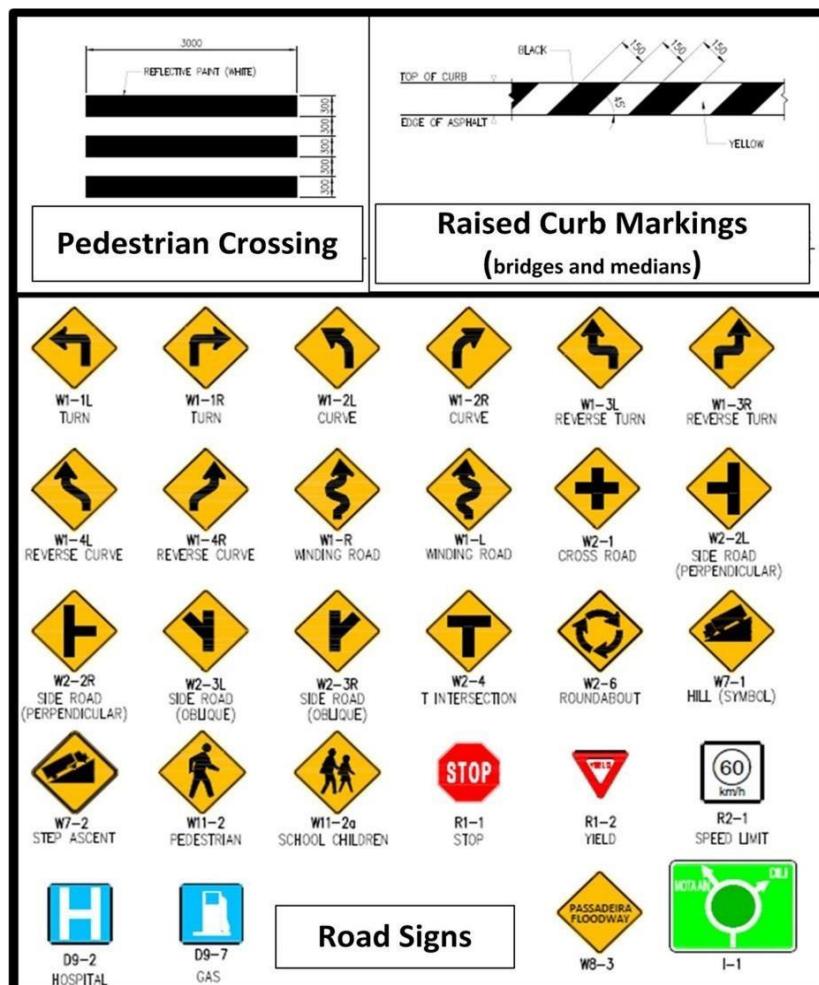
Figure 4.4 – Typical Slope Stabilization & Bio-Engineering





77. The Contractor needs to identify spoil disposal sites, therefore the landowner (if private) and the local community must be consulted. Spoil disposal sites must have been agreed with local landowners and the local authority and shall be checked and approved by Project Implementation and Supervision Consultant (PISC) and verified by PMU. The methods for environmental management of spoils disposal sites shall be presented by the Contractor in the Construction Environmental and Social Management Plan (CESMP).

Figure 4.5 – Typical Road Safety Features



78. In areas where there may be significant congregation of people, such as markets, churches, schools or settlements, measures to slow down traffic, such as road bumps and traffic signs will be installed. In the event of road damages, necessary measures to minimize safety risks will be established by the PMU. These include installation of road signs, mobilization of traffic officers, and street lights.
79. Bio-engineering works will involve preparation of excavated backs and embankment slopes and combination of an engineering structure (e.g. retaining wall and gabion) and slope planting with selected vegetation such as vetiver grass (*Chrysopogon zizanioides*), setaria grass (*Setaria sphacelata*), elephant grass (*Pennisetum purpureum*), and other local vines on the slopes that will help reduce soil erosion, improve soil stability, minimize seepage of water to the ground and help prevent landslides. Several techniques have been considered for use in the project as follows:
 - Turfing on embankment slope to armor the surface;
 - Grass slips (*rhizome* plantation) on the embankment to armor the embankment slope;
 - Brush layer of hardwood cuttings in embankment slope to reinforce the slope to avoid encroachment of the embankment by local people.
80. Bio-engineering is targeted to be applied in several locations, especially on an unstable slope or fragile soil to support artificial slope stabilization. The locations will be confirmed during Public Consultation and the preparation of detailed design; in response to local conditions and factors.
81. PMU has adopted Guidelines on Soil Bio-Engineering Practices for Roadworks and Slope Stabilization-August 2017 in which the proposed list of species are natives and listed as an annex of the guidelines. Most commonly used native plants include:
 - Seedling: Ai-kafe (*Leucaena leucocephala*), Ai-kakeu (*Casuarina junghuhniana*)
 - Hardwood cutting: Ai Amare Fuik (*Spondias* Spp), Madre de cacao (*Gliricidia sepium*)
 - Grass: Soko grass (*Themeda* species)
82. The Project is considered in the operations and maintenance stage after the completion of construction and the defects notification period. The regular maintenance work will involve patching of the pavements, trimming of vegetation along the roadside, maintenance of road safety features, e.g. pavement markings, drainage etc. Given the projected volume of vehicular traffic is moderate, thus noise and air pollution is not expected to be of a concern during the road's operational stage. Therefore, only a few significant direct environmental and social impacts are predicted during this stage, particularly related to the safety issue of the passengers.

4.7 Justification and Need for the Project

83. The existing road infrastructure needs to be improved and upgraded because the standards and conditions of roads in Timor-Leste are inadequate to meet a rapidly growing demand for efficient travel. These road conditions will limit national development and economic growth.
84. The GoTL has recognized the importance of developing physical infrastructure including road network as part of its program to reduce poverty in the country. This is specifically mentioned in the National Strategic Development Plan (2011-2030) where it is noted that “an extensive network of quality and well-maintained roads is essential to connect our communities, promote rural development, industry, and tourism, and

provide access to markets.”

85. The Project is a sub-project of the Timor-Leste Road Climate Resilience Project (TLRCRP), as a Branch Road of Dili – Ainaro with widening and upgrading to the national road standard. TLRCRP aims to accelerate economic opportunities, promote tourism growth, increase agricultural productivity and reduce poverty through the improvement of road connectivity to Municipality towns, including support climate change resilience of some areas in Timor Leste.
86. Existing conditions of the Aituto to Gleno road is various; it was fair in some places but poor and unacceptable in many others. Many parts of the road still gravel seal and some parts have completely lost the bitumen seal due to water inundation. Some sections are experiencing severe leading to cracks and uneven pavement. The compacted shoulders are often in poor condition and overgrown with grass and other plants.
87. The Strategic Development Plan (SDP) of Timor-Leste outlines GoTL’s vision for the rehabilitation of the national roads. The program of the Sixth Constitutional Government includes a major program of road rehabilitation, repair, and improvement. Asian Development Bank (ADB), European Union (EU), World Bank (WB), and the Japan International Cooperation Agency (JICA) are coordinating their support and much work is already under implementation.
88. The overall strategy aligns with the goals of the SDP and envisages continuing support for a medium-term approach to the rehabilitation, and maintenance of the core road network with emphasis on investment projects that are of national importance and which provide an inclusive pattern of economic growth, particularly by improving the transport links needed by agriculture and the rural economy. The World Bank (WB) will provide financing to facilitate the rehabilitation of this Municipality road and the project will be administered under the requirements of the World Bank.

4.8 Proponent’s Endorsement of the Project

89. The Project Management Unit (PMU) confirms that there is agreement with the findings and recommendations of the ESMP. Accordingly, PMU is pleased to endorse the ESMP. If approved, the project will be implemented following the recommendations of this ESMP and the accompanying Environmental and Social Management Plan to reduce the adverse impacts of the Projects.

4.9 Structure of the ESMP Report and Methodology

90. The main report focuses on planned investment in Section 2 and 3 with an additional assessment scope for Section 1. This ESMP is organized into following sections, including a non-technical Executive Summary which prepared and presented at the beginning of the report. The appendices outline relevant assessment (ESMP-mitigation measures) for the overall project safeguards management as well as addressing safeguards requirements under sub-components 1.2 and component 2.
 - Section 1: Executive Summary
 - Section 2: Project Proponent
 - Section 3: ESIA Consultants
 - Section 4: Description of the Project
 - Section 5: Policy, Legal, and Administrative Framework
 - Section 6: Institutional Roles and Responsibilities
 - Section 7: Summary of Impacts
 - Section 8: Description of Proposed Mitigation Measures

- Section 9: Governing Parameters
- Section 10: Monitoring Programme
- Section 11: Reporting Requirements
- Section 12: Responsibilities for Mitigation and Monitoring
- Section 13: Emergency Plan
- Section 14: Decommissioning Plan
- Section 15: Capacity Development and Training
- Section 16: Public Consultation, and Information Disclosure
- Section 17: Grievance Redress Mechanism
- Section 18: Work Plan and Implementation Schedules
- Section 19: Cost Estimates
- Section 20: Review of the ESMP
- Section 21: Non-Technical Summary

Appendices contain additional information and details are referred to in the main text.

5. Legal and Policy Framework

91. The Proponent acknowledges and will require the selected Contractor to uphold the laws and regulations of Timor-Leste. Particularly those pertaining to environmental protection, specifically in regard to compliance with environmental laws, regulations, and guidelines; both in the national or local level. Laws as they relate to labor or industrial relations also underpin the work of the Contractor.

5.1 Environmental Law and Policy in Timor-Leste

92. The implementation of the Project will be governed by laws, regulations, and standards for environmental assessment and management of GoTL. The Constitution of Timor-Leste has clearly established the importance of protecting the environment. The Constitution of Timor-Leste establishes a healthy environment as a constitutional right. The Constitution stipulates that:
- Everyone has the right to a humane, healthy, and ecologically balanced environment and the duty to protect it and improve it for the benefit of future generations;
 - The State shall recognize the need to preserve and rationalize natural resources;
 - The State should promote actions aimed at protecting the environment and safeguarding the sustainable development of the economy.
93. The Government of Timor-Leste's Basic Law on Environment (Decree-Law no. 26/2012) came into force in 2012. It sets the framework for other environmental legislation such as the Decree-Law 05/2011 on the Environmental Licensing Law (ELL), and some pending laws and regulations, including the draft of Biodiversity Law.

5.2 Environmental Licensing Law

94. The Environmental Licensing Law implements a licensing system in Timor-Leste, including the Environmental Assessment procedures. According to the Environmental Licensing Law, projects or activities that may impact to the environment are required to undertake a process of environmental assessment; including preparation of an Environmental Impact Statement (EIS) for Category A or Simplified Environmental and Social Impact Statement (SEIS) for Category B; depend on the level of impact magnitude of the project.
95. The document of EIS or SEIS shall include an Environmental and Social Management Plan (ESMP) that must be prepared according to the procedure established through the ELL and submitted to National Directorate for Environment (NDE). If the Minister determines to approve the project or activity, based on the recommendations of NDE, the Proponent is granted an Environmental License by NDE to conduct the project or activity. The SEIS is approximately equivalent to the Initial Environmental Examination (IEE) required by the World Bank for a Category of B project.
96. In accordance with the Environmental Licensing Law, the Branch Road Project is B Categorized; as it involves reconstruction, construction, and extension/dilatation of roads. Furthermore, to comply with the ELL, an Environmental Assessment and ESMP must be prepared and submitted to the NDE for approval. In this case, the environmental assessment will be as a Simplified Environmental and Social Impact Statement (SEIS) as required for Category B.
97. The ELL requires (as stipulates in Article 18) that the application for Environmental License should be made to the National Directorate of Pollution Control and Environmental Impact (DNCPIA). Subsequently, the Proponent (MPW) initiates the

procedure for SEIS and Environmental License application with the submission of a Development Proposal Application Form and Project Document to the National Directorate for Environment.

98. Document of Project is prepared to describe the project in more detail and allow NDE to categorize the project. The information to be included with the Project Document and SEIS includes: (i) name of the applicant, and their identifying information and contact details; (ii) location and scale of the project; (iii) plans and technical drawings of the project; (iv) technical study on the feasibility of the project; (v) details of consultations and opinions or other documents on the project issued by other entities; and, (vii) the application for an environmental license.
99. Pursuant to the Environmental License Law, Public Consultation is not mandatory for Category B of development projects. However, the Proponent must conduct Public Consultation (in the event the DNCPIA requires it), to discuss issues of the project with relevant stakeholders. The Proponent as well must implement the ESMP in accordance with the provisions of relevant legislation.
100. The GoTL's environmental classifications for environmental permits and environmental regulatory compliance required for Category B developments such as this Branch Road Project has been listed in following Table 5.1.

Table 5.1. Environmental Regulatory Compliance

COMPONENT DESCRIPTION			
SECTOR	CATEGORY AND REMARKS	SCALE	ENVIRONMENTAL ASSESSMENT
Transportation	Category A in accordance with DL5/11		
	V.2 Construction of national and regional roads.	>10km	EIS (ESIA) and ESMP
	Category B in accordance with DL5/11		
	V.1 Rehabilitation of an existing road, excluding community road (including toll roads, bridge crossing, each with two lanes.	All	SEIS (IEE) and ESMP
ASSOCIATED ACTIVITIES			
Quarries			
Mining Sector	I.1 Exploitation of minerals (sand and gravel).	<30,000 m ³ /year and >5,000 m ³	SEIS and ESMP
	I.2 Processing and refinement of minerals /quarrying (non-toxic).	<30,000 m ³ /year and >5,000 m ³	SEIS and ESMP
Hot Mix Plant			
	IV.1 p) Other: Plant releasing environmental pollutant, noise, vibration, dust and/or smells, or plant handling flammable and/or hazardous materials (small scale, determined by the environmental authority).	Site <1ha and installation area >3000m ²	SEIS and ESMP

Source: DL5/11 = Decree Law 5/2011 Environmental Licensing, EMP = Environmental and Social Management Plan, EIS = Environmental Impact Statement, SEIS = Simplified Environmental and Social Impact Statement.

101. According to the Environmental Licence Law, the DNCPIA as Environmental Authority has 30 days, upon receipt of the SEIS, to respond to receipt of the application for an Environmental License for Category B project. The DNCPIA may suspend the review process if additional information is required and has at least 10 days to review the additional information or reject the application. The DNCPIA will establish the conditions and restrictions deemed necessary to protect the environment as part of the environmental license.

5.3 Ministerial Diploma 64/2016 – Licensing of Mineral Extraction (MD64/2016)

102. In term of mineral extraction from quarries and borrow pits, the Ministry of Petroleum and Mineral Resources (MPMR) and National Authority for Petroleum and Minerals (NAPM) requires contractors to hold a license for mineral extraction from land quarries, borrow pits, and including from rivers. NAPM currently acts under the Licensing of Mineral Extraction regulation, Ministerial Diploma 64/2016.

103. All extraction of construction materials is classed as mining; hence Mineral Operation requires a Mineral License which is issued by NAPM subject to several requirements. The Mineral Operation must provide among other documents:

- Mining Plan and Business Registration documents;
- Letter of Recommendation from the National Directorate of Land and Property and Cadastral Services (NDLPCS); and
- Satisfactory compliance with the environmental requirements of DNCPIA.

104. The Secretary of Environment (SE), the Ministry of Petroleum and Mineral Resources (MPMR) and the Ministry of Public Works (MPW), in December 2016, reached an agreement to establish Memorandum of Understanding (MoU) in the process of securing environmental and mineral licenses for the extraction of construction materials to accomplish the desire of the Government to complete the major investments being utilized for the rehabilitation of roads.

105. The Ministry of Petroleum and Mineral Resources through NAPM has agreed to acknowledge the Environmental License issued by SE for the road construction including incidental activities (associated facilities of the quarries, borrow pits, asphalt plant, crushing plant, batching plant/fabrication plant, and other facilities necessary for the road project). MPMR in conjunction with SE through DNCPIA, will further assess and issue acceptance to the Site-Specific Environmental Management Plan (SSEMP) for incidental activities.

106. The Secretary of Environmental will issue the Environmental License for the Simplified Environmental and Social Impact Statement (SEIS) including Environmental and Social Management Plan (ESMP). Those were obtained by MPW for road construction and as evidence of compliance with the requirement to mitigate environmental impacts on the road project construction, including the incidental facilities. The Environmental License can be used as evidence of satisfactory compliance with the environmental requirements of DNCPIA and to support the application for Mineral License from National Authority for Petroleum and Minerals.

107. Approval of location has to be received from NAPM, once construction companies have identified a potential source, as the first stage in the Mineral Licensing process. In principle, at this stage, the location can be approved by NAPM for quarry extraction activities. Construction companies must then complete the requirements of the MoU and MD 64/2016 including Mining Plan and a Site-Specific Environmental Management Plan (SSEMP) for each location and gain approval from NAPM to obtain the Mineral License. Construction companies will not be fully authorized without

subsequently obtaining the Mineral License. Practically, the Mineral License will be issued subject to documents above being completed, and evidence that DNCPIA gives its endorsement of the mineral extraction activities and associated facilities.

5.4 Biodiversity

108. Government of Timor-Leste has signed and ratified several international conventions that are relevant to environmental management such as International Conventions on preserving the natural environment i.e. the United Nations Convention to Combat Desertification (UNCCD; August 2003), the Vienna Convention for the protection of the ozone layer and the Montreal Protocol for the reduction of substances that destroy the ozone layer, the UN Framework Convention on Climate Change (UNFCCC; Oct. 2006), and the UN Convention for Biodiversity (UNCBD; Oct. 2006).
109. Timor-Leste signed the Kyoto Protocol to the UNFCCC, expressing commitment to reduce global climate change, at the end of 2007. As a result, national programs in land and sea management, biodiversity conservation, climate change adaptation and climate change mitigation (including access to renewable and efficient energy supplies) are being developed.
110. The UN Convention on Biodiversity has specific relevance with SEIS/ESIA, as part of the Branch Road' section passes through area that has been identified by Birdlife International as Key Biodiversity Areas (KBA) and Important Bird and Biodiversity Areas (IBAs). It becomes decision-makers guidance that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat. The Convention acknowledges that conservation will bring significant environmental, economic and social benefits in return.

5.5 Resettlement and Land Acquisition

111. The Constitution Section 141 shown that GoTL concerns to the Resettlement and Land Acquisition which stated that the ownership, use, and development of land as one of the factors for economic production shall be regulated by law. In the Constitution Section 54 covers the right to private property and provides that: (i) every individual has the right to private property and can transfer it during his or her lifetime or on death, in accordance with the law; (ii) private property should not be used to the detriment of its social purpose; (iii) requisitioning and expropriation of property for public purposes shall only take place following fair compensation in accordance with the law and (iv) only national citizens have the right to ownership of land.
112. The first Timor-Leste's land law was promulgated in March 2003 and was designed to serve as an umbrella law for the rest of the land and property regime. The law defined State property of private domain, established the Directorate of Land, Property and Cadastral Services (DLPCS) as a legal entity and defined its jurisdiction, and articulated general rules concerning land tenure and property rights to be further developed by ensuing legislation. Moreover, this law established a one-year period for both nationals and non-nationals to register their land claims. Effectively Law No. 1/2003 vests all land that belonged to the Portuguese state, and all state property acquired or built by the Indonesian regime, in the new state of Timor-Leste.
113. A Government's decree that issued in February 2011 provides for granting compensation to relocate unlawful occupants of State property based on humanitarian considerations. The Ministry of Justice (MOJ) through Ministerial Statute establishes the basis for calculating compensation. Another decree promulgated in July 2011 provide for the granting of title certificate (private property rights registration) to landowners/persons in areas where cadastral surveys have been completed (following registration and verification of claims by the government) and confirmed that the claims to land are undisputed. Among the claims registered under the Ita Nia Rai program, which has been limited to urban areas, some 92% of claims

are undisputed. The Civil Code promulgated in 2011, which came into force in March 2012, includes a section that governs day-to-day land decisions such as the sale and lease of land.

114. The government of Timor-Leste has promulgated the Law No. 8/2017 on Expropriation for Public Development Purposes, and the Law No. 13/2017 on Special Arrangement for Defining Immovable Property in 2017. The substance of Law No. 8/2017 has complemented the Country Constitution of Section 141; states that the ownership, use, and development of land as one of the factors for economic production shall be regulated by law. In parallel, the Law No. 13/2017 on Special Arrangement for Defining Immovable Property has strengthened Section 54 of the Constitution covers the right to private property. Section 54 of the Constitution provides for: Every individual has the right to private property and can transfer it during his or her lifetime or on death, in accordance with the law.
115. Private property should not be used to the detriment of its social purpose. Requisitioning and expropriation of property for public purposes shall only take place following fair compensation in accordance with the law. Only national citizens have the right to ownership of land.
116. The Law No. 8/2017 defines expropriation as any legally admissible restriction to private property or related rights or interests, irrespective of the persons or entities to which they belong. Community immovable property may also be expropriated. Expropriation is only admissible in cases of “public interest” (utilidade pública) in the use of the asset.

5.6 Labor Law and Regulations

117. Labour relations are regulated by the Timor-Leste Labour Law (Law nr. 4 /2012, 21st February). In addition to regulate key aspects of an employment relation (including rights and duties of employers and employees, disciplinary procedure and grounds for dismissal, trade union and collective bargaining guarantees) this law provides for a general framework for Occupational, Health and Safety (OHS) (articles 34 to 37). A number of legal provisions are included providing for the duties of employers to prevent and mitigate health and safety risks for its workers. issue fines and other penalties to employers who violate labour rules (Decree-Law nr. 19/2010, 1st December, as amended). The Labour Inspectorate legal competencies include an express duty to prevent professional risks through a number of key control roles, including demanding the full compliance with the security and safety rules, provision of relevant equipment, emergency and accident procedures, amongst others. The General Labour Inspectorate has received renewed support to its institutional capacity, including increased number of inspectors and strengthening of inspectors’ special career (amendments in 2013 and 2016). Therefore, during construction the Project will conform to the Health, Safety, and Environmental General Guidelines published by World Bank; unless the local legislation supersedes the international standards.

5.7 Gender Based Violence Legal and Policy Framework

118. Timor-Leste has a strong legal, policy and institutional framework to respond to the alarming rates of gender-based violence in the country. Available data show that about one third of women (aged 15-49) have already experienced physical violence since age 15 (by their husband, partner or anyone), with prevalence of 44% in Ermera Municipality (2016 TLDHS). Sexual violence is also widespread: A 2015 study found that 14 percent among all women aged 15 to 49 had been raped by someone other than an intimate partner in their lifetimes (2015 Nabilan Baseline Study). The legal

framework includes the criminalization of a number of GBV offences, with heavy imprisonment punishment. Any sexual act with children younger than 14 years old is a serious criminal offence. Rape and other form of sexual abuse are also criminalized. While judicial authorities need improvement on their capacity to deal with sexual offences, an increased accountability for sexual offences is noticeable and generally reported by interested groups.

119. Prevention and redress measures, including survivors' specialized services form part of the institutional and policy framework. State financing of social protection services to women and children victim of violence, while not sufficient, is sizeable. Ministry of Social Solidarity and Inclusion coordinates– a referral network (rede referál) where police authorities together with civil society organizations work together at the Municipal level to provide complementary security, social, psychological and legal support to GBV survivors.
120. Within the project-affected construction area in Ainaro and Ermera survivors of GBV have very limited access to locally present social services and legal assistance. Services are located within regional scope, often placed in Suai town in Covalima municipality and in Maliana town in Bobonaro municipality. At the Administrative Post levels there is the presence of low-level social welfare officers to serve as liaison with the referral network service providers and specialized police. A prosecution office in Ermera Municipality capital provides additional criminal investigation support considering that this Municipality has some of the highest prevalence of crimes, including GBV related crimes. Social protection services, in the form of shelters providing psychosocial and medical support, and legal support to survivors are only existent in Suai, with those residing in Ainaro Municipality accessing Suai based services and those in Ermera travelling to the country's capital Dili.'
121. Frameworks for the prevention of GBV and SEA are further elaborated in Appendix 11 and 12.

5.8 World Bank Safeguard Requirements

122. In addition, to complying with country safeguards the Project will also need to comply with World Bank's Operational Policies; which sets out the policies and principles for protecting the environment and people by wherever possible avoiding impacts and mitigating and/or compensating for impacts that cannot be avoided. Furthermore, people should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
123. The WB's Operational Policy in respect of safeguards is to avoid, minimize or mitigate adverse impacts on people and the environment. The guidelines present the safeguarding framework:
 - a) Reflect the policy objectives and relevant policy principles and safeguard requirements governing the preparation and implementation of projects and/or components;
 - b) Explain the generally anticipated impacts of the project and/or components;
 - c) Specify the requirements that will be followed for Project screening and categorization, assessment, and planning, information disclosure, meaningful consultation, and Grievance Redress Mechanism;
 - d) Describe implementation procedures, including budgets, institutional arrangements, and capacity development requirements;

- e) Specify monitoring and reporting requirements. Specify the responsibilities and authorities of the borrower/client, WB, and relevant government agencies in relation to the preparation, submission, review, and clearance of safeguard documents, and monitoring and supervision.
- 124. The following World Bank Safeguard Policies are relevant and/or could be triggered by the this project: OP 4.01 Environmental Assessment, OP 4.04 Natural Habitats, OP 4.11 Physical Cultural Resources, OP 4.10 Indigenous Peoples, and OP 4.12 Involuntary Resettlement.
- 125. **OP 4.01 Environmental Assessment.** Under sub project component 1.1, the project will finance the rehabilitation of branch roads. It is expected that the impacts would be local, reversible and readily managed with proven or standardized mitigation measures. An ESIA and ESMP to manage and mitigate such impacts in accordance with OP 4.01 have been prepared. The assessment of potential impact should also consider the social community or social living of the resident around the project location.
- 126. **OP 4.04 Natural Habitats** outlines the World Bank policy on biodiversity conservation taking into account ecosystem services and natural resource management and those used by project affected people (PAP). Projects must assess potential impacts on biodiversity. The policy strictly limits circumstances under which damage to natural habitats can occur and prohibits projects that likely result in significant conversion or degradation of critical natural habitats. Impacts were assessed in the ESIA process.
- 127. **OP 4.11 Physical Cultural Resources (PCR)** sets out World Bank requirements to avoid or mitigate adverse impacts resulting from project development on physical cultural resources. The ESMP includes the requirements for preparing chance finds procedure.
- 128. **OP 4.10 Indigenous Peoples.** This policy requires the Government to engage in a process of free, prior and informed consultations with indigenous peoples, as described by the policy in situations where indigenous peoples are present in, or have collective attachment to, the project area and for the preparation of an Indigenous Peoples Plan (IPP) and/or Indigenous Peoples Planning Framework (IPPF). The objectives of the policy are that broad community support from Indigenous Peoples in the project area should be obtained and that the policy aims to minimise impacts and provide culturally appropriate benefits and mitigation measures.
- 129. **OP 4.12 Involuntary Resettlement.** This policy addresses direct economic and social impacts from the projects activities that will cause (a) involuntary taking of land resulting in (i) relocation or loss of shelter, (ii) loss of assets or access to assets or (iii) loss of income sources or livelihoods and (b) involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. The policy requires siting of project infrastructure to be so chosen so as to avoid these impacts altogether or to minimize them to the extent possible. Where these cannot be avoided, the policy requires the preparation of either or both of these instruments (i) resettlement policy Framework, (ii) Resettlement Action Plan, and for meaningful consultations with potentially affected people. The policy prohibits Community donations of lands for location-specific infrastructure.
- 130. The World Bank Group EHS Guidelines, including the Industry Sector Guidelines, will be integrated into the ESIA and ESMP processes and documentation.

5.9 Contractual Obligations

131. The Contractor should follow standard construction practices and comply with contractual requirements which will be monitored and supervised by the Project Management Unit (PMU).
132. The selected Contractor as the main contractor will be responsible for the compliance of all Sub-contractors with the Contract and Environmental Licence by implementing the Environmental and Social Management Plan.
133. The Contractor will assist the Project Implementation and Supervision Consultant – PISC and shall monitor compliance of the ESMP implementation. With the assistance of the PISC's Engineer, the Project Management Unit/MPW will monitor compliance of the ESMP implementation by the Contractor.
134. The Contractor will be required to confirm that they have carefully considered the requirements for environmental management contained in the updated Construction ESMP when preparing the bid and pricing the items of work. The Contractor should accept that the prescribed mitigation measures and clauses detailed in the ESMP are an integral part of the specifications for relevant items of work. Unless separate items are included in the Bill of Quantities (BoQ), the Contractor will accept that separate payments will not be made in respect to compliance with the Environmental and Social Management Plan. In case the Contractor or Sub-contractors fail to implement the ESMP recommendations, the Proponent shall take necessary action(s) to ensure that the ESMP is properly implemented and/or to rectify the damages caused by such negligence.
135. The Contractor will be required to provide the human and financial resources necessary to progress and achieve statutory compliance and implementation of the Contract and the ESMP. The Contractor will conform with contract procedures and specifications and implementation of the EMP during construction and maintenance and PMU will monitor them carefully. The Contractor shall assist the PISC's Engineer to carry out his/her duties as required in the ESMP implementation which shall include but not necessarily be limited to the following:
 - Maintaining up to date records on actions taken by the Contractor regarding the implementation of ESMP requirements;
 - Timely submission of reports, information, and data;
 - Participation in the meetings convened by the PISC, and
 - Any other assistance requested by the PISC.
136. The Contractor will provide Monthly Monitoring Report within 10 days of the following month to the PMU/PISC, relative to the implementation of the requirements contained in the ESMP and the results of the environmental performance monitoring.

NOTE:

All the application processes for securing the licenses for quarry activity and its associated facilities to support the road project implementation must follow the requirements under the Law.

6. Institutional Roles and Responsibilities

137. The institutional arrangements and responsibility in this Environmental and Social Management Plan presents a discussion of the environmental and social management structure and activities that will be undertaken as part of overall Project implementation.

138. The roles and responsibilities of various agencies in undertaking these activities are then defined, include identification of the institutional strengthening activities that will be required to allow those organizations to fulfill their nominated roles and responsibilities. The environmental monitoring program has been prepared and the cost associated with its implementation has been identified. The roles and responsibilities of the proponent and the institutions are identified in table 6.1. as following:

Table 6.1. Responsibilities for Environmental and Social Management & Monitoring

AGENCY	RESPONSIBILITIES
Ministry of Public Works (MPW)	<ul style="list-style-type: none"> ▪ Overall responsibility for project construction and operation; ▪ Ensure that funds are available to properly implement all agreed environmental and social safeguards measures; ▪ Ensure that the project, complies with the provisions of WB's Operational Policy (OP), revised 2011; ▪ Ensure that Project complies with GoTL environmental laws and regulations; ▪ Ensure that tender and contract documents for civil works include all relevant parts of the environmental and social assessment and project agreements; ▪ Submit at least quarterly safeguards monitoring reports to WB; ▪ Promote institutional cooperation with General Labor Inspectorate to enforce compliance with labour laws, including occupational, health and safety rules;
Project Management Unit (PMU)	<ul style="list-style-type: none"> ▪ Ensure that ESMP provisions are implemented to mitigate environmental and social impacts to acceptable levels; ▪ Ensure that Project complies with WB's OP (2011) and government laws and regulations; ▪ Engage and retain two staff within PMU as environmental safeguards officer (ESO) and social safeguards officer (SSO); ▪ Ensure issues related to sexual harassment and gender-based violence between workers and with communities are effectively dealt with respect to the applicable laws and rules; ▪ Ensure that environmental and social protection and mitigation measures in the SEIS/ESIA and ESMP are incorporated into the detailed design including climate change adaptation measures; ▪ Ensure that requisite measures from the SEIS and ESMP are incorporated into the bid and contract documents; ▪ Undertake environmental and social management capacity building activities for MPW and orientation and awareness training for contractors; ▪ Ensure that MPW has obtained the necessary environmental license(s) from DNCPIA/DEIA prior to award of civil works contracts; ▪ Ensure that contractors obtain a necessary environmental license(s) from DNCPIA/DEIA prior to the commencement of civil works contracts;

	<ul style="list-style-type: none"> ▪ Assist MPW to establish a Grievance Redress Mechanism, as described in the SEIS/ESIA, to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the Project's environmental and social performance; ▪ Undertake monitor of the implementation of the ESMP (mitigation and monitoring measures); ▪ Prepare quarterly or semi-annual environmental and social monitoring reports for submission to WB; ▪ Based on the results of ESMP monitoring, identify environmentally corrective actions and prepare a corrective action plan, as necessary, for submission to WB and other co-financiers as necessary; ▪ Implement all mitigation and monitoring measures for various project phases specified as PMU's tasks in the ESMP; ▪ Work with DRBFC to undertake any additional environmental and social assessment for Projects prior and submit to WB and DNCPIA for review and clearance.
Project Implementation and Supervision Consultant (PISC)	<ul style="list-style-type: none"> ▪ Provide training and capacity to building to MPW and PMU staff (including management) and provide training to contractors prior to the submission of contractor's CESMP; ▪ Engage and retain two full-time staff within PISC as national environmental consultant officer (NEC) and national social safeguards consultant (NSC); ▪ Incorporate into the project design the environmental and social protection and mitigation measures identified in the ESMP for the design stage including climate change adaptation measures included in the SEIS; ▪ During the detailed design phase provide all necessary information to the MPW to facilitate obtaining environmental licenses from DNCPIA prior to award of civil works contracts; ▪ During detailed design notify PMU of any change in alignment or project design/components and provide all necessary information to the PMU to facilitate preparation of any additional environmental and social assessment prior to project construction as required in the ESMP (e.g., preparation of new or supplementary environmental and social assessment in case of change in alignment that will result in adverse environmental and social impacts that are not within the scope of the SEIS/ESIA prepared during loan processing, etc.); ▪ Update, based on detailed design, the ESMPs and other environmental and social protection and management measures to be incorporated in bid and contract documents; ▪ Assist PMU in the review and approval of the contractor's CE SMP for each road section; ▪ Assist PMU to undertake monitoring of the implementation of the ESMP (mitigation and monitoring measures) including the incorporation of reports from the contractors; ▪ Assist PMU to prepare quarterly progress reports and semi -annual safeguards monitoring reports for submission to WB and MPW as necessary including the incorporation of reports from the contractors and corrective action requests to Contractor; ▪ Based on the results of CESMP monitoring, identify environmental and social corrective actions and prepare a corrective action plan, as necessary, for submission to WB and other co-financiers as necessary.
Contractors	<ul style="list-style-type: none"> ▪ Participate in the induction training on ESMP provisions and requirements delivered by the PMU;

	<ul style="list-style-type: none"> ▪ Prepare the CESMP and submit to PMU for approval; ▪ Obtain necessary environmental license(s) from DNCPIA for associated facilities for Project works, quarries, Asphalt Mixing Plant etc. prior to the commencement of civil works contracts; ▪ Ensure that all workers, site agents, including site supervisors and management participate in training sessions delivered by PMU and PISC. Maintain a record of training and conduct of awareness sessions for staff to ensure compliance with environmental and safety statutory and contractual obligations including the approved CESMP; ▪ Ensure compliance with environmental and social statutory and contractual obligations and proper implementation of WB requirements including approved CESMP; ▪ Based on the results of CESMP monitoring, cooperate with the PISC and PMU to implement environmental and social corrective actions and corrective action plans, as necessary; ▪ Based on the results of ESMP monitoring, cooperate with the PMU to implement environmental and social corrective actions and corrective action plans, as necessary; ▪ Respond promptly and efficiently to requests and instructions from PMU for environmental corrective actions and corrective actions and implement additional environmental and social mitigation measures, as necessary; ▪ Provide sufficient funding and human resources for the proper and timely implementation of required mitigation measures in the Environmental and Social Management Plan.
National Directorate of Environment (DNCPIA)	<ul style="list-style-type: none"> ▪ Review and approve environmental and social assessment reports required by the Government of Timor-Leste (GoTL); ▪ The issue, and renew environmental licenses as required by the GoTL during the life of the Project; ▪ Undertake monitoring of the project's environmental performance based on their mandate.
General Labour Inspectorate	<ul style="list-style-type: none"> ▪ Undertake spot-inspection of workers condition ▪ Support awareness raising of women workers rights, including through access to Hotline for Women Workers;

7. Summary of Impacts

139. The anticipated negative environmental and social impacts are identified in the environmental and social assessment and covered by the Environmental License are summarised in Table 7.1.

Table 7.1. Key Environmental and Social Impacts

PROJECT ACTIVITIES	ENVIRONMENTAL & SOCIAL IMPACTS	MITIGATION MEASURES	MONITORING RESPONSIBILITY
PRE – CONSTRUCTION PHASE			
Land acquisition and involuntary resettlement	Social disruption	Cash compensation for asset & resettlement for housing	PISC, PMU

	Livelihood impacts	Compensation at replacement costs, temporary livelihoods assistance, livelihoods restoration measures (defined in the Land Acquisition and Resettlement Plan/LARAP)	PISC, PMU
Land clearance	Risk of increased landslides and damage to road infrastructure	Landslide and flooding mitigation measures both permanent and temporary. Climate change adaptation measures incorporate into Detailed Engineering Design, bio-engineering measures using native species;	Contractor, PISC, PMU
Surveying and staking out of road corridor	Minor loss of vegetation during demarcation	Visual inspection	Contractor; PMU
Site clearing, digging, excavations	Discovery of cultural heritage & historical property	Stop work order and consultation with community and authority	Contractor; PMU
	Slope failure/landslide	Visual inspection; Prohibition of clearing, cutting, and excavating in the protected areas	Contractor; PMU
	Removal of trees and forest	Compensation and replanting and reforestation using native species Prevention of adverse impacts on birds' nests and their habitats by ensuring careful observation and monitoring prior and during site clearing activities	Contractor; PMU
Mobilization of Contractor	Social disruption	Consultation with local community representatives, local authorities and women representatives	Contractor, PMU
	Health & safety management	Observation and consultation	Contractor, PMU
	Employment opportunities for individuals at local level	Promote equal access to opportunities thorough minimum percentage of women and persons with disabilities in Bidding documents; Consultation with local authorities and women local representatives; Consultation with relevant CSOs and associations	Contractor, PMU

		[Women Engineers, Women Business Association, ADTL, RHTO]	
	The spread of communicable diseases	Pre-construction – awareness training - check records	Contractor; PMU
CONSTRUCTION PHASE			
Operation of construction equipment	Emissions and dust from plant and materials	Apply of emission filter & water sprayer to reduce	Contractor; PMU
Works adjacent to water bodies/drainage systems	Slope failure/landslide & physical changes to river bed, culverts & other areas	Check design, visual observation, and consultation with communities	Contractor; PMU
	Increase risk of SEA (use of water bodies for washing and playing for children and women)	Approval Code of Conduct; Community awareness raising; Agreement with local community to protect/mitigate child protection risks	Contractor; PMU
Sourcing of materials (river gravels and sands)	Extraction gravel and sand, altering channel and erosion; quarries or borrow pits	Visual inspection, and review of mineral extraction plan and rehabilitation to meet Government licensing requirements	Contractor; PMU
Sourcing of water for construction and dust management	Increased water use, potential competition for water sources with local communities	Pre-approval of water sourcing, monitoring and record-checking of water extraction	Contractor; PMU
Spoil disposal or discarded macadam pavement	Impacts to habitats, water resources/springs, and watercourses	Visual inspection and define disposal location agreed by local authority & landowner, and waiver records kept. Prohibition of disposing or discharging materials in the protected areas	Contractor; PMU
Clearing, cut and fill activities, embankments; Stockpile and staging areas	Slope failure/landslide and sediment contamination of rivers and turbidity	Visual inspection, and define disposal location agreed by local authority & landowner, and waiver records kept	Contractor; PMU
Run-off, discharges, generation of liquid wastes	Impacts on water quality	Visual inspection, issue restriction to discharge liquid waste	Contractor; PMU
General activities - solid & liquid waste arising	Uncontrolled unmanaged waste disposal	Visual inspection, issue restriction to discharge solid & liquid waste	Contractor; PMU
Use of hazardous materials	Spillage, leakage, accidents	Inspection of storage & review emergency response plan	Contractor; PMU

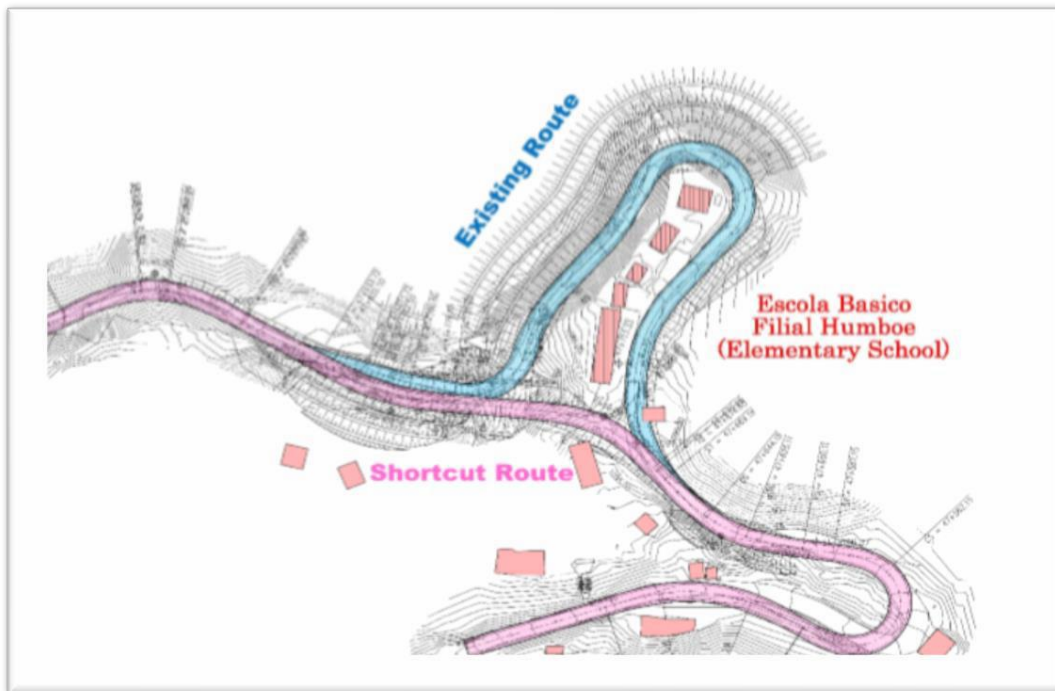
Accidental damage to existing services	Interference with existing infrastructure; water supply, power, telecommunications	Plan with utility providers and avoid/reprovision	Contractor; PCM
Activities outside road encroach habitats	Workers poach animals, eggs, feathers, gather fuelwood & impact habitats	Inspections to camp, fuel & work sites to check food supply, re-vegetation and no wild animal/parts collected	Contractor; PMU
Accidental impacts of historical/cultural sites	Impacts on PCR or cultural property sites	Stop work and deal with community appropriately. Pre-consultations with Centro Nacional Chega! to identify known sites (public institute on memorization of historical sites related to 1975-1999 period)	Contractor; PMU
Noisy construction plant and equipment	Impacts community and workers	Review work schedule & provide appropriate noise equipment, and GRM register from the community and resolve	Contractor; PMU
Vehicle parking, traffic safety and access to people's land	Traffic disruption and safety affected	Inspection, review traffic management and consult with landowners	Contractor; PMU
General work activities	Worker health and safety risks	Inspection and review of H&S Plan in CESMP	Contractor; PMU
Mobilization of construction workers	Social disruption including complaints related to construction-related activities, land acquisition and social interactions with workers.	Regular communication with community local representatives, inspection, review contractor staff management as required.	Contractor; PMU
	Communicable diseases and community health	Awareness raising campaign to local community	Contractor; PMU
Site office, water use, and electricity supplies	Stress on existing resources and infrastructure	Consult with villages along road and power provider	Contractor; PMU
OPERATION PHASE			
Operation of vehicles creating emissions	Emissions increase locally but surface dust reduces	Visual inspection & road maintenance	MPW/PMU
Routine and ongoing maintenance	Blocked drains; gravel repair materials	Routine maintenance records	MPW/PMU
Daily use of upgraded roads	Increased traffic and speeding behavior, public safety risks	Installation of road safety measures, including road bumps in public premises, street lights and road signages	Contractor/MPW/PMU
Drainage system maintenance	Alteration of natural flood cycles	Monitor wet periods and review flood occurrence	MPW/PMU

	Increased run-off from road, loss of soils and water quality in streams & river	Routine maintenance, regular site inspection	MPW/PMU
LONG TERM AND INDIRECT IMPACTS			
Increased mobility and traffic	Roads act as a pathway for the spread of communicable diseases such as HIV and STIs	Every 6 months, for 2-year, mid-term and post-evaluation. Consultations with villagers; Review health records (STIs data)	MPW/PMU
	Increase risk of human trafficking and sexual exploitation	Prevention messaging to newly opened up communities; approval of Code of Conduct	
	Hunting and poaching due to increased accessibility	Monitoring and consultations, Technical support through advisory services from the PMU Safeguards Team to relevant authorities	MPW
	Noise, nuisance, accidents	Monitoring and evaluation, data collection	MPW/PMU
	Increased access to GBV services available in nearby Municipalities	Provision of female liaison officer	MPW/PMU
Others, including Climate change issues	Unexpected and costly failure of road & depletion, unintended or unanticipated impacts	Visual inspection; review rainfall, flood, and landslide	MPW/PMU

8. Proposed Mitigation Measures

140. The mitigation measures matrix includes the monitoring programme in Table 10.1. Environmental and Social Management and Monitoring Plan. It presents all the required mitigation measures and monitoring responsibilities corresponding to the impacts as assessed to be necessary through the environmental assessment and licensing process (monitoring is also included for ease of reference).
141. The significance of the environmental and social impacts is an important reference for formulating environmental impact mitigation measures. The mitigation measures will follow the hierarchy i.e. avoid, minimize, rectify, and compensate to achieve break-even point with no net loss.
142. The mitigation measures required to cover all stages of the contract and are separated into Pre-Construction, Construction, and Operation phases and are presented as in the SEIS/ESIA; that has thoroughly assessed all potential impacts that seem likely at the project planning stage, and the ESMP will be updated if necessary in the pre-construction stage. Management of potential risks and impacts for the project is required to follow good practices as described in the following WBG General EHS Guidelines. These include guidelines for Environmental Management (air emission, water quality, waste management, noise, etc.), Occupational Health and Safety (OHS), Community, Health and Safety, and Construction and Decommissioning. These guidelines can be found in the following https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines.
143. In addition to the WBG General EHS Guideline, the following sector specific guideline is also applicable (<https://www.ifc.org/wps/wcm/connect/7e4c7f80488554d5b45cf66a6515bb18/Final%2B-%2BToll%2BRoads.pdf?MOD=AJPERES&id=1323162564158>). Although the scale of the project is not equivalent to toll road projects, information and guidance from these guidelines are relevant for the management of potential impacts in general projects.
144. This ESMP is based on the type, extent, and duration of the environmental impacts identified at the design stage. In the event that unexpected impacts occur during implementation or if the Contractor fails to implement the mitigation measure, the ESMP will be amended to take account of the unexpected impacts and mitigation measures will be amended as necessary.
145. Based on the result of Public Consultation conducted for all sucos in the proposed Project area, some impact avoidances made through engineering design as follows:
 - **Shortcut route at Humboe School zone;** Humboe elementary school is surrounded by the narrow existing road, so the development of future schools is greatly hindered. In addition, it is expected that future traffic volume will increase due to the improvement of project road, unfortunately, this is a major threat to traffic safety for school children. Therefore, from the representatives of this community, a shortcut plan was requested, not through the existing detour route but through the elementary school side as shown.

Figure 8.1: Shortcut Route at Humboe School Zone



- **Shortcut Route at Goulolo Suco;** Goulolo Suco community has requested another road alignment to look for a short-cut to avoid foreseen impacts on a set of historical *Uma Lulik* located uphill. According to Goulolo Suco, the on-going government construction project have created impacts on their historical *Uma Lulik*, hence, they requested another shortcut alignment. The proposed shortcut alternative route has been visited by the social and environmental team and confirmed that there is no effect on social and environmental.

Figure 8.2: Shortcut Route at Goulolo Suco



- **Letefoho Church Service Road** with installed sidewalks; The Letefoho Church – Administrative post Pastor of Letefoho Church requested to take an alternative route. The church has a plan to improve the church area including the altar and meeting hall. During Public Consultation, Haupu Suco worried 2 things i.e. when the road widened, will affect their plan. The second is when the road is properly constructed, users going to the church will cross the road. Therefore, Suco Haupu requested alignment change to the entry path of behind church instead of the National Road passing in front of the church.

Figure 8.3: Letefoho Church Service Road



8.1 Pre-Construction Phase

146. Pre-construction phase limited to the following activities: land acquisition and involuntary resettlement; climate change adaptation measures incorporated into the design, vegetation removal during surveying and staking out or demarcation of road corridor; site clearance, digging and excavations; and mobilization of Contractor. Impact assessment on those pre-construction activities consist of:

a. Social Disruption

147. The proposed rehabilitation Project will be carried out within the existing road, however, there is road realignment to improve the curve, hence, land acquisition and resettlement impacts are expected happened. Therefore, land acquisition and resettlement impacts need to be identified and mitigated in a consistent and transparent manner. A separate Resettlement Policy Framework (RPF) was prepared in line with the World Bank's OP 4.12 – Involuntary Resettlement.

148. Measures to be applied to minimize the social impacts of the Project, include:

- Works will be restricted to the “right-of-way” of the road design;
- Projected impacts and negotiate proposed measures have been discussed in advance with the affected community; work with local government officers and non-governmental organizations;
- Conduct surveys before activities commence to identify all members of affected populations, and identify other land-based natural resources, infrastructure, and services that will be lost to the affected community;
- Identify suitable land (if possible land having the same clan ownership) for resettlement/re-establishment of the natural resource base.

149. Land acquisition and involuntary resettlement activities will cause anxiety to the community when the process of land acquisition and resettlement not conducted in a transparent manner, hence social disruption will occur during identification, inventory of losses, and validation includes negotiation on compensation rates for lands and assets of the community.

150. Social disruption likely happens as well during mobilization of the Contractor to the project site, especially when Contractor mobilizes workers who are not from the local community or residents of sucos in the project area. It is understood that the mobilization of individuals from outside the local community often creates challenges to management of construction work not only due to issues related to the labour market and economic consequences of employment, but also as they relate to social interaction between male workers with local women. In order to minimize the impact, Contractor should conduct coordination with the chief of suco and other stakeholders in the project area, prior to mobilization to the site, as well do a consultation with the community as per Project's Communications Plan.

151. Mitigation measures proposed to the social disruption due to land acquisition and involuntary resettlement i.e. consistent and transparent process during identification, validation, and negotiation, following up with cash compensation for the land acquisition or assets, and resettlement for the housing lost.

b. Land Acquisition and Removal of Structures

152. The project will acquire some 27.10 hectares of land for the construction of the

Branch Road for all sections. Out of the total impacted land, there are approximately 12.06 hectares of agricultural and, 3.66 hectares of residential land, 10.85 hectares of vacant land and 0.67 hectares of government and church land. No communally and/or customarily-owned land and commercial land owned by companies will be affected by the proposed Branch Road. There are 248 households (AHs) will be directly impacted by land acquisition of the Branch Road. Based on land used type, 140 PAPs will be affected from acquisition of 8.46 hectares of cultivated land; 42 PAPs of fallow shifting agriculture land; 37 PAPs of resident/compound land.

153. On the basis of severity of impacts, road widening in Section 3 is predicted to result in more impacts compared to other sections. In terms of types of impacts, impacts on residential land are expected to be more significant in Section 2 compared to other sections. Whereas in Section 3, impacts on agricultural land, particularly coffee plantations, are expected to be more significant compared to other sections. However, since the DED for Section 3 is currently being prepared and the on-going GoTL's emergency road construction (refer to Tracer Assessment in the ESIA and Land Acquisition and Resettlement Action Plan/LARAP) is yet to be completed, impacts will likely change and hence, need to be revisited.
154. There are different categories of private structures impacted, including residential and commercial (i.e. kiosks, workshops), which may be located within the existing ROWs or private land which will be included as part of the proposed Branch Road right of ways (ROWs). Another category includes public structures which cover government buildings (i.e. Suco offices, schools) as well as church-owned properties.
155. Impacts on private structures include partial and full removal of houses, kiosks, workshops and ancillary structures such as garages, kitchens as well as fences and retaining walls. Structures are both permanent and semi-permanent and all PAPs will be compensated at replacement costs. Compensation packages for those who need to be relocated in situ cover cash compensations for land and structures affected (and whole structures in the event that they can no longer be used), construction assistance at 30 percent of the overall structure compensation and transitional assistance. Those owning semi-permanent structures, compensation values have been set to enable affected structure owners to build back better. Calculation of compensation values, and livelihoods assistance particularly those whose livelihoods will be disrupted as a result of the construction activities is further provided in project's LARAP.
156. Impacts on residential structures: potential impacts tend to be more significant in Section 2 where 12 HHs (105 PAPs) are anticipated to be relocated in-situ. In section 1 and 3, two HHs (22 PAPs) and seven HHs (47 PAPs) are anticipated to be relocated in situ respectively. Engineering design is currently in the process of finalization for Sections 2 and 3 and impact avoidance considerations, particularly to minimize resettlement impacts in Section 2 are currently being developed.
157. Approximately 1,392 sqm of permanent houses and 372.98 sqm of semi-permanent houses will need to be removed (both partially and fully). However, since such structural demolition will compromise building safety, these houses will hence need to be fully demolished and owners will be compensated at replacement costs for their affected structures and land.
158. Impacts on commercial structures: The project will affect a total of 25 commercial structures, which is composed of permanent (6) and semi-permanent kiosks (17) and two semi-permanent mechanical workshops. 11 of semi-permanent kiosks are movable and hence will result in minimal impacts.
159. Impacts on livelihoods associated with removal or moving of kiosks and mechanical

workshops are expected to be temporary. Owners will be provided with temporary allowance of 100 USD each month for three consecutive months to enable them to rebuild their commercial structures and recover their economic activities. Impacts during construction are expected to be positive due to a potential increase in trades of basic foods and goods with the presence of construction workers.

160. Impacts on public facilities: Public facilities include two water tanks, 200 meters of water pipes, one multi-function classroom room, 51 electric poles. These utilities/facilities will need to be rebuilt or relocated. The project will provide complete restoration/rebuilding costs as well as replacement costs for these entire utilities. As part of the project's Environmental and Social Management Plan (ESMP), these utilities will need to be fully relocated and/or replaced prior to any land clearance or construction works to minimize activity and service disruption. Such relocation and/or replacement will be coordinated with respective agencies responsible for the maintenance of these utilities/facilities and all replacement costs will be borne by the GoTL.

161. Impacts associated with land acquisition and removal of structures are addressed in the LARAP, which serves as an integral instrument for the management of the overall environmental and social risks.

c. Increased Landslides and Damage

162. The proposed Project objective is to rehabilitate and upgrade road network between Municipality and town including support climate resilience of Dili – Ainaro road. Therefore, climate change resilience action need to be prepared such as constructing leveling of earth mass with rip- rap protection for roads at risk of erosion from extreme waves; providing larger drains and additional culverts to accommodate the larger quantities of runoff; re-forestation or re-vegetation on unstable slopes, e.g., planting around 500 trees per hectare; and applying vegetated erosion control blankets, which consist of natural fibers able to retain soil and sediments.

163. The impact of climate change resilience action actually is a positive impact which will protect road prone to erosion, unstable slopes, and accommodate runoff. However, the construction works for providing larger culverts, leveling earth mass with rip-rap might be increased landslides on several areas and damage to the existing road infrastructure.

164. Incorporate climate change adaptation measures into a detailed design is the mitigation measures that proposed for this Project in the pre-construction phase, to anticipate an increase of landslides and road damage during the construction phase. The combination of bio-engineering and slope protection proposed as the mitigation measures in some areas that able applying vegetation blankets. There is Riheu Suco in Ermera Municipality which has delivered in advance that they ready to supply the vetiver grass for bio-engineering works.

165. Slope failure and landslides can happen as well during activity of land clearing, slope cutting, and excavation. Therefore, visual inspection by Project Implementation and Supervision Consultant should be conducted regularly and followed up by installing a retaining wall, when necessary, applied to the very sensitive areas.

d. Physical Cultural Resources

166. Activities of site clearance and digging that undertaken during pre-construction can produce discoveries of physical cultural resources, including archaeological and mass grave sites. In the event this occurs, work shall cease immediately, and the relevant authorities shall be informed. Activities shall not recommence until the authorities

have signed-off that the site/resources have been dealt with appropriately and that work may continue.

167. The Contractor shall be responsible for complying with the requirements of authorities and shall be monitored by the PMU. The contractor will include a section on “chance finds” in the Construction Environmental and Social Management Plan (CESMP). Further measures on the “chance finds” is provided in Appendix 16. A summary of the relevant mitigation measures for potential impacts on physical cultural resources include:

- Site agents will be instructed to keep on an eye on relics in excavations and do a consultation to the community, especially customary leader on the site;
- Should any potential items be located, the PMU will immediately be contacted, and work will be temporarily stopped in that area;
- Project Management Unit with the assistance of the Project Implementation and Supervision Consultant (PISC) will determine whether there is potential significance and contact MPW to pass the information to the relevant department in GoTL (i.e. State Secretary of Art and Culture) who will be invited to inspect the site and work will be stopped to allow time for inspection.

168. When Government of Timor-Leste has not been able to respond to this report due to the need to have more thorough investigation, the work will not recommence in this location until an agreement has been reached between GoTL and PMU as to any required mitigation measures, which may include structured excavation.

169. Based on the project’s environmental and social risk and impact inventory, potential physical cultural resources which will be at risks of being impacted include religious monuments, traditional houses, karsts and other geological features which warrant further protection and conservation.

e. Vegetation Removal

170. Site clearing, and excavation works may affect some trees, hence attention will be given during the preparation of the detailed design for the road sections, especially on the natural environment to minimize effects on trees and crops. Suggested measures to achieve this objective are:

- Conduct a topographic survey and reflect trees and vegetation on maps. This will support the Design Engineers in avoiding trees and vegetation;
- Coordinate with the National Directorate for Environment, Forestry, and Agriculture to determine their requirements relative to tree cutting;
- Locate potential construction sites with minimal effect on trees;
- Ensure construction personnel are aware of endangered species and their habitats;
- In a situation where the proposed construction will pass close to these sensitive areas, shall provide safety signs to confine machines and activities.

171. Vegetation removal during site clearance has to be based on the schedule of trees to be cut made by the Contractor. Plans for the removal of trees and vegetation have to be incorporated in the CESMP, including revegetation (if required), incorporating with owner consultation and compensation per Land Acquisition and Resettlement Plan (LARAP).

172. The census survey indicates that impacts on agricultural crops are more severe in Section 3 (i.e. approximately 19,238 coffee trees need to be removed for the purpose of road widening) and hence, may warrant further considerations with regards to

mitigation measures associated with livelihood impacts. In total, there will be approximately 27,652 mature coffee, 517 timber and 1,055 fruit trees that will be impacted. Compensation for tree owners is further described in the project's LARAP on the entitlement matrix. As part of safeguards measures, replanting assistance will be offered to tree owners in addition to compensation payments and livelihoods assistance.

173. In addition to bio-engineering with grasses, other measures of reforestation and protection of areas adjacent to roads and key watersheds areas in order to reduce runoff velocity and enhance retention of soil as part of erosion control program in the project area of influence. PMU has adopted Guidelines on Soil Bio-Engineering Practices for Roadworks and Slope Stabilization-August 2017 in which the proposed list of species are natives and listed as an annex of the guidelines. Most commonly used native plants:

- Seedling: Ai-kafe (*Leucaena leucocephala*), Ai-kakeu (*Casuarina junghuhniana*)
- Hardwood cutting: Ai Amare Fuik (*Spondias* Spp), Madre de cacao (*Gliricidia sepium*)
- Grass: Soko grass (*Themeda* species)

174. Impacts on livelihoods as a consequence of productive tree losses are addressed in the project's Land Acquisition and Resettlement Action Plan (LARAP), which is an integral instrument for the overall management of environmental and social risks.

f. Community Health and Safety

175. Contractor mobilization, include the initial establishment of site office, works yard and work sites will lead to interaction between local people and construction workers. Hence, prior to Contractor mobilization to the site, PMU will work with the Contractor to establish the communications protocol between the Project and communities as per Project's Communications Plan. The Contractor will designate two members of its staff – a male and a female worker - to be the liaison between the suco chiefs, customary leaders, and Contractor as well as between the Contractor and PMU as per communication process identified below.

176. The establishment of the site office, work yard and work sites and a number of workers who live in the Contractor's worker camp will impact the sanitation condition, furthermore will disrupt to community health and safety. The mitigation measures proposed by Contractor by adopting good management practices to control fuels and chemicals spillage, and monitor that raw sewage, wastewater effluent, and construction debris/unused material will be disposed of in controlled conditions to reduce the risk of contamination. Measures to minimize disturbance by construction workers and the presence of the works site include:

- Suco (village) protocols discussed with workers as part of awareness and mobilization training with clear identification of discriminatory social norms which workers shall be instructed not to follow. Hire and train as many local workers as possible by using labor from each suco as the work proceeds from suco to suco;
- The Contractor must ensure that workers' actions outside the work site comply with relevant laws, including the observance of Suco codes and culturally determined rules of conduct, as long as these are not discriminatory against women or discriminate on other grounds;
- Worker camp location and facilities will be located at least 500 m from settlements and agreed with local communities and facilities approved by PMU and managed to minimize impacts;
- Provide adequate housing for all workers at the construction camps and establish

clean canteen and cooking areas;

- Adequate safety signs and security provided at the site office and works yard and prevention of unauthorized people (especially children) entering the area;
- Construction camp will be established in areas with adequate drainage to prevent water log to the camp and formation of breeding sites for mosquitoes; as well to facilitate a flow of the treated effluents;
- Provide potable water, clean water, hygienic sanitation facilities/toilets with enough water supply, rest area, and first aid facilities. Separate toilets shall be provided for male and female workers;
- Portable lavatories (or at least pit latrines in remote areas) shall be installed and open defecation shall be prohibited and use of lavatories encouraged by cleaning lavatories regularly and by keeping lavatory facilities always clean;
- Wastewater effluent from contractors' workshops and equipment washing-yards will be passed through gravel/sand beds. All of oil/grease contaminants will be removed before discharging it into natural streams. Oil and grease residues shall be stored in drums awaiting disposal in line with the agreed waste management section of the ESMP;
- Predictable wastewater effluent discharges from construction works shall have the necessary permits from DNCPIA and local authorities before the works commence;
- Food shall be provided from farms nearby or imported to the area. Bushmeat supplies from protected areas will be banned to discourage poaching. Solid and liquid wastes will be managed in line with the provisions of the waste management section of the ESMP;
- The use of hunting equipment or gun by workers will be banned. Workers will be dismissed for taking or using green timber or hunting or being in possession of wildlife. Workers banned from entry to the protected, IBAs and/or sensitive areas;
- Provision of adequate protection to the general public in the vicinity of the work site, including advance notice of commencement of works, installing safety barriers as required by villagers, and safety signs or marking of the work areas;
- Provision of safe access across the works site (particularly during construction of drains) to people whose suco and access are temporarily affected during construction works. Construction works should avoid damage to productive trees and gardens, water resources and springs;
- Workers should respect village and land owner's boundaries all times, recognize and follow village rules and terms of conduct, including those addressing women and elders;
- The community should be prevented from spreading of the communicable disease, hence needs to implement HIV/AIDS/STIs awareness and prevention for the Contractor's workers and adjacent communities; and
- Land used for the construction campsites shall be restored to the original condition as far as practicable and the area shall be planted with appropriate trees as soon as practicable after it is vacated and cleaned.

8.2 Construction Phase: Impacts on Physical Environment

a. Decrease in Air Quality

177. During the construction phase of proposed Project, there is the temporary impact on local air quality through emission of exhaust from construction vehicles and aggregate crushing plant; as well as through dust generation from vehicles transporting materials and from exposed stock- piles of construction materials.
178. Slope cutting, excavation, and rock crushing activities will be the main sources of dust. The works in any road section will generally be of short duration and in several locations, there will be sufficient buffer distance such that no significant impact is expected from the construction works on residential sensitive receivers in terms of noise, vibration, and dust. In addition, works will not take place at night except in special circumstances justifiable to the PMU.
179. The road improvement will result in the reduction of dust dispersion as a result of proper compaction and treatment of the road surface. There are a number of good engineering practices that can be applied to ensure that any air quality impacts generated during construction are mitigated, as following:
- Construction equipment maintained to a good standard. The equipment will be checked at regular intervals to ensure they are maintained in working order and the checks will be recorded by the contractor as part of environmental monitoring;
 - Prohibition in using equipment and machinery that causes excessive pollution (i.e. visible smoke) at the project site, following with periodic qualitative air quality monitoring;
 - Material stockpiles in sheltered areas and to be covered with tarpaulins or other such suitable covering to prevent material create airborne and runoff of fine particles;
 - During transportation, should ensure that all vehicles transporting potentially dust- producing material are not overloaded, are provided with adequate tail- boards and side- boards and are adequately covered with a tarpaulin (covering the entire load and secured at the front, sides, and tail of the vehicle);
 - A sprinkling of water on the road, where work is in progress within 100 m of the sucos along the road and any roads being used for haulage of materials, during the dry season shall take place several times a day.

b. Erosion and Flood Events

180. Along the project site, there are perennial and seasonal rivers that traverse or parallel to the existing road. When the rainy season cannot be avoided and while culverts are required, there could be the need to temporarily constrict water flows and dry out sections of rivers or streams depending on their size and water volumes carried, in order to place new structures. These activities can result in a risk of channel shifts and erosion, particularly of river banks that would lose their vegetation cover, most particularly during floods.
181. Erosion and flood event can occur as impacts of land clearing, grubbing, cut-fill activities, and construction. Natural streams may be silted and flood due to runoff from the land clearing, borrow pits and grubbing for the side drain construction. Meanwhile improperly soil disposal on the steep gorges, devoid compaction and blocked the existing cross-drainage system will prone to erosion during a hard rain.
182. Based on the road improvement design for the Branch Road Project, the realignment

applies almost to all sections which increase the need for cutting slopes and only a few backfilling. This condition will lead to an area prone to erosion when rainy seasons.

183. The Contractor will be required to implement the CESMP and to provide drainage facilities to avoid stagnant water or flood within the Project site, construction camps, borrow/quarry areas, other areas used for project-related activities and adjacent areas. In areas close to the sensitive receivers, the Contractor will provide appropriate drains so that the outfalls of the surface run-off from the carriageway are diverted away from the sensitive receivers. Measures will also be taken by the Contractor during the construction phase to ensure that storm drains and road drainage systems are regularly cleared to maintain stormwater flow.
184. In addition to bio-engineering with grasses, other measures include reforestation and protection of areas adjacent to roads in order to reduce runoff velocity and enhance retention of soil as part of erosion control program.
185. In line with PMU's Guidelines on Soil Bio-Engineering Practices for Roadworks and Slope Stabilization-August 2017, the bioengineering scope of work covers grass planting, bush layering and tree planting. The Contractor is required to have a nursery or purchase the trees from locals. There is one national bio-engineering specialist in PMU team that monitors the implementation of bio-engineering work.
186. Potential impacts of erosion and flood will be mitigated by:
 - Material stockpiles will not be located within riverbanks or the area of river floodplain in areas subject to regular flood (once per year or more). All land used for stockpiles will be rehabilitated to its original or better condition upon completion of the works;
 - Source protection will be used as temporary measures, as needed, to ensure temporary structures do not damage river configuration. Movements of vehicles and machinery in river beds within the riverine habitats will always be minimized to reduce disturbance, including the prohibition of vehicles or machinery washed in the river;
 - If the Contractor causes damage to the river bank or other structural parts of a river, the Contractor is solely responsible for repairing the damage and/or paying compensation to the riparian owners. Furthermore, embankments and river activities will be monitored for signs of erosion during construction;
 - The activity of cutting slopes should be done properly and step by step to make sure that soil condition after cutting will not trigger to slope failure or prone to erosion when rainy;
 - Revegetation with local fast-growing species or other plants will be carried out incrementally and as quickly as possible after work within any river habitat has been completed after consultation with the landowners and suco chiefs; and
 - Spoils, rubbish or any other surplus material will not be disposed-off within steep slopes or gorges, any river banks or floodplain areas. Suitable disposal sites will be designated in consultation with landowners and suco chiefs and approved by PMU.

c. Slope Failure and Landslides

187. The quarry sites, a source of materials such as sand, gravel, aggregate etc., for the Project will be agreed prior to the commencement of works. The Contractor will be required to identify sources and prepare a sustainable extraction plan (materials management plan) as part of the CESMP, for all sources of material and including spoils that will be used in roadworks. The aggregate extraction plan should be submitted to

- PMU, which will approve and monitor implementation of the extraction plan. The Contractor must obtain Mineral License for all quarry sites, as locations for quarry extraction activities will not be authorized without first securing location approval from the ANPM; subsequently completing and obtaining approval of the site specific Environmental Management Plan (SEMP) and Mining Plan for each location.
188. The use of immediately available material can be considered, as it will reduce the need for additional extraction of rock-based materials. Should there any suitable materials can reuse as far as possible on other roads or other local infrastructure projects, this will reduce the need to extract other rock and gravel resources from vulnerable hillsides and river beds. The surplus can then be stockpiled at locations agreed with local authorities for other local Municipality projects or other nationally planned infrastructure. The surplus shall not be stockpiled at the side of the road or dumped over the barriers or side of slopes. Furthermore, areas for disposal shall be designated and agreed with the suco leaders and local authorities.
189. The CESMP submitted by the Contractor will be based on the ESMP in this SEIS/ESIA and will include a section on spoil disposal to ensure waste from Project road improvement is managed properly. The CESMP will cover all aspects of construction waste disposal, and it is preferred that Government land is used for stockpiling and dumping of material. If private land will be used for the purpose of dumping, it shall commence only after written permission from the landowner is checked and recorded by the PMU and agreeable to the local authority. The surplus materials for disposal must be controlled to avoid potential impacts due to improper disposal.
190. The spoil disposal section of the CESMP will include: (i) locations and quantities of spoil arising; (ii) agreed locations for disposing and get endorsement from DNCPIA and local groups; (iii) methods of transportation to minimize interference with normal traffic; (iv) establishment of acceptable working hours and constraints; (v) agreement on time scale and programme for disposal and chain of custody; (vi) maintenance programme issues including the available resources; (vii) the schedule of PMU inspection/monitoring; and (viii) links to the grievance redress mechanism and complaints management system for duration of the works.
191. The PISC will responsible to report to PMU the monthly update of the cut and fill estimations, in conjunction with asphalt and aggregate materials planning between the different areas. PISC responsible to give advice on management of overall balance for cut and fill materials; to minimize impacts on local resources, includes assisting PMU in reviewing the permit letter for disposing of spoil materials in private lands.
192. In addition to the preparation of the site-specific extraction plan by the Contractor, the bid and contract documents will specifically require Contractor to (i) balance cut and fill requirements to minimize impacts from extraction of aggregates; (ii) prioritize use of existing quarry sites with suitable materials and update the list of quarries and borrow pits monthly and report to MPW/DRBFC and minimize impacts on other local resources; (iii) procure materials only from quarries and borrow sites acceptable to PMU or licensed and authorized by DNCPIA; (iv) if the Contractor shall operate the quarry site, required environmental licenses and permits shall be secured prior to operation of quarry/borrow areas; and (v) borrow/quarry sites shall not be located in productive land or forested areas.
193. Potential impacts on land and properties as a result of landslide risks are addressed in the project's Land Acquisition and Resettlement Action Plan (LARAP), which is an integral instrument to the overall management of potential environmental and social risks.
194. The PMU assisted by the PISC will responsible to monitor the progress of cutting

slopes and the mitigation measures implementation, to minimize impacts. Particularly when the proposed Branch Road Project will need many of cutting slopes rather than soil backfilling for the road improvement design. The mitigation measures in the CESMP will apply equally to discard asphalt or macadam pavement surfaces, it will include but not necessarily limited to:

- Properly removed topsoil and low-quality materials and stockpile near the site to be covered and preserved for rehabilitation. A stockpile of topsoil for later usage, fence and re-contour borrow pits after use;
- Use quarries with the highest ratio between extractive capacity (both in terms of quality) and loss of natural state. Use quarry sites lying close to the alignment not on slopes, with a high level of accessibility and with a low hill gradient;
- Reinstate damaged access roads, agricultural land, and other properties upon completion of construction work at each section if damaged due to the transport of quarry/borrow materials, other construction materials or any other project-related activities;
- Provide adequate drainage to avoid accumulation of stagnant water during quarry/borrow site operation, and avoid quarry sites lying on small rivers and streams;
- Avoid use of quarry sites located on river beds. If it is not possible to locate quarries out of river beds, use only quarry sites lying on large rivers as approved by PMU.
- Choose alluvial terraces or alluvial deposits which lie on the river beds but not covered by water in normal hydrological conditions;
- Cut berms and terraces during and after extraction in quarries in the mountainous or hilly areas to stabilize slopes, wherever slopes are important, and implement a drainage system and vegetation cover for rehabilitation;
- Dewater and fence quarries and borrow pits as appropriate, upon completion of extraction activities to minimize health and safety risks. Refill borrow pits as required by DNCPIA using surplus inert material and excavated unsuitable soils;
- Do not open additional extraction sites and/or borrow pits without the restoration of those areas no longer in use. Ensure borrow pits are left in a tidy state with stable side slopes and proper drainage to avoid creation of water bodies favorable for mosquito breeding;
- Refilled borrow pits and cover with topsoil and plant shrubs and trees to rehabilitate as required by PMU & DNCPIA to prevent accidental access and avoid drowning when pits become water-filled by implementing measures such as fencing and providing flotation devices;
- Conduct the excavation and restoration of sites and borrow areas, as well as their immediate surroundings in an environmentally sound manner to the satisfaction of the PMU. Sign-off to this effect by PMU will be required before final acceptance and payment under the terms of the contract;
- Spoil will be reused as far as possible for bulk filling and will not be disposed of in rivers and streams or other natural drainage paths;
- In no circumstances, the spoil will not be dumped into any other watercourses (the sea, cliffs near the sea, rivers, streams, drainage, irrigation canals, etc.);
- Spoil disposal shall not cause sedimentation and obstruction of the flow of the sea, watercourses, damage to agricultural land and densely vegetated areas;
- Spoil will not be disposed of on fragile slopes, floodways, wetland, farmland,

forest, religious or other culturally sensitive areas or areas where livelihood is derived;

- Surplus spoil will be used where practicable for local repair works to fill eroded gullies and depression areas and degraded land in consultation with the local community;
- The surplus shall not be stockpiled at the side of the road near the works or dumped over the edge of the road or over the crash barriers. Spoil will be disposed-off to disused quarries and abandoned borrow pits where practicable;
- Spoils shall only be disposed to areas approved by the local authority and environmentally friendly as reviewed by PISC. Spoil disposal will be monitored by PMU and recorded using a written chain of custody (trip-ticket) system to the designated disposal sites/zones;
- Spoil disposal will be spread in 15 cm layers and compacted to optimum moisture content, covered with topsoil, landscaped and provided with drainage and vegetation to prevent erosion in line with best practice; and
- The spoil disposal site shall be located at least 50 m from surface watercourses and shall be protected from erosion by avoiding the formation of steep slopes and grassing.

d. Decrease in Water Quality

195. Project construction areas which adjacent to the spring, river and stream (culvert replacement, bridge repair, major bridge works), has the potential to create some temporary and minor adverse impacts on water quality including (i) water pollution on springs; (ii) increased turbidity and downstream siltation created during the removal of gravels; (iii) an increase in silt loads at culverts to be replaced and/or constructed; (iv) construction materials such as small gravel, sand, and fill, being 'washed out' into streams, rivers during rain; (v) oil/fuel leakage and/or spills from vehicles and plant or workshop/storage locations; and, (vi) discharge of waste-water and sewage from construction camp, canteen, site office and work yard to local streams and rivers.
196. The drainage systems and water resources on surrounding lands will be affected by construction as follows: a) spring, surface and subsurface water resources near the proposed Project road sections could be contaminated by fuel and chemical spills, solid waste, and effluents generated by the kitchen and toilets at construction's campsites.
197. ESIA teams have observed that nine water resources adjacent to the proposed Project within Section 1 and 2 the risk to be disrupted and two water well will be affected by construction activities.
198. Mitigation measures proposed by confining activities into dry season when there will be little or no water in the rivers and streams crossing the project road. It will be sufficient to monitor other physical mitigation measures in place at the major river crossings where bridge repairs and replacement will be undertaken as well as on stream sections close to construction camps (i.e., rivers that could receive run-off/discharge from construction/camps).
199. In addition to a number of items outlined above, the following measures will be included in the engineering design and ESMP:
- Lubricants will be stored in containers and placed on the sealed floor > 50 m from water bodies. Furthermore, washing of machinery and vehicles in surface waters shall be prohibited;

- Work in rivers will be scheduled during the dry season and work duration shall be as short as possible. Fragile slopes shall be stabilized immediately after works are completed. Stockpile areas and storage areas for hazardous substances shall be located away from water bodies, and diversion ditches should be provided around material stockpiles;
 - Provision of sediment traps such as silt curtain or other sediment reducing devices (rock dams or silt barriers), to prevent both siltation and silt migration during works being undertaken in the vicinity of streams and rivers;
 - Sediment control devices will be cleaned and dewatered; it will not discharge to the rivers or streams. Need consultation with landowners and suco chiefs to identify suitable land-based areas for settling ponds or discharge areas;
 - Minimizing interference with spring and natural water flow in rivers, water courses or streams within or adjacent to work sites. Abstraction from rivers will only be allowed after permission from PMU, as pollution of water resources will not be permitted;
 - Solid wastes, debris, spent oil or fuel from construction plant/machinery; construction material, or vegetation waste from land clearing will not be dumped in or near water sources, streams, rivers or waterways;
 - Construction water containing sediment or material (including dredged spoil) will not be permitted discharge directly into the rivers, sea, inter-tidal area or surface waters. All of the construction water will be discharged to the retention ponds or settling tanks with enough capacity to provide retention times prior to final discharge;
 - Discharge zones from culverts and drainage structures will be carefully identified, and structures will be lined with stone riprap. The chute drains will be lined with stone riprap, masonry or concrete, and include spillways to prevent undercut;
 - Spoil and material stockpiles will not be located within 50 m of water resources, waterways, streams or rivers, or on the edge of slopes or hills above rivers or stream and will be surrounded by perimeter diversion drains;
 - Contractor's site office and works yard are to be equipped with portable sanitary latrines or a septic tank that does not discharge directly to or pollute surface waters and waterways;
 - All water, waste-water and other liquids used or generated by project works and activities will be collected and disposed of in an approved manner and in an approved location. Such disposal will not be permitted to cause either pollution or nuisance.
200. The condition of rivers near the bridges will be reported by PMU at the end of the Detailed Design period, either in the detailed design report or in a dedicated baseline monitoring report before the bidding documents are completed.
201. The existing alignment of the branch road from Aituto up to Gleno traverses several waterways such as watercourses, streams, and some rivers. Based on observation, there are several big rivers in the Ermera Municipality, especially along Section 3 from Letefoho to Gleno that can be encountered at km 13.6 with condition is no water, and river bed full of gravel/sand; at km 14.6 the river still has few of water, with stone gravel and sand; at km 15.2 with few of water, including stone gravel and sand; and at km 18.7 (STA 37+280) few of water still found, as well as stone and sand. All the rivers almost dry up during the dry season, a limited amount of water will be available during the rainy season. Potential location of water sources as observed during the

assessment include:

Section 3:

- Mota Gleno (river with 2 km distance from the road);
- Mota Railaku (river with 4-5 km distance from the road);
- Lagoa Lih-Mo (lake surrounded by Suco Eraulo, Suco Goulolo dan Suco Estado, 500 m distance from the road). Permit from Tara Bandu will be required to use the water.

Communities in Riheu, Humboe, Estado, Eraulo, Goulolo, Haupu use water springs for domestic purpose. River water is usually used for agriculture and livestock.

Section 2:

Water should be sourced either from Gleno or Aituto:

- Mota Mantanen in Aileu (river with 10 km distance from the road)
- Mota Aitutu in Dare (river with 6-7 km distance from the road).

The following water sources in Section 2 cannot be used as water sources:

- Bé matan Urbo STA 12+100 (Urbo water spring in Hatubuilico, 3 km distance from the road), lulik culturally sensitive area;
- Leana water spring and small lake STA 18+060, 10 m distance from the road, due to its low availability during dry season and use by community;
- Erasale water spring STA 16+420, 5 m distance from the road, due to its low availability during dry season and use by community.

202. The Monthly Monitoring Report will specify the time of the month when the monitoring of physical mitigation measures will be undertaken. Time and date of monitoring, potential sources of contaminants/pollutants during the monitoring period shall also be included in the report. The actual location of the monitoring stations shall be described in the report and plotted on a map together with the Global Positioning System location point.

e. Solid and Liquid Waste Management

203. Waste disposal operations can cause significant impacts when uncontrolled, therefore mitigation measures will seek to reduce, recycle and reuse waste as far as practicable. The PMU will be responsible to monitor the Contractor's progress of implementing the provision of the waste management of the ESMP and all mitigation measures. The waste management section of the CESMP will also include consideration of all matters related to solid and liquid waste disposal including the following: (i) expected types of waste and quantities of waste arising; (ii) waste reduction, reuse and recycling methods to be employed; (iii) agreed reuse and recycling options and locations for disposing receive endorsement from DNCPIA and local groups; (iv) methods for treatment and disposal of all solid and liquid wastes; (v) methods of transportation to minimize interference with normal traffic; and (vi) establishment of regular disposal schedule.

204. The mitigation measures in the ESMP will include but not necessarily be limited to the measures listed below. The Contractor shall ensure the implementation of these measures.

- Disposal areas to be agreed with local authorities and suco leaders; checked, recorded and monitored by the PMU (except oil waste; will be taken to Tibar disposal site);
 - Prohibited to burn of waste associated with the Project or the supporting activities. The burning of waste will not be allowed anywhere on the Project;
 - Waste segregations shall be observed and cleared foliage, shrubs, and grasses may be given to local farmers for fodder and fuel. Organics (biodegradables) shall be collected and disposed-off on-site by composting (burning waste not be allowed anywhere within the Project site footprint or in the camps);
 - Recyclable wastes shall be recovered and sold to a recycler. Construction camps shall be provided with garbage bins. Residual general wastes shall be disposed of in disposal sites approved by local authorities and PMU;
 - Strictly prohibited of soil waste disposal into flood/waterways, wetland, rivers, other watercourses, farmland, forest, places of worship or other culturally sensitive areas or areas where livelihood is derived such as canals, agricultural fields, and public areas;
 - There will be no site-specific landfills established by the Contractor. All solid waste will be collected and removed from the construction camps and disposed in local authority designated waste disposal sites; and
 - Waste disposal areas approved by local authorities shall be rehabilitated, monitored, cataloged, and marked.
205. Waste Management: the volume reduction of waste generation is the highest priority for the Project. All waste generated from construction and maintenance activities shall be sorted and amounts estimated and recorded. Where available, waste which suitable to reuse or recycle shall be reused or recycled. Materials and products with recycled content shall be proposed for the works wherever these are cost and performance competitive and they are environmentally preferable to the non-recycled alternative. The oil waste shall be sent to approved recyclers where appropriate or delivered to the disposal facility at Tibar. Waste and containers not able to be recycled shall be disposed of at a Municipality or municipal waste disposal site nominated by the DNCPIA focal point for the area.
206. Non-construction materials waste shall be left on site once the construction and maintenance activity has been completed. The site shall be left in a clean and tidy state upon completion of the works. The following waste management methods need to be considered in the formulation of waste management strategies:
- **Landfill** – as the disposal method for exceeding 85% of waste around Asia. Waste is deposited in holes in the ground or pre-dug trenched with soil capping. The landfill site at Tibar near Dili uses this landfill method;
 - **Recycling** – recycling and reusing waste is an environmentally acceptable disposal option. There are facilities in the Dili area for aluminum cans and plastic bottles to be recycled. Cement bags can also be reused to hold soil for growing grasses for bioengineering purposes. More than 2,000 cement bags have been recycled on PMU projects in 2016. Given no local commercial or industrial recycling opportunities exist, demolition waste and excavation waste during construction shall be reused in a new development under the approval of the Engineer;
 - **Composting** – this process breaks down organic waste to form a material that can be used for horticultural or agricultural purposes. The contractor could process the vegetable waste in the composting method.

- **Anaerobic Digestion** – this process is similar to the composting method that breaks down organic waste to produce a substance similar to compost and gas which can be used in cooking. However, such an amount is quite small in road construction.
207. Mitigation measures shall seek to reduce, recycle and reuse waste as far as practicable. The PMU will monitor the Contractor's progress of implementing the provision of the waste management section of the ESMP and all mitigation measures. The waste management section of the ESMP shall include consideration of all matters related to solid and liquid waste disposal including the following: (i) expected types of waste and quantities of waste arising; (ii) waste reduction, reuse and recycle methods to be employed; (iii) agreed reuse and recycle options and locations for waste disposal – endorsement from DNCPIA, and local groups; (iv) methods for treatment and disposal of all solid and liquid wastes; (v) methods of transportation to minimize interference with normal traffic; and (vi) establishment of regular disposal schedule.
208. The mitigation measures in the ESMP include the measures listed below that shall be implemented by the appointed Contractor:
- Areas for waste disposal to be agreed with local authorities; checked, recorded and monitored by the PMU;
 - The burning of waste associated with the Project or the supporting activities is NOT ALLOWED anywhere;
 - Segregation of wastes shall be observed; cleared foliage, shrubs, and grasses may be given to local farmers for fodder and fuel. Organic (biodegradables) shall be collected and disposed of on-site by composting (burning waste not be allowed anywhere within the Project site footprint or in the camps);
 - Recycle-able shall be recovered and sold to recyclers;
 - Residual general wastes shall be disposed of in disposal sites approved by local authorities and Project Management Unit;
 - Construction camps shall be provided with garbage bins.
209. Solid waste disposal into floodways, wetland, rivers, and other watercourses, farmland, forest, places of worship or other culturally sensitive areas; or areas where livelihood is derived canals, agricultural fields and public areas shall be strictly prohibited.
210. There shall be no site-specific landfills established by the Contractor. All solid waste shall be collected and removed from the work camps and disposed of in local authority designated waste disposal sites. Waste disposal areas approved by local authorities shall be rehabilitated, monitored, cataloged, and marked.

f. Hazardous Materials and Waste Disposal

211. Hazardous substances such as oils and lubricants can cause significant impacts if uncontrolled or if the waste is not disposed of properly. The PMU is responsible to monitor the Contractor's progress of implementing the hazardous materials and waste disposal based on the ESMP, to avoid or minimize impacts from oils and lubricants usage. The mitigation measures identified in the ESMP include the following:
- Ensure that fuel and hazardous substances storages are safe and agreed by PMU, as well have necessary approval from DNCPIA and local authorities;
 - Toxic materials and explosives (if required) will be stored in adequate protected

sites consistent with national and local regulations to prevent soil and water contamination;

- Maintenance of the construction's equipment/vehicle and refueling areas will be confined to areas in construction sites designed to the containment of spilled lubricants and fuels. Refuel areas shall be provided with drainage leading to an oil-water separator that will be regularly skimmed oil off and maintained to ensure efficiency;
- Fuel and other hazardous substances shall be stored in areas provided with a roof, impervious flooring and secondary containment or bund wall to protect these and to readily contain spilled fuel/lubricant;
- Fuel, oil, and other chemicals as required for the works will be stored in secure containers or tanks located away from the surface waters or streams. Surplus used oil and waste chemical will be disposed of at the Tibar oil collection site accompanied by waste manifest/record, and in no circumstances should oil be discharged to soil;
- Fuel and oil spills will be contained and immediately cleaned up as per the requirement of the emergency response plan to be prepared as part of the CESMP by the Contractor, and approved by PMU;
- Segregate hazardous wastes (oily wastes, used batteries, fuel drums) and ensure that storage, transport, and disposal shall not cause pollution and shall be undertaken consistent with national and local regulations;
- Ensure all storage containers are in good condition with proper labeling both in English and Tetum. Prepare a regular schedule of checking containers for leakage and undertake necessary repair or replacement;
- Store hazardous materials above flood level. Discharge of oil-contaminated water shall be prohibited, and separated oil shall be disposed of at Tibar disposal site accompanied by waste manifest/record;
- Used oil, other residual toxic, and hazardous materials shall not be poured on the ground, these shall be disposed of in an authorized facility off-site;
- Adequate precautions will be taken to prevent oil/lubricant/hydrocarbon contamination from mobile equipment of river channel beds. Washing of project vehicles in rivers and streams is strictly prohibited;
- Ensure availability of spill clean-up materials (e.g., absorbent pads, etc.) specifically designed for petroleum products and other hazardous substances where such materials are being stored;
- Fuel and oil spillage will be immediately cleared with utmost caution using absorptive cleanup materials to leave no traces. Spillage waste will be disposed at disposal sites approved by DNCPIA which is Tibar disposal site;
- All areas intended for storage of hazardous materials will be quarantined and provided with adequate facilities to combat emergency situations complying with all the applicable statutory requirements;
- The contractors shall identify named personnel in their ESMP in-charge of storage sites for hazardous materials and ensure they are properly trained to control access to these areas and entry will be allowed only under authorization.

g. Soil Storage, Handle and Disposition

212. The use of immediately available material can be considered, as it will reduce the need

for additional extraction of rock-based materials. Should there any suitable materials can reuse as far as possible on other roads or other local infrastructure projects, this will reduce the need to extract other rock and gravel resources from vulnerable hillsides and river beds. The surplus can then be stockpiled at locations agreed with local authorities for other local Municipality projects or other nationally planned infrastructure. The surplus shall not be stockpiled at the side of the road or dumped over the barriers or side of slopes. Furthermore, areas for disposal shall be designated and agreed with the suco leaders and local authorities.

213. The surplus rock and soil-based materials for disposing must be controlled to avoid potential impacts due to improperly disposal. The appointed Contractor shall initially review the PMU's options regarding stockpile and disposal locations of the cut surface materials; and reconfirm or propose alternative disposal locations for agreement with the PMU and local authorities. The ESMP covers all aspects of construction waste disposal and preferred that Government land is utilized for stockpiling and dumping of material. If private land to be used for the purpose of dumping, it shall commence only after written permission from the landowner is checked and recorded by the PMU, as well agreeable for DNCPIA (formerly NDE).
214. The appointed Contractor shall responsible for reporting to PMU the monthly update of the cut and fill estimations in conjunction with asphalt and aggregate materials planning between the different areas; and advise on overall balancing for cutting and filling materials to minimize impacts on local resources.
215. The spoil disposal section of the Construction ESMP will include; (i) locations and quantities of spoil arising; (ii) agreed locations for disposing/endorsement from DNCPIA and local groups; (iii) methods of transportation to minimize interference with normal traffic; (iv) establishment of acceptable working hours and constraints; (v) agreement on time scale and program for disposal and chain of custody; (vi) programming issues including the time of year and available resources; (vii) the schedule of PMU inspection/monitoring; and (viii) links to the grievance redress mechanism and complaints management system for duration of the works.
216. Mitigation measures shall seek to prevent slope collapse impacts and control the impacts at source in the first place. The PMU assisted by the PISC shall responsible to monitor the progress of slopes cutting and the implementation of mitigation measures to minimize impacts. The mitigation measures of the soil disposal in the ESMP shall include:
 - Spoil shall be reused as far as possible for bulk filling; and under no circumstances, spoil shall not be disposed or dumped into any other watercourses (rivers, streams, drainage, irrigation canals) and another natural drainage;
 - Spoil disposal shall not cause sedimentation and obstruction of the flow of watercourses, damage to agricultural land and densely vegetated areas; The surplus shall not be stockpiled at the side of the road or dumped over the crash barriers. However, surplus spoil shall be used where practicable for local repair works to fill eroded gullies and depression areas, or degraded land in consultation with the local community;
 - Spoil shall not be disposed of on fragile slopes, floodways, wetland, farmland, forest, beaches, religious or other culturally sensitive areas or areas where livelihood is derived; Spoils shall only be disposed to areas approved by local authority. Spoil shall be disposed- off to dis-used quarries and abandoned borrow pits where practicable;
 - Spoil disposal shall be monitored by PMU and recorded using a written chain of custody (trip-ticket) system to the designated disposal sites;

- Disposed spoil shall be spread in 15 cm layers and compacted to optimum moisture content, covered with topsoil, landscaped and provided with drainage and vegetation to prevent erosion in line with best practice. The spoil disposal site shall be located at least 50 m from surface watercourses and shall be protected from erosion by avoiding the formation of steep slopes and grassing.

h. Damage to Existing Services, Utilities and Infrastructure

217. The Contractor and PMU will consult with all relevant authorities to ensure that they minimize any disruptions to the existing infrastructure and services. This includes suco water supplies, telecommunications infrastructure, and electricity supply, wherever applicable.
218. Plans will be obtained from utility/service providers showing all underground facilities and/or services in order to avoid damage or disruption during works. Where plans and drawings are not available, the Contractor will review by field observation and report locations to PMU in the pre-construction phase. Mitigation measures to be included in the CESMP in the pre- construction stage will require the contractor to:
- Reconfirm power, water supply, telecommunications and irrigation systems likely to be interrupted by the works and any additional trees to be cut near utilities;
 - Contact all relevant local authorities for utilities and local village groups to plan reprovisioning of power, water supply, and telecommunications (if any);
 - Relocate and reconnect utilities well ahead of the commencement of construction works and coordinate with the relevant utility company at the Municipality and administrative post levels for relocation and reconnection well before works commence and include for compensatory planting for trees;
 - Inform well the affected communities in advance. Arrange reconnection of utilities and irrigation channels in the shortest practicable time before construction commences; and
 - When utilities are accidentally damaged during construction, it shall be reported to the PMU/DRBFC and utility authority and repairs arranged immediately at the Contractor's expense.

8.2 Construction Phase: Impacts on the Biological Environment

a. Impacts on precious ecology, terrestrial habitats, flora & fauna

219. Impacts on habitat, flora, and fauna as a minor impact upon terrestrial habitats of the Project area are expected as a result of the road reconstruction and rehabilitation. Habitat fragmentation occurs when a road cuts through an ecosystem. The core Project road has existed for some time and though its original construction would have caused habitat fragmentation, ecosystems have re-established albeit as altered and/or smaller units around the road. There will be limited and minor impacts on habitat, flora or fauna. Rehabilitation work will directly cause minor degradation of local ecology through the clearance of small areas of vegetation at work sites and ancillary sites such as materials extraction sites, and material stockpiling areas. Construction activities will impact a narrow band of vegetation within the existing road corridor.
220. There is no vegetation adjacent to the Project road that has any conservation significance nor is it representative of the original vegetative cover. There are some gardens, plantations and individual trees that close to the road that will require

removal. They are non-endemic, common and have no special characteristics to merit protection. Therefore, in light of the nature of the project and the types of works envisaged, there will be no significant loss of valuable flora or habitat. Rehabilitation activities will take place entirely within the existing ROW or within areas already subjected to clearing in the past.

221. Impacts on fauna. In terms of impacts on fauna, there is the potential for construction workers to poach edible animals and birds of the locality. The Contractor will be responsible for providing enough food and adequate information to workers regarding the protection of fauna and imposing sanctions on workers trapping, killing or wounding birds or other wildlife. The Contractor will also be responsible to apply land clearing procedures taking into account the prevention of adverse impacts on birds' nests and their habitats.
222. The PMU will supervise and monitor to check that the Contractor carries forward the mitigation measures and environmental enhancements identified in the CESMP; as well as routine matters such as avoiding unnecessary removing of trees and compensatory and enhancement planting. Invasive species shall not be introduced. During revegetation works, new alien plant species (i.e., species not currently established in the region of the project) shall not be used unless carried out with the existing regulatory framework for such an introduction. All replanting and compensatory tree planting will be planned in full agreement with the local forest authority.
223. Measures to be included in the project to ensure the protection of flora and fauna within the project area include:
 - Contractor's site office, work yard, rock crushers, material storage, borrow pits, spoil disposal and quarries will all be located as approved by PMU and cleared by the Bank in consultation with local authorities and will not be permitted in any ecologically important sites or areas valuable for conservation;
 - Vegetation clearance during construction activities, especially of trees along the road-side, will be avoided or minimized;
 - In no circumstances, the Contractor or any of sub-contractors or employees permitted to enter nearby forests communities to remove forest wood;
 - The contractor will responsible for re-vegetation in cleared areas. Vegetation from the clearance of roadside, during rehabilitation activities, will be stockpiled and kept for bio- engineering and mulching in the re-vegetation works;
 - The Contractor will responsible for providing adequate knowledge to construction workers in relation to existing laws and regulations regarding illegal logging;
 - Contract documents and technical specifications will include clauses expressly prohibiting the felling of trees, not marked as requiring to be cleared by the project, by construction workers for the term of the project;
 - The Contractor will responsible for providing adequate knowledge to construction workers in respect of fauna;
 - Contract documents and technical specifications will include clauses expressly prohibiting the poaching of fauna by construction workers and making the contractor responsible for imposing sanctions on any workers who are caught trapping, killing, poaching, being in possession of or having poached fauna;
 - The PMU will supervise and monitor a ban on the use of forest timber and workers shall be prohibited from cutting trees for firewood or collecting wood from forest areas. Construction workers will be informed about general environmental

protection and the need to avoid unnecessary felling of trees unless justified on engineering grounds and marked for cutting as approved by PMU.

224. To ensure sound risk management pertaining to natural habitats, particularly endangered birds in secondary forest areas where the construction activities will take place, the PMU is responsible to appoint a bird specialist with thorough knowledge of avifauna in Timor Leste region to observe and examine the presence of bird's nest prior to trees removal with the following steps:

- a. There are several ways to detect bird nests: 1) look on the ground for concentrations of white-colored droppings, then check the vegetation above; 2) look for birds flying out of vegetation close to the observer and intensely watching the observer as the birds may have a nest nearby; 3) sit quietly and watch for birds that may be bringing nest material or food repeatedly to one place. Birds tend to place their nests just on the undersides of the tree canopy and where branches join together. If adult birds are observed flying to and from a nest, or sitting on a nest, it can be assumed that the nest is active.
- b. A good rule to abide by is to delay construction activity that would occur within 300 feet of an active nest until the nest is no longer active.
- c. Tree trimming, and pruning must be stopped any time there are active nests observed in the tree.
- d. Keep watching on the active nest, and when the chicks have left the nest and activity is no longer observed around the nest, it is safe to continue construction in the nest area or trim the tree.
- e. The bird specialist could provide other mitigation options to be implemented by the project.

A Terms of Reference for the Avifauna survey is appended in **Annex 15**.

225. In addition to the above, technical advisory support and training to relevant authorities, particularly the Department of Protected Areas and National Parks of the Ministry of Agriculture and Fisheries will be embedded as part of the deliverables of the PMU's safeguards team. Such advisory support may cover: regulatory and policy review on protection and demarcation, monitoring and patrol, community engagement to enhance participatory management of protected areas, and mobilization of relevant specialists financed by the project TA support. The World Bank will review the TOR of the PMU team to ensure that these provisions are incorporated in the scope of works.

b. Accidental Encroachment into Historical/Cultural Sites

226. Consultations and research indicated that there will be six cultural sites that will be indirectly affected by the Project. Three of sites, however, has been spared from development through re-alignment of the RoW. The three sites will require the implementation of proper customary rituals prior to the commencement of work in the area. No main parts of churches will be affected from rehabilitation work, however, given the close proximity of the religious sites to the alignment, careful consideration should be given as not to disturb them during construction and to preserve access for devotees.

227. In accordance to the specific locations of gravel and material extraction site, consultation with suco chiefs as well as resource owners is also required to ensure that there are no cultural sites in the locations proposed for materials extraction.

228. Any accidental discovery of cultural sites will be handled as per the provisions set out above. In the event this occurs, work shall cease immediately, and the relevant

authorities shall be informed. Activities shall not re-commence until the authorities have signed-off that the site/resources have been dealt with appropriately and that work may continue.

229. The Contractor shall responsible for complying with the requirements of authorities, and the PMU shall monitor the same. The Contractor will include a section on “chance finds” in the CESMP. Mitigation measures for potential impacts on cultural site include:

- No spoil materials or other waste will be stockpiled near or disposed near the cultural sites. Works will not obstruct access to cultural sites;
- Site agents will be instructed to keep watching for relics in excavations. Should any potential items be located, the PMU will immediately be contacted, and work will be temporarily stopped in that area;
- The PMU with the assistance of the PISC will determine if that item is potentially significance and contact MPW to pass the information to the relevant department in GoTL (i.e. Secretary of State for Art and Culture) who will be invited to inspect the site and work will be stopped to allow time for inspection.

230. Work will not re-commence in this location until Government of Timor-Leste has responded to the invitation and agreement has been reached between GoTL, PMU, and MPW as to any required mitigation measures, which may include structured excavation.

8.3 Construction Phase: Impacts on Social Environment

A. Increase Noise Level

231. During construction, there will be temporary adverse impacts due to the noise of the construction equipment, especially heavy machinery, when construction activities are carried on in the vicinity of the sucos. The most sensitive receptors along the road Project include the suco residential areas, churches, health facilities, and schools.

232. Cooperation between the Contractor and the residents is essential, hence Contractor’s responsibility to arrange meetings between these parties and arrange such matters as work schedules (hours of equipment operation), locations of construction camps and material storage areas include the locations of stone crusher and Asphalt Mixing Plant that > 500 m from settlements in the sucos.

233. Activities of land clearing, bulldozing, compaction equipment, excavation of existing pavement materials, and grading will produce noise. Aggregate processing is one of the noisiest activities in construction processes; however, this will be undertaken at a designated site located at least 500 m away from the nearest sensitive receivers.

234. Impacts of noise may take place in a short time, though can be very intrusive if not properly controlled. Works are not expected to be carried out at night, however, when unavoidable for unexpected reasons, additional consultations will be undertaken with the local community and appropriate working hours will be established accordingly.

235. Measures to be included in the project to mitigate the noise effects include:

- Community consultation will be held prior to works commence to establish acceptable working patterns in the area where local community buildings and residences are very close to the road;
- While work must take place at night for unexpected reasons, additional community consultations will be undertaken, and appropriate working hours

agreed;

- The ESMP and contract document will require that all vehicle exhaust systems and noise generating equipment be acoustically insulated and maintained in good working order, and regular equipment maintenance will be undertaken to minimize noise emissions;
- The Contractor will prepare a schedule of operations approved by suco chiefs and PMU. The schedule will include identification of days there should be no work, and hours of work for each construction activity and identify the types of equipment to be used;
- Workers will be equipped with ear defenders as may be required. Any complaints regarding noise will be dealt with by the Contractor, firstly through the communications plan, if unresolved they shall refer through the Grievance Redress Mechanism (GRM).

B. Access and Safety Traffic

236. The Project will cause temporary negative impacts through the presence of vehicles and equipment. Inconvenience, minor disruptions to traffic on the road as well as on local access to and from the villages along the road Project during the Construction phase.

Mitigation measures of impacts on access and safety traffic will include:

- The Contractor will prepare a Traffic Management Plan, detailing diversions and management measures, and will submit to PMU for approval. Traffic signs and other appropriate safety features will be used to indicate construction works has undertaken;
- A clause in the contract document stipulates that care must be taken during the construction period to ensure that disruptions to access and traffic are minimized, and all access to villages along the road Project always maintained. Provincial Works and village officials will be consulted if access to a village must be disrupted time and temporary access arrangements made;
- Construction vehicles will use local access roads or negotiate access with landowners to obtain access to material extraction sites, rather than drive across vegetation or agricultural land. When local roads are used, they will be reinstated to their original condition after the completion of work;
- The road will always be kept free of debris, spoil, and any other materials. Disposal sites and haul routes will be identified and coordinated with local officials;
- Provision of adequate protection to the general public in the vicinity of the work site, including advance notice prior to the commencement of works, installing safety barriers if required by villagers, and signage or marking of the work areas; and
- Provision of safe access across the work site to people whose villages and its access are temporarily affected during road sheeting activities.

C. Workers Health and Safety

237. The World Bank requires that Health and Safety impacts on workers and the community are identified and mitigation measures will be proposed. Air pollution and noise which relevant to the health and safety aspect, include traffic safety issues have already discussed. The spread risk of communicable disease is dealt with in the next section.

238. Worker Occupational Health and Safety is generally governed by the 2012 Labour Code of Timor-Leste, which provides for the rights of employees, including basic occupational health and safety guarantees and prohibition of sexual harassment at work.
239. The Labour Law demands employers – in this case the Contractor's EMP – to address workers' health and safety issues by minimizing risks, providing safety equipment and establishing routine safety measures. These criteria are in line with requirement by the World Bank Group's EHS Guidelines and good engineering practice.'
240. Observation of general health and safety requirements, including the provision of safety and protective gear and equipment to workers, will reduce the risk of accidents at the work sites. Special attention shall be given to ensure that Personnel Protection Equipment (PPE) issued by contractor responds to the needs of both men and women workers. The construction camp will be equipped with a health post which will include first-aid and basic medical supplies, as well as condoms and sanitary napkins. To reduce the risk of incidents at the camp, access to construction camps by other than those authorized will be prohibited.
241. Female workers safety needs to be specifically considered. A major threat to women workers relates to risks of work-related sexual harassment, including sexual abuse. Sexual harassment is prohibited under the Labour Law of Timor-Leste, which provides for its definition. Considering the remoteness of the road project, the fact that some of the direct workers who are not locally recruited and thus need to be accommodated in a work camp and/or the expected higher number of male workers, there is the unequivocal need to ensure women safety is promoted.
242. Mitigation measures for reducing and avoiding impacts on worker health and safety, including women as following:
- Prior to construction commences (at least a month) the Contractor shall demonstrate to the PMU that Contractor has properly resources and a qualified/experienced Environment and Safety Officer (ESO), with knowledge of gender-based violence. Such resourcing will need to be articulated by the Contractor in the bid documents;
 - Establishment of safety measures as required by law and good engineering practice, and provision of first aid facilities at work sites and in vehicles, include the establishment of a first aid/health post at the Construction camp;
 - Health post to include first aid services, access to information on family planning and condoms, as all as sanitary napkins;
 - The Contractor will conduct training (assisted by PMU) for all workers on safety and environmental hygiene at no cost to the employees. The Contractor will instruct workers in health and safety matters as required by law and by good engineering practice;
 - Instruction and induction in health and safety matters including road safety, of all workers, shall be carried out for all operatives before starting of work;
 - The Contractor will instruct and induct all workers in health and safety matters (health and safety induction), including construction camp rules and site agents will follow up with toolbox talks on a weekly basis which shall include information on sexual harassment prevention and reporting;
 - Workforce training for all workers started on site; it will include safety and environmental hygiene and sexual harassment and prevention of sexual exploitation of women and children. Furthermore, provision of potable water

supply shall always be maintained in all work location;

- Workers shall be equipped with appropriate Personal Protection Equipment (PPE) such as safety boots, helmets, reflector vest, gloves, protective clothes, dust mask, goggles, and ear protection at no cost to the workers. PPE should be available in sizes that also cater to possibly smaller frames of women and to needs of persons with disabilities (reasonable accommodation);
- The fence will be installed on all areas of excavation greater than 1-meter depth and sides of temporary works, as well on all excavation, borrow pits and sides of temporary bridges. Sufficient lighting needs to be installed to ensure minimum illumination for basic safety concerns;
- Reversing signals (visual and audible) shall be installed on all construction vehicles and plant. Scheduling of regular (e.g. weekly toolbox talks) to orientate the workers on health and safety issues related to their activities as well as on proper use of PPE;
- Protective barriers and warning signs shall be provided, when worker exposure to traffic cannot be eliminated, to shield workers from passing a vehicle. Another acceptable measure is to install channeling devices (traffic cones or moveable concrete barrier) to delineate the work zone and trained flagmen at each end of the current working zone;
- Construction camps shall be provided with sanitation facilities in accordance with local regulations to prevent any hazard to public health or contamination of land, surface or groundwater. These facilities shall be well maintained and cleaned regularly to encourage use and allow effective operation and emptied regularly so as never to overflow. Facilities are to be separated by gender and with reasonable accommodation for persons with disabilities;’;

243. Appendix 13 provides further information on Managing Safeguards Incidents throughout the Project Cycle, including the reporting tool and template for reporting.

D. Community Health and Safety

244. Project construction could create various impacts on the health and safety of communities, specially to women and those belonging to vulnerable groups. The presence of construction workers and work camps can bring about changes to the community, by increasing economic power of a limited number of individuals (mostly men) and by inducing risk on spread of communicable diseases. Sexual harassment and sexual exploitation committed by locally engaged road construction workers and technicians represent potential safety threats to women and young girls. Transmission of Sexually Transmitted Infections (STIs) and Human Immuno deficiency Virus (HIV) is a potential impact of the construction phase posed by construction workers engaging in either commercial sex or sexual relationships with local community members.

245. Potential of disease impacts due to sanitation condition will need to be controlled by maintaining hygienic conditions in the construction worker camps and implement the social and health awareness programs for the Project.

246. Public safety, particularly of pedestrian and children can be threatened by the excavation of the trenches for side drain construction. Fences will be installed within 500 m of settlements and towns prior to excavation work commencing on all sides of temporary excavations. The plans will include provisions for site security and guards, trench barriers and covers to other holes and any other safety measures as necessary.

247. The Contractor will provide warning signs at the periphery of the site warning the

public not to enter. The contractor will restrict the speed of project vehicles and also control traffic by contra-flow and provide flag men, include warning signs at either end of the works where the travel lanes must be temporarily reduced.

248. The Contractors shall provide information boards near the work sites to inform and instruct the public on how to conduct themselves and to be aware of their surroundings if they must approach the works. The information contained in these boards shall be widely accessible, including through the use of local language and drawing/pictures as well as in braille. Information boards will be refreshed as necessary and also show the name and telephone contacts in PMU and contractors' offices for complaints about the works.

249. Information boards will also state that the PMU and Contractor have an open-door policy as regards complaints. The Contractor will implement the following public safety measures:

- The Contractor will appoint two Environmental and Safety Officers (male and female) to address health and safety concerns, including issues relevant for gender-based violence and liaise with the PMU and sucos within the Project area;
- Any barriers and signs shall be installed at construction areas to deter pedestrian access to the roadway except at designated crossing points. Warning signs will be provided at the periphery of the site warning the public not to enter, and shall be widely accessible to the community, including by being written in the local language, in addition to official language, make use of pictures for those with low literacy level and in braille;
- The Contractor shall ensure the construction workforce attends training on gender based violence, including sexual harassment and sexual exploitation and abuse, as well as health training on STI and HIV/AIDS prevention, provided through an approved service provider. The workshops will be conducted to the Contractor's workforce prior to commencement of any civil works, and shall be mandatory to every employee, whether foreign, national or locally engaged;
- Provision of suco-based community awareness efforts about gender-based violence, reproductive health and transmission of STIs and HIV, in partnership with specialized local based organization. The program will be implemented after Contractor mobilization when training staff are in post and prior to construction works commencing;
- Adequate safe signs and security will be provided at the site office and works yard and prevention of unauthorized people (including children) entering work areas and camp;
- The community/residents shall not be allowed in high-risk areas e.g., excavation sites and where there is mobilization or operation of heavy equipment; these sites will have a watchman at the entrance to keep the community safety;
- Upon completion of construction works, borrow areas will be backfilled or temporarily fenced, awaiting backfilling. Contractors will ensure that no wastewater is discharged to local rivers, streams, lakes and irrigation channels and any other water bodies;
- Provision of site security, safety barriers, and signs will be erected outside trenches deeper than 1 meter and covers will be placed over other holes. Other safety measures will be installed as necessary;
- Provision of appropriate road safety signs along of the work site including flagman, especially at the locations of cutting slope and excavation work; to prevent any

accident for worker and community who pass through the road construction area;

- The Contractor and its subcontractor should be aware of the community health and safety issues due to construction activities such as noise and dust or any hazardous material;
- Drivers will be educated on safety drive practices to minimize accidents and to prevent the spill of spoil, hazardous substances (fuel and oil) and other construction materials during transport. Speed restrictions shall be imposed on project vehicles and equipment traveling within 50 meters of sucos and sensitive receptors (residential, schools, places of worship);
- Measures to prevent mosquitoes breedings shall be implemented (e.g., provision of insecticide-treated and mosquito nets to workers), include installation of proper drainage to avoid the formation of stagnant water. Stagnant water will not be allowed to accumulate in the temporary drainage facilities or along the roadside;
- The Contractor shall ensure the construction workforce attends STI and HIV/AIDS prevention workshops provided through an approved service provider. The workshops will be conducted to the Contractor's workforce prior to the commencement of any civil works;
- Provision of suco-based community awareness about the transmission of STIs and HIV, reproductive health and safety sex. The program will be implemented after Contractor mobilization when training staff is in the post and prior to construction works commencing.

8.4 Operation Phase: Impacts on Physical Environment

a) Increase in Air Quality

250. Vehicle emissions indicated by the concentration of nitrogen oxides (NO_x) will be the main air pollution sources during operation. Following the road rehabilitation and improvement, it will create air pollution such as hydrocarbons (HC), carbon monoxide (CO), nitrous compounds, sulfur dioxide (SO₂) and particulate matter.
251. The forecasted traffic growth is such that emissions will be low enough to not have a noticeable effect on ambient air quality. The anticipated levels of traffic, the excess capacity of the road network, and the subsequent lack of congestion and concentration of traffic are unlikely to result in adverse impacts on air quality.
252. There will be a few other sources of emissions near the road Project other than from domestic fuel burning. Sensitive receivers are set far enough from the road Project to allow adequate dispersion that there will be no significant impacts at the sensitive receivers.
253. Particulate contamination such as dust and fumes will also be air pollution sources during operation however toxic residues from vehicle emissions near the project road are unlikely to accumulate or create significant impacts.
254. Dust from the existing road will be reduced due to the better asphalt surface for the new road. The conclusion in respect to air quality is that the project road is likely to continue to operate at well under its design capacity and no significant air quality impacts warranting mitigating actions are anticipated during operation and maintenance phase.

b) Adequate Water Flows

255. During operation phase, when there is no regular maintenance on the drainage system, the constriction from debris blocking the flow in the drainage structure could result

in damage to culverts and drainage structures, riverbanks or land through altered flow patterns. However, Director of Road, Bridge and Flood Control (DRBFC) will ensure that all culverts and drainage structures are adequately maintained so that debris does not build up causing waters to deviate around the structures stranding them and resulting in severe erosion and loss of land.

- 256. There will be a need for gravel extraction for on-going river maintenance. DRBFC will ensure that extraction will incorporate measures to protect habitats, river and river banks. The stagnant water might be formed as a result of construction, thus DRBFC should drain and back-fill these areas as part of ongoing maintenance activities.
- 257. Naturally occurring stream bank erosion could, in fact, be reduced as a result of the project if selective road sealing, gabion baskets, and rip-rap are used to stabilize the river banks and protect the road where it passes close to the rivers. There are unlikely to be any significant impacts on the soil during the operation phase of the project as long as the structures are properly maintained. Furthermore, stones riprap, gabion baskets or bio-engineering alternatives will also be used to reduce scour and erosion in identified sections.
- 258. Awareness about the need to maintain vegetative cover of areas adjacent to the road in terms of both assisting in reducing run-off that full of silt to waterways and the intertidal area and contributing to the stability of river banks and the foreshore area, can be included as a component of the project's communication plan and identified as part of the maintenance activities.

c) Decrease in Erosion and Flood Events

- 259. Scour protection and other measures to ensure normal flood behavior should be maintained. There any alterations and restrictions of natural flood cycle by temporary storage of flood waters and restricted of flood plain movements. These impacts need proper maintenance of river profile to ensure silt and debris do not cumulative collected and lead to damage to river banks and nearby land.
- 260. Soil erosion will be prevented by developing a comprehensive suite of engineering controls in the detailed designs to prevent and maintain erosion. A system will be engineered to control erosion and flooding on either side of the embankments in case of heavy rains. Apart from affecting the community lands and resources, this would otherwise cause natural streams and irrigation channels to become silted.
- 261. Measures will also be taken during the operational phase to ensure that the frequency of maintenance is increased, and that storm drains and highway drainage systems are periodically cleared to maintain clear drainage to allow rapid dispersal of stormwater flow. An adequate system of monitoring, reporting, and maintenance will be developed.

d) Increase in Water Quality

- 262. There is a very minor risk of impacts on sedimentation and water quality through improving drainage from the road and areas landward of it in the few months when there is significant rainfall. At other times there will be virtually no run-off, but the drains will need to be kept clear of dry matter constricting the drains. Potential impacts on water quality or availability of water for domestic or agricultural use are not expected to occur. During operation, negative impacts on water quality could be caused by accidental spills.
- 263. The project will lead to longer-term environmental benefits for water quality created by the project through proper compacting of the road and surface and reducing

mobilization of surface dust during rain. The dust that is resuspended and mobilized will be captured where required in sediment traps to limit the amounts finding their way to rivers. The maintenance contractor will be responsible for the regular clearing of drainage structures to keep them effective. Additional plantings around drains will be appropriate and will help to retain surface particles on land.

264. Water quality may show slight improvements after rehabilitation and maintenance due to reduced erosion from improved embankments on the slopes, stabilization by retaining wall or gabion baskets, and re-vegetation to prevent erosion. However, any improvements are unlikely to be detectable in water samples due to the infrequency of rainfall.

265. When there is heavy rain, the replacement of damaged culverts will facilitate to the passage of high flows and reduce scouring and remove overland flows, include ensuring the integrity of the surface of the road pavement and removing a potential hazard from overflowing. The area of the impervious surface is not being significantly increased by Project, therefore increased runoff due to rehabilitation activities (if any) will be negligible in the Project area.

8.5 Operation Phase: Impacts on the Biological Environment

Improved Access

266. The operation of the project is not likely to induce people to the forest area to hunt timber, flora or fauna as it does not comprise the provision of additional access to previously inaccessible areas. The new road already exists and does not provide access to the interior and existing forested areas.

267. Deforestation is not an impact attributable to the Project because (i) single selective logging for traditional and/or cultural purposes is permitted; and (ii) logging companies purchase licenses to fell trees within prescribed areas and construct their own roads to provide access to these areas, and in any case, logging has not been a major activity in the Project area. Therefore, there will be no significant impacts on flora and fauna as a consequence of road rehabilitation during the operational phase.

268. There is no rare or endangered fauna that could be impacted by the operation of a rehabilitated road. There will be no significant impacts on existing or proposed conservation area as a result of road rehabilitation.

8.6 Operation Phase: Impacts on the Social Environment

A. The spread of Communicable Disease

269. Generally, roads have the potential to pose a risk as a pathway for disease transmission only if they carry a large volume of traffic, including high proportions of heavy traffic such as trucks, routes that connect cities, towns or large numbers of villages. Especially roads or highways with international borders, where improved access to major markets can facilitate international trade and there is a hospitality service industry established that is geared towards large numbers of truck drivers and mobile populations.

270. The road Project does not provide linkage to Indonesia. Therefore, the conclusion, in terms of risk of transmission of communicable diseases during operation, is that the road Project has the potential to pose, a low risk as a pathway for disease transmission. This small risk is considered to be mitigated by the implementation of the Project's STIs/HIV/AIDS awareness and prevention campaign.

B. Any other impacts

271. Other unanticipated impacts might happen in the future. Routine maintenance by DRBFC will be able to recognize these previously unforeseen impacts. Pro-active anticipation measures should be put in place.

9. Governing Parameters

226. All parameters for air quality, noise, water quality, and waste disposal standards have yet to be declared in Timor-Leste. Therefore, until such time as Government of Timor-Leste declares standards; the IFC Environmental, Health, and Safety (EHS) General Guidelines will apply to the implementation of the Project. The web link to the guidelines is as follows:

(<http://www.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Financial%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES>).

10. Monitoring Programme

227. The Monitoring measures matrix is linked to the relevant mitigation in Table 10.1. presents the required monitoring responsibilities corresponding to the impacts as assessed to be necessary through the environmental assessment process in the SEIS/ESIA.

10.1 Monitoring Objectives

228. The objectives of the monitoring programme are to (i) measure the impacts occur during the pre-construction, construction and operational phases of the Project; (ii) ensure compliance with legal and corporate requirements; (iii) determine the effectiveness of the mitigation and enhancement measures; and (iv) facilitate management of unanticipated impacts.

10.2 Monitoring Parameters

229. The parameters for monitoring in the pre-construction, construction and operational phases of the project are presented in Table 10.1. in line with the proposals presented in the SEIS/ESIA.

10.3 Monitoring Programme

230. The monitoring of the mitigation measures and responsibilities (Table 10.1.) will be more or less continuous and daily process for the Contractor staff responsible for their implementation. (see Section 6). The PISC will make at least weekly checks on the implementation of the mitigation measures for all sections of the road Project and the off-site installations. The PMU will make inspections on all sections of the road Project. There will be regular joint inspections of the mitigation measures along the road Project and the off-site installations by the PMU, PISC and the Contractor environmental representatives.

Table 10.1. Environmental and Social Management and Monitoring Plan

ENVIRONMENTAL AND SOCIAL MANAGEMENT					ENVIRONMENTAL MONITORING		
Project activities	Environmental Impact	Mitigation measures to be included in ESMP	Mitigation Responsibility	Mitigation Cost	The parameter to be monitored	Frequency & means of verification	Monitoring Responsibility
PRE-CONSTRUCTION PHASE							
Land Acquisition	Social disruption	Cash compensation for assets & resettlement for housing (if possible)	MPW/PMU	in the LARP	PAP who received compensation	Before the commencement work – LARP implementation	PISC, PMU
Climate change adaptation	Risk of increased erosion and damage to road infrastructure	Ensure all measures incorporated in design as included in Contract are implemented: <ul style="list-style-type: none"> ▪ Increase capacity of transverse drainage system by clearing, repairing, replacing relief culverts, and add a number of culverts; ▪ Improved longitudinal drainage by lining drains and providing larger culvert; ▪ Erosion protection by using bio-engineering check dams in streams; ▪ Increased maintenance in response to the faster rate of physical deterioration. 	PISC, PMU Design Contractor	Include in the Project Contract (IIC)	Climate change adaptation measures incorporate into DED	Visual inspection	PISC, PMU
Surveying and demarcation of center-line	Loss of vegetation during demarcation	<ul style="list-style-type: none"> ▪ Tree cutting will be minimized, especially of trees along the river banks and road-side. Major trees (especially in suco areas) will be clearly marked, only marked trees will be cut; ▪ Contract documents and technical specifications include clauses expressly prohibiting the felling of trees by construction workers for the term of the project; ▪ Construction workers will be informed about general environmental protection and the need to avoid unnecessary felling of trees wherever possible. 	PISC, PMU Contractor	Include in the Project Contract (IIC)	Vegetation area: area of felled trees/vegetation removal	During survey and activities – visual inspection before, during and after	Contractor; PISC, PMU

Site clearing, digging, and excavations	The accidental discovery of cultural property sites	<ul style="list-style-type: none"> ▪ The CESMP to include a section on “chance finds”. Site agents will be instructed to keep watching for relics in excavations; ▪ Should any potential items be located, the PISC will immediately be contacted and work will be temporarily stopped in that area; ▪ The PISC will determine if that any potential significance and contact MPW to pass the information to the Secretary of State for Culture, that will be invited to inspect the site and work will be stopped to allow time for inspection. 	Contractor	Include in the Project Contract (IIC)	Sites or resources discovered and protection actions	During site clearing activities – stop work order; site dealt appropriately	Contractor; Secretary of State for Culture/PMU, PISC
	Slope failure/ landslide	<ul style="list-style-type: none"> ▪ Prohibition of the clearing, cutting, and excavating in the protected areas; ▪ Properly removed topsoil and low-quality materials and stockpile near the site to be covered and preserved; ▪ Use quarries with the highest ratio: extractive capacity and loss of natural state; ▪ Use quarry sites lying close to the alignment not on slopes, with a high level of accessibility and with a low hill gradient; ▪ Avoid accumulation of stagnant water during quarry/borrow site operation, and avoid quarry sites lying on small rivers and streams; ▪ Cut berms and terraces during and after extraction in quarries in the mountainous or hilly areas to stabilize slopes, wherever slopes are important, and implement a drainage system and vegetation cover for rehabilitation; ▪ In no circumstances, the spoil will not be dumped into any other watercourses (the sea, cliffs near the sea, rivers, streams, drainage, irrigation canals, etc); ▪ Spoil will not be disposed of on fragile slopes, floodways, wetland, farmland, forest, religious or other culturally sensitive areas or areas where livelihood is derived; 	Contractor	Include in the Project Contract (ICC)	Sites or resources discovered and protection actions	During land clearing site dealt immediately	Contractor, PMU

		<ul style="list-style-type: none"> Spoil disposal will be monitored by PMU and recorded using a written chain of custody (trip-ticket) system to the designated disposal sites; The spoil disposal site shall be located at least 50 m from surface watercourses and protected from erosion by avoiding the formation of steep slopes and grassing. 					
	Removal of trees	<ul style="list-style-type: none"> Consultation with owner and compensation payment as per the Resettlement Plan (RP); Cut timber shall not be used for fuel. It shall be removed/returned to the owner; The Contractor is responsible for providing adequate knowledge to construction workers in relation to existing laws and regulations regarding illegal activities including logging, hunting, and poaching of wild animals and collection of fauna and birds' eggs. The PMU is responsible to observe and examine the presence of bird's nest prior to trees removal with the following steps: <ul style="list-style-type: none"> There are several ways to detect bird nests: <ol style="list-style-type: none"> 1) look on the ground for concentrations of white-colored droppings, then check the vegetation above; 2) look for birds flying out of vegetation close to the observer and intensely watching the observer as the birds may have a nest nearby; 3) sit quietly and watch for birds that may be bringing nest material or food repeatedly to one place. Birds tend to place their nests just on the undersides of the tree canopy and where branches join together. If adult birds are observed flying to and from a nest, or sitting on a nest, it can be assumed that the nest is active. A good rule to abide by is to delay construction activity that would occur within 300 feet of an active nest until the nest is no longer active. Tree trimming, and pruning must be stopped any time there are active nests 	PISC, PMU	In the LARAP	No residual effect of loss; owner satisfaction with compensation	Following the provision of compensation	PISC, PMU

		<p>observed in the tree.</p> <ul style="list-style-type: none"> Keep watching on the active nest, and when the chicks have left the nest and activity is no longer observed around the nest, it is safe to continue construction in the nest area or trim the tree. 					
A mobilization of Contractor, construction workers, camp establishment	Social disruption	<ul style="list-style-type: none"> Suco (village) protocols should be discussed with workers as part of awareness and mobilization; Workers should respect village & land owner's boundaries; be cognizant of village rules & terms of conduct (especially in addressing women & elders), avoiding damage to productive trees and gardens, including access to the resources & springs; The Contractor to ensure that workers' actions outside the work site are controlled and Suco codes rules of conduct are always observed; The Contractor will identify one member of their staff to be the liaison between the Suco chiefs, elders and contractor, as well as between the Contractor and PISC; Worker camp location & facilities located at least 500 m from the settlement and agreed with local communities; 	Contractor	Include in the Project Contract (IIC)	Incidents between worker & villager, community complaints, children number entering camp; the effectiveness of safety signs	During Contractor mobilization and related activities – check records of complaints, consultation with workers about protocols	PISC, PMU

		<ul style="list-style-type: none"> Facilities approved by PISC and shall manage to minimize impacts; Adequate safety sign and security provided at the site office/works yard and prevention of unauthorized people (children) entering the area; Contractor hiring and training as many local workers as possible. 					
	Health & Safety	<ul style="list-style-type: none"> Provide adequate housing for all workers at the construction camps with clean canteen and cooking areas. Contractors shall ensure separate housing and sanitary facilities for men and women and reasonable accommodation made for persons with disabilities; Provision of drinking water, clean water, hygienic toilets with enough water supply, and first aid facilities; Separate toilets shall be provided for male and female workers, with bins to dispose of sanitary napkins and sinks or buckets and running water for washing reusable cloths available for female workers; Install portable lavatories (at least pit latrines in remote areas); Access for workers with disabilities to facilities (reasonable accommodation measure) should be envisaged, in dialogue with a Disabled Persons Organization (DPO) present in the area.; Prohibition of open defecation, use of lavatories encouraged by daily cleaning; keeping lavatory facilities always clean; Wastewater effluent from Contractors' workshops and equipment washing yards will be passed through gravel/sand beds. All oil/grease contaminants shall be removed before discharging it into natural streams; Oil and grease residues shall be stored in drums awaiting disposal in line with the agreed waste management of the ESMP; Predictable wastewater effluent discharges from construction works shall have the 	Contractor	Include in the Project Contract (IIC)	Construction camp, maintenance yard, streams or rivers	Monthly monitoring – social observer. and consultation	Contractor PISC, PMU

		<p>necessary permits from DNCPIA and local authorities before the works commence;</p> <ul style="list-style-type: none">▪ Food shall be provided from farms nearby, and bushmeat supplies from protected areas will be banned to discourage poaching;▪ Hunting equipment & usage of a gun by workers will be banned. Dismiss workers who taking or using green timber/hunting/in possession of wildlife;▪ Adequate protection to the general public in the vicinity of the work site, including advance notice of commencement of works, installing safety barriers if required by villagers, and safety signs or marking of the work areas;▪ Construction camp will be established outside areas protected for their biodiversity and in areas with adequate drainage in order to prevent water logging at the camp and mosquitoes breeding sites, to facilitate the flow of the treated effluents;▪ Provision of safe access across the works site to people whose suco and access are temporarily affected during construction work with sufficient light during evening					
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	Employment opportunities for individuals at local level	<ul style="list-style-type: none"> Promote equal access to opportunities thorough minimum percentage of women and persons with disabilities in Bidding documents; Consultation with local authorities and women local representatives; Consultation with relevant CSOs and associations [Women Engineers, Women Business Association, ADTL, RHTO] 	Design Contractor		Percentage of women and person with disabilities workers	Include in the Project Contract (IIC)	PMU/MoPW
	The spread of communicable diseases	<ul style="list-style-type: none"> Contractor to implement of awareness and prevention program. Implementation of HIV/AIDS awareness and prevention program – community; The contractor should implement awareness and works’ policy to children protection, vulnerable people, sexual harassment, gender-based violence (GBV) and sexual exploitation and abuse (SEA). 	Contractor and Approved service provider	TBA	STI/HIV/AIDS prevalence Increased awareness about transmission and prevention	During construct phase – check contractor records, consult., and discussion with employees and NGO	PISC, PMU
	Establishment of quarries and borrow pits.	<ul style="list-style-type: none"> Provision of maintenance yard and other associated facilities such as quarry, crushers, batching plant, and asphalt mixing plant shall be located outside any areas identified by the authorities to be protected for biodiversity or landscape values, include any designated protected areas or national parks. 	Contractor	Include in the Project Contract (IIC)	The condition of maintenance yard and other associated facilities	Monthly monitoring – visual inspection	Contractor PISC, PMU

ENVIRONMENTAL AND SOCIAL MANAGEMENT					ENVIRONMENTAL MONITORING		
Project activities	Environmental Impact	Mitigation measures to be included in ESMP	Mitigation Responsibility	Mitigation Cost	The parameter to be monitored	Frequency & means of verification	Monitoring Responsibility
CONSTRUCTION PHASE							
Operational of construction plant and vehicles	<ul style="list-style-type: none"> Emission of vehicles and machinery exhaust; Dust from crushing plant; heavy vehicles transport materials on roads; Uncovered loaded trucks, and from exposed stockpiles 	<ul style="list-style-type: none"> Construction equipment shall be maintained to a good standard. The equipment will be checked at regular intervals; checks will be recorded by the Contractor as part of environmental monitoring; Prohibition of equipment and machinery that causes excessive pollution (i.e. visible smoke) at the Project site; Material stockpiles being in sheltered areas and are covered with tarpaulins or other such suitable covering to prevent material from becoming airborne disease; Ensuring that all vehicles transporting potentially dust-producing material are not overloaded and provided with adequate side boards and are adequately covered with a tarpaulin during transportation. This is especially important when passthrough several sucos along the road; Damping of the road, especially in the vicinity of the sucos along the road and any roads being used for haulage of materials, during the dry season; and periodic qualitative air quality monitoring. 	Contractor	Include in the Project Contract (IIC)	<p>Air quality: emissions, dust, particulate matter.</p> <p>Use of tarpaulins on the loaded vehicles, and in stockpiles area.</p>	Monthly or after complaint – periodic visual inspection; any particulate matter & smoke are managed as per EMMP	Contractor, PISC, PMU
Works adjacent to or in the rivers and streams areas	<ul style="list-style-type: none"> Riverbanks erosion; Change of river water flows include level and velocity; Change of channel depth, structure & 	<ul style="list-style-type: none"> Material stockpiles will not be located within riverbeds or the islands in the center of rivers; or within the current area of the floodplain of rivers in areas subject to regular flooding; All land should be rehabilitated to its original or better condition upon completion of the works; Scour protection will be used as temporary measures to ensure temporary structures do not damage river configuration; 	Contractor	Include in the Project Contract (IIC)	<p>Temporary structures removed;</p> <p>River training/ scour protection;</p> <p>No stockpiling in riverbeds, river islands or floodplains;</p>	<p>Monthly or as required after the event;</p> <p>Check designs; Visual observation of culverts, bridges and in-stream/ river work areas;</p>	Contractor, PISC, PMU

	<p>location resulting from excavations;</p> <ul style="list-style-type: none"> Changes of riverbanks; Increase of river water turbidity due to extraction; The increase of siltation at culverts; Construction materials washed out into rivers and other areas 	<ul style="list-style-type: none"> Movements of vehicles and machinery, and hence disturbance, within the riverine habitats, will always be minimized; If the Contractor causes damage to the river bank or other structural parts of a river, shall responsible for repairing the damage and/or paying compensation; Embankments and in-stream/river activities will be monitored during construction for signs of erosion; Re-vegetation with local species or other plants in consultation with the landowners and suco chiefs, will be carried out after working within any river habitat has been completed; and Spoils, rubbish or any material will not be disposed of down slopes or above the project road or within any river system include riverbed, banks or floodplain areas; Suitable disposal sites will be designated in consultation with the PISC if environmentally acceptable and structurally safe; only after landowners and suco chiefs have provided written, permission endorsed by the PMU. 			Flooding frequency; Localized erosion	Consultation with users	
Water use	<ul style="list-style-type: none"> Increase competition amongs local users; Decrease of surface water volume 	<ul style="list-style-type: none"> PMU establishes no-go locations (as indicated in the ESIA) for water extraction and communicates such restrictions to contractors; Contractor sources water from reliable and sanctioned water providers; Supervision consultants regularly monitor implementation of water use as per the CESMP 	PMU and Contractor	Include in the Project Contract	Water for construction activities obtained from sanctioned sources	Monthly – record check	Contractor, PISC, PMU

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Extraction of materials (gravels, aggregates etc.)	<ul style="list-style-type: none"> Change of hydrology channel and erosion; Borrow pits leave unstable land, exposed water table, attracts rubbish dumping, reduces visual values 	<ul style="list-style-type: none"> Contractor to prepare materials extraction plan with quarries and borrow pits located outside areas protected for biodiversity; Suitable quarry and borrow pit sites will be designated in consultation with the Engineer (PISC) if environmentally acceptable and structurally safe; only after landowners and suco chiefs have provided written permission endorsed by the Engineer (PISC); Establishment of quarries, crushers, concrete batching plant, and AMP shall be disclosed to the National Directorate of Environmental, follow the requirements of Decree Law 05/2015 and obtain an environmental license, if necessary; Stockpile topsoil for later use and fence and re-contour borrow-pits after use; 	Contractor	Include in the Project Contract (IIC)	<p>Materials only obtained from designated sites (locations and method) as per extraction plan.</p> <p>Rehabilitation is conducted as per the extraction plan</p>	Monthly - visual inspection; review of the extraction plan; re-vegetation and rehabilitation	Contractor, PISC, PMU
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		<ul style="list-style-type: none"> ▪ Properly remove topsoil, overburden, and low-quality materials and stockpile near the site to be covered and preserved for rehabilitation; ▪ Use quarry with the highest ratio between extractive capacity (both in terms of quality) and loss of natural state; ▪ Use quarry sites lying close to the alignment, with a high level of accessibility and with a low hill gradient; ▪ Reinstatement damaged access roads, agricultural land, and other properties due to the transport of quarry/borrow materials, other construction materials and any other project-related activities upon completion of construction works at each section; ▪ Provide adequate drainage to avoid accumulation of stagnant water during quarry/borrow site operation; ▪ Avoid or reduce the sections of quarry sites located on the river bed. If not possible to locate quarries out of river beds, quarry sites lying on small rivers and streams shall be avoided; ▪ Alluvial deposits, gravel, cobbles and boulders shall not be removed (i) within 200 m upstream or downstream for any bridge and (ii) within 10 m of the bank of the river (iii) within wet areas of the river bed (iv) deeper than 1 m from the original bed level; ▪ Choose alluvial terraces or alluvial deposits which lie on the river beds; that not covered by water in normal hydrological conditions; ▪ Cut berms and terraces after extracting of quarries in the mountainous or hilly areas and implement a drainage system and vegetation cover for rehabilitation; ▪ Dewater and fence quarries and borrow pits as appropriate, upon completion of the extraction activities to minimize health and safety risks; 					
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		<ul style="list-style-type: none"> ▪ Ensure borrow pits are left in a tidy state with stable side slopes and proper drainage in order to avoid creation of water bodies favorable for mosquito breeding; ▪ Prevent accidental access and avoid drowning when pits become water-filled by implementing measures: fencing and flotation devices; ▪ Additional extraction sites and/or borrow pits will not be opened without the restoration of those areas no longer in use; ▪ The excavation and restoration of sites and borrow areas will be undertaken in an environmentally sound manner to the satisfaction of the PISC and PMU; ▪ Sign-off to this effect by PISC and PMU will be required before final acceptance and payment under the terms of the contract. 					
Spoil disposal	Impacts to habitats and watercourses (damage of land/plantation areas and waterways)	<ul style="list-style-type: none"> ▪ Contractor's CESMP to include a section on spoil disposal; ▪ Prohibition of disposing or discharging materials in the protected areas; ▪ Prohibition of the clearing, cutting, and excavating in the protected areas; ▪ Properly removed topsoil and low-quality materials and stockpile near the site to be covered and preserved; ▪ Use quarries with the highest ratio: extractive capacity and loss of natural state; ▪ Use quarry sites lying close to the alignment not on slopes, with a high level of accessibility and with a low hill gradient; ▪ Spoil will not be disposed of in rivers and streams or other natural drainage paths; ▪ The soil surplus shall not be stockpiled at the roadside or dumped over the intensive barriers; ▪ Spoil will not be disposed of on fragile slopes, floodways, wetland, farmland, forest, culturally sensitive areas or where livelihood is derived; 	Contractor	Include in the Project Contract (IIC)	Damages on land habitats and/or watercourses	Monthly – visual inspection, and review of complaints on soil disposal activities	Contractor, PISC, PMU

		<ul style="list-style-type: none"> ▪ Surplus spoil will be used where practicable for local repair works to fill eroded gullies and depression areas and degraded land in consultation with the local community; ▪ Spoils shall only be disposed to areas approved by local authority. Random and uncontrolled spoil disposal or any material, will not be permitted; ▪ Spoil dumping areas will be designated in consultation with the Engineer; if environmentally acceptable and structurally safe, only after landowners and suco chiefs have provided written permission endorsed by the Engineer; ▪ Before dumping commences spoil, areas will be marked on a plan and in the field (marker poles/flags) to define the agreed areas and limits for disposal; ▪ The spoil disposal site shall be located at least 50 m from surface watercourses and shall be protected from erosion by avoiding the formation of steep slopes and grassing; ▪ Spoil will be disposed of into unused quarries and abandoned borrow pits where practicable; ▪ Disposed spoil will be spread in 15 cm layers and compacted to optimum moisture content, covered with topsoil, landscaped and provided with drainage and vegetation to prevent erosion in line with best practice; ▪ Spoil disposal shall not cause, collapse or erosion of hillsides, sedimentation, and obstruction of watercourses flow, damage to agricultural land & densely vegetated areas; ▪ Under no circumstances, unused material will not be dumped into watercourses (rivers, streams, drainage, irrigation canals, etc.). 					
Clearing, grubbing, cut-fill activities; construction of	Soil erosion and silt generation; increased runoff; sediment contamination of rivers	<ul style="list-style-type: none"> ▪ All required materials will be sourced in strict accordance with GoTL guidelines and ESMP; ▪ Material stock-piles borrow pits and construction camps will only be located on 	Contractor	Include in the Project Contract (IIC)	Reduced erosion; culverts replaced; reduce flooding;	Monthly - visual inspection	Contractor, PISC, PMU

embankments; materials stockpile		<p>unused land or non-agricultural land following consultation with PISC and PMU, landowners and suco chiefs;</p> <ul style="list-style-type: none"> ▪ All land will be rehabilitated to its original or better condition upon completion of the project. Re-use excavated material wherever possible; ▪ Slopes will be strengthened with the use of bio-engineering methods, such as replanting/reforestation with native species to reduce runoff velocity and enhance retention of soil as part of erosion control program (in line with PMU's Guidelines on Soil Bio-Engineering Practices for Roadworks and Slope Stabilization- August 2017); ▪ If the Contractor causes damage to agricultural land, productive land or gardens, it shall responsible for repairing the damage and/or paying compensation based on the rates in the approved resettlement plan; ▪ Embankments and in-stream/river activities will be monitored during construction for signs of erosion. Stones should be kept for working in the location of stream or river which can be used if there is channel erosion; ▪ Bio-engineering measures are recommended combined with an engineering structure (e.g. retaining wall and gabion) i.e. slope planting with selected native species vegetation such as vetiver grass, setaria grass, elephant grass, and other local vines on the slopes that will help reduce soil erosion and improve soil stability; ▪ Re-vegetation of riverbanks with fast-growing species, or other plants in consultation with the landowners and suco chiefs, after work, has been completed; ▪ Obtaining all necessary permits or approvals for the location of construction camps, material extraction sites and sources of construction materials from DNCPIA and other government agencies prior to works commencing. 			<p>vegetation lost minimized; no garden/ agriculture land used; no dumping sites near waterways</p>		
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Generation of liquid wastes	Increased siltation at culverts and bridges; Construction materials washed out into rivers	<ul style="list-style-type: none"> ▪ Lubricants will be stored in containers with a sealed floor >50 m from water bodies; ▪ Work in streams/rivers will be scheduled during the dry season and work duration shall be as short as possible. Fragile slopes shall be stabilized immediately after works are completed; 	Contractor	Include in the Project Contract (IIC)	Waste discharge as per waste management plan; the occurrence of erosion	Monthly - visual inspection of culverts, and in-stream/river work areas	Contractor, PISC, PMU
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		<ul style="list-style-type: none"> ▪ Stockpile and storage areas for hazardous substances shall be located away off water bodies; ▪ Washing of machinery and vehicles in streams/surface waters shall be prohibited; ▪ Provision of sediment control such as silt curtain or other sediment reducing devices to prevent both siltation and silt migration during works being undertaken in the vicinity of streams/rivers; ▪ Sediment control devices will be cleaned and dewatered, discharges will not be to the rivers or streams. Consultation with landowners & suco chiefs will identify suitable land-based areas for settling ponds/discharge areas; ▪ Minimizing interference with natural water flow in rivers, water courses or streams within or adjacent to work sites. Abstraction and water resources pollution not be permitted; ▪ Solid wastes, debris, spent oil/fuel from construction machinery or plant, construction material, or waste vegetation removed from work sites will not be dumped in or near streams, rivers or waterways, shall be collected, disposed of off to the Gov disposal facility at Tibar; ▪ Prohibition of discharging of construction water or material (including dredged spoil) directly into the rivers, inter-tidal area or surface waters. All such construction water will be discharged to settling ponds or tanks prior to final discharge; ▪ Discharge zones from culverts and drainage structures will be carefully identified, and structures will be lined with rip-rap, masonry or concrete; ▪ Spoil and material stockpiles will not be located within 15 m of waterways, streams/rivers, or on the edge of slopes or hills above rivers/streams; 					
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		<ul style="list-style-type: none"> Fuel and other chemicals as required for the works will be stored in secure containers or tanks located away from surface waters or streams; Any spills will be contained and immediately cleaned up as per the requirements of the emergency response plan prepared by the Contractor (and approved by PISC and PMU). 					
General activities - solid and liquid waste generation	Uncontrolled and un-managed waste disposal	<ul style="list-style-type: none"> CESMP to include a section on waste disposal, recycling, and re-use; Areas for disposal to be agreed with local authorities and checked and recorded and monitored by the PISC; Segregation of wastes shall be observed; foliage, shrubs, and grasses may be given to local farmers for fodder and fuel. Organic (biodegradables) shall be collected and disposed of on-site by composting. Recyclables shall be recovered and sold to recyclers; Residual general wastes shall be disposed of in disposal sites approved by local authorities; Construction/workers' camps shall be provided with garbage bins. Burning of construction and domestic wastes shall be prohibited; Disposal of solid wastes into floodways, wetland, rivers, other watercourses, farmland, forest, or other culturally sensitive areas or areas where livelihood is derived canals, agricultural fields and public areas shall be prohibited; There will be no site-specific landfills established by the contractors. All solid waste will be collected and removed from the work camps and disposed of in the Tibar waste disposal site. 	The contractor, (PISC and PMU to approve plan)	Include in the Project Contract (IIC)	Waste discharge as per waste management plan; the occurrence of erosion	Monthly - visual inspection of culverts, and in-stream/river work areas	Contractor, PISC, PMU
Use of hazardous materials	<ul style="list-style-type: none"> Environmental pollution due to spillage of oil, 	<ul style="list-style-type: none"> Emergency Response Plan (as part of ESMP) prepared by Contractor shall cover hazardous materials/oil storage, spills, and accidents; 	The contractor, (PISC and PMU to approve plan)	Include in the Project Contract (IIC)	EMP and emergency response plan;	Monthly or after the event or as required - review	Contractor, PISC, PMU

	<p>other hazardous, and chemicals;</p> <ul style="list-style-type: none"> ▪ Accidents and risks to people or community 	<ul style="list-style-type: none"> ▪ Used oil and other residual toxic and hazardous materials shall not be poured on the ground; ▪ Used oil and other residual toxic and hazardous materials shall be disposed of in an authorized facility off-site; ▪ Disposal of waste oil and lubricants shall be to the Tibar waste disposal facility operated by DNCPIA accompanied by waste manifest; ▪ Ensure that safe storage of fuel, other hazardous substances, and bulk materials are agreed by PISC and have necessary approval from DNCPIA and local authorities; ▪ Toxic material and explosives (if required) will be stored in adequate protected sites consistent with national and local regulations to prevent soil and water contamination; ▪ Equipment/vehicle maintenance and refueling areas will be confined to areas in construction sites designed to contain spilled lubricants and fuels. Such areas shall be provided with drainage leading to an oil-water separator that will be regularly skimmed off oil and maintained to ensure efficiency; ▪ Fuel and other hazardous substances shall be stored in areas provided with a roof, impervious flooring, and containment wall to protect these from the elements and to readily contain spilled fuel/lubricant; ▪ Segregate hazardous wastes (oily wastes, used batteries, fuel drums) and ensure that storage, transport, and disposal shall not cause pollution and shall be undertaken consistent with national and local regulations; ▪ Ensure all storage containers are in good condition with proper labeling. Regularly check containers for leakage and undertake necessary repair or replacement; ▪ Store hazardous materials above flood level; discharge of oil-contaminated water shall be prohibited; 			<p>Ensure storage sites are using existing concrete base;</p> <p>Spills cleaned, and area rehabilitated</p>	<p>and approval of an emergency response plan;</p> <p>Visual Inspection of storage facilities;</p>	
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		<ul style="list-style-type: none"> Adequate precautions will be taken to prevent oil/lubricant/ hydrocarbon contamination of river channel beds; Ensure availability of spill clean-up materials specifically designed for petroleum products and other hazardous substances where such materials are being stored; Spillage will be immediately cleared with utmost caution to leave no traces. Spillage waste to disposal sites approved by local authorities and approved by PISC; All areas intended for storage of hazardous materials will be quarantined and provided with adequate facilities to combat emergency situations complying with all the applicable statutory stipulation; The contractors shall identify personnel in their EMP in-charge of storage sites for hazardous materials and ensure they are properly trained to control access to these areas and entry will be allowed only under authorization. 					
Encroachment into precious ecology, disturbance of terrestrial habitats	Workers poach animals for food or feathers etc.; Protected or sensitive areas affected	<ul style="list-style-type: none"> Contractor's site office, works yard, stones crushers, material storage, borrow pits, and quarries will all be approved by PISC and will not be permitted in any ecologically important sites or areas valuable for conservation including the Ramelau Mount protected area; Vegetation clearance during construction activities, especially of trees along the river banks and road-side, will be minimized; Under no circumstances is the contractor permitted to fell or remove woodland and forests; Vegetative cover cleared from the roadside during rehabilitation activities will be kept for re-vegetation. Contractors will be responsible for re-vegetation in cleared areas; The Contractor will responsible for providing adequate knowledge to construction workers 	Contractor	Include in the Project Contract (IIC)	<p>Check for poaching and unnecessary vegetation clearance;</p> <p>Re-vegetation of work areas; Adequate fuel supplies in camp;</p>	<p>Monthly - visual inspection of camp and work sites; Re-vegetation activities as per ESMP; Consultations with villagers and workers</p>	Contractor, PISC, PMU

		<p>in relation to existing laws and regulations regarding illegal logging;</p> <ul style="list-style-type: none"> Contract documents and technical specifications will include clauses expressly prohibiting the poaching of fauna by construction workers and making the Contractor responsible for imposing sanctions on any workers who are caught trapping, killing, poaching or having fauna; The PISC will supervise and monitor a ban on the use of forest and timber and workers shall be prohibited from cutting trees for firewood; Construction workers will be informed about general environmental protection and the need to avoid unnecessary felling of trees wherever possible. The TOR for the PMU Environmental and Social Safeguards team will include provisions of advisory services and training to relevant authorities responsible for the management of protected areas, particularly the Department of Protected Areas and National Parks of the Ministry of Agriculture and Fisheries. 					
Operation of construction plant and equipment creating noise	Noise in the community; Impacts on construction workers	<ul style="list-style-type: none"> Requirements in the ESMP and contract documents that all vehicle exhaust systems and noise generating equipment be maintained in good working order and that regular equipment maintenance will be undertaken; The Contractor will prepare a schedule of 	Contractor	Include in the Project Contract (IIC)	Adherence to agreed schedule; Complaints (no. logged with resolution); Workers safety	Monthly or after complaint - review schedule Consultation (ensure schedule is adhered to)	Contractor, PISC, PMU

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		<p>operations that will be approved by suco chiefs and PISC. The schedule will establish the days, including identifying days on which there should be no work, and hours of work for each construction activity and identify the types of equipment to be used;</p> <ul style="list-style-type: none"> Workers will be provided with personal protective equipment for noise abatement equipment as may be required; and Any complaints regarding noise will be dealt with by the Contractor in the first instance through the Grievance Redress mechanism (GRM). 			equipment	GRM register	
Presence of vehicles and equipment in villages, use of	Traffic and access disrupted during construction; Traffic safety affected	<ul style="list-style-type: none"> The Contractor will prepare a traffic management plan as part of the CESMP detailing diversions and management measures; 	Contractor, Sucos	Include in the Project Contract (IIC)	No. of accidents or events; Maintenance of access; Signage;	During activities - Visual inspection; Consultations;	Contractor, PISC, PMU

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people's land for access to the construction site, traffic and safety issues		<ul style="list-style-type: none"> Signs and other appropriate safety features will be used to indicate construction works are being undertaken; Care must be taken during the construction period to ensure that disruptions to access and traffic are minimized and that access to villages along the project road is always maintained; Provincial Works and village officials will be consulted if access to a village has to be disrupted for any time and temporary access arrangements made; Construction vehicles will use local access roads or negotiate access with landowners, to obtain access to material extraction sites. Where local roads are used, they will be reinstated to their original condition after completing work; The Project road and haul routes will always be kept free of debris, spoil, and any other material; Disposal sites and haul routes will be identified and coordinated with local officials; Provision of adequate protection to the general public in the vicinity of the work site, including advance notice of commencement of works, installing safety barriers if required by villagers, and signage or marking of the work areas; and Provision of safe access across the works site to people whose villages and access are temporarily affected during road re-sheeting activities. 			Road free of materials and debris; Haulage routes rehabilitated	Review of the traffic management plan	
Construction activities causing accidental damage to existing services	Interference with existing infrastructure; Water supplies contaminated or disrupted through the breaking of pipelines or	<ul style="list-style-type: none"> Consult with service providers to minimize physical impacts on public infrastructure and disruption to services; Reconfirm power, water supply, and irrigation systems likely to be interrupted by the works and any additional trees to be cut near utilities; 	Contractor	Include in the Project Contract (IIC)	Utilities or public facilities reinstatement; Services rerouted; Service disruptions	As required - visual inspection, consultation with service providers	Contractor; PCMBU

	exposing water table during works	<ul style="list-style-type: none"> ▪ Contact all relevant local authorities for utilities and local village groups to plan re- provisioning of power, water supply, and irrigation systems; ▪ Relocate and reconnect utilities well ahead of the commencement of construction works and coordinate with the relevant utility company at the Municipality and Municipality levels for relocation and reconnection well before works commence and include for compensatory planting for trees; ▪ Inform affected communities in advance; ▪ Arrange reconnection of utilities and irrigation channels in the shortest practicable time before construction commences; and ▪ If utilities are accidentally damaged during construction it shall be reported to the PMU, DRBFC and utility authority, repairs arranged immediately at the contractor's expense. 					
General activities, handling equipment and plant; construction vehicles	Worker health and safety risks	<ul style="list-style-type: none"> ▪ Experienced environment and safety officers (ESOs- both male and female) will be identified by the contractors in the bid, at least one month before construction commences the contractors will demonstrate to the PISC and PMU they are properly resourced for environmental and social monitoring and control; ▪ Establishment of safety measures as required by law, including GBV prevention measures and by good engineering practice and provision of first aid facilities at work sites, in vehicles and establishment of a first aid/health post at the contractor camp; ▪ The Contractor will conduct training for all workers on safety and environmental hygiene at no cost to the employees, including GBV prevention themes; ▪ The Contractor will instruct workers in health & safety matters as required by law and by good engineering practice and provide first aid facilities; ▪ Instruction and induction of all workers in health and safety matters, including road 	The contractor, (PISC and PMU to approve plan)	Include in the Project Contract (IIC)	ESMP and emergency response plan; Ensure storage sites are using existing concrete base; Spills cleaned, and area rehabilitated	Monthly or after the event or as required - review and approval of an emergency response plan; Visual Inspection of storage facilities;	Contractor, PISC, PMU

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		safety as necessary;					
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		<ul style="list-style-type: none"> ▪ The Contractor will instruct and induct all workers in health and safety matters (induction course) including construction camp rules and Codes of Conduct, site agents will follow up with toolbox talks on a weekly basis; ▪ Workforce training for all workers starting on site will include safety and environmental hygiene; ▪ Workers shall be provided with appropriate personal protection equipment (PPE) such as safety boots, helmets, reflector vest, gloves, protective clothes, dust mask, goggles, and ear protection at no cost to the workers and in variable size to fit women of smaller stature; ▪ The fence on all areas of excavation greater than 1 meter deep and sides of temporary works shall be observed; ▪ Reversing signals (visual and audible) shall be installed on all construction vehicles and plant. ▪ Provision of potable water supply in all work locations. The fence on all excavation, borrow pits and sides of temporary bridges; ▪ Scheduling of regular (e.g. weekly toolbox talks) to orientate the workers on health and safety issues related to their activities as well as on proper use of PPE; ▪ Where worker exposure to traffic cannot be eliminated, protective barriers shall be provided to shield workers from traffic vehicles. Another measure is to install channeling devices to delineate the work zone; and ▪ Construction camps shall be provided with toilets/sanitation facilities in accordance with local regulations to prevent any hazard to public health or the contamination of land, surface or groundwater. These facilities shall be well maintained and cleaned regularly to encourage use and allow effective operation. 					
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Presence of construction workers and public health and safety	Various social impacts including (i) social disruption; (ii) possibility of conflicts or antagonism between residents and workers; (iii) SEA against community members, (iv) spread of communicable diseases including STIs and HIV/AIDS; (v) children are potentially exposed to exploitation; (vi) impacts on community health and safety	<ul style="list-style-type: none"> ▪ The contractor will appoint an ESO to address health and safety concerns and liaise with the PMU and sucos within the sub-project area; ▪ Barriers (e.g., temporary fence), and signs shall be installed at construction areas to deter pedestrian access to the roadway except at designated crossing points; ▪ Adequate signage and security provided at the site office and works yard and prevention of unauthorized people (including children) entering work areas and camp. Warning signs will be provided at the periphery of the site warning the public not to enter, in a language understood by the local community and using pictures for widespread understanding; ▪ The general residents shall not be allowed in high-risk areas, excavation sites, and areas where heavy equipment is in operation, and these sites will have a watchman to keep public out; ▪ Speed restrictions shall be imposed on project vehicles and equipment traveling within 50 m of sucos and sensitive receptors (e.g. residential, schools, places of worship, etc.); ▪ Upon completion of construction works, borrow areas will be backfilled or temporarily fenced, awaiting backfilling; ▪ Provisions will be made for site security, trench barriers and covers to other holes and any other safety measures as necessary; ▪ Drivers will be educated on safe driving practices to minimize accidents and to prevent the spill of hazardous substances (fuel and oil) and other construction materials during transport; ▪ Contractors will ensure that no wastewater is discharged to local water bodies; ▪ Measures to prevent the proliferation of mosquitoes shall be implemented. Installation of proper drainage to avoid the formation of stagnant water, standing water will not be allowed to accumulate in the temporary 	Contractor, Suco Chiefs, PISC, PMU; approved service provider	IIC + costs for program (already identified)	HIV/STIs awareness campaign implemented; ESO recruited; Training implemented; Provision of safety equipment; Signage and security to prevent unauthorized people from entering camp; Signage installed as required;	As required; Monthly or after complaint - ESO recruited; Training records; Staff records; Visual inspection; Consultations with villagers; Checking of complaints; Consultations with workers training	Contractor, PISC, PMU
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		drainage facilities or along the roadside;					
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		<ul style="list-style-type: none"> ▪ Contractor to ensure the construction workforce attends STI and HIV/AIDS prevention workshops provided through an approved service provider; ▪ The contractor should secure code of conduct compliance and provide awareness and policy towards children protection, vulnerable people, sexual harassment, gender-based violence (GBV), including sexual harassment and sexual exploitation and abuse (SEA); ▪ Implementation of efficient and timely disciplinary measures to deal with noncompliance with Code of Conduct ▪ Suco-based community awareness raising about the transmission of STIs and HIV, reproductive health and safe sex. The program will be implemented prior to contractor mobilization; ▪ No child (person under the age of 18 years) labor in the construction work. 					
Site office and works yard and use of water and electricity supplies	Stress on resources and existing infrastructure	<ul style="list-style-type: none"> ▪ Site office and works yard located, if possible, in areas better supplied with infrastructure and services. ▪ Contractor to supply temporary facilities i.e. health post, accommodation, water and electricity, telecommunications, and sanitation. 	Contractor	Include in the Project Contract (IIC)	No. concerns raised and resolution; Service supply to camp and office	Ongoing - consult with villages along project road to monitor environmental concerns	
Accidental encroachment into historical/cultural sites	Impacts on PCR or cultural property sites	<ul style="list-style-type: none"> ▪ Contractor's CESMP to include a section on "chance finds" ▪ Site agents will be instructed to keep a watching brief for relics in excavations. ▪ Should any potential items be located, the PISC will immediately be contacted and work will be temporarily stopped in that area. ▪ The PISC with the assistance of the PMU will determine if that item is of potential significance and contact MPWTC to pass the information to the relevant department in GoTL (i.e. Secretary of State for Culture) who will be invited to inspect the site and work will be stopped to allow time for inspection. 	Contractor;	Include in the Project Contract (IIC)	Sites and/or resources discovered and their protection	During activities - stop work order issued; Site/resources dealt with appropriately	Contractor; Sec. of State for Culture, PISC, PMU

ENVIRONMENTAL AND SOCIAL MANAGEMENT					ENVIRONMENTAL MONITORING		
Project activities	Environmental Impact	Mitigation measures to be included in ESMP	Mitigation Responsibility	Mitigation Cost	The parameter to be monitored	Frequency & means of verification	Monitoring Responsibility
OPERATION PHASE							
Operation of vehicles	Air pollution increase through increased traffic	<ul style="list-style-type: none"> Forecasts for traffic growth indicate that emissions will be low and not have a noticeable effect on air quality. 	N/A	N/A	N/A	N/A	N/A
Routine and ongoing maintenance	Standing water degrades road and surrounding environment	<ul style="list-style-type: none"> Maintenance of structures to ensure river debris does not collect and result in damage to culverts/drainage structures, riverbanks, or land through altered flow patterns; Ministry of Public Work will negotiate with resource owners and prepare an MoU acceptable to all parties; Drain and fill areas where water can pool as part of ongoing maintenance activities. 	DRBFC; routine maintenance contractor	Include in the Project Contract (IIC)	Condition of road	As required Routine maintenance records; Visual inspection;	MPW/DRBFC; WB
Improved access to previously inaccessible, or difficult to reach, areas	Hunting and poaching increases	<ul style="list-style-type: none"> Lack of through-route access and low traffic volumes means it is unlikely there will be any impacts on flora and fauna; There are no rare or endangered species that could be affected by the operation. 	DRBFC; routine maintenance contractor	Include in the Project Contract (IIC)	Increases in hunting activity; Reduced sightings of fauna	Visual assessment; Consultations	MPW/DRBFC; WB
Increased traffic	Increases in noise nuisance for residents; Increased traffic volumes and higher speeds lead to accidents	<ul style="list-style-type: none"> Low traffic forecasts and the low population density means that ambient noise levels will not significantly increase; General safety will be improved by providing improved pavement surface, and installation of road safety signage; Awareness raising through village meetings will need to create road safety programs; Community awareness ascertains village concerns regarding traffic management. In areas where there may be significant congregation of people, such as markets, churches, schools or settlements, measures to slow down traffic, such as road bumps and traffic signs will be installed. In the event of road damages, necessary measures to minimize safety risks will be established by the PMU. These 	MPW/DRBFC;	Include in the Project Contract (IIC)	Accidents and collisions; Safety issues discussed in schools; The effectiveness of traffic calming measures	Visual observations; Complaints; Collect road accident data	MPW/DRBFC; WB

Branch Road Section Dili – Ainaro: Aituto – Hatubuilico – Letefoho – Gleno

		include installation of road signs, mobilization of traffic officers, and street lights.					
The spread of communicable diseases	The spread of communicable diseases such as HIV and STIs	<ul style="list-style-type: none"> At expected traffic volumes risk of spread of such diseases are not expected. 	N/A	N/A	N/A	N/A	N/A
Any other	Unintended or unanticipated impacts	<ul style="list-style-type: none"> As required to avoid or reduce effects or impacts 	DRBFC	TBA	TBA	As above, as required	MPW/DRBFC; WB
CORRECTIVE ACTION PLAN FOR SECTION 3 (IMPACTS RESULTING FROM THE GOTL'S EMERGENCY ROAD PROJECT)							
Road widening and slope cutting	Impact on agricultural land and subsequent livelihoods, particularly amongst coffee farmers, potential risks of landslides and erosion	<ul style="list-style-type: none"> Additional compensation and livelihoods restoration measures in line with OP 4.12; Installation of retaining walls, slope stabilization, and revegetation Installation of traffic signs and street lights for blackspots within the road segment 	DRBFC	GoTL's budget (for mitigation measures prior to loan effectiveness). Project Component 1.1 once the loan is effective	Grievances filed, the extent of project footprints (including soil disposal sites)	On-going – in consultation with affected PAPs	MPW/DRBFC; WB
Spoil disposal	Impact on agricultural land due to improper disposal	<ul style="list-style-type: none"> Additional compensation and livelihoods restoration measures in line with OP 4.12; Rehabilitation of affected land 	DRBFC	GoTL's budget (for mitigation measures prior to loan effectiveness). Project Component 1.1 once the loan is effective	Grievances filed, the extent of project footprints (including soil disposal sites)	On-going – in consultation with affected PAPs	MPW/DRBFC; WB
Operationalization of heavy vehicles	Road safety risks, traffic congestion	<ul style="list-style-type: none"> Installation of road safety signs and streetlights; Mobilization of traffic patrol officers 	DRBFC	GoTL's budget (for mitigation measures prior to loan effectiveness). Project Component 1.1 once the loan is effective	Grievances filed, road accidents	On-going – in consultation with affected PAPs	MPW/DRBFC; WB

11. Reporting Requirements and Communications

11.1 Contractor Report

231. The selected Contractor will prepare monthly reports reflecting the regular monitoring of results and findings. Checklists and other monitoring forms and supporting documents will be completed and submitted to the PISC as requested. Minutes of consultation with the communities and Project Affected Persons, including the performance evaluation of the programs/mitigation measures implementation will be summarised.
232. All the information above will be in compliance with the endorsed SEIS/ESIA, ESMP and Environmental License requirements. These will be used as bases in the preparation of Compliance Monitoring Reports. Checklists for use by the Contractor and others are presented in appendix 1 and may be amended from time to time.
233. The selected Contractor's Monthly Progress Report to the PISC shall contain the checklists and a summary of the mitigation measures implemented for all sections of the road Project, and the off-site installations as well and any complaints received during the relevant period. The Contractor shall make the necessary reports to ANPM to support the mineral license and summarise these matters in monthly reports to PMU.
234. The selected Contractor shall check the implementation of environmental mitigation measures on a weekly basis and shall report the weekly checks on the implementation of environmental mitigation measures to the PISC on a monthly basis. The monthly report by the Contractor to the PISC shall include the status of the implementation of mitigation measures required in the Environmental License and the ESMP.
235. The Monthly Progress Report shall include reference to all environmental mitigation activities carried out by the Contractor (what, where, when, how & why) with any complaints made in the relevant month and reference to complaints resolution; or complaints referred into the Grievance Redress Mechanism (GRM), ensuring respect to confidentiality for gender and other discrimination- based complaints.

11.2 PISC Report

236. The Project Implementation and Supervision Consultant (PISC) shall assist the PMU and check/investigate the implementation of environmental mitigation measures by the Contractor on a weekly basis. Subsequently, the PISC shall report their investigation result of environmental mitigation measures implementation (done by Contractor) to the PMU on a monthly basis.
237. The PISC's Monthly Progress Report to PMU shall contain a summary of the implementation of environmental mitigation measures for all sections of the road Project and as well the off-site installations (if any).
238. The PISC will report every three months on the Environmental Monitoring to the PMU and the Quarterly Report shall contain the details of environmental monitoring and the implementation of mitigation measures for all sections of the road Project includes the off-site installations (if any).

11.3 PMU Report

239. The PMU will report every six months on the environmental monitoring to the Ministry of Public Works and the project development partner with a summary of

environmental monitoring and the implementation of mitigation measures for all sections of the road Project and the off-site installations if any.

240. These reports will incorporate the main items raised in Contractor's monthly reports and the environmental monitoring reports prepared by PISC and endorsed by PMU, as well as all other items required by MPW and the World Bank.

11.4 Inclusive Report

241. All reports mentioned above will contain sufficient detail on (i) internal monitoring and inspections; (ii) incidents, accidents and emergency reporting; (iii) performance in the implementation of mitigation measures; (iv) training given and received by the supervision staff and workers; and (v) any complaints made in the relevant month and reference to complaints resolution; or complaints referred to the Grievance Redress Mechanism (GRM), ensuring respect to confidentiality for gender and other discrimination- based complaints.

11.5 Report to the Authorities

242. All of the reports above (Contractor Report, PISC Report, PMU Report, and Inclusive Report) will be circulated to the DNCPIA if required. Reports shall be prepared to reflect the monitoring results/findings. Filled up monitoring forms, supporting documents, minutes of consultation with the communities and Project Affected Persons, and the performance evaluation of the programs/mitigating measures implementation based on SEIS/ESIA, Environmental License and ESMP requirements are compiled. These will be used as bases in the preparation of Compliance Monitoring Reports. Table 11.1. presents the types of Contractor a PISC reports that required to be submitted as contractual.

Table 11.1. Reporting Schedule

RESPONSIBILITY	TYPE OF REPORT	PURPOSE OF REPORTING	FREQUENCY OF SUBMISSION	SUBMIT TO
Contractor: Health, Safety & Environmental Manager supported by Environmental and Safety Officer	Daily Enviro & Social Compliance Checklist	Checklist of environmental and social compliance during construction.	Weekly	PISC
	Accidents and Incidents Report	Notification of accident or incident events.	Within 24 hours of the accident/ incident	PISC, MPW - PMU
	Non-Compliance Report	Detail the cause, nature, and effect of any environmental and/or socio-economic non-compliant act performed (including gender-based violence noncompliant acts).	Within one week of the event	PISC
	Monthly Compliance Report	The detailed account of mitigation measures implemented during the month reported to the Project Implementation and Supervision Consultants (including those aimed at dealing with gender-based violence noncompliant acts).	Report on compliance and non-compliance measures on a monthly basis	PISC
PISC: assigned Environmental Engineer/Specialist (on intermittent basis)	Weekly Compliance Checklist	Checklist of environmental and social compliance during construction.	Daily/Weekly	Internal
	Monthly Compliance Report	Monthly report of compliance within 10 days from receiving the report from the Contractor.	Monthly	MPW - PMU

	ESMP updates, including any changes	For approval prior to implementation.	As required, prior to implementation	MPW - PMU
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RESPONSIBILITY	TYPE OF REPORT	PURPOSE OF REPORTING	FREQUENCY OF SUBMISSION	SUBMIT TO
	in management or monitoring procedures			
	Key changes in project activities that may trigger conditions in the Environmental License	Ensure compliance with the ESMP updates.	As required, prior to implementation	MPW - PMU
	Environmental Monitoring Report	Notification of non-compliance with standard environmental guidelines and parameters	Dependent on environmental parameters: weekly, monthly, quarterly or annually	MPW

11.6 Communications Process

243. Communicating and reporting mechanisms to be observed and implemented by the Contractor as part of the EISP with residents construction workers and other project-related individuals with respect to reporting of incidents and concerns throughout the construction phase are presented in Table 11.2.
244. The appointed Contractor will respond initially to complaints and concerns of locally affected persons and report to the PISC who will inform MPW/PMU.
245. Based on the need to maintain regular communication channels with the local authorities, the appointed Contractor will consult with local suco chiefs along the Project corridor as the project construction proceeds and will seek to secure the services of local workers and train them as necessary for unskilled and semi-skilled work.
246. The appointed Contractor will designate two members of its staff – a male and a female worker - to serve as liaison officers between the suco chiefs, customary leaders. The female liaison officer will specifically support the effective women participation in the communication channels with the community and serve as an entry point for complaints from community members in relation to gender-based violence and sexual exploitation.'
247. The appointed Contractor will ensure their workers observe an acceptable code of conduct when interacting with local affected individuals and communities and will avoid social conflict including gender-based violence and sexual exploitation, and or exploitation of any local water or mineral resources unless agreed with the Suco Chief and PISC.

Table 11.2. Communication Pathway

STAKEHOLDERS	POTENTIAL INTEREST/CONCERN	MEANS OF CONTACT	CONTACT
Residents/Local Communities	<ul style="list-style-type: none"> The adequate compensation package for affected property or asset; Disturbance from construction camp and associated activities (noise, alcohol, sexual exploitation, disease, etc.) Loss of productive lands/vegetation, and disruption of productive crops due to improperly spoil disposal on plantation area Limited access to road, community services (medical, education, communication, market, church etc) Lands prone to landslide due to cutting slopes on the fragile areas; Safety and security of local people & house (sexual harassment and other types of gender-based violence); Project updates; information dissemination on potential hazards (road closures etc.). 	<ul style="list-style-type: none"> Complaints or concerns shall be communicated to community leaders and authorities (through liaison team); Information dissemination and project updates and developments related to complaints made from community for noncompliant actions by workers shall be provided by the Contractor to community leaders (through Liaison Team). 	MPW – PMU PISC, Contractor
Project Personnel/workers	<ul style="list-style-type: none"> Employment opportunities, adequate resources (food, water, etc.) and shelter; Competitive wages. 	Recruitment of locals through word of mouth issues shall be conveyed to site foremen.	Suco Chief, Contractor
Construction workers	<ul style="list-style-type: none"> Workers code of conduct; Social conflicts between the locals and workers including sexual harassment and sexual exploitation; Behavior issues (gambling, alcohol, etc.); Environmental issues (exploitation of natural resources, etc.). 	Weekly meetings with construction workers. Specific information session on key issues to mitigate and deal with conflicts and noncompliant action (including gender-based violence)	Contractor
Government agencies, other concerned parties	Environmental and socio-economic impacts	Conduct of meetings.	MPW – PMU

12. Responsibility for Monitoring and Mitigating

12.1 Environmental Monitoring and Reporting

248. The Monitoring Plan is incorporated into the ESMP as per Table 10.1. Environmental monitoring is a very important aspect of environmental management during construction and operation phases of the Project to safeguard the environment. In accordance with the impacts identified this Environmental Management and Monitoring Plan has been developed and the matrix of mitigation measures and monitoring presented in Table 10.1. (ESMP matrix). The contract documents have been prepared to contain the list of all required mitigation measures as the ESMP

matrix (which is included in the Contract) and a time-frame for the compliance monitoring of these activities as per Table 10.1. The monitoring will comprise surveillance checks that the Contractor as a contractor and all subcontractors are meeting the provisions of Table 10.1. matrix and all other contractual obligations during construction and maintenance.

249. The environmental specialists of PMU will supervise the monitoring of the implementation of mitigation measures during the construction phase and compliance with the ESMP. The PMU during project implementation will be required to:

- Develop an environmental monitoring protocol for the construction period, regular maintenance period, and formulate a detailed plan as per matrix on Section 10;
- With assistance from the PISC's Engineer, conduct regular environmental monitoring, including a review of daily and weekly site inspections undertaken by the Contractor and subcontractors, and items recorded in the Environmental and Safety Officer's site diary (the main parameters to be monitored are outlined in Table 10.1.); and
- Prepare environmental monitoring reports to accompany monthly progress reports covering the above and prepare and submit inputs for the Quarterly Progress Reports.

250. Responsibilities for the implementation of the monitoring requirement of this ESMP are shown in Tables 6.1 and the ESMP matrix (Table 10.1). Mitigation measures implementation during the construction phase will be the responsibility of the Contractor in compliance with the bid documents, contract clauses, and technical specifications. Monitoring will be carried out by the proponent on a regular basis.

13. Emergency Response Plan

13.1 Emergency Report

251. The emergency report is incorporated into the ESMP as an important aspect of environmental management during construction and operation phases of the Project to safeguard the environment. In accordance to the impacts identified in this Environmental and Social Management Plan, a draft Emergency Plan has been developed which will be amended in the pre- construction phase in the CESMP. Routine procedures for managing hazardous waste are included in the suite of mitigation measures presented in section 8 of this ESMP.

13.2 Procedures for PMU Interaction

252. In the emergency event/incident or accident (vehicle collision, physical harm to humans, landslide, or spillage of harmful chemicals etc.) information received through the phone in the PISC' office located in Engineers facilities. (telephone numbers to be included in the CESMP).

253. Information about the incident can also be reported by the Contractor, PMU staff, PISC staff, or any of the citizens of Timor-Leste. The information about the incident or accident may also be reported through:

- The Project Manager of the Ministry of Public Works (phone: 0670 331 0062);
- The Municipality Administrator duty officer/Municipality Administrator/Vice of Municipality Administrator (Telephone numbers to be included in the CESMP).

254. Information on the accident or incident is thus transmitted to the Ministry of Transport and Communications (MTC). After receiving the information, PMU directly requests the PISC to instruct the Contractor to mobilize the necessary equipment and staff to deal with the emergency situation.

255. The appointed Contractor will be responsible for the preparation of an Emergency Response Plan within the EMP and ESIP which will cover landslides, containment of hazardous materials, oil and fuel spills, and work-site accidents. The plan will detail the process for immediate notification to PMU, handling, and subsequently, emergencies reporting, and specify the organizational structure (including responsibilities of nominated personnel).

256. The plan will be submitted to PMU for approval. Implementation of the Emergency Response Plan will be monitored by PMU. Any emergencies, and how they were handled, will be reported in the Contractor's Monthly Progress Report. The typical approach to some potential emergencies is presented below.

13.3 Landslide

257. The landslide may happen during the excavation or when there is constant heavy rain. The appointed Contractor is responsible for the emergency response in the event of the occurrence. A regular patrol such as Safety & Environmental Walkabout shall be carried out by the Environmental and Safety Manager at the site to inspect the indication of landslide and simultaneously. Project department should arrange frequent inspections on the landslide-prone areas performed by arranged staff, no less than two people, especially in the constant rainy period. Once a landslide occurs, the following items shall comply as part of the Emergency Response Plan:

- Emergency Response Team should be at the site quickly and put the safety of people as the first priority. Retreat all the people near the landslide area to a

safety region, in case there would be future damage. If there are any injuries, medical assistance would be called right away; and set up warning lines and signs to alarm the passing vehicles and passengers;

- All materials needed at the site, including rescue facilities, medical aids and etc. shall be arranged. Keep the means of contact efficient and relevant records specified through the whole rescue procedure;
- Health, Safety, and Environment (HSE) Manager and Project Manager would be on the (emergency) landslide site to lead all the rescue work throughout;
- A report should be submitted to the relevant departments and PMU, while an inspection of the landslide area is conducted to prevent further loss or damage.

13.4 Hazardous Materials

258. Containment of hazardous material shall comply with the following principles:

- Hazardous materials shall be classified and labeled in English and Tetum; and stored in different zones and conditions with cautiousness by specified staff;
- Requisition of hazardous materials should be carried out by staff under the safety department, and records shall be kept properly. Unused hazardous materials should be returned to the storage on the same day;
- Hazardous spillage, if any, should be immediately cleared utmost caution by using absorptive cleanup materials to leave no traces. Spillage waste shall be disposed at disposal sites approved by DNCPIA; which is Tibar disposal site, and accompanied by waste manifest. Furthermore, make sure the fire extinguisher is in good condition, function well and regularly inspected;
- Training and testing of necessary knowledge of safety awareness and potential dangers of the hazardous materials shall be carried out regularly.

13.5 Oil and Fuel Spillage

259. Oil and fuel spills may happen in the equipment, the construction site, and the storage areas. The appointed Contractor shall undertake the following tasks:

- Regular inspections for oil and fuel leakage of all equipment and in the storage should be carried out daily and records of the inspections shall be kept;
- Examine the leakage sections and the causes, replacements of lubrication components, sealing or other elements should be implemented in all equipment if necessary;
- In the storage, if there is oil/fuel leakage, the staff shall carry out relevant measures to stop the leaking. Spillage, if any, will be immediately cleared with utmost caution by using absorptive cleanup materials to leave no traces;
- Spillage waste will be disposed at disposal sites approved by DNCPIA which is Tibar disposal site and accompanied by waste manifest. All the waste due to handling the oil or fuel spill problems should be treated and delivered to the appointed waste disposal area.

14. Decommission Plan

260. This decommission and rehabilitation plan presents the concept closure and post-closure rehabilitation. The Proponent is committed to requiring the Contractor to decommission and rehabilitate the accommodation facilities, areas used off-site for associated facilities e.g. borrow pits and quarries, manufacturing areas used for

crushing rock, asphalt mixing plant and concrete casting or batching plan; as the Contract clauses include these requirements. Decommission and rehabilitation will be accomplished in compliance with the requirements of the Government of Timor Leste (GoTL) and the safeguards policy of the supporting development partner agency, based on the principles established in the following sections.

14.1 Decommission and Rehabilitation Objectives

261. The primary objective of the Decommission and Rehabilitation Plan is to provide a framework, to enable the Contractor to rehabilitate the disturbed areas, associated with the quarry and manufacturing area operations that are required for implementation of the Project. The Plan aims to ensure that areas developed for quarrying and manufacturing aggregates during the Project (i.e. gravel extraction, quarry, crushers, batching plant and asphalt mixing plant) and base camp are cleaned after project completion, decommissioned and rehabilitated; to ensure after closing they do not impose any long-term hazards to public health and safety or to the environment. All structures e.g. heavy machinery and plants such as crushers, asphalt plant, and any resultants contamination to ground or water bodies shall be removed.
262. The removal and cleanup must be completed to the satisfaction of the resident engineer and endorsed by PMU before the Contractor is released. The implementation of the Decommission and Rehabilitation Plan will ensure that soil erosion and subsequent sedimentation will be minimal, and that appropriate vegetation is replanted.
263. The specific objectives of decommissioning and rehabilitating are to restore the site to an acceptable satisfactory condition by:
- a) Eliminating unacceptable health hazard and ensuring public safety. Restoring the site to a condition that is visually acceptable to the community;
 - b) Reclaiming the areas impacted for future use (amenity uses for example). Preparing the site to be amenable to support vegetation;
 - c) Removing and disposing appropriately of any contaminated soil. Ensuring physical stabilization of the soil (a combination of smoothing and contouring slopes, replacing overburden, topsoil and revegetating);
 - d) Ensuring that final drainage of the site does not adversely affect neighboring properties.

14.2 Decommission and Rehabilitation Strategy

264. The decommission and rehabilitation strategy is to establish self-sustaining vegetation, as well the associated sites i.e. a self-sustaining complex that capable of stabilizing surface soils and reducing erosion similar to that found in the surrounding areas. The complex should be similar to that found in the surrounding areas to ensure that soil erosion and subsequent sedimentation will be minimal.
265. The Decommission and Rehabilitation Plan for the quarries closure used by the Contractor will include:
- Mechanisms to enable all stakeholders to have their interests considered during the quarry closure process;
 - Ensure the process of decommissioning/rehabilitating is considered early in the operation of the facilities, thus it can occur in an orderly, cost-effective and timely manner when it is necessary at the end of the life of the manufacturing facilities;
 - Ensure there is clear accountability, and adequate resources are established at

the outset, for the implementation of the closure plan; and

- Establish indicators that will demonstrate the successful completion of the closure process.

14.3 Performance Criteria

266. The Decommission and Rehabilitation Plan will take into consideration the following essential criteria:

- Public health and safety;
- GoTL regulatory requirements;
- Expectations of stakeholder safeguard policies;
- Geotechnical stability and the suitability of final landforms;
- Sustainability of revegetation areas and surrounding ecosystems; and
- Post-closure land use objectives.

267. The Contractor will ensure that all relevant GoTL legislative requirements and management commitments have been met. The objectives of land use post-closure and closure management requirements will be established and agreed upon with stakeholders and local authorities through effective consultation.

268. All costs and resource requirements, including consultation and accountability for the closure of the quarries, will be determined and facilitated by the Contractor. Potentially contaminated areas will be remediated to acceptable levels as agreed with the Engineer, other stakeholders, and the regulatory agencies.

14.4 Decommission and Rehabilitation Plan

269. The Decommission and Rehabilitation Plan means the Contractor's proposal, as required by the Engineer and environmental authority, approved for decontaminating, recontouring, revegetating and rehabilitating of the affected land by the authorized body, which shall include but not limited to:

- a) Proposed practices to adjacent surface resources. Specification for surface gradient restoration to an angle of repose suitable for the proposed subsequent use of the land after reclamation is completed;
- b) The proposed method to accomplish recontour and restoration. Manner and type of revegetation or other surface treatment of the affected area;
- c) Method of compliance with air and water pollution prevention laws where applicable. Method of control of contaminants and disposal of mining refuse;
- d) Method of restoration or establishment of stream channels or stream banks to a condition minimizing erosion, siltation and other pollution;
- e) Sketch maps and diagrams of the proposed final landform and other supporting documents as may be reasonably required by the resident engineer and authority;
- f) A time schedule delineating the sequence of actions and events to achieve the requirements agreed on outcomes.

14.5 Guideline specification

270. The final slope in all excavated soil, sand, gravel and other unconsolidated soil materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land. The Project Implementation and Supervision Consultant's Engineer will decide on the maximum slopes considered

suitable for land. 126. The following mitigation measure will be required:

- The land will be cleared of rubbish, surplus materials, temporary structures and equipment, and all parts of the land shall be left in condition as close as possible to that prior using;
- Provision of safety condition to persons, animals and to adjoining property. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land;
- Suitable drainage ditches shall be constructed or installed to avoid conditions where small pools of water that are or are likely to become noxious, foul, collect and or remain on the mined area. Ponds shall be considered adequately reclaimed lands when approved by the authorized body subject to the approval of all other stakeholders. Surface drainage must be designed to minimize erosion during runoff and major rainfall events;
- The type of vegetative cover and methods of its establishment shall be specified, and in every case shall conform to the accepted and recommended agronomic and restoration practices as established by the Ministry of Agriculture and Fisheries. Replanting species will be agreed with the local suco chief in liaison with the landowners;
- Topsoil stripped from the surface in the pre-construction and stockpiled shall be used for final cover to re-contoured slopes where practicable. Un-usable material including overburden, screenings, and rocks, should be placed in the pit bottom and covered with the previously stripped topsoil;
- Pits shall be backfilled with clean or inert fill. There shall be no material of deleterious nature (i.e. any material that would be classed as hazardous or waste). Building rubble may only be used with the approval of the resident engineer and endorsed by PMU;
- The site shall be graded to match or blend with existing contours. If hard rock pits remain these should be multi-benched. Once the site is reclaimed, any fences where they exist shall be removed to permit re-vegetation;
- Access and haul roads to the areas must be restored to the standard before the works commenced or better in a manner mutually agreeable with the local suco chief as approved by the Resident Engineer and endorsed by PMU.

14.6 Decommission and Rehabilitation Plan Updated

271. Within 12 months of obtaining the Environmental License, the Contractor will develop a detailed updated Decommission and Rehabilitation Plan to be approved by the Engineer and endorsed by the PMU. It will include all the above measures ensure the timely removal of all installations, plant and equipment and the restoration of the sites to their original condition prior to the commencement of works.
272. The updated Decommission and Rehabilitation Plan will ensure all infrastructure not required by the post-closure land user (GoTL) will be removed and appropriately disposed of in the designated disposal sites. The Contractor will ensure that all post operational landforms will be shaped, thus the sites are geo-technically stable and adequately consider erosion and drainage.
273. The Contractor will ensure the extent possible and practicable final landforms are compatible with the surrounding landscape. A local native vegetation cover is planned to be re- established on all disturbed areas. There will be no unsafe site areas where the general public could inadvertently gain access.

14.7 Decommission and Rehabilitation Outcomes

274. The final outcome of the Decommission and Rehabilitation Plan will achieve the following:

- No infrastructure left on site unless agreed to by regulators and the post-mining land managers (GoTL);
- Vegetation in rehabilitated areas will have values acceptable to the local authority and with species typical of the surrounding natural and managed ecosystems;
- Rehabilitated areas provide appropriate land use potential for the local land users and habitat for fauna;
- Surface hydrological patterns or flows not adversely affected or are developed and improved. Disturbed surfaces rehabilitated to facilitate future target land use (if any).

15. Capacity Development and Training

15.1 Capacity Development

275. In accordance with tasks of the Environmental Management and Monitoring implementation, there is specific technical assistance will be provided by environmental specialists that are part of the PMU. The specialists will assist in all aspects of the implementation of environmental assessment and management, internal monitoring and evaluation, includes training of MPW and other relevant government agencies.

276. The Project features training and capacity building measures, such as environmental compliance and awareness training; inspection and reporting system; as well gender responsive and HIV/AIDS/STI awareness; are building for Contractors' staffs in the pre-construction and construction phases. Sexual exploitation and anti-trafficking will also be reinforced with a Contractor awareness programme during the pre-construction phase.

277. The Contractor is required to employ one Health, Safety and Environment (HSE) Manager that supported by two persons of Environment and Safety Officer (ESO) who shall be knowledgeable on sexual harassment and gender equality, social and disability inclusion at the workplace. Wherever possible future projects - irrespective of financing – GoTL will provide resources for expansion and support to the PMU rather than national consultants brought on for specific projects. This will provide long term institutional support and develop the PMU.

278. Proposed capacity building will include (a) awareness training of the PMU (including management) and contractors on environmental management, including on the World Bank and GoTL requirements on environmental safeguards; (b) capacity building programs to improve the capability of national environment staff at all levels in carrying out, and monitoring environmental management measures; and (c) capacity building programs on environmental issues including environmental management requirements and implementation, pollution control, guidance on obtaining environmental licenses (d) capacity building programme on sexual harassment and gender-based violence awareness and complaint mechanism. The training programs will be conducted in Dili and related Municipality capitals and will be carried out in accordance with the training and capacity building program being delivered during implementation for all PMU projects.

279. The Contractor will be trained (under guidance from EST/Environmental and Social Team/PMU) to broaden their environmental competence and awareness by preparing

the requisite Construction ESMP (CESMP) based on the site-specific construction methodologies they propose. The minimum requirements will be based on this ESMP.

280. The CESMP will further develop this ESMP and will detail measures for all impacts covered in this ESMP. The International Environmental Consultant (IEC) and National Environmental Consultants (NEC) employed by the PISC will guide the Contractor. The responsibilities of the Contractor include:

- a. Participate in induction classes on the function and systems to support the ESMP and use of checklists for the mitigation measures (induction to be delivered by PMU prior to preparation of the CESMP);
- b. Designates an HSE Manager, a Deputy HSE, and two ESO; submit confirmation letter to PMU that these positions have been filled before commencing of construction;
- c. Seeking training and support from PMU on any aspects of environmental management, as required. Coordinating with PMU in respect of community consultation i.e. establishing Grievance Redress Mechanism (GRM);
- d. Coordinating with PMU for preparing and submitting the CESMP following detailed design. The HSE Manager will responsible for ensuring that the Contractor complies with the clauses in the contract and bidding documents in respect of Health, Safety And Environment issues;
- e. Responsible to (as required) prepare and submit for approval, appropriate plans (tree cutting, aggregate extraction, traffic management etc.). Engaging an approved service provider to undertake STIs and HIV/AIDS briefings and awareness raising amongst the Contractor's employees and communities, and reporting on the same;
- f. Undertaking daily and weekly site inspections (by the ESO) recording the same in a site diary, reporting to HSE Manager that will participate in monitoring and coordinating with PMU to ensure that environmental management activities are reported in Monthly Progress Reports as required.

15.2 Training and Organization for Environmental and Social Management

281. In preparing the CESMP implementation, the selected Contractor will ensure that their staffs follow awareness training programs to be provided by the PISC. Whereas for engineers of the Contractors will be provided by the PMU and PISC, that covering:

- a) Relevance and procedures for environmental assessment and licensing;
- b) Fundamentals of environmental and social management, site inspections, and observations. Understanding and implementation of the mitigation measures in the Environmental and Social Management Plan.

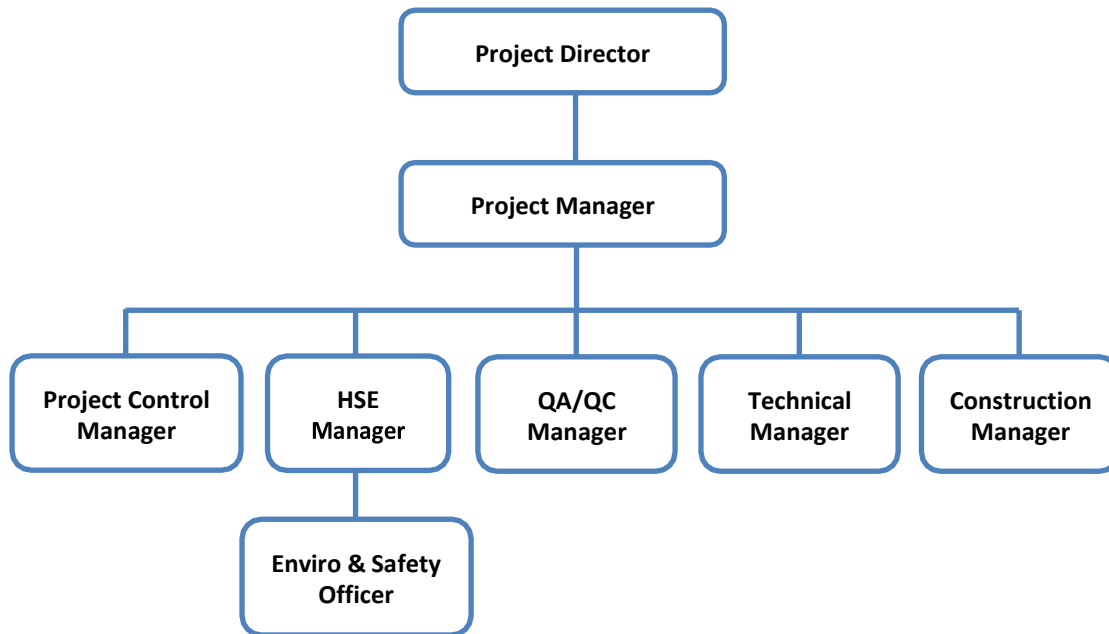
282. Environmental and Social Management Plan of the Project and Contractor's CESMP: Orientation of engineering staff on environmental management for the project particularly including following construction impacts:

- Air pollution, noise and water pollution avoidance, and minimization;
- Waste management. Fuel and hazardous materials management;
- Construction camp management;
- Community relations and public consultation procedures;
- Labour Safety: requirements for training and regular reinforcement on safety issues related to road rehabilitation;
- Monitoring and reporting requirements and checklists: the training will include

the methodology for site observation and reporting of monitoring results.

283. The typical of Environmental and Social Management Organization Chart for the Contractor presented in Figure 15.1 as follows:

Figure 15.1 – Contractor’s Environmental and Social Management Organization Chart



16. Public Consultation and Information Disclosure

16.1 Purpose of Consultation and Disclosure

284. Public consultations need to be undertaken for projects of this nature as the WB's environmental and social safeguard requirements and Public Communications Policy. The primary purpose of the consultations is to present the proposed road development, describe issues and concerns that the people, stakeholders, and concerned parties in the impact area may have relevance to the proposed road development Project.

285. The informal community consultations were held during site visits, whilst the formal Public Consultations for eleven sucos were held on September 12th to September 26th, 2016, presents in Table 16.1. The purpose of the consultations was to inform the public about proposed Project for Branch Road Section of Dili – Ainaro i.e. from Aituto – Hatubuilico – Letefoho – Gleno; and to compile the opinions, concerns, and issues of the stakeholders for consideration in the implementation of the Project.

16.2 Methodology and Approach

286. The stakeholders consulted for the Project included local affected persons, local village head persons, local authorities, suco leaders, national authorities, educational institutions, and other groups with an interest in the project corridor where the improvements will be implemented. GoTL departments were also consulted.

287. Individuals representing about five hundred persons from numerous family groups in the sucos along the alignment were informed about the Project and invited to comment on their environmental concerns. These stakeholders were considered to be representative of the community living in the area, the road users, the business associated with the road and the locally elected representatives.

16.3 Introduction and Stakeholder Identification

288. The stakeholder's consultation process objectives are to disseminate information on the Project and its expected impacts, long-term as well as short-term, among primary and secondary stakeholders and to gather information on relevant issues, thus the feedback received could be used to address these issues at early stages of project design. Another important objective was to determine the extent of the concerns amongst the community, to address these in the Project implementation and to suggest appropriate mitigation measures. The feedback received from stakeholders has been used to address these issues in the early stages of Project design.

289. The stakeholders consulted for the Project included villagers as project affected persons, local authorities, suco leaders, customary leaders, national authorities, agriculture and forest institutions, educational institutions, and other groups with an interest in the Project corridor where the improvements will be implemented. Government Timor Leste department such as PNAP was also consulted. Individuals representing several hundred persons from numerous family groups in the sucos along the alignment were informed about the Project and invited to comment on their environmental concerns. These stakeholders were considered to be representative of the community living in the area, the road users and the business associated with the road.

16.4 Public Consultations

290. During SEIS/ESIA study carried out, its course of field visits and initial consultations informally with people residing within existing road alignment during observation in July and August 2018. Meanwhile, the formal Public Consultation at eleven sucos held on September 12th – 26th 2018.

291. The Public Consultation was attended by residents, suco leaders, customary leaders, church representatives along the Branch Road Section, Municipality Administrator, agriculture and forest institutions, educational institutions, water, and sanitation institution, land and property agency, including National Police of Timor-Leste. Whereas from the PMU represented by Consultant i.e. the International and National Environmental Specialist, as well as the International and National Social Safeguards.

292. There are close to 450 participants attended Public Consultation in eleven sucos (with 75 women representing about 17% of participants), they come from various stakeholders such as villagers, related departments of GoTL, representative of NGO, officers from local and Municipalities, including representatives of veteran and churches. The participants were actively involved in discussions related to the Project's goals, environmental and social issues, as well as the cultural and geological limitations (e.g. sacred places and fragile soil). Women equal participation in consultation meetings showed to be a challenge which the Contractor needs to rectify during the project through proactive steps to engage more women. No data are available so far on participation of persons with disabilities.'

Table 16.1. Public Consultations for the Branch Road Project

No.	DAY – DATE	MUNICIPALITY – SUB MUNICIPALITY	SUCO
1.	Wednesday/12 Sept 2018	Ainaro – Maubisse	Horaic-Quic
2.	Thursday/13 Sept 2018	Ainaro – Hatubuilico	Mulo

3.	Friday/14 Sept 2018	Ainaro – Hatubuilico	Nunomogue
4.	Saturday/15 Sept 2018	Ermera – Letefoho	Catrai-Caraic
5.	Tuesday/18 Sept 2018	Ermera – Ermera	Riheu
6.	Wednesday/19 Sept 2018	Ermera – Ermera	Humboe
7.	Thursday/20 Sept 2018	Ermera – Ermera	Estado
8.	Friday/21 Sept 2018	Ermera – Letefoho	Eraulio
9.	Saturday/22 Sept 2018	Ermera – Letefoho	Goulolo
10.	Tuesday/25 Sept 2018	Ermera – Letefoho	Riheu
11.	Wednesday/26 Sept 2018	Ermera – Letefoho	Ducurai

293. The Project Team presented and defined to the participants the Project scope, as well as the need for the rehabilitation of the existing roadways and its attendant sub-components. The Project Team explained also the environmental and social impacts and the requisite mitigating measures that to be established during the implementation of the sub-project.

294. After the presentation, issues and concerns of the stakeholders and participants were elicited, discussed and noted, for further inclusion in the design of the proposed Project. The stakeholders were largely comprised of the concerned and affected people, Municipality and Government Officials, Village Leaders, Customary Leader, and Women. The key elements in public opinion are:

- The public generally welcomes upon the proposed road Project and deliver appreciation of the public consultation event conducted;
- Water supply facilities such as water pipelines, water tanks and water springs adjacent to the proposed road Project need Contractor's concern prior to the construction works;
- Employment opportunity from the Contractor would be welcomed by a villager in each suco;
- Landslides areas in several sucos need to be considered, especially which adjacent to the education facilities;
- Improper soil disposal on the productive land of the community is a sensitive concern.

295. The topics discussed during Public Consultation are summarized in the following table:

16.5 Concerns Raised and Responses

Table 16.2. Main Concerns Raised and Responses Summary of Public Consultation

CONCERNS EXPRESSED/COMMENTS	HOW CONCERNS ARE ADDRESSED
Generally, local communities are very happy with this improvement Project. They feel it is beneficial and can drive up tourism access and local economic growth.	Consultation and coordination with local communities will be continued into the implementation stages to preserve the commitment and support of the public.
Water supply is essential for the village community, as they still lack water, though they have pipelines and water tanks. Most of the water tanks are adjacent to roadsides, whereas water pipelines rightly on the roadsides, thus all water supply facilities must be protected prior to the construction works.	Water supply facilities will be identified and inventory during pre-construction and will be replaced or transferred to another place prior to the commencement of works. The utility's reinstatement will be discussed and agreed with the local authority and stated in the Utilities and Infrastructure Section of the Environmental and Social Management Plan (ESMP).
There are sacred places, religious sites, and cemeteries close to the roads. These places must be considered when a road improvement Project will be implemented.	Sacred sites and cultural heritage locations will be considered during detail design. Furthermore, those will be recognized and protected in the ESMP.
There are some concerns and comments asking to build pavement for pedestrian as well as install a guardrail on the sloped sides. It would also be good to improve culverts and drainage at the same time.	The road will be widened with sealed hard shoulders, road markings, include safety signs as part of road safety. Footpaths or wider hard shoulders will be recommended in villages, particularly near the schools.

CONCERNS EXPRESSED/COMMENTS	HOW CONCERNS ARE ADDRESSED
Project affected people do not expect any major impacts, especially related to their house, land and other assets. However, they will give support as this road is the first project in the area. Municipality Officer recommends doing coordination intensively with local government, village community and village leaders to discuss the impacts.	Consultation and coordination with local communities will be continued into the implementation stages to preserve the commitment and support of the public. The GRM will also respond to any complaints; the Contractor(s) will commit to implementing the mitigation measures identified in the Project ESMP and Construction ESMP and will be monitored by PMU on behalf of Ministry of Public Work.
The environmental impact such as dust dispersion and improper soil disposal should be minimized through the cooperation with local leaders and community.	The ESMP requires presents mitigation measures for all impacts foreseeable at this stage.
Landslide is common in many places due to soil fragile and run-off effect while hard rain. As for suggestions, most of them recommend installing retaining wall on the steep slopes, as well on their houses which adjacent to slope prone to landslides.	The ESMP requires the detailed designers to take account of any location prone to landslides and propose the countermeasures. In the construction phase, the erosion control plan will be implemented as per ESMP to control run-off as well as the slope failures.
Few communities are concerned about road improvement Project. If this will happen, close coordination and cooperation with local leaders and affected community are necessary. Mostly recommend for fair and reasonable compensation.	Land acquisition may be necessary as there are few road improvements. If land acquisition or resettlement are needed, the appropriate compensation will be included in the Resettlement Plan.
There are some houses and water springs to be protected close to the main roads, which need to be considered as well.	The ESMP requires presents mitigation measures for all impacts foreseeable at this stage.

296. Coordination and consultations will continue through the out pre-construction and construction phase as per Project's Communications Plan. Records including reports on environmental and social complaints and grievances will be kept in a simple database in the PMU Project Office. There are no significant potential constraints of the public for the Project.

16.6 Information Disclosure and Future Consultation

297. Information disclosure will be undertaken as the requirements of WB 4.01. Environmental Assessment. In disclosing the environmental documents to the public, the MPW through the PMU is responsible for (i) providing the SEIS/ESIA to WB for review and to DNCPIA for clearance; (ii) ensuring that all environmental and social assessment documentation, including the environmental and social due diligence and monitoring reports, are properly and systematically kept as part of the project-specific records; (iii) disclosing all environmental and social documents, and making documents available to public, on request; and (iv) providing information to the public and stakeholders as per the Project's communications plan.

298. Disclosure of relevant environment and social safeguards documents will be in an appropriate form, manner, and language and at an accessible location to be understandable to the affected people and local stakeholders. Whereas indigenous people or a linguistic group requires translation assistance, hence the Project will ensure that translators and translation of information materials will be available. This will be done in a manner to ensure full consultation with and disclosure to affected people, stakeholders, and communities regarding the requirements for environmental mitigation and monitoring as well as for land acquisition.

299. The following safeguard documents to be prepared and submitted by the PMU shall be publicly disclosed by GoTL including posting on WB's website:
- Draft and final SEIS/ESIA or other environmental and social assessments;
 - New or updated environmental and social assessment reports, when prepared to reflect significant changes in the project during design or implementation;
 - Corrective action plan prepared during Project implementation to address un-anticipated environmental and social impacts and to rectify non-compliance to ESMP provisions; and
 - Quarterly safeguards monitoring reports and other reports submitted by the PMU during project implementation (PISC will report monthly to PMU).
300. Report on Gender Equality, Gender Based Violence and Social and Disability Inclusion, reporting the implementation of EMP gender and social and disability inclusion aspects including actions taken to mitigate identified risks and steps taken to remedy noncompliance with Code of Conduct – with respect for confidentiality of the persons affected
301. Semi-annual safeguards monitoring reports and other reports will be submitted by the PMU during project implementation (PISC will report monthly to PMU). The proponent has undertaken a process of consultation with stakeholders affected by the project including the local community, customary leader, local authorities, suco leaders, national authorities, educational institution, water and sanitation institution, and other groups with an interest in the Project corridor where the improvements will be implemented; representative of the community living in the area, the road users, and the locally elected representatives.

17. Complaints and Grievance Mechanism

17.1 Need for Grievance Redress Mechanism

302. Minister of Public Work with assisted by PMU will establish a Grievance Redress Mechanism (GRM) for the road Project to grievances about the project's environmental and social performance and facilitate resolution of complaints by affected people, in line with the Bank's Operational Policy and safeguards requirements. The GRM will be facilitated by the PMU and be applicable to all contractors who will be required to maintain a grievance registry or record. The PMU will designate two officers – a male and female – in liaison with the suco leaders and committees at the Municipal level.
303. The community will be made aware of the relevant contact numbers and contact person in PMU and each contractor through media publicity, notice boards at the construction sites, and local authority offices. The contractors and the PMU have an open-door policy and that the complainant can remain anonymous if requested. The GRM will address affected people's concerns and complaints promptly, using an understandable and transparent process based on traditional methods for resolving conflicts and complaints. The GRM shall provide a framework for resolving complaints at the project level as well as beyond the Project (involving relevant government offices such as Municipality and Suco Committees, DNCPIA, etc.), using the existing judicial or administrative remedies. The GRM will be detailed in the SEIS and other safeguard reports as required, such as the Resettlement Plan.
304. For issues which relate to the community as a whole, such as environment and land issues, GRM at the local level will make use of traditional methods for resolving conflicts and complaints, if needed. When dealing with specific complaints against a worker which constitutes gender-based violence, the GRM procedure shall ensure

sharing of information on support service providers, confidentiality of the information and start a disciplinary procedure against the relevant worker. Traditional conflict resolution methods are not to be used for GBV.

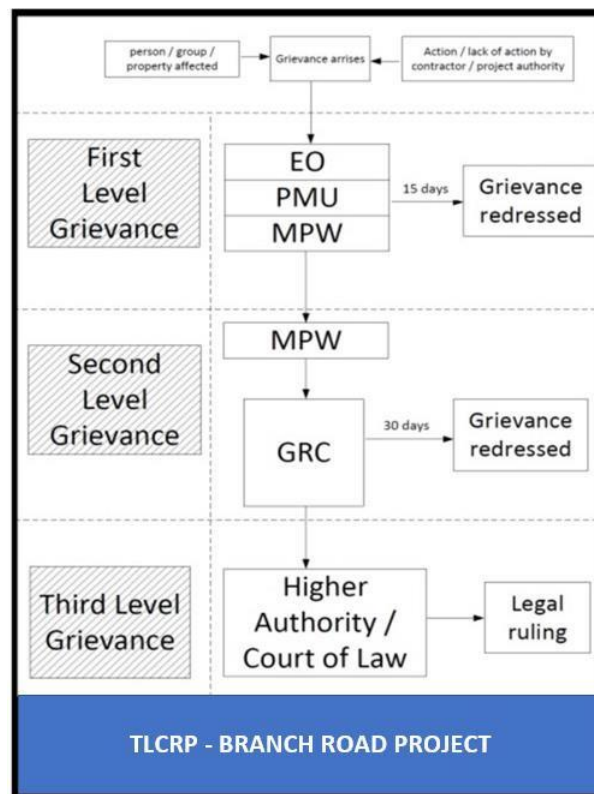
305. A Project Information Booklet will include information on the GRM and shall be widely disseminated throughout the project corridor by the safeguards officers in the PMU. Grievances can be made verbally at the Construction site to the liaison officers. Grievances can also be filled in writing or by phone with any member of the PMU, construction sites and other key public offices, all of which will accept complaints.

306. There are arrangements for redressing of grievances for affected persons are through complaints to the village and suco committees up to the Municipality level, and then through the PMU and back to the agency which implements a project. This indirect route will remain in place to preserve the usual administrative remedies but shall not be used in cases of GBV. There will be a need to deal with complaints and grievances during construction for this Project.

17.2 Steps and Procedures for the GRM

307. First Level. The Contractor and/or PMU are the first level of GRM which offers the fastest and most accessible mechanism for the resolution of grievances. One of the two safeguards officers or designated officer in the PMU shall be the key officers for grievance redress. Resolution of complaints will be done within fifteen (15) working days and will include disciplinary actions in relation to workers behavior in violation with the Code of Conduct. The safeguards officers in PMU will provide the support and guidance in grievance redress matters. Investigation of grievances will involve site visits and consultations with relevant parties (e.g., affected persons, contractors, traffic police, etc.). When the grievance relates to a specific worker behavior, investigation shall be undertaken within the disciplinary procedure. Grievances will be documented and personal details (name, address, date of the complaint, etc.) will be included unless anonymity is requested. Confidentiality of the disciplinary procedure will be secured, including confidentiality in relation to gender-based violence.

308. A tracking number shall be assigned for each grievance, and it will be recorded including the following elements: (i) initial grievance record (including the description of the grievance), with an acknowledgement of receipt handed back to the complainant when the complaint is registered; (ii) grievance monitoring sheet, describing actions taken (launching a disciplinary procedure investigation, corrective measures); and (iii) closure sheet, one copy of which will be handed to the complainant and the respondent once the procedure is concluded and signed-off. The updated register of grievances and complaints, which do not relate with behaviour of individual worker, will be available to the public at the PMU office, construction sites, and other key public offices along the project corridor (offices of the suco and Municipalities). Should the grievance remain unresolved it will be escalated to the second level.

Figure 17.1 - Grievance Redress Mechanism

309. Second Level. At the second level GRM specific procedure will take place dependant on the nature of the grievance. The PMU will activate the second level of GRM by referring to the unresolved issue (with written documentation) to the PMU who will pass unresolved complaints upward to the Grievance Redress Committee (GRC). The GRC shall be established by MPW before the commencement of site works. The GRC will consist of the following persons: (i) Project Director; (ii) representative of Municipality and Suco; (iii) representative of the affected person(s); (iv) representative of the local land office; and (v) representative of the National Directorate of Environment (DNCPIA) (for environmental-related grievances). As it relates to grievances caused by worker in violation of the Code of Conduct, the second level will be activated when an appeal is made related to the conclusion of the disciplinary action taken at the first level or when the complexity of the disciplinary procedure meant that the procedure could not be concluded at the first level.
310. A hearing will be called with the GRC, if necessary, where the affected person can present his/her concern. The process will facilitate resolution through mediation. The Grievance Redress Mechanism and procedure is depicted in Figure 17.1.
311. The Grievance Redress Committee (GRC) will meet as necessary when there are grievances that cannot be solved at the first level and within thirty (30) working days will suggest corrective measures at the field level and assign clear responsibilities for implementing its decision and a timeframe that must be adhered to. The functions of the GRC are as follows:
- resolve problems and provide support to affected persons arising from various environmental issues which including dust, noise, utilities: power and water supply, waste and soil disposal, landslides, traffic interference and public safety as well as social issues land acquisition (temporary or permanent); asset acquisition; and eligibility for entitlements, compensation and assistance;
 - Resolve appeals against decisions on disciplinary measures against a worker or

unsatisfactory disciplinary outcome from the complaint perspective;

- c. Reconfirm grievances of affected persons, categorize and prioritize them and aim to provide solutions within a month; and
 - d. Report to the aggrieved parties about developments regarding their grievances and decisions of the GRC.
312. The PMU will be responsible for processing and placing all papers before the GRC, maintaining a database of complaints, recording decisions, issuing minutes of the meetings and monitoring to see that formal orders are issued, and the decisions carried out. The Contractor will have observer status on the committee. If unsatisfied with the decision, the existence of the GRC shall not impede the complainant's access to the GoTL's judicial or administrative remedies.
313. Third Level. In the event that a grievance cannot be resolved directly by the Contractor or PMU officers (first level) or GRC (second level), the project affected person can seek alternative redress through the Suco or Municipality Committees under the existing arrangements for redress of grievances for affected persons. The PMU or GRC will be kept informed by the Municipality, municipal or national authority.
314. Monitoring reports shall include information about the GRM including: (i) the cases registered, level of jurisdiction (first, second and third levels), number of disciplinary procedures held, decisions made, and the status of pending cases; and (ii) an appendix which lists cases in process and already decided upon may be prepared with details such as name, ID with unique case serial number, date of notice/registration of grievance, date of hearing, decisions, remarks, actions taken to resolve issues, and status of grievance (open, closed, pending) and if it is a repeat of a previous grievance. In relation to GBV complaints the name included in the appendix refers to the worker name and not that of the complainant or the survivor and the GRM shall look at it within a labour disciplinary measure.

17.3 GRM for GBV and SEA

315. Monitoring Complaints about GBV situations will require urgent action to take care of the survivor by the local specialized NGO and will follow a separate process of treatment to allow for an immediate response. They must be reported to the compliance team immediately by the MGP operator while respecting the confidentiality of the survivors.
316. Medical assistance will be the priority for cases involving rape and other physical injuries. In the case of rape, assistance must be provided in accordance with the World Health Organization (WHO) Guide and the country's national protocol. To be optimal, this help must be provided within 72 hours. Assistance should include emergency contraception and post-exposure prophylaxis to prevent transmission of HIV to an HIV-negative person who may have been infected during a rape, when available.
317. For GBV specific complaints, a specialized NGO will be recruited to provide a 'survivor-centric' approach either directly or by referral of survivors to other specialists or service providers.
318. The GBV Compliance Team set up by the project will include focal points. The GBV expert of the NGO providing the services will have to complete this form after receiving the survivor and only after having informed consent to be referenced to the project's complaint management system. The NGO expert will have to share the form with the MGP operator and send a copy of this form to the World Bank within 24 hours after the registration of the survivor's complaint.

319. This information should also be included and communicated in an aggregated way to the complaints database on a monthly basis.

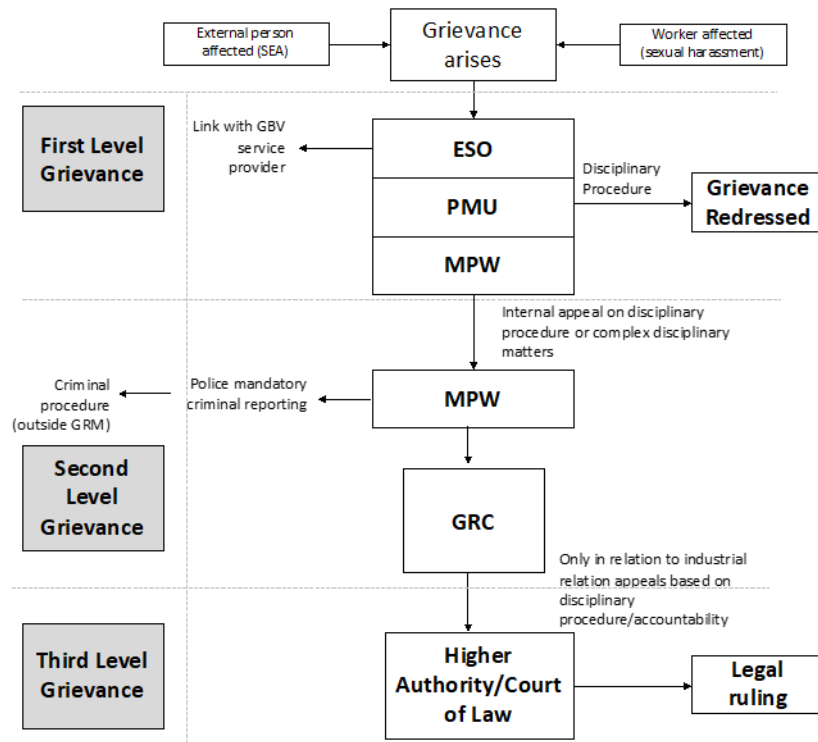


Figure 17.2 - Grievance Redress Mechanism for GBV and SEA incidents

18. Work Plan and Implementation Schedule

18.1 Implementation schedule

319. The implementation of the Project construction schedule will be defined after all Project Loan requirement and process completing, as well the environmental and social safeguard comply with WB and Government and Timor-Leste requirements. The Environmental Assessment reports and Environmental Management Plan were subsequently amended to take account of designing and programming changes. Contractors will be selected in 2019, and engineering works will commence soon. Upon commencement and during mobilization the Contractor will receive training from PMU on environmental and social safeguards compliance and awareness. Site inspections for environmental and social management will follow on regular basis.

18.2 Work Plan

320. In the pre-construction phase, the first stage of the ESMP for Branch Road Section is to train contractors on environmental and social compliance and awareness, and include guidance by PMU on the legal and contract requirements, the context of the ESMP, requirements for environmental and social assessment of associated facilities, mitigation measures, environmental monitoring and the use of checklists for reporting progress on the implementation of mitigation measures. Contractor's HSE Manager and the Environmental and Safety Officer (ESO) will be involved in environmental and social management for all aspects of the Contractor and sub-contractor work activities. The Preliminary Work Plan presents in Table 18.1.

321. The activity of environmental monitoring will be carried out frequently, to ensure that

- the Contractor and all sub-contractors are meeting the provisions of the ESMP and all other contractual obligations during construction and maintenance. The PMU has developed an environmental monitoring protocol for the construction period as well as the period of regular maintenance and will give a briefing to the Contractor on this plan in the pre-construction phase.
322. The Environmental and Safety Officers (ESOs) of the lead Contractor will make daily checks on the implementation of mitigation measures and instruct the sub-contractors' staffs during the construction phase and check compliance with the ESMP.
323. The National Environmental Consultants (NEC) of PISC will make regular weekly checks on the implementation of mitigation measures and liaise directly with some instruction to the Contractor's ESOs as necessary to comply with all aspects of the ESMP.
324. The International Environmental Consultant (IEC) and the National Environmental Consultant (NEC) of PISC will prepare a Monthly Report to PMU on the monitoring of the implementation of mitigation measures and compliance during the construction phase. The PISC will prepare a Quarterly Report as well to PMU on the implementation of mitigation measures during the construction phase.
325. The Environmental Specialists in PMU will review the monitoring of mitigation measures implementation by the Project Implementation and Supervision Consultant (PISC) during the construction phase, and check compliance with the ESMP. The Environmental Specialists of PMU will prepare Semiannual Reports to the development partners on the monitoring of mitigation measures implementation and compliance during the construction phase.
326. During Project implementation, the Supervision Consultant will have one International Environmental Consultant and one National Environmental Consultant to check daily and record progress with environmental management and mitigation measures in a site diary. Checklists will be completed periodically through the month, and monthly reported as an environmental section of the Engineers Monthly Progress Report. The environmental specialists of PISC will make weekly verbal reports to the PMU or as necessary on the monitoring of the implementation of mitigation measures and compliance by the Contractor during the construction phase.

Table 18.1. Preliminary Work Plan for ESMP

PROJECT STAGE	ACTIVITY	CONTRACTOR	CONSULTANT (PISC)	RESPONSIBILITY
Pre-Construction Phase	Environmental Compliance and Safety Awareness Training	HSE Manager supported by Environmental & Safety Officer (ESO)	National Environmental Consultant(s) in PISC	Training is given by PMU
	Worker Health and Safety procedures & Public Safety	Environmental & Safety Officer (ESO) with all staffs and community representatives	Trainer	Training is given by PISC
	HIV/STI Awareness Training	HSE Manager supported by Environmental & Safety Officer (ESO)	PISC Oversees and Trainer	Training is given by 3 rd party checked by PISC
	Sexual Harassment and other Gender Based Violence	HSE Manager supported by Environmental & Safety Officer (ESO)	PISC Oversees and Trainer	Training given by 3rd party checked by PISC
	Use of Environmental Checklists	Environmental & Safety Officer (ESO)	National Environmental Consultant(s) in PISC	Training is given by PMU
Construction Phase	Site Inspection	Daily by Contractor Environmental & Safety Officer (ESO)	National Environmental Consultant(s) in PISC (daily)	Monthly Joint Inspection by National Environmental Specialists in PMU (NES)
	Completion of Checklists	Three times per week by Contractor Environmental and Safety Officer (ESO)	Daily entry of the Site Diary by NEC Weekly checklists by NEC	PMU updates checklists as required
Reporting	Monthly Environmental Progress Report	Draft report of data and checklists	Compiles Monthly Report with Contractor	PMU Checks Monthly Report
	Quarterly Environmental Progress Report	Updated report of data and checklists	Compiles and Updated three Monthly Reports	PMU Checks Quarterly Report
	Semi-annual Environmental Progress Report			PMU Compiles six Monthly Reports for development partner (based on all site inspection activities)
Review of ESMP	Update ESMP as necessary	Change of working methods or scope of work, update ESMP as necessary	A draft update of ESMP as necessary to support PMU	PMU reviews and updates for License Renewal

19. Cost Estimates

327. The cost estimation for the Environmental and Social Management will include costs for staffing, mitigating, monitoring during construction and costs of Environmental License (permit). The cost of environmental social management and monitoring measures has been included in all pay items of the unit prices of the contract to ensure that the mitigation and monitoring requirements are correctly implemented and funded by the Contractor.
328. The cost of environmental and social management and mitigation measures has been included in the contract to ensure that the mitigation and monitoring requirements are correctly implemented and funded. The requirements to be implemented during the design phase and pre-construction phase involve mainly staff costs to ensure inclusion of climate-resilient designs and updating the Environmental and Social Management Plan planning to ensure the environmentally sound location of facilities such as quarries, disposal areas, and Contractor base camp etc.
329. In the construction phase, the mitigation measures' costs will be included in the construction contract and be covered by the Contractor. The Contract requires the Contractor to take all necessary measures and precautions to ensure that the execution of the works and all associated operations are carried out in conformity with statutory and regulatory environmental and social requirements of the Government of the Timor-Leste and World Bank policies.
330. The Contractor must refer to the Environmental and Social Management Plan (ESMP) which is included in the Contract Bidding Document and shall comply with the Contract Specifications of which involve the Environmental Safeguard. The Ministry of Public Works reserves the right to withhold payments and/or stop construction in the event of serious or repeated violations of the conditions stipulated in the Environmental and Social Management Plan and Contract Specifications.
331. The Environmental and Social Management Plan (ESMP) forms part of the Contract and shall be considered alongside the specifications. Therefore, the descriptions in the ESMP are mandatory in nature and also contractually binding. The ESMP will also equally apply to sub- contractors including nominated sub-contractors (if any).
332. The main Contractor will responsible for the compliance with the requirements of the ESMP and for compliance by sub-contractors, including nominated sub-contractors. The mitigation measures implemented during the construction phase is, therefore, the responsibility of the Contractor. The PMU will monitor the implementation of all the mitigation measures.
333. The descriptions and clauses detailed in the ESMP are an integral component of the specifications for relevant items of work unless separate items are included in the Bill of Quantities. Thus, separate payments will be not be made in respect of compliance with the ESMP.
334. In case the Contractor or its sub-contractor fails to implement the ESMP, recommendations after informing in writing, the PISC's Engineer will take whatever actions it is deemed necessary to ensure that the ESMP is properly implemented and/or to rectify the damages caused by such negligence. However, any cost thus incurred will be recovered from the Contractor's payments.
335. The costs for training involved preparation of training material and imparting of training are covered in the PMU costs. Furthermore, the costs for training proposed to include the costs incurred towards the site visits, travel to the training program by the participants, printing of training materials and other logistic arrangements.
336. The International Environmental and Social Consultants will be financed through the PISC fee paid for by the loan, the first three years salary of the ESC will be also financed

out of the loan, after which time the MPW – PMU will cover the cost of the salary as with other full-time staff.

337. The budget estimate for the environmental management costs for the Project is presented in Table 19.1. The government counterpart funding required, covering the costs for environmental licensing, will be borne by Government. Tree planting (revegetation) is included as a separate line item and will require clarification at the detailed design stage. The budget for land acquisition and resettlement including asset removal is provided in a standalone Resettlement Action Plan.

Table 19.1. Summary of Estimated Costs for ESMP Implementation

ACTIVITIES and PERSON MONTH	ESTIMATED COST (US\$)	COSTS COVERED BY
Technical Assistance – Project Implementation and Supervision Consultant (PISC)	500,000	Contract
International Environmental and Social Consultant in PISC ESC – 6 months intermittent	72,000	PISC
Environmental and Social specialist in PISC ESC – 24 months full-time	50,000	PISC
Environmental and Social Impact Monitoring	50,000	Contract
CESMP implementation (construction mitigation measures) ¹	150,000	Contract
Capacity Building Program (community awareness, engagement, and consultation, HIV/AIDs campaign etc)	30,000	PMU
Environmental Permitting ²	TBC	MPW/PMU
Tree planting subject to confirm at the DED	TBC	Contract

Notes:

- 1 Assumes \$ 6,250 per month for 24 months;
- 2 Expenditure on the environmental licensing procedure is the responsibility of the state according to Article 43 of DL5/2011, therefore, cost of permits for an environmental license as clearance certificate under DL5/2011 required from DEIA should be nil.

20. Review of the ESMP

338. The Contractor will be responsible for overall the civil works and fully respond to all contract conditions including those covering environmental mitigation, social disruption and awareness, and monitoring. The Contractor will therefore responsible for implementing all Health, Safety and Environmental actions included in the ESMP and relevant clauses in the bidding documents and contract during the pre-construction and construction period. The PMU will supervise and advise the Contractor in this regard through the Project Implementation and Supervising Consultants (PISC).

339. The selected Contractor will prepare the Construction's ESMP (CESMP) during the pre- construction phase, based on the site-specific construction methodologies proposed to use and this ESMP. The CESMP will further develop this ESMP and will detail measures for all impacts covered in the ESMP including but not limited to environmental impacts, traffic management, waste management, hazardous material, waste management, including health and safety. The PMU will review and approve the CESMP before the commencement of construction; the ESMP is amended at the pre-construction phase to form the CESMP.

340. The selected Contractor will appoint Health, Safety and Environmental (HSE) Manager that will be supported by two of Environmental and Safety Officers (ESOs), who will be responsible for site inspections on a daily and weekly basis to check compliance with the approved CESMP and ensuring implementation of all Health, Safety and Environmental requirements, these will be documented and subject to monitoring by PMU.

341. In the event that mitigation measures are insufficient to control impact to acceptable levels, the CESMP will be updated and amended to ensure that there is acceptable control of environmental impacts. During the renewal of the Environmental License, the PMU will prepare an update of the ESMP including an amendment made to cover

unexpected impacts or changes and all matters included in the Construction's ESMP (CESMP) to support an application for the renewed Environmental License.

20.1 Risk Assessment for Unexpected Impacts

342. The alignment design of proposed Branch Road Project has not completed, especially for the Section 2 and 3; only road alignment of Section 1 which has been completely designed for both horizontal and vertical design (cross-section). Currently, the direct impacts from entire Project have not been predicted except for the Section 1; since the impact and risk assessment for environmental and social issues have conducted once the detail design for 1st section completed.
343. Recently, impact and risk assessment for environmental and social has been conducted for Section 1, thus Project direct impacts as well the Project risks have been recorded for further follow up during Project implementation. Furthermore, some unexpected impacts may occur on the construction phase due to road realignment and/or the effect of pre-construction activities such as land clearing and slope cutting, or climate resilience mitigation measures which have incorporated into its detail design.
344. The environmental direct impacts refer to the direct effect of socio-economic activities and natural events on the components of the environment, means the effect of Project which directly found on design phase and usually within the Right of Way (ROW) of the proposed Project. Whilst the Project risk is the condition that might be directly or indirectly affected by the proposed Project; for instance, house at height or beneath of the steep slope, and water spring adjacent to ROW etc.
345. The selected Contractor should take into consideration all data inventory of the risk assessment for unexpected impacts, in order to support Contractor in updating this ESMP to be their Construction Environmental and Social Management Plan (CESMP) and to comply with the updated Contract Specifications.
346. Project Management Unit, as well as the PISC, are suggested to review this ESMP including the information presented in the impact and risk assessment to update and check whether the inventory of impact and risk (data attached) will become the unexpected impact during the construction phase, or even since pre-construction phase.
347. There are nine locations indicating of potential material sources that informed by material engineer i.e. four borrow pits, four rivers, and one Cico Quarry – near Maubisse. The location of borrow pits are at STA 1 + 680; 21 + 380; 26 + 300; and 46 + 000, with elevation under 2,000 m above sea level. Whereas rivers with potential material resources are Raicala (STA 42 + 700), Goulolo (STA 41 + 600), Hatoe (STA 37 + 150), and Gleno River (downstream).
348. There is guideline from the Ministry of Economic and Development regarding the mechanism for extracting sand and gravel from the river and borrow pit. Therefore, during a review of this ESMP, the indicative locations of the potential material source need further observation to get good material quality with suitable quarry site condition as well as environmentally friendly.
349. The inventory of impact and risk assessment for Section 1, 2 and 3 noted as baseline data with proposed mitigation for direct and unexpected impacts, presents in Appendix 4.

NOTE: *All the application processes for securing the licenses for quarry activity and its associated facilities to support the road project implementation must follow the requirements under the Law.*

20.2 Tracer Study

350. Background: at the preparation stage of the Branch Road Project, the GoTL commissioned an “Emergency Roads” initiatives in select segments of the Section 3. This construction has been undertaken by the DRBFC of the MoPW to address road damages and blockages due to land slides. Construction activities cover road widening, basic reparation of the existing road infrastructure, which includes installation of road-side drainage and retaining walls in some critical/landslide prone segments.
351. This Emergency Road Project started in 2017, initially with repairing of road surfaces. However, since June 2018, the civil works have expanded and involved slopes-cutting and back-filling and road widening.
352. Subsequent environmental and social impacts were reported, including community grievances due to improper management of soil disposal and slope cutting with observable impacts on community coffee plantations. Furthermore, improper land clearing and construction have also increased the risks of landslides, community health and road safety due to dust production, as well as increased run-offs with adverse impacts on spring water and ground sources. Operations of heavy vehicles and haul trucks along settlement areas have been attributed to minor damages in community infrastructure and properties (i.e. cracks). Some of the owners of affected trees (i.e. coffee) have not been compensated for their lossess. Furthermore, some impacts on private land as a result of the widening were reported but not documented.
353. Following a joint PMU-World Bank Mission in October 2018, a Tracer Study for Section 3 was recommended. Following this mission, a tracer study was undertaken in November 2018 to document impacts that have been caused by the on-going GoTL’s emergency project. Once updated, this tracer will establish a baseline of impacts which will be re-validated. Remedial measures, including top-up compensations and management of existing environmental and social impacts will be incorporated in the CESMP.
354. As of October 2018, Section 3 (Letefoho-Gleno) has been widened and repaired under the GoTL’s Emergency Road from STA 37+450 to STA 40+900 (3.45 km) and from STA 46+100 to STA 51+000 (4.90 km). Current observation indicates that road widening covered up to 6 meters, with a 1 to 1.5- meter shoulder on each side. The widths tend to be larger on road curves. This road widening has affected Suco Goulolo and two aldeia (Baturema and Kailiti) affected by the Road widening from STA 37+450 to STA 40+900 (3.45 km). Another segment from STA 46+100 to STA 51+000 (4.90 km) affected three Socos (Eraulo, Estado, and Humboe). A corrective action plan has been included as part of the ESMP and LARAP and is intended to aid the GoTL to address existing impacts caused by the Emergency Road Project in Section 3.
355. Some of the segments in Section 3 which were included under this on-going road project cover STA 37+450 to STA 40+900 (3.45 km length) and from STA 46+100 to STA 51+000 (4.90 km length). Additional segment with the length of 5.6 km (from STA31+900 to STA37+500) has been completed at the time of the TLBR project preparation. The tracer study is currently being updated to document environmental and social impacts, including lost assets and land. The total length of the Section 3 affected by the Emergency Road is approximately 8.35 km. This first phase of the tracer report covered impacts on the first two segments i.e. STA 37+450 to STA 40+900 (3.45 km) and from STA 46+100 to STA 51+000 (4.90 km).
356. Any additional works by the GoTL under the emergency road project in Section 3 will

- need to comply with the World Bank's safeguards policies. Management of potential environmental and social impacts, particularly pertaining to land acquisition must be carried out in conjunction with the TLBR's Environmental and Social Management Plan (ESMP) and Land Acquisition and Resettlement Action Plan (LARAP). Further analysis is provided in the Tracer Assessment in the LARAP (Annex 6).
357. Impact Assessment: a Detail Engineering Design of the Section 3 was not available at the time of the tracer assessment. A request of the DED for the on-going project was made to the civil work contractor. However, no written and official information was received.
358. Transect walks on a sampling basis and graphic and spatial analysis of Section 3 were made to compare the road conditions before and after the construction intercepted by the Emergency Roads before and after the construction. This was confirmed with interviews with Suco/Aldeia and affected people. This information combined was used to set the boundary of the Tracer Study as well as the on-going project's corridor of impacts.
359. The total length of the Section 3 affected by the Emergency Roads (STA 37+450 to STA 40+900 and STA 46+100 to STA 51+000) is 8.35 km. The current conditions of the Emergency Roads segments varied in Goulolo and Eraulo. Most of civil works covering road widening, installation of retaining walls and drainages have been completed. In Estado, some minor civil works for improving drainages were observed. More extensive construction activities covering road widening, slope cutting and backfills, land compacting, installation of retaining walls and drainages are currently ongoing at the time of the assessment. In addition to immediate land taking for road widening, impacts on private properties were also reported to be associated with soil compacting and soil disposal. Some of the newly compacted and flattened land parcels have been occupied for temporary kiosks and semi-permanent houses, which present community hazards due to landslide risks.
360. Impact on Private Land and Structure: the construction activities under the GoTL's emergency road operations in the Section 3 affected 49 land owners who reside in Humboe, Goulolo and Haupu Socos. The scale of impacts varies. While some impacts are minor to the overall land holdings, some households experienced more severe impacts than the rest, as detailed in Table 1. Hence, further livelihoods restoration support will be needed to address impacts on these households.
361. On the basis of the initial survey, the total claims of land affected cover 22,954 square meters (STA 37+450 to STA 40+900 (3.45 km) and STA 46+100 to STA 51+000 (4.90 km). Such impacts were mostly attributed to slope cutting as well as improper soil disposal on productive agricultural land.
362. All identified 24 affected land parcels in Goulolo Suco and Haupu Suco are equipped with land ownership certificates issued by the Indonesia's Land Agency (BPN), which is also recognized under the current GoTL's law. These affected private land parcels were either expropriated or impacted without adequate compensation and required improvements such as retaining walls and/or land compaction to prevent and/or minimize risks associated with landslides as well as damage on private structure i.e. cracks. Such impacts have been documented in the Branch Road Project's (BRP) ESMP.
363. In Sucos where the status of land ownership could not be verified, such as in Suco Humboe, claimants were not previously consulted and hence adequately compensated. The tracer study indicates that there were some arguments on the establishment of a new boundary for the ROWs which were recognized as the government's land and therefore, further consultations to settle land claims will need

- to be conducted prior to the BRP's implementation. No claims on private structures impacted by the GoTL's emergency road project were reported.
364. Impacts on Productive Trees / Crops: the Tracer indicates that there is no private structure directly affected or claimed. However, impacts on agricultural land, which subsequently affected productive crops and trees, including coffee, bamboo, banana, ai-kakeu, jack fruit, mango, avocado, and some different varieties of timber woods like ai-teka, ai-na and gemilina were reported. Since Ermera is known as a coffee growing area, there are 41 land owners whose coffee plantations have been affected by improper soil disposal as a result of the GoTL's emergency road construction activities. Out of the 41 coffee farmers identified, 9 experienced more severe impacts than the others due to the number of trees impacted. Further assessments with regards to livelihoods impacts as a result of the GoTL's emergency project will need to be completed as part of the tracer updating process.
365. About 40 percent of the coffee trees affected have been compensated at a value of \$ 5.00 per tree. The remaining 60 percent of the coffee trees have not been or have been partially compensated. The contractors were reported to have promised to compensate landowners, which would warrant monitoring by the GoTL.
366. Lack of Consultation and Disclosure, Underpaid Compensation Value and Improper Damage Assessment by Local Contractors: All affected land owners as well as Suco/Aldeia chiefs informed there was no public consultation conducted to inform about the Emergency Road construction activities in the area. Disclosure was only done through sign boards in front of the contractors' office indicating the project duration, total budget, contractor name and budget amount and source. The tracer study also indicated that partial information was disseminated and access to information about project activities relied on project supervisors and contractors who interacted directly with affected communities.
367. Compensation payments were made directly to complainers following agreements on damage assessment results and valuation of affected trees/crops. Only agricultural land parcels with productive crops and productive plants (i.e. coffee, banana, jack fruit, orange etc) were compensated. Timber trees which serve as shades for the coffee plantation, such as albasia and acacia. Except for these shade trees, the contractor used the same price standard for each tree, which is USD 5 per stem of trees. Payments were made in cash in two tranches (usually within 2 months).
368. Corrective Action Plan: the following corrective measures have been consulted with relevant stakeholders, including affected communities in Section 3. Relevant provisions have been incorporated in the ESMP:
- a. **Top-up compensation and livelihoods restoration assistance**: GoTL has issued a standard price to value trees/crops affected by government projects. The standard price was issued in 2014 by State Ministry of Agriculture. On the basis of this standard pricelist, underpaid compensation values for trees /crops affected shall be re-assessed to determine the differences. Top up compensation values shall be made to cover the gap. Unpaid trees/crops shall be fully paid using the prevailing Standard Price for Trees/Crops applicable at the time of tree/crop cutting. Eight (9) affected people/households were assessed to be severely affected due to significant loss of incomes as indicated in Table 1 and hence, shall be entitled to livelihood restoration support. Available packages for such support will be further discussed in consultations with these affected people/households.

Twenty-four (24) affected land owners with recognized land certificates (issued

by Indonesia's Land Agency) are entitled for full compensation of their private land parcels affected/expropriated by the GoTL's Emergency Road Project. Similar to section 2, a negotiated settlement approach will be adopted and a standard compensation value for private land parcels will be issued by GoTL as a benchmark for negotiation. The same standard for compensation package and/ or agreed mitigation measures for the remaining of twenty-five (25) affected land owners whose certificates of ownership will apply following due processes to verify and validate land ownership.

- b. Addressing grievances and strengthening consultations and community engagement:** For the upcoming additional construction activities under the GoTL's Emergency Roads (from STA 31+900 to STA 37+500) or 5.9 km length, a standardized FGRM as well as consultation requirements under the Branch Road Project shall be applied to avoid and minimize potential adverse impacts.
- c. Spoil disposal and slope management:** As part of the remedial measures of the on-going impacts, such as unstable slopes, areas prone to erosion, improper spoil disposal (particularly on agricultural land) and improper drainage, the design of Section 3 must incorporate necessary measures to improve the quality of the road construction through the on-going project and minimize existing impacts on local communities (i.e. rehabilitation of agricultural land, installation of retaining walls, and revegetation).

21. Non-technical summary

No	ENGLISH	TETUM
1	<p>Introduction: The Government of Timor-Leste (GoTL) will upgrade and support climate resilience of 110 kilometers (km) Dili – Ainaro Road which serves as a key link between the north and the south of the country. The Project's objective is to improve and upgrade of the road network of Timor-Leste between Municipality and town. The improvement will be designed and implemented by the Ministry of Public Works, while the entire of the project will be financed by the World Bank.</p> <p>This SEIS report covers about 60 km length of the Aituto – Hatubuilico – Letefoho – Gleno. Detailed design for the Branch Road Project is being prepared, and will be completed by (i) pavement reconstruction with selective widening if required; (ii) improvement of drainage structures to meet forecasted rainfall volumes and intensities; (iii) clearing and improvement of culverts; (iv) construction of reinforcement of slope stabilization structures; and v) introducing road marking and signage and other measures to improve road safety.</p> <p>The Project Management Unit (PMU) within MPW will manage and implement the project as it is financed by one of GoTL's development partners including implementation of environmental safeguards, mitigation measures, and other requirements.</p>	<p>Introdusaun: sei atualiza no apoiu ba alterasaun klimátika reziliénsia kilómetru 110 (km) Estrada Dili – Ainaro ne ' ebé serve hanesan ligasaun xave ida entre parte norte no súl país nian. Projētu ne'e nia objetivu mak atu hadi'a no atualiza rede estrada nian iha Timor-Leste entre distritu no sidade nian. Dezeña no implementa hadia estrada hosi Ministériu Obras Públicas, enkuantu projētu ne'e sei Financia hosi Banku Mundiál.</p> <p>Relatóriu SEIS (Deklarasaun Impaktu Ambiente Simplifikadu) ida ne'e kobre estrada nia naruk kilomentru 60 (km) hahu hosi estrada seksaun Aituto – Hatubuiliku – Letefoho – Gleno. Dezeñu detalladu kona ba Projētu Estrada agora daudaun prepara hela, no sei kompleta: (i) rekonstrusaun seletivu hadi'a no haluan estrada se prezisa; (ii) hadi'a estrutura drenajen atu akumula volume bé iha tempu udan ne ' ebé prêve ona; (iii) no hadi'a ka hamos bé dalan / manila; (iv) konstrusaun barazen hodi estabilizasaun estrutura rai lon; no v) introdús markasaun sinais estrada no medida sira seluk hodi hadi'a seguransa estrada.</p> <p>Unidade Jestaun Projētu (PMU) iha Timor-Leste nian sei jere no implementa projētu ida ne'e hanesan ida ne'e finansia husi parseiru dezenvolvimentu GoTL nian inklui implementasaun ba medida protesaun ambientál, medidas mitigasaun no rekizitu sira seluk.</p>
2	<p>The Proponent is the Government of Timor-Leste (GoTL) and the Implementing Agency is the Ministry of Public Works (MPW).</p>	<p>Proponente maka Governo Timor Leste (GoTL) no implementa hosi Ministériu Obras Públicas (MOP).</p>
3	<p>The EIA Environmental Consultants who completed the SEIS are identified.</p>	<p>Konsultór EIA ambientál ne'ebé kompleta DIAS ne 'e identifika tiha ona.</p>
4	<p>Project Description: The Project will improve and rehabilitate ± 60 km of the road section Aituto – Hatubuilico – Letefoho – Gleno by improvement to National Road Standard following international best practices and quality standards and providing one wider traffic lane per direction, with sidewalks in villages and improved bridges. Drainage will also be cleaned and improved, curves will be added, and new road markings and signs will improve road safety.</p>	<p>Deskrisaun Projētu: Projētu Ne'e sei hadi'a no reabilita ± 60 Km estrada seksaun Aituto – Hatubuiliku – Letefoho – Gleno hodi hadi'a Estrada Padraun Nasional tuir prátika internasionál ne ' ebé di'ak liu no padraun kualidade no fornese tráfiku ida ne ' ebé luan liu ba dalan kada diresaun, ho sidewalks (<i>Trotoar</i>) iha aldeia no ponte sira ne ' ebé di'ak liu. Drenajen sei mós no hadi'a diak liu tan, sei loke luan strada kurva, marka liña dalan foun no sei hadi'a sinál seguransa estrada.</p>
5	<p>Legal framework: The implementation of the Project governed by laws, regulations, and standards for environmental protection and management of GoTL including the Basic Law of Environment and the Decree-Law 5/11 on Environmental Licensing.</p> <p>In addition to GoTL requirements, the Branch Road Project must comply with the World Bank's Guidelines for Environmental and Social Considerations. According to both Timorese law and the World Bank's Guidelines, the Project may be</p>	<p>Kuadru Legal: implementasaun ba Projētu ne ' ebé regula husi lei, regulamentu no padraun sira ba protesaun ambientál no jestaun ba GoTL ne ' ebé inklui iha Dekretu Lei 5/11 kona-ba Lisensiamentu Ambientál no Lei Báziku Ambiente.</p> <p>Aleinde rekizitu GoTL, Projētu Estrada seksaun tenke konsidera no kumpri Banku Mundial nia Diretrizes Ambiental no Sosial. Tuir lei Timor-Leste tantu lei Banku Mundiál nia Matadalan, Projētu ne'e bele klasifika hanesan Categoria B tanba iha potensial</p>

No	ENGLISH	TETUM
	classified as Category B because the potential adverse environmental impacts are site-specific and mitigation measures can be designed readily.	ambiental impaktu ladiak sira konaba no medidas mitigasaun bele sai dezeña pruntu.
6	Description of Environment: The environmental setting for the Project in terms of the surrounding physical and biological features is described including social and economic conditions, livelihoods and quality of life.	Deskrisaun Ambiental: Lalaok ambiente ba Projētu iha termus karakterizasaun fiziku no biolojiku deskrebe ona inklui kondisões sosiál no ekonomiku, qualidade da vida no rendimentu lor-loron.
7	Alternatives: The proposed Road improvement includes the “without Project” alternative alignments and alternative transport modes assessment. The viable alternative is a road with improvement and enhancement of the parts of the existing route (the 3 rd alternative). This route will contribute to the economic and social development of the communities near the existing road corridor.	Alternativas: Hadi'a Estrada propoin inklui mós "la iha Projētu" alternativu aliñamentu, no avaliasaun modu transporte alternativu. Luta ba alternativu mak dalan ida ho hadi'a no valorizasaun parte rute eziste (alternativa 3 sira). Dalan ida-ne'e sei kontribui ba dezvoltamentu ekonómiku no sosiál ba comunidade sira besik koridor dalan eziste.
8	Climate change: The impacts of relevant climate change predictions and considerations for Timor-Leste and relevant adaptation measures and considerations for the Project are discussed.	Mudansa klimatikas: Impaktus relevante husi predições no konsiderasões ba mudansa klimatika ba Timor Leste ho medida adaptaun ne'be relevante no konsidera ba Projeto diskuti ona.
9	Environmental impacts: short-term and long-term impacts are reviewed from the pre-construction through the construction phase, and to the operational phase with corresponding mitigation measures.	Impaktus ambientál: impaktu kurtu-prazu no prazu naruk revizaun sira husi pré-konstrusaun liu husi faze konstrusaun nian, no mós ba faze operasionál ho medidas mitigasaun korrespondente.
10	Environmental Management Plan: The Project environmental impacts will be controlled by making the Contractor provide mitigation measures to minimize environmental impacts to acceptable levels. Controls on construction impacts such as dust and noise, waste disposal, water quality impacts, health and safety concerns, tree felling, traffic interruption, preservation of water and electricity supplies will be monitored on a regular basis by the PMU. Training will be provided as necessary to ensure these impacts are mitigated to the greatest extent feasible.	Planu de Jestaun Ambiental: Impaktus ambientalhusi Projētu sei kontrola ho halo Kontraktor fornese medidas mitigasaun hodi minimiza impaktus ambiental to'o nivel ne'ebe aceitavel. Kontrola ba impaktus konstrusaun hanesan rai rahun no baruilhu, soe lixu, impaktus ba qualidade be'e, intereses saude no seguransa, tesi ai, interupsaun trafiku, prezervasaun be'e no fornese eletricidade mos sei monitoriza regularmente husi PMU. Treinamentu sei fornese necessariu atu garante impaktus hirak ne'e mitigadu tuir dalan ne'ebe diak liu.
11	Public consultations were undertaken during the preparation of this SEIS to give information on the scale and scope of the Project to interested parties including the general public and authorities; covering the expected impacts and the proposed mitigation measures. Information was gathered on concerns of the local community to be included in the project implementation stages. Project documentation will be disclosed in a place and language accessible to stakeholders.	Konsultasaun publikus hala'o ona durante preparasaun ba DIAS ida ne'e hodi fo informasaun konaba eskala no eskopu projētu nian ba partes interesadas hotu inklui publiku jerais no autoridades; kobre espektasaun impaktus no proposta medidas mitigasaun. Informasaun ne'ebe hetan iha interesse atu inklui comunidade local iha faze implementasaun projētu. Dokumentasaun projētu sei divulga iha fatin ho linguajen acessivel ba partes interessadas.
12	Difficulties were not particularly encountered; however, few limitations are described such as laboratory capability is limited, the absence of ambient air baseline data and the presence of threatened birds on the IUCN list.	Difikuldades sira ne'ebe la-dun boot; maski nune'e, limitasaun hirak ne'e deskrebe hanesan kapasidade laboratóriu sai limitadu, la iha baze dadus anin ou <i>ambien</i> no la prezensa manu fuik sira ne'be kategoria ameasadu atu mohu tuir lista IUCN.

No	ENGLISH	TETUM
13	<p>Conclusion and Recommendations: The Project road should have beneficial effects on the surrounding environment; overall with shorter traveling distance, more efficient travel and improved traffic flow, improve access as well as tourism. The smoother asphalt surface will reduce noise and the accumulation of roadside dust and therefore air pollution from the noise and disturbed dust should also be reduced and improved road gutters will improve drainage.</p> <p>The Project construction is restricted to areas within the road corridor and only several lands required for re-alignment and for curve improvement. The impacts from construction and operation will be manageable and no insurmountable impacts are predicted, provided that the mitigation measures are implemented thoroughly.</p> <p>The overall recommendation of this SEIS are that:</p> <ul style="list-style-type: none"> (i) the SEIS be accepted by World Bank and DNCPIA as the statement of the project's environmental effects and how they will be mitigated; (ii) Contractor to prepare a CEMP based on the pre-construction and construction parts of the EMP included in this SEIS detailing their specific construction methodologies and submit to PMU for review and approval; and, (iii) the project impacts and implementation of mitigation measures, be monitored as per the monitoring plan in the Environmental Management Plan. 	<p>Konkluzoens no Rekomendasiens: Dalan Projetu bele iha efektu di'ak kona-ba ambiente viajen ne ' ebé, besik, efisiente liu ba movimentu tráfiku ho di'ak liu, aumenta asesu no mos ba turizmu ne ' ebé di'ak. Estrada ho aspal ne'ebe mak kabir sei hamenus barullu no rai-rahun ne'ebe maka konsentra iha estrada ninin tamba ida ne mak polusaun anin no barullu hosi rai rahun iha strada nini tenki hadi'a valetas no drenajen</p> <p>Konstrusaun Projetu ne'e restrisaun ba área sira ne ' ebé iha koridor dalan de'it. Rai/fatin balun mos presiza ba re-alinamentu no atu hadi'a kurva. Impaktu husi konstrusaun no operasaun sei manageable no laiha impaktu insuperavel, naran katak medida mitigasaun sira implementa kle'an no lolos.</p> <p>Rekomendasaun sira kona-ba SEIS mak hanesan tuir mai ne'e:</p> <ul style="list-style-type: none"> (i) SEIS sei simu husi Banku Mundial no DNCPIA hanesan deklarasaun kona-ba projetu sira-nia efektu ambiental no oinsá mak sira bele hamenus; (ii) kontraente sira atu prepara CEMP ida ne ' ebé bazeia ba pré-konstrusaun no konstrusaun EMP ne ' ebé inklui iha SEIS ida ne ' ebé fó sira-nia metodolojia konstrusaun ne ' ebé espesífiku no apresenta ba PMU hodi halo revizaun no aprovasaun; no impaktu hosi projetu no implementasaun medida mitigasaun bele monitoriza hanesan planu monitorizasaun iha Planu Jestaun Ambiental.

General Check List – CL 01

<u>MPWTC PMU Environmental Group</u>					CL 01 – V3 2016				
GENERAL MONITORING PROGRESS & ACTION 般的监控进展与行动									
Yibān de jiānkòng jìnzhǎn yǔ xíngdòng									
DD/MM/YYYY		<div style="border: 1px solid black; width: 50px; height: 20px;"></div> / /		Location		<div style="border: 1px solid black; width: 100px; height: 20px;"></div>		Inspected By	
Site		(Km.....+.....)		to		(Km.....+.....)			
Operating ☑/☐		<input type="checkbox"/>				<input type="checkbox"/>			

Weather		Condition:		Photos taken ☑/ or ☐	
<div style="border: 1px solid black; padding: 5px; text-align: center;">○ +</div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">☀</div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">☁</div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">⛈</div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">°C</div>	Temperature:

Monitoring Checklist for _____ / I201 ____				Impacts without adequate mitigation 影响没有充分缓解 Yíngxiǎng méiyǒu chōngfèn huǎnjiě											
Location and work in progress 位置和工作进展 Weizhi hé gongzuò jìnjǚn															
No.	Date 日期	Work in Progress 进行的工作内容	Station 站号	Eccroachment into Sensitive Habitats 敏感栖息地的侵占	Impact on Vegetation 对植被的影响	Dust 粉尘	Noise and Vibration 噪音及震动	Spoils Disposal 弃物处理	Water bodies run-off and siltation 水体径流和泥沙	Waste (solid & liquid) 废弃物（固体及液体）	Road Traffic 道路交通	Public Safety 公共安全	Labor Issues (Occupational safety health) 劳工问题（职业安全与健康）	Community Facilities 社区设施	Cultural Heritage Concerns 文化遗产问题
ROAD CONSTRUCTION 道路施工															
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MPWTC PMU Environmental Group					CL 01 - V3 2016						
Project Action to be Taken - 项目应采取的行动 - Xiàngmù yǐng cǎiqǔ de xíngdòng											
No.	Date 日期	Work in Progress 进行的工作内容	Station 位置 (桩号)	Encroachment Into Sensitive Habitats 侵入到敏感物种栖息地 Impact on Vegetation 对植被的影响	Dust 扬尘 Noise and Vibration 噪音及震动	Spoils Disposal 废弃物处理 Water bodies run-off and Siltation 水体溢流和泥沙 Waste (solid & liquid) 废弃物 (固体及液体)	Road Traffic 道路交通	Public Safety 公共安全	Labor Issues (Occupational safety health) 劳工问题 (职业安全与健康)	Community Facilities 社区公共设施	Cultural Heritage Concerns 文化遗产问题
1											
2											
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Legend: **0**— No significant concern 不重要的问题; **V** - Environmental or Safety concern 有环境及安全的问题
E: Environment - 环境 – Huánjìng **S = Safety - 安全 - Ānquán**

Other Observations:

Person completing the Checklist - 人完成检查 - Rén wánhéng jiǎchá

MPWTC - PMU	Contractor Representative 承包商代表 Chéngbāo shāng dàibiào	PISC Representative
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Signed..... 签... Qiān.....

Spoil disposal Checklist – CL 03

MPWTC PMU Environmental Group		CL 03 – V3 2016 – Chi	
SITE INSPECTION CHECKLIST for SPOIL DISPOSAL SITE –SETUP& CLOSE OUT (include macadam) <i>弃土场现场检查表—建立及关闭 (包含碎石)</i>			
DD/MM/YY	/ /	Location -位置 Wèizhi	Inspected By
Spoil Disposal Site		CHECKLIST 03-V3	
(Km.....+.....)L / R		Contractor: <input type="checkbox"/>	
Operating <input type="checkbox"/> / <input type="checkbox"/>		PISC: <input type="checkbox"/>	
		PMU/MPW: <input type="checkbox"/>	
		Other: <input type="checkbox"/>	
Weather Condition: <input type="checkbox"/> ° <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> °C <input type="checkbox"/> Temperature: <input type="checkbox"/>			
Photo taken <input type="checkbox"/> / <input type="checkbox"/>			
Tick each item as 'Yes', 'No' or 'N/A' or not obs' as appropriate 每项填写 "Yes", "No" 或 "N/A" 或 "not obs"			
Road and Site Number		Close-out on last audit Y/N	Yes No N/A or not obs
			NEED ACTION
A ECOLOGY & PERMISSION / WAIVER 生态许可/豁免			
1. Environmental / Ecological survey of site completed. Not in protected area ⑥ 环境/生态 现场测量工作完成 不保护区 Bù bǎohù qū			
2. Land Owner consulted 咨询过土地所有者			
3. Owner Consent / Waiver ## signed & chopped (inc. map / area / Sta./ L&R.) 土地所有者同意使用并签字 (包含 地图 / 面积 / 桩号 / 左或右)			m ²
4. Suco chief agreement (signed waiver) Including clause not to build on area 当地村长同意作为弃土场 (签字) 包括条款不是建立在区域 Bǎokuò tiáokuān bùshì jiànli zài qūyù			
5. Contractor Project Manager (signed waiver) 承包商项目经理 (签字)			
6. Copy of waiver and Photo sent to PMU for endorsement. 协议书复印件及照片提交至PMU 认可			Photo
7. PISC Environmental Specialist check environmentally acceptable (signed) PISC环境专家检查后认为可以接受 (签字)			
8. >20m from banks of stream / river / irrigation channel / water well 离河堤、河流、沟渠、水井的距离大于20m			
9. PISC Site Inspector / Team Leader checks Engineering Safety (signed) PISC 现场检查员 / 组长 检查工程安全 (签字)			
10. RESTORATION PLAN / BIOENGINEERING PLAN APPROVED by PISC 存储方案 / 绿化 方案通过 PISC批准 Copy filed with PMU 副本提交 PMU			
⑥ If in protected areas must get permission from Director Protected Areas and National Parks			
B SETUP & ACCEPTABILITY 建立和接受			
1. Outer Boundary marked marker poles, flags / plastic tape – Photo 外部边界打上标记杆, 标志或塑料带子/磁带 - 图片			Photo
2. No housing / church / shop downhill from disposal area inside / outside? 没有 房屋 / 教堂 / 商店 位于弃土场内或其山体下方?			

Page 1 of 2

MPWTC PMU Environmental Group		CL 03 – V3 2016 – Chi		
Road and Site Number	Close-out on last audit Y/N	Yes	No N/A or not obs	Remarks
			NEED ACTION	
3 Safe distance to nearest housing / church / shop from disposal area. 弃土场离最近的房屋 / 教堂 / 商店 的距离				M
4 Stockpile / disposal NOT above elevation of existing road (safety/runoff?). 堆放后的标高大于现有路面 (安全 / 径流?)				
5. Maximum height / elevation of the disposal / stockpile <2m above road. 堆放的最大高度是否小于路面以上2m				Date
6 CAN DISPOSAL STOCKPILING COMMENCE (all above complete?) 能够开始堆放 (以上项目全部完成)				Date
7 DISPOSAL / STOCKPILE COMPLETED (roadside boundary marker tape) 堆放完成 (路边界标记带)				Photo
8 RESTORATION PLAN / BIOENGINEERING PLAN IMPLEMENTED 修复方案 / 绿化方案 已实施				
Notes ## Waiver to include clause stating that land owner understands completed quarry / borrow area not suitable for buildings / 豁免, 包括条款, 说明土地的所有者理解完成采石场/借区域不适合建筑/结构 Huòmiǎn, bǎokuò tiáokuān, shuōmíng tǔdì de suǒyǒu zhě lǐjiě wánchéng cǎi shí chǎng/jiè qūyù bù shìhé jiànzhù/jiégòu				
Other Observations 其他意见 Qítā yìjiàn :				
MPW PMU		Contractor Representative 承包商代表 Chéngbāo shāng dàibiǎo		PISC Representative
Signed..... Qiān				

Checklist for Contractor Worker Accommodation – 08

MPWTC PMU Environmental Group CL 08 – V3 2016 Chi

SITE INSPECTION CHECKLIST for **CONTRACTOR WORKER ACCOMODATION**
CHECKLIST UNTUK AKOMODASI PEKERJA KONTRAKTOR

现场检查核对表承包商住宿为职工

DD/MM/YY	/ /	Location		Inspected By	CHECKLIST 08-V2	
		位置 Wèizhi			Contractor:	<input type="checkbox"/>
					PISC:	<input type="checkbox"/>
					PMU/MPW:	<input type="checkbox"/>
					Other:	<input type="checkbox"/>
Site	(Km.....+.....)	(Km.....+.....)				
Operating <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Weather	Condition:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	°C	Temperature:
Item	Tick each item as 'Yes', 'No' or 'N/A or not obs' as appropriate					Remarks
	Action since last audit Y/N	Yes	No	N/A or not obs		
A ACCOMODATION REQUIREMENTS PERSYARATAN AKOMODASI 住宿要求						
1. Domestic animals controlled to avoid nuisance? Ruang akomodasi tidak yang cukup dan ventilasi di malam har? 家养动物是否加以控制以避免伤害?						
2. Accommodation sleeping spaces sufficient and ventilation at night? Kamp bersih dan sehat, sampah dikumpulkan tidak dibakar? 住宿睡眠空间充足，夜间通风						
3. Information board to employees/method notification in the camp site? Papan informasi untuk karyawan/metode pemberitahuan di kamp? 营地内是否有信息牌向员工进行信息通知?						
4. Camp clean and sanitary, litter collected no burning waste? Kamp bersih dan sehat, sampah dikumpulkan tidak dibakar? 营地干净、卫生，垃圾集中收集没有对废弃物进行焚烧?						
B WATER SUPPLY PENYEDIAAN AIR 供水						
1. Approval License by the GoTL for operating permit issued? Ada atau persetujuan dari Pemerintah Timor-Leste untuk izin usaha yang dikeluarkan? 是否有由东帝汶政府出具的供水运营许可?						
2. Water sample for portable (potable?) water tested by Sanitation Water Service (SAS)? Sampel air untuk tes air portable di Dinas Sanitasi Air (SAS)? 是否将水样提交到水卫生服务部门 (SAS) 进行检测?						
3. Adequate potable water-camp? Air minum di kamp memadai? 营地饮用水是否充足?						
4. Adequate potable water-worksites? Air minum di tempat kerja memadai? 工作场地饮用水是否充足?						
5. Containers for water not used for other purposes? Kontainer untuk air tidak digunakan untuk tujuan lain? 水容器没有用于其他用途?						
6. Water containers securely closed with taps? Air kontainer tertutup rapat dengan kran? 水容器是否用水龙头安全关闭?						
C CAMPSITE AREA PERKEMAHAN 营地						
1. Good drainage installed and not contaminating water in stream river Instalasi drainase yang baik dan tidak terkontaminasi dengan air sungai 安装了良好的排水设施，且溪流中没有污染水						
2. Drainage not contaminating water in stream river? Drainase tidak terkontaminasi dengan air sungai? 排水不污染水在流河吗?						

CHECKLIST 08-V3 WKR ACCOM

Page 1 of 2

Checklist Health and Safety 09

MPWTC PMU Environmental Group CL 09 – V3 2016 Chi

SITE INSPECTION CHECKLIST for **HEALTH AND SAFETY**
CHECKLIST UNTUK KESEHATAN DAN KESELAMATAN KERJA

现场检查核对表的健康和安全

DD/MM/YY	/ /	Location		Inspected By	CHECKLIST 09-V2	
		位置 Wèizhi			Contractor:	<input type="checkbox"/>
					PISC:	<input type="checkbox"/>
					PMU/MPW:	<input type="checkbox"/>
					Other:	<input type="checkbox"/>
Site	(Km.....+.....)	(Km.....+.....)				
Operating <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Weather	Condition:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	°C	Temperature:
Item	Tick each item as 'Yes', 'No' or 'N/A or not obs' as appropriate					Remarks
	Action since last audit Y/N	Yes	No	N/A or not obs		
A GENERAL HEALTH AND SAFETY DURING CONSTRUCTION KESEHATAN DAN KESELAMATAN UMUM SELAMA KONSTRUKSI 建设期间一般的健康和安全						
1. All workers trained on safety and environmental health at work? (Records) Semua pekerja di latih untuk keamanan dan kebersihan lingkungan di tempat kerja? (tercatat) 所有员工都进行了安全 and 环境卫生培训? (记录)						
2. Site agent gives weekly tool box talks to reinforce training to all the labourers? Agen proyek memberikan alat kotak minggu untuk pelatihan untuk semua pekerja? 现场人员是否每周对所有劳工进行工具讲解以加强培训?						
3. Equipment (back hoe etc.) Operators instructed on utilities plan & responsibilities Peralatan (back hoe dll) diinstruksikan kepada operator dalam rencana penggunaan & tanggung jawab 是否对设备 (挖掘机等) 操作员进行了使用计划和责任指导?						
4. PPE Workers equipped with hard hats, eye and protection, ear protection, gloves, safety- shoes, and respirators Alat K-3 dilengkapi dengan pengaman kepala, perlindungan matadan, perlindungan telinga, sarung tangan, sepatu keselamatan dan pernapasan 个人防护工人配备了安全帽、眼睛防护、耳朵防护、手套、安全鞋以及口罩?						
5. High visibility clothing, including a vest to avoid a "collision" in work area Pakaian yang dapat dilihat, termasuk rompi untuk menghindari "tabrakan" di wilayah kerja 能见度高的衣服，包括防止工作区内避免“冲撞”的反光背心						
6. Warning signs in place to shield workers from passing vehicle and segregation such as traffic cone and barrels Tanda-tanda peringatan di tempat untuk melindungi pekerja dari lalu-lalang kendaraan dan pemisahan seperti kerucut lalu lintas dan barrel 设置了警示标志，保护工人不受过往车辆伤害，且设置了交通锥等						
7. Fencing installed on all areas such as excavation, borrow pits, and side of temporary work / bridges greater than 1m deep Membuat pagar untuk semua area seperti penggalian, penggalian batu, dan tempat kerja sementara / jembatan yang dalam nya lebih dari 1m. 在诸如土方、借土场以及深度超过1米的临时工程/桥梁的边界设置围栏。						
8. Information for workers and adequate awareness working near construction vehicles & equipment the operator/ driver knows where the person are located? Informasi untuk para pekerja dan kesadaran pekerja dekat dengan konstruksi kendaraan & peralatan operator yang memadai / sopir tahu dimana seseorang berada. 给工人提供信息且施工车辆 & 设备司机/操作手知道其他人员所在位置。						
9. Communication with the driver is made using a radio, hand signals, etc. Komunikasi dengan menggunakan radio, isyarat tangan dan lain-lain. 用无线电、手势等与司机沟通。						

CHECKLIST 09-V3 HSE

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Appendix 2 – Records of Public Consultation

21.1. Public Consultation Attendance List (Suco and District levels)

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO HORAI QUIK SUB-VILLAGE LAUHEL BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATUBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 12th, 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Luis Casmiro Lopes	Male	Administrator of Maubisse administrative post	Maubisse
2	Alcino P. D. Jesus Tilman	Male	Suco Chief	Horaiquik
3	Duarte Benevides	Male	Chief of sub-village	Horaiquik
4	Domingus	Male	Community	Aileulala
5	Amelia Basa	Female	Community	Aileulala
6	Francisco de Araujo	Male	Community	Manuradi, Lauheli
7	Duarte Benevides	Male	KPK	Kartolo
8	Julio R. de Araujo	Male	KPK	Horaiquik/Cartolo
9	Agusto da C. Silva	Male	Duel Kudo	Gounema
10	Lucas	Male	Community	Lauheli
11	Jacinto Pereira	Male	Community	Liurai
12	David Mendonca	Male	Community	Aileulalan
13	Martinho de Araujo	Male	Community	Horaiquik
14	Baptista	Male	Community	Horaiquik
15	Claudio Mendonca	Male	Community	Horaiquik
16	Duarte Benevides	Male	Chief of Cartolo sub-village	Horaiquik
17	Armindo Oliveira	Male	Chief of Batucao sub-village	Horaiquik
18	Marcelino da C. Pires	Male	Secretary of Horai Quik Suco Chief	Horaiquik
19	Lucio da C.	Male	Security	Horaiquik
20	Alberto da Silva	Male	Community	Lauheli
21	Alcino da Silva	Male	Community (Youth)	Aihou
22	Ximião	Male	Community (Youth)	Aihou
23	Domingos da C. Tilman	Male	Community (Youth)	Aihou
24	Simão	Male	Community (Youth)	Aihou
25	Natalia Marques	Female	Assistant of the Chief of sub-village	Cartolu
26	Florencia de Jesus	Female	Community	Lauheli
27	Feliciano Mendonça	Female	Community	Lauheli
28	Joel de Deus	Male	Community	Lauheli
29	João Almeida	Male	Elder/Traditional Leader	Lauheli

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO MULO SUB-VILLAGE OF MAULAHULO BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 13 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Jose Andrade	Male	Suco Chief	Aituto
2	Antonio M. Oliveira	Male	Chief of sub-village	Maulahulo
3	Armando de A.	Male	Administrator of Hatobuilico sub Municipality	Hatobuilico
4	Raul Amaral da C.	Male	PNTL (Polisia Nasional de Timor Leste)	Hatobuilico
5	Carlito de Araujo	Male	EDTL Representative	Hatobuilico
6	Domingos Lopes	Male	Staff of Administrator	Hatobuilico
7	Agusto Mendonça	Male	Community	Maulahulo
8	Gerónimo Pereira	Male	Community	Maulahulo
9	Jacinto da C.	Male	Community	Maulahulo
10	Agostinho Sampaio	Male	Community	Maulahulo
11	Santiago X.	Male	Staff of PNDS	Maulahulo
12	Joao da Conceicao	Male	Community	Maulahulo
13	Antonio M. Oliveira	Male	Chief of sub-village	Maulahulo
14	Alexandrino S.	Male	Community	Maulahulo
15	Amaro da Cruz	Male	Community	Maulahulo
16	Ernesto Sampaio	Male	Assistant of Chief of sub village	Maulahulo
17	Octavio M. Oliveira	Male	Delegado	Maulahulo
18	Calistro de Deus	Male	Community	Maulahulo
19	Domingos Cardoso	Male	Community	Maulahulo
20	Manuel X. Verdial	Male	Community	Maulahulo
21	Abilio Alves	Male	Community	Maulahulo
22	Orlando Baptista	Male	Community	Maulahulo
23	Luis Cortereal	Male	Community	Maulahulo
24	Luis da Costa	Male	Community	Maulahulo
25	Domingos Orleans	Male	Community	Maulahulo
26	Cristovao Magno	Male	Community	Maulahulo
27	Madalena da C.	Female	Community	Maulahulo
28	Abina de Jesus	Female	Community	Maulahulo
29	Albertinha da C.	Female	Community	Maulahulo
30	Benedita da C.	Female	Community	Maulahulo
31	Manuel Marques	Male	Community	Maulahulo
32	Apolinario da C.	Male	Community	Maulahulo
33	Jaree Pereira	Male	Community	Maulahulo
34	Domingas	Female	Community	Maulahulo
35	Isabel da Costa	Female	Community	Maulahulo
36	Brono da Silva	Male	Community	Maulahulo
37	Armando Alves	Male	Community	Maulahulo

38	Miranda da C.	Female	Community	Maulahulo
39	Agapito de Araujo	Male	OPS/PNTL	Maulahulo
40	Bento Alves	Male	MAE	Maulahulo
41	Francisco de A.	Male	MAP	Maulahulo
42	Fernando de A.	Male	MAP	Maulahulo
43	Manuel de Araujo	Male	Community	Leorema
44	Jose da C.	Male	Community	Leorema
45	Hilario da C. B. Soares	Male	MAE	Hatobuilico
46	Luis de Araujo	Male	Community	Hatobuilico
47	Julio da Costa	Male	Community	Hatobuilico
48	Domingas	Female	Community	Maulahulo
49	Jaime Cardoso	Male	Community	Leorema
50	Manuel F.	Male	INAP	Leorema
51	Lorenca Ximenes	Female	Community	Maulahulo
52	Rita Ximenes	Female	Community	Maulahulo

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO NUNUMOGUE SUB-VILLAGE OF QUEOREMA BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 14th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Armando de Araujo	Male	Administrator of Hatobuilico sub Municipality	Hatobuilico
2	Raul Amaral	Male	PNTL	Hatobuilico
3	Hilario da C. B. Soares	Male	Suco Chief	Hatobuilico
4	Francisco X. Lopes	Male	Chief of sub village	Queorema
5	Domingos Lopes	Male	Ex. Administrator	Queorema
6	Agapito de Araujo	Male	OPS Mulo	Hatobuilico
7	Carlito de Araujo	Male	EDTL	Hatobuilico
8	Francisco de Araujo	Male	Guarda Florestal	Hatobuilico
9	Tomas Alves	Male	Agriculture	Hatobuilico
10	Aliansa A.	Female	Agriculture	Hatobuilico
11	Amelia X.	Female	Agriculture	Hatobuilico
12	Armindo Doutel	Male	Agriculture	Bleheto
13	Roberto de Araujo	Male	Teacher	Queorema
14	Gregoriu da C. B. Araraju	Male	Agriculture	Hatobuilico
15	Pedro X. Lopes	Male	Teacher	Queorema
16	Valenti Marques	Male	Agriculture	Queorema
17	Albino Pereira	Male	Chief of sub village	Laquicu
18	Bento Alves	Male	Staff of MAE	Bleheto
19	Victor da C.	Male	CPL	Queorema
20	Felisberto de Araujo	Male	Agriculture	Queorema
21	Afonso C. Lopes	Male	Agriculture	Queorema
22	Hermenegildo Mota	Male	Professor / Teacher	Bleheto

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO NUNUMOGESUB-VILLAGE OF QUEOREMA BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 14 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
23	Januario de Araujo	Male	Community	Queorema
24	Filomena J. F.	Female	Teacher	Queorema
25	Evangelino de J.	Male	Community	Queorema
26	Agustinho P.	Male	Community	Queorema
27	Hermenegildo Mota	Male	Agriculture	Bleheto
28	Luis Seran	Male	Agriculture	Queorema
29	Julio Ximenes	Male	Community	Queorema
30	Lourenco B.	Male	Community	Queorema
31	Marcelino Lopes	Male	Community	Queorema
32	Armando da J.	Male	Community	Queorema
33	Arlindos S. Lopes	Male	Community	Queorema
34	Alfredo Pereira	Male	Student	Queorema
35	Mario de Deus	Male	KPK	Queorema
36	Miguel Ximenes	Male	Driver	Queorema
37	Andre de O. Araujo	Male	Student	Queorema
38	Deonísio Ximenes	Male	Student	Queorema
39	Adelino de Jesus	Male	Student	Queorema
40	Arnaldo Lopes	Male	Student	Bleheto
41	Marçal de Jesus	Male	Chief of sub village	Queorema
42	Lucio A. Sarmento	Male	Agriculture	Queorema
43	Jose de Araujo	Male	Assistant of Chief of sub village	Queorema
44	Abel Ximenes	Male	Student	Queorema
45	Seraldo Soares	Male	Agriculture	Mausormata
46	Marcos Soares	Male	Agriculture	Mausormata
47	Felismino	Male	Agriculture	Queorema
48	Octavio Casmero Lopes	Male	Agriculture	Queorema
49	Domingos de Araujo	Male	KPK	Hatobuilico

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO KATRAI KARAÍK SUB-VILLAGE OF HATUGEO BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 15 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Juliao Marito de Deus	Male	Administrator of Letefoho Sub - Municipality	Letefoho
2	Afonso Salsinha	Male	Director DTPS Ermera	Ermera-Gleno
3	Alberto Salsinha	Male	Staff	Ermera-Gleno
4	Antonio de Deus	Male	PNTL	Dukorai
5	Tito Ribeiro do Rego	Male	PNTL	Letefoho Vila
6	Orlando Soares	Male	Chief of sub village Mausormata - A	Mausormata - A
7	Antonio Soares	Male	Chief of sub village Colcoli	Colcoli

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO KATRAI KARAİK SUB-VILLAGE OF HATUGEO BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 15 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
8	Joao de Deus	Male	Chief of village Hatugeo	Hatugeo
9	Vicente de Deus	Male	Agriculture	Mausormata - A
10	Francisco Soares	Male	Community	Colocoli
11	Coli Bere	Male	Community	Colocoli
12	Carlos da C. Soares	Male	Suco Chief	Catrai Craik
13	Joanina Madeira	Female	Agriculture	Colocoli
14	Joao de Amaral	Male	Veteran	Mausormata - A
15	Manuel Araujo	Male	Agriculture	Hatugeo
16	Flacido Soares	Male	Agriculture	Colocoli
17	Jose de Deus	Male	Veteran	Colocoli
18	Antonio Lima	Male	Agriculture	Hatugeo
19	Marcos de Deus	Male	Agriculture	Colocoli
20	Alcinho de Deus	Male	Agriculture	Colocoli
21	Joao Soares	Male	Veteran	Colocoli
22	Antonio Berelequi	Male	Agriculture	Colocoli
23	Cipriano Soares	Male	Agriculture	Hatugeo
24	Manuel Soares	Male	Agriculture	Hatugeo
25	Agustinho Araujo	Male	Agriculture	Eratoi
26	Natalino Soares	Male	Agriculture	Colocoli
27	Moises Orleans	Male	Agriculture	Colocoli
28	Ernesto de Deus	Male	Agriculture	Eratoi
29	Juliao	Male	Agriculture	Hatuhei
30	Senaris Soares	Male	Agriculture	Colocoli
31	Jaquiel Soares	Male	Agriculture	Mausormata - A
32	Joao Lequibere	Male	Agriculture	Hatuhei
33	Antonio de Deus	Male	Veteran	Colocoli
34	Elias de Deus	Male	Agriculture	Mausormata - A
35	Araujo	Male	Agriculture	Mausormata - A
36	Jose de Deus	Male	Agriculture	Hatugeo
37	Fernando de Deus	Male	Agriculture	Colocoli
38	Miguel Soares	Male	Agriculture	Mausormata - A
39	Jose do Carmo	Male	Agriculture	Hatuhei
40	Jose de Deus	Male	Agriculture	Mausormata - A
41	Romaldo	Male	Agriculture	Mausormata - A
42	Mariano Soares	Male	Agriculture	Mausormata - A
43	Madalena Pereira	Female	Agriculture	Mausormata - A
44	Elisa Madeira	Female	Agriculture	Hatugeo
45	Domingos de Deus	Male	Agriculture	Hatuhei
46	Aliansa Ximenes	Female	Veteran	Colocoli

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO KATRAI KARAİK SUB-VILLAGE OF HATUGEO BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 15 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
47	Juliana de Deus	Female	Agriculture	Colcoli
48	Amelia Felisidade	Female	Agriculture	Hatugeo
49	Agusta Soares	Female	Agriculture	Hatugeo
50	Alsinha de Deus	Female	Agriculture	Colcoli
51	Ernesto de Deus	Male	Agriculture	Colcoli
52	Rosita de Deus	Female	Agriculture	Hatugeo
53	Mausesta	Female	Agriculture	Hatugeo
54	Maria de Deus	Female	Agriculture	Mausormata - A
55	Lucia Soares	Female	Agriculture	Hatugeo
56	Seleste Soares	Female	Agriculture	Colcoli

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO DUCURAI BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 25 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Rafael Soares M.	Male	Chief of sub village	Sabelo
2	Domingos de Deus	Male	Chief of sub village	Rotutu
3	Celestino Tavares	Male	Chief of sub village	Leubado
4	Francisco Dias Soares	Male	Chief of sub village	Laclo
5	Julio de O.	Male	Chief of sub village	Eraloi
6	Alberto de Deus	Male	Chief of sub village	Lebululi
7	Manuel de Deus	Male	Chief of sub village	Manusae
8	Armando de Deus	Male	Assistant of chief of sub village Lebululi	Lebululi
9	Vasco Soares	Male	Chief of sub village	Renumata
10	Laurentino	Male	Agriculture	Eraloi
11	Mariano Soares	Male	Chief of sub village	Rae-rema
12	Estevao de Araujo	Male	Chief of sub village	Assui-Leten
13	Armando de Deus	Male	Agriculture	Rotutu
14	Joaquim de Desu	Male	Agriculture	Rotutu
15	Armando de Deus	Male	Agriculture	Rotutu
16	Florentino L. de Deus	Male	Agriculture	Manusae
17	Armando D. Soares	Male	Agriculture	Manusae
18	Manuel Soares	Male	Agriculture	Rotutu
19	Natalino Salsinha	Male	Agriculture	Manusae
20	Paul de Deus	Male	Agriculture	Sabelo
21	Pedro D. S.	Male	Agriculture	Rotutu
22	Atinu D. D.	Male	Agriculture	Rotutu
23	Daniel D.D.	Male	Agriculture	Rotutu

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO DUCURAI BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 25th 2018				
No	NAME	GENDER	POSITION	ADDRESS
24	Carlos Soares	Male	Agriculture	Rotutu
25	Bosco D. Santos	Male	Agriculture	Rotutu
26	Tomas de Deus	Male	Agriculture	Manusae
27	Jeronimo A. de Deus	Male	Student	Manusae
28	Lourenco Sode	Male	Driver	Rotutu
29	Manuel de Deus	Male	Agriculture	Rotutu
30	Armindo Soares	Male	Agriculture	Rotutu
31	Justino Soares	Male	Driver	Rotutu
32	Jorge Piedade Maia	Male	Representative from the Church (religion)	Saeheun/Laclo
33	Rui A. Maia	Male	MAP	Saeheun/Laclo
34	Pe. Helio P. Ernesto	Male	Priest	Letefoho
35	Antonio de Deus	Male	PNTL	Dukurai
36	Juliao de Jesus	Male	Community	Letefoho
37	Saturnino de Deus	Male	Representative from the Church (religion)	Letefoho
38	Bagilio S. de Deus	Male	Driver	Sobelo
39	Valente Soares	Male	Chief of sub village	Assui-Kraik
40	Rui dos Santos	Male	Chief of sub village	Lacau
41	Mario de Deus	Male	Agriculture	Manusae
42	Juliao de Deus	Male	Agriculture	Rotutu
43	Celestino R. de Deus	Male	Agriculture	Rotutu
44	Pe. Helio P. Fernandes	Male	Priest	Letefoho
45	Rui Maia	Male	MAP	Letefoho
46	Adriano da Costa R.	Male	Suco Chief	Letefoho
47	Armando de Deus	Male	Councilor of Suco	Letefoho
48	Joao Felisberto de Deus	Male	Coordinator of Veterans	Dukurai

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO HAUPU SUB VILLAGE OF RAIPUSA BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 26th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Juliao M. de Deus	Male	Administartor	Letefoho
2	Eugebio A Maia	Male	Suco Chief	Haupu
3	Gilhereme da Gloria	Male	Chief of sub village	Haupu
4	Constancio Pd.	Male	Community	Haupu
5	Felix Soares	Male	Traditional Leader	Raipusa
6	Antonio de Deus	Male	PNTL	Dukurai
7	Abilio dos Santos	Male	OPS	Kailiti/Goulolo

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO HAUPU SUB VILLAGE OF RAIPUSA BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 26th 2018				
No	NAME	GENDER	POSITION	ADDRESS
8	Domingos Maia	Male	Chief of sub village	Raipusa
9	Abel de Deus	Male	Traditional Leader	Raipusa
10	Pedro de Deus	Male	Traditional Leader	Raipusa
11	Jose Soares	Male	Community	Raipusa
12	Francisco Vasconcelhos	Male	Community	Raipusa
13	Armando Soares	Male	Community	Raipusa
14	Mariano Maia	Male	Community	Raipusa
15	Benedito Afonso	Male	Community	Raipusa
16	Paulo Soares	Male	Community	Raipusa
17	Domingos Araujo	Male	Community	Raipusa
18	Carlito Soares	Male	Community	Raipusa
19	Pedro da Silva	Male	Community	Raipusa
20	David Vasconcelhos	Male	Community	Raipusa
21	Maria Maia	Female	Community	Raipusa
22	Zacarias Maia	Female	Assistant of chief of sub village	Raipusa
23	Alzira de Fatima	Male	Community	Raipusa
24	Alfredo S. da Silva	Male	Community	Raipusa
25	Luciano Soares	Male	Community	Raipusa
26	Belandino dos S. L.	Male	Community	Raipusa
27	Francisca da Cruz	Female	Community	Raipusa
28	Joana Lemos	Female	Community	Raipusa
29	Esmeralda Soares	Female	Community	Raipusa
30	Agrafina Soares	Female	Community	Raipusa
31	Lamberta Toni	Female	Community	Raipusa
32	Juliana Martins	Female	Community	Raipusa
33	Benedita da Costa	Female	Community	Raipusa
34	Luis de Deus	Male	MAP	Gleno, Ermera

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO GOULOLO BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 22nd 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Luis M. do Carmo	Male	CDO Letefoho	Letefoho
2	Antonio de Deus	Male	PNTL	Dukurai
3	Joao de Deus	Male	Suco Chief	Goulolo
4	Armando Exposto	Male	Chief of sub village	Goulolo
5	Jose dos Santos	Male	Chief of sub village	Goulolo
6	Domingos Reinaldo	Male	Traditional Leader	Goulolo
7	Toams Soares	Male	OPS of Suco Goulolo	Letefoho

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO GOULOLO BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 22nd 2018				
No	NAME	GENDER	POSITION	ADDRESS
8	Francisco	Male	OPS of Suco Goulolo	Letefoho
9	Benedito Maia	Male	Agriculture	Goulolo
10	Luis Lolo	Male	Agriculture	Goulolo
11	Carlos Maia	Male	Agriculture	Goulolo
12	Agustinho Madeira	Male	Agriculture	Goulolo
13	Manuel dos Santos	Male	Agriculture	Goulolo/Kailiti
14	Armando de Jesus	Male	Agriculture	Goulolo/Kailiti
15	Manuel Maia de Jesus	Male	Agriculture	Goulolo/Kailiti
16	Paul Soares	Male	Agriculture	Goulolo/Kailiti
17	Domingos dos Santos	Male	Agriculture	Goulolo/Kailiti
18	Arminda Lemos	Female	Agriculture	Goulolo/Goulolo
19	Adelina Ximenes	Female	Agriculture	Goulolo/Goulolo
20	Carlos de Deus	Male	Agriculture	Goulolo/Goulolo
21	Alberto M. Maia	Male	Agriculture	Goulolo/Goulolo
22	Damiao D. D.	Male	Agriculture	Goulolo/Goulolo
23	Luis dos Santos	Male	Agriculture	Goulolo/Kailiti
24	Eduardu	Male	Agriculture	Goulolo/Kailiti
25	Manuel	Male	Agriculture	Goulolo/Kailiti
26	Lourenso dos Santos	Male	Agriculture	Goulolo/Kailiti
27	Manuel Soares	Male	Agriculture	Goulolo/Goulolo
28	Armindo Magalhaes	Male	Agriculture	Goulolo/Goulolo
29	Luis Fereira	Male	Agriculture	Goulolo/Goulolo
30	Georgina Soares	Female	Community (Youth)	Goulolo/Kailiti
31	Odete Maria	Female	Community (Youth)	Goulolo/Kailiti
32	Paulina Martins	Female	Community (Youth)	Goulolo/Kailiti
33	Flavia J. X	Female	Community (Youth)	Goulolo/Kailiti
34	Elfiana F. Augusta	Female	Community (Youth)	Goulolo/Kailiti

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO ERAULO BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO)				
DATE: SEPTEMBER 21 st 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Abilio dos Santos	Male	PNTL	Letefoho
2	Luis M. do Carmo	Male	Coordinator	Letefoho
3	Luis de Deus	Male	MAP	Gleno
4	Lourenco Soares	Male	Chief of sub village	Eraulo/Darudo
5	Carlos de Araujo	Male	Community	Eraulo/Darudo
6	Custodio Maia	Male	Community	Eraulo/Darudo
7	Xisto Madeira	Female	Community	Eraulo Madede
8	Fatima Soares	Female	Community	Eraulo/Darudo
9	Maria de Deus	Female	Community	Eraulo/Darudo
10	Leonilda Maia	Female	Community	Eraulo Madede
11	Cristina S. Martins	Female	Assistant of chief of sub village	Eraulo Madede
12	Adao M. Babo	Male	Chief of sub village	Eraulo Madede
13	Mario Soares	Male	Community	Eraulo Madede
14	Teodoro Madeira	Male	Community	Eraulo Madede
15	Bernardino de Deus	Male	Community	Eraulo Madede
16	Camilo Soares	Male	Community	Eraulo Manhehleta
17	Agustinho	Male	Community	Eraulo Madede
18	Marcelo Fatima	Male	Community	Eraulo Slera
19	Luis Sabino	Male	Technic of Livestock Letefoho	Eraulo Manhehleta
20	David Soares	Male	Community	Eraulo/Darudo
21	Geraldo C. Maia	Male	Community	Eraulo/Darudo
22	Horacio C. Maia	Male	Community	Eraulo Madede
23	Fernando Soares	Male	Community	Eraulo Madede
24	Evarsito S.	Male	Community	Eraulo Madede
25	Sipriano Soares	Male	Community	Eraulo Madede
26	Inacio Martins	Male	Community	Eraulo Madede
27	Mariano M. Soares	Male	Agriculture	Eraulo
28	Domingo M.	Male	Suco Chief	Eraulo
29	Jeronimo de J. B.	Male	Student	Eraulo
30	Antonio S.	Male	Student	Eraulo

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO ESTADO SUB VILLAGE OF SINAI				
BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO)				
DATE: SEPTEMBER 20 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Manuel Soares	Male	Comandante Esquadra PNTL Postu Ermera	Ermera
2	Julio Salsinha	Male	Suco Chief	Estado
3	Pedro de Deus	Male	Chief of sub village	Estado
4	Abilio de Deus	Male	Community	Estado
5	Gaspar Madeira	Male	Chief of sub village	Estado

6	Mateus Soares	Male	Community	Estado
7	Luis dos Santos	Male	Chief of sub village	Estado
8	Mario Martins	Male	Chief of sub village	Estado
9	Fernando Soares	Male	PNTL	Ermera
10	Marta S. Martins	Female	Assistant of chief of sub village	Estado
11	Mateus Casimeru	Male	Community	Estado
12	Romana Salsinha	Female	Agriculture	Estado
13	Odete Soares	Female	Agriculture	Estado
14	Gracilda Soares	Female	Agriculture	Estado
15	Abrao Salsinha	Male	Agriculture	Estado
16	Alberto Soares	Male	Agriculture	Estado
17	Pedro Lito Madeira	Male	Agriculture	Humboe
18	Domingas	Female	Agriculture	Estado
19	Gerlada Maia	Female	Agriculture	Estado
20	Helena Soares	Female	Agriculture	Estado
21	Terezinha Sal	Female	Agriculture	Estado
22	Isabel Soares	Female	Agriculture	Estado
23	Ines Soares	Female	Agriculture	Estado
24	Olandina Soares	Female	Agriculture	Estado

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO HUMBOE				
BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 19 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Calisto M. dos Santos	Male	Suco Chief	Humboe
2	Luis de Deus	Male	Chief of Forests Department	Gleno
3	Manuel Soares	Male	Comandante Esquadra Postu Ermera	Ermera
4	Gaspar M. Gomes	Male	Representative of Education Minister	Gleno
5	Ijino dos Santos	Male	OPS	Ermera
6	Carlos dos Santos	Male	Chief of sub village	Hatali
7	Jose Marcos	Male	Community	Borhei Humboe
8	Antonia F. Soares	Female	Assistant of Chief sub-village	Borhei
9	Junita G. Trindade	Female	Chief of sub-village	Borhei
10	Zeferino da C. Babo	Male	Assistant of Chief sub village	Borhei
11	Fernando Soares	Male	Forests	Borhei
12	Francisco Alves	Male	Agriculture	Bronsa Borhei Kraik
13	Antonio A. S.	Male	Agriculture	Cruzmanetu Santo Antonio
14	Duarte Salsinha	Male	Agriculture	Gouolu
15	Clementino Salsinha	Male	Agriculture	Hatmansua
16	Domingos Ximenes	Male	Agriculture	Gouolu
17	Julio Carvalho	Male	Agriculture	Maldoro
18	Sergio Flores	Male	Agriculture	Hatmansua

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO HUMBOE				
BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 19 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
19	Fernando B. Pereira	Male	Coordinator of the School	Riheu
20	Joao Maia das Neves	Male	Coordinator of the School	Lacogoa
21	Calisto M. da Cruz	Male	Veterans	Humboe
22	Mario M. exposto	Male	Agriculture	Borhei
23	Natalina de Deus	Female	Agriculture	Lacogoa
24	Jaime Salsinha	Male	Agriculture	Lacogoa

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO RIHEU				
BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 18 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
1	Felisberto S. M. Ximenes	Male	Suco Chief	Riheu-Ermera
2	Manuel Soares	Male	Comandante Esquadra PNTL Posto Ermera	Ermera
3	Rosario S. de Deus	Male	UNPAZ	Gleno
4	Antonio S. Pereira	Male	Ex. Chief of sub village	Riheu-Ermera
5	Maria Exposto	Female	Extension officer	Gleno
6	Manuel S. do Çeo	Male	Chief of sub village Gumhi	Riheu-Ermera
7	Venancio dos Santos	Male	Chief of sub village Raiburi	Riheu-Ermera
8	Jony F. Pereira	Male	Mangero	Riheu-Ermera
9	Marcelino C. Lima	Male	Community	Riheu-Ermera
10	Adolfo Soares	Male	Communitty	Riheu-Ermera
11	Carlos Martins	Male	Community	Riheu-Ermera
12	Agustinho T. M.	Male	Agriculture	Ermera Lisasa
13	Joao Soares	Male	Student	Riheu
14	Duarte Soares	Male	Agriculture	Sosoher/Riheu
15	Joao Carlos	Male	Agriculture	Sosoher
16	Gabriel de J. S.	Male	Agriculture	Sosoher
17	Mariano B.	Male	Agriculture	Raibliri
18	Miguel S. P.	Male	Agriculture	Manguero
19	Eliseu Soares	Male	Student	Raibliri
20	Manuel Soares	Male	Student	Raibliri
21	Constantinho M. Soares	Male	Community	Sosoher
22	Abrao Soares	Male	Agriculture	Sosoher
23	Agustinho A. Soares	Male	Agriculture	Gomhei
24	Joao Barreto S.	Male	Agriculture	Raibliri
25	Joao Sarmento	Male	Agriculture	Sosoher
26	Jose M. Sarmento	Male	Agriculture	Sosoher
27	Januario Pereira	Male	Agriculture	Manguero
28	Domingos Soares	Male	Agriculture	Gomhei

ATTENDANCE SHEET OF PUBLIC CONSULTATION, SUCO RIHEU				
BRANCH ROAD SECTION DILI-AINARO (AITUTO-HATOBUILICO-LETEFOHO-GLENO) DATE: SEPTEMBER 18 th 2018				
No	NAME	GENDER	POSITION	ADDRESS
29	Vasco Soares	Male	Agriculture	Gomhei
30	Gilberto Exposto	Male	Agriculture	Manguero
31	Ricardina dos Santos	Female	Agriculture	Gomhei
32	Miguel de Deus	Male	Agriculture	Sosoher
33	Joaninha de Deus	Female	Agriculture	Sosoher
34	Agusta dos Santos	Female	Agriculture	Sosoher
35	Moises Madeira	Male	Agriculture	Raibliri
36	Nayario TMS	Male	Agriculture	Manguero
37	Lucia Maia	Female	Agriculture	Gomhei
38	Armanda de Jesus	Female	Agriculture	Manguero
39	Cipriana Goncalves	Female	Agriculture	Gomhei
40	Maria Trindade S.	Female	Agriculture	Sosoher
41	Dulcia M. Sarmiento	Female	Agriculture	Manguero
42	Almarino Madeira	Male	Agriculture	Manguero
43	Yovita L. Pereira	Female	Agriculture	Manguero
44	Nilton Soares	Male	Agriculture	Gomhei
45	Francisco Baptista	Male	Agriculture	Sosoher
46	Duarte Martins	Male	Agriculture	Manguero
47	Felis da Silva	Male	Agriculture	Sosoher
48	Domingos Pereira	Male	Agriculture	Manguero
49	Nelson Pereira	Male	Agriculture	Manguero
50	Serafin da Silva	Male	Agriculture	Sosoher
51	Alcino Pereira	Male	Agriculture	Manguero
52	Julio M. Pereira	Male	Agriculture	Manguero
53	Bras Texeira	Male	Community (Youth)	Manguero
54	Ricardo do Rosario	Male	Community (Youth)	Manguero
55	Graciano Madeira	Male	Student	Gomhei
56	Joni Alves dos Santos	Male	Chief of Health Environment	Gleno-Riheu
57	Eusebio C. M.	Male	Chief of Water & Sanitation Depratment	Gleno-Riheu

21.2. National-level Consultation



REPÚBLICA DEMOCRÁTICA DE TIMOR LESTE
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 Lista Prejensa

Konsultasaun Públiku Nivel Nasional Konaba Sosial no Ambiente ba Projektu Estrada Rezielente Ba Klima Iha Timor Leste
 'Seksau Estrada Sanak Sira iha Koridor Estrada Gleno – Maubisse'
 (Hatubuilico – Letefoho - Gleno)

No	Naran Kompletu	Okupasaun	Instituisaun	Numeru Kontaktu	Assinatura	
1	Juho A. Carlos.	te	UNITAL	7600573	[Signature]	m
2	Agustinho Oqui	Estudante	- " -	76810212	[Signature]	m
3	Faya Jani	Staff	WB		[Signature]	m
4	Agustina P	Staff	WB		[Signature]	+
5	Guia Lavipulu	DG Projeto	MOP		[Signature]	m
6	Vitor S. Martins	DGSC - MS	MLS	77778633	[Signature]	m
7	Albert URMO	Project Manager	UCERA	77304055	[Signature]	m
8	JOSE SOARES	H. Emora	UCERA	77304055	[Signature]	m
8	Santana do Carmo	estudante	UNITAL	77143655	[Signature]	M.
9	Catarina Soares	- " -	- " -	7600652	[Signature]	+
10	Augusto Ruas Amato	Staff	Org Luta Humana	77778633	[Signature]	m
11	Ospalao Sarvisa	Koordinadu	MDT	78258570	[Signature]	m
12	ADELINO ROJARIO	CDRCSA	DGFCPT	77271908	[Signature]	M
13	Helito Maniles	CH PD	UNDIL	77650675	[Signature]	M
14	Andre S. Faria	PA - PSC	ILC ERAA	77293527	[Signature]	M
15	Celestina da Cruz	Estudante	UNITAL		[Signature]	+
16	Marcia Vicente	WB	WB		[Signature]	F
17	Agostinho Dali	PATZ	PAITC	77764736	[Signature]	as,
18	Safurmano Gomes	Director	INDOCP	7730423	[Signature]	m
19	João Gama	Director	DNEPC		[Signature]	m
20	Made Yuni Angreni	Cefe Depart. Civil	UNPAZ	73681885	[Signature]	+
21	Rui Hartmann	DGOP	MOP		[Signature]	m
22	Agustina	Director	MDT		[Signature]	m
23	Agustina	SEAC	-		[Signature]	m
24	Aquiles Tomas F	Director	DGP/UNITL	77179832	[Signature]	m
25	Elvira Gomes		ANPIM	77039771	[Signature]	m
26	Paulino R.C.	Director	ANPIM	7720473	[Signature]	m
27	Franisco Pato	m/leu	ANPIM	7720473	[Signature]	m
28	Inacia D.T.D.Frui	Staff	DNEPC	7720473	[Signature]	F



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"Seksau Estrada Sanak Sira iha Koridor Estrada Gleno – Maubisse"
(Hatubuilico – Letefoho - Gleno)

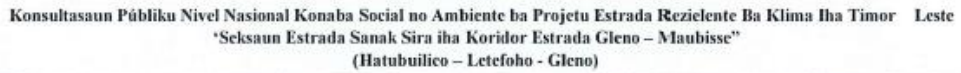
No	Naran Kompletu	Okupasaun	Instituisaun	Numeru Kontaktu	Assinatura	
29	1. Agostinho DMS.	Rep. dsuco	Catrai-raic	71588305	[Signature]	M
30	2. Alvarico B. de Deus	Rep. Juventude	Catrai-cm	76070478	[Signature]	M
31	3. Eugénia	Rep. Juventude	Catrai-Cam	7605882	[Signature]	F
32	4. Maria da Soares	Rep. Juventude	Ermura	76250194	[Signature]	M
33	5. José M.S. Soares	M. Ermura	Ermura	78105322	[Signature]	M
34	6. Calisto M. dos Santos	X. Suco	Ermura Vila	78066187	[Signature]	M
35	7. Francisco B. da Silva	X. Aldeia	Ermura Vila	75651620	[Signature]	M
36	8. VICENTE M. DEUS	X. Aldeia	Ermura	72859684	[Signature]	M
37	9. Adolfo Ascensão	Lianain	Ermura	75215789	[Signature]	M
38	10. Eduardo de Deus	Juventude	Ermura	72322153	[Signature]	M
39	11. Natalina G. dos Santos	Juventude f	Ermura	00867437	[Signature]	F
40	12. João Leal	C. Suco	Ermura	0588897	[Signature]	M
41	13. Eugénio A. Maia	X. Suco	Ermura Letefoho	087791	[Signature]	M
42	14. Carlos M. Dias	Aldeia	Letefoho	00723722	[Signature]	M
43	15. Damiano M. Dias	Aldeia	Letefoho	0062785	[Signature]	M
44	16. Nélia M. de Deus	R. Juventude	Letefoho	000961101	[Signature]	F
45	17. Amélia Da. C. Xavier	R. C. Aldeia	Ermura	75218761	[Signature]	F
46	18. Zacarias Soares	R. Juventude	Letefoho	0002202	[Signature]	M
47	19. Domingos Maia	C. Aldeia	Letefoho	76004761	[Signature]	M
48	20. Guilelme da Gloria	Lianain	Letefoho	77177496	[Signature]	M
49	21. Samuel P. de Deus	Juventude	Letefoho	76659606	[Signature]	M
50	22. CORNELIO LEROUX	COOP. RSC	Letefoho	76958148	[Signature]	M
51	23. Julião M. de Deus	APA Letefoho	MAE	77304193	[Signature]	M
52	24. R. de Deus	MAE	MAE	7701205	[Signature]	M
53	25. JULIO Salsinha	X. Suco	MAE	78066222	[Signature]	M
54	26. Carlinho B. Soares	Lianain	MAE	76175142	[Signature]	M
55	27. Francisco Nair	Rep. Juv. Maie	MAE	77429740	[Signature]	M
56	28. Luis Gonzalves	X. Aldeia	MAE	75572465	[Signature]	M
57	29. Thomas da Silva	Director das obras publicas	MAE	77726887	[Signature]	M
58	30. João T. de Deus	Veteranos	D. Ueura	78066183	[Signature]	M



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"Siksaun Estrada Sanak Sira iha Koridor Estrada Gleno – Maubisse"
(Hatubuilico – Letefoho - Gleno)

No	Naran Kompletu	Okupasaun	Instituisaun	Numeru Kontaktu	Assinatura	
59	Zulmiro Pinto	DEKNU	UNITAL	72424145	[Signature]	M
60	Hilario Jac. B. S. chefe suco	MAE	MAE	76401620	[Signature]	M
61	Amelio da Costa B. B. B.	MAE	MAE	76256334	[Signature]	M
62	Francisco x. Lopes	chefe Aldeia	Aldeia / HB	75171123	[Signature]	M
63	Abril da C.	chefe + 680m secundario			[Signature]	M
64	ZACARIAS	chefe	ALDEIA	7554778	[Signature]	M
65	Armando da A	Adm. HB	Administração	77304113	[Signature]	M
66	Marcos	B.	C.	7649263	[Signature]	M
67	Naterecy E. S. A.	Comandante	PARIT		[Signature]	F
68	Manuel da Silva	Escrito	PRIT	76656123	[Signature]	F
69	Mateus Almeida	S. p. c. c. c.	NEBA	77198626	[Signature]	M
70	Roberto da CR.		MAE	76360366	[Signature]	M
71	Maria de Deus		MAE		[Signature]	F
72	DAVID R. M.		MAE		[Signature]	F
73	Assuncao P. B.		EDIL	78385130	[Signature]	M
74	Domingos dos S. v. c. c. c.	Jovem		75328295	[Signature]	M
75	João da Deus	Jovem	MAE	77430643	[Signature]	M
76	Domingos M.	chefe suco	MAE	78066229	[Signature]	M
77	Josefina Soares	Jovem	REF	77457292	[Signature]	F
78	Candida Soares	Jovem	REF	76322610	[Signature]	F
79	Noelia de D. G. P.	Jovem	REF	75461141	[Signature]	F
80	CORNELIO BENEVIDES LIA NAIN	MAUBISSE				M

~~5/5 Compara a velocidade em km/h~~



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‘Seksaun Estrada Sanak Sira iha Koridor Estrada Gleno – Maubisse’
(Hatubuilico – Letefoho - Gleno)

No	Naran Kompletu	Okupasaun	Instituisaun	Numeru Kontaktu	Assinatura	
96	Felixberto S.M. Xicus	AF SURO	MAE	77647690	[Signature]	M
97	Manuel S. do Rego	AF Aldia	MAE	77434267	[Signature]	M
98	Manuel S. Gus	AF Aldia	MAE		[Signature]	M
99	Amarel S. P. P. P.	Aia Nara	MAE		[Signature]	M
100	Bento d. J. S	Juvenilde	-	77308812	[Signature]	M
101	Celustino S. S. S.	Aldia		75291695	[Signature]	M

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No	Naran Kompletu	Okupasaun	Instituisaun	Numeru Kontaktu	Assinatura	
102	Armando de Deus	C. Aldia	Ducurui	77150159	[Signature]	M.
103	Manoel Manuel	XE T. P. P.		77271682	[Signature]	M
104	M. P. P. P.	Maubisse	PNIL	77958892	[Signature]	M

21.3. Public Consultation Photography







National Public Consultation, Dili 23 May 2019



21.4. Public Consultation Baseline Data Questionnaire

COMMUNITY CONFIRMATION ON ENVIRONMENTAL AND SOCIAL CONDITION
FOR BASELINE INFORMATION OF THE STUDY

SUCO: _____

Today, _____; date of September _____, 2018; Public Consultation for the proposed Rehabilitation and Improvement of Branch Road Section Dili – Ainaro i.e. Aituto – Hatubuilico – Letefoho – Gleno has conducted at the office of Horai Quik Suco.

The Public Consultation attended by related stakeholders such as Administrator Municipality, Administrator Administrative post, Chief of Suco, potential project affected people along the proposed road right of way (RRoW), representative of women group, representative of customary community, representative of pf related governments (*Plano Estratégico Nacional de Áreas Protegidas* – PNAP, National Directorate for Tourism Enterprise, Activities and Products (NDTEAP), Health Agency, Education Agency, Land and Property (*Terras e Propriedades*) include some related Civil Society Organization/Non-Government Organization.

The result of Public Consultation consists of understanding about the proposed Project of *Branch Road*, confirmation of any related impact, and additional on any related information as following:

No.	UNDERSTANDING/CONFIRMATION/INFORMATION
1	People understand that there is a proposed Project of Branch Road Section of Dili – Ainaro, which will start from Aituto to Hatubuilico, continue to Letefoho up to Gleno (total 60 km length).
2	People understand there will be any environmental and social impact during the Construction Phase.
3	People understand that the proposed Project may be impacted to their land, houses, fences, trees and agriculture products, other assets, including some utilities such as water tanks & pipes, electricity poles, communication tower/networks, etc. This impact will be minimized as much as possible. Off-setting of residual impacts will be taken by the Contractor during the civil work.
4	People inform that the suco has: _____ Ha land; _____ Ha customary land; _____ Ha customary forest; and _____ this will be informed to relevant forest agency and / or land and property agency.
5	People inform there are some water resources in suco area: _____ water spring/s; _____ units well; _____ m water pipes; _____ units water tank; _____ lakes; _____ rivers, named: _____
6	People inform there is an irrigation channel in their area, it functions for _____
7	People inform there are landslide areas within/near to suco area: _____
8	People inform there are cultural archeological/heritage/historical sites within 100 m of the Project as well as belong to Suco (church, cemetery, and other). Name of the Cultural Heritage Site and Location are listed: _____

No.	UNDERSTANDING/CONFIRMATION/INFORMATION
9	People inform there are material resources (gravel & sand) within/near to suco area, the location:
10	People inform that suco has area that can be used as disposal area, the location: _____
11	People inform there is tourism destination places: _____ or access within/near to suco area:
12	People inform they have ever seen _____ of endangered bird/s within/nearby suco area, including _____ endangered tree/s species.
13	People confirm that landslide areas within/near to suco area were getting worse during rainy seasons.
14	People confirm that prior to start Project construction near to the cultural heritage site, should conduct such a customary ceremony.
15	People inform there is protected forest area in the suco area: _____
16	People inform Indigenous People exist in the suco area, which is _____
17	People confirm the land 3-4 meter of both side road right of way belongs to the government for the development of public facilities/project. When the Branch road project requiring more land area outside of the Road Right of Way, voluntary land donation may be expected to be applied.
18	People confirm the need of Gender Equality (women participation in planning, road construction, maintenance, bioengineering activities, and receive equal pay for work of equal value) and avoid of children labor in the construction work.

Chief of Suco	Administrative post Administrator

Municipality Administrator

Appendix 3 – Guidance on CESMP Sections & Method Statements

A) Waste Disposal (general waste, spoil disposal and hazardous waste)

The Waste Disposal section of the CESMP will include methods for waste management and spoil disposal for handling, storage, treatment, transport and disposal of solid and liquid wastes, hazardous materials, hazardous wastes, and excavation spoils. The CESMP will also provide details of a trip ticket system to ensure that Contractor disposes of excavation spoils in approved areas. Such system will be designed so that the PMU and PISC could readily monitor the volume and disposal site of excavation spoils, and to ensure that the total volume of spoils disposed of will not exceed the maximum capacity of disposal sites approved by local authorities.

The Waste Disposal - General Waste section of the CESMP will include method statements and consideration of all matters related to general solid and liquid waste disposal including:

- Expected types of waste and quantities of general waste arising;
- Waste reduction, reuse and recycling methods to be employed;
- Agreed reuse and recycling options and locations for spoil disposal (endorsement from NDE and local groups);
- Methods for treatment and disposal of non-hazardous solid and liquid wastes;
- Methods of transportation to minimize interference with normal traffic;
- Establishment of a complaints management system for the duration of the works;
- Programme for waste disposal at the areas designated in the Environmental license (e.g. Tibar landfill etc if required by NDE).

The Waste Disposal - Spoil Disposal section of the CESMP will include method statements and consideration of the following:

- Locations and quantities of spoil arising;
- Agreed locations for spoil disposal (endorsement from NDE and local groups);
- Methods of transportation to minimize interference with normal traffic;
- Establishment of acceptable working hours and constraints;
- Agreement on time scale and programme for disposal and chain of custody;
- Agreement on publicity/public consultation requirements and use of signed waiver (for disposal on private land and advance permission/signing etc.);
- Details of a trip ticket system including the excavation and disposal record forms, to ensure that Contractor disposes of excavation spoils in approved areas. Such system will be designed so that the PMU and PISC could readily monitor the volume and disposal site of excavation spoils, and to ensure that the total volume of spoils disposed of will not exceed the maximum capacity of disposal sites approved by local authorities;
- Programming issues including the time of year and available resources;
- Discussion of the PMU/MPW inspection/monitoring role.

The Waste Disposal - Hazardous Waste section of the CESMP will include method statements and consideration of all matters related to hazardous solid and liquid waste disposal including:

- Methods for collecting, handling, include treatment and disposal of solid and liquid hazardous wastes;
- Establishment of regular disposal schedule and constraints for hazardous waste;
- Discussion of the PMU/MPW inspection/monitoring role.
- Programme for waste disposal at areas designated in the Environmental License. As much as possible the designated area should be within the Ermera Municipality.

B) Quarries, Borrow Pit Areas and Materials Management

In the preconstruction stage, the Contractor will review the requirements for the provision of construction materials and include the Quarries, Borrow Pit Areas and Construction Materials Management section of the CESMP. The CESMP will seek, as far as is reasonably practicable, to minimize the use of non-renewable resources and rock-based materials and also to balance cut and fill requirements and contribute to the minimization of impacts due to the extraction of rock-based materials. Firstly, the material resources shall consider of the location which not in the area of 2000 meter and above accordingly, given topography condition made it as protected areas. Meanwhile, where surplus materials arise from the removal of the existing surfaces these will be used elsewhere on the project or other projects for fill (if suitable) before the additional rock, gravel or sand extraction is considered. The PISC team has estimated that almost 100% of cut materials may be reusable as bulk fill in many areas.

The Quarries, Borrow Pit Areas and Materials Management section of the CESMP will include method statements and details of arrangements to be made to facilitate the timely production and supply of construction materials to avoid impacts due to unnecessary stockpiling outside the project site.

The CESMP will include as a minimum consideration of the following:

- The required volume of materials, potential sources and estimated quantities available;
- Impacts to identified sources and availability;
- Excavated slope material for reuse and recycling methods to be employed;
- Required endorsements that should be obtained by the Contractor from NDE and local groups for use of legitimate sources;
- Measures to be employed to mitigate nuisances to village residents;
- Methods of transportation to minimize interference with normal traffic;
- Constraints of regular delivery schedule to reduce stockpiling on site;
- Programme for reuse of slope excavated material for reuse;
- Programme for delivery of quarry and borrow materials;
- Discussion of the PMU/MPW inspection/monitoring role;
- Agreement on publicity/public consultation requirements.

C) Blasting and Vibration

There is no reason to expect that blasting will be required at this stage however it may be required in special circumstances. Alternatively, the Contractor may wish to keep open the option to use blasting if unexpected conditions are encountered that prevent the use of powered mechanical equipment to remove the rock. In the event that blasting is to be considered, even if only in special circumstances, the Contractor shall include a section on blasting in the CESMP that will include method statements and consideration of the following matters:

- Controlled blasting methods in line with the rules set down by the local authorities and NDE;
- Limitations to permissible times and intervals between blasting;
- Details of the prescribed manner of blasting and precautionary measures to be included;
- Prior notice to all village residents;
- Undertaking prior condition surveys of residences within 500 m of the blast sites. All residents within 500 m of the blast sites;
- Measures to keep Local Government Units and the public informed of the plans and progress of blasting;

- Measures for temporary evacuation and provisions for alternative accommodation if required;
- Discussion of the PMU/MPW inspection/monitoring role.

D) Asphalt, Hot Mix Plant, Stone Crushing and Bitumen Supply

The stone crushing activities will generate noise and dust and pavement works will generate gas and odor from the asphalt hot-mix plant and noise from the compaction of the pavement. The Contractor shall include a section on Asphalt, Hot Mix Plant, Stone Crushing, and Bitumen Supply in the CESMP that will include method statements and consideration of the following matters:

- Estimation of volumes of rock-based material and asphalt required. Use of existing cement batching, aggregate and hot mixing plant or proposals for new installations;
- Locations of cement batching and aggregate mixing plant as far as possible from settlements and habitation;
- Locations of cement batching and aggregate mixing plant in agreement with the local town or municipality and to be approved by PMU;
- Licenses for operation of plant and approval from the relevant local authority and NDE;
- Dust suppression equipment to be installed;
- Proposals for storage, handling, use and disposal of residual bitumen in line with the waste disposal section of the CESMP;
- Duration and timing of the proposed operation and cement batching & aggregate mixing plant;
- Discussion of the PMU/MPW inspection/monitoring role.

E) Erosion Control

The erosion Control section of the CESMP will include method statements to ensure that construction works will not cause excessive runoff and siltation of adjacent waterways within the project site. The Erosion Control section of the CESMP and slope stabilization measures in the detailed designs will be implemented and maintained by the Contractor during construction to protect the works. The CESMP will have sufficient provisions to ensure stabilization of cut slopes and other erosion-prone areas, minimize hydrological impacts, flooding and erosion of river banks and adjacent areas and to protect the works under construction. The CESMP will include the following to control erosion and runoff:

- Climate and rainfall for the area and checking weather forecasts;
- Terrain and typical locations particularly susceptible to erosion and runoff;
- Protection of the works and potential impacts on the environment;
- Erosion control methods to be employed, locations and installation timing;
- Limits to stockpiling on sites near waterways and irrigation channels;
- Discussion of the PMU/MPW inspection/monitoring role;
- Agreement on publicity/public consultation requirements.

F) Bridge Repairs and River Protection

The project proposes to repair or construct a new bridge as well as repair or construct new culverts. Careless construction and poor material control can cause physical blockage to rivers and streams resulting in adverse impact on water quality and flow regime. Therefore the CESMP will have sufficient provisions to ensure control of physical aspects of Bridge Repairs and River Protection including the following matters:

- Programme for work near rivers (for the dry season as far as practicable);
- Avoidance of blocking rivers and streams through improper disposal of rock-based materials;
- Methods to be used to avoid dropping bridge sections or culvert into rivers/streams;
- Covering of open surfaces to reduce runoff and bank erosion;
- Dewatering and cleaning of cofferdams;
- Location of settling basins or containment units;
- Discussion of the PMU/MPW inspection/monitoring role.

G) Water Contamination Prevention

Work near rivers and streams have the potential to cause water pollution. In order to prevent water contamination, the CESMP will include coverage of the following to be undertaken by the Contractor:

- Disposal of solid waste from construction activities away from rivers;
- Design of storage areas with enough lining for lubricants and other construction storage/stockpiles;
- Handling of stockpiled materials to avoid leakage and prevent runoff;
- Location of stockpiling or borrow sites and storage for hazardous substances;
- Responses to complaints, complaints monitoring and investigation of water quality;
- Scheduled work duration in near rivers shall be as short as possible;
- Immediate stabilization of slopes after works are completed;
- Prohibition of washing of machinery and vehicles in surface waters.

H) Dust and Noise Minimization

Earthworks and rock crushing activities will cause dust impacts. All construction works will involve some noisy activities and it is good practice to control dusty materials and noisy activities at source so that nuisances do not occur. The Dust and Noise control section of the CESMP will include method statements and minimize impacts to sensitive receptors (residential areas, schools, hospitals, etc.) due to construction works, sourcing and transport of construction materials, and other project-related activities. In order to prevent dust and noise nuisances the Dust and Noise control to a section of the CESMP will include the following:

- Use and availability of water for damping down dust in wet and dry seasons;
- Alternative use of dust barriers/segregation between the works and sensitive receivers;
- Locations and timing of works within 500 m of settlements including night works;
- Reporting of complaints to PMU in line with the Grievance Redress Mechanism;
- Compliance of heavy equipment and machinery with best practice on pollution;
- Ban on smoke-belching vehicles and equipment;
- Covering vehicles transporting loose construction materials;
- Speed limits on vehicles unpaved areas near works;
- Methods to reduce the need for large stockpiles and planning of supplies of as per the Construction Materials Management section of the CESMP;
- Location of stockpiles and enclosing or covering when not in use;
- Description of any monitoring proposed by the Contractor in addition to the PMU/DSC monitoring role.

I) Tree Cutting and Replanting

In several places, the natural vegetation inside and immediately outside the ROW for a few meters has been cut down to make way for the distribution of electrical poles that were set out in recent years. The habitats outside this corridor are vulnerable to further loss due to increasing pressure (limited extent and over-exploitation) for fuel, timber, and food. This underscores the need for mitigation measures to protect the remaining habitats from exploitation during the project construction.

Tree-cutting and Replanting section of the CESMP will include method statements in line with the usual procedures of DRBFC to ensure there is no indiscriminate tree-cutting by clearly defining areas where vegetation removal is necessary. Tree-cutting should be based on project requirements and that replanting or remuneration paid to local tree owners shall be completed after consultation with owner and compensation as per Resettlement Framework and usual DRBFC process (in-kind following consultation and negotiation). The Tree-cutting and Replanting section of the CEMP will include method statements in line with the agreed procedures for:

- Advance notice to PMU on any trees that need to be cut to complete the detailed designs;
- Confirmation and identification of trees to be cut and locations by chainage following the detailed designs;
- Planning cutting and any replanting and compensatory planting with the local forest authority and Municipality DRBFC;
- Ban use of wood as a fuel for the execution of any part of the project works;
- Avoiding construction camps, asphalt mixing plants, material storage sites in forests, near springs, sacred sites or other previously identified sensitive areas;
- Control of accidental fires and ban on burning of waste;
- Prohibitions on workers entering mangrove communities and forests for taking firewood;
- The justification for tree cutting as an alternative to road realignment;
- Obtaining permissions from landowners, authorities, and permits from NDE for cutting;
- Methods for marking, protection of uncut trees and limitations to cutting;
- Methods and timing for safe cutting to minimize interference with normal traffic;
- Methods to remove trees, cut timber and avoid stockpiling cut brushwood on site;
- Methods to avoid undercutting adjacent tree-lined slopes;
- Preliminary programme for cutting trees and enhancement planting (to be updated in progress reports);
- Discussion of the PMU/MPW inspection/monitoring role;
- Agreement on publicity/public consultation requirements.

J) Enhancement Planting

Environmental enhancements such as on-site planting at used worker camps, or off-site tree planting for long term soil stabilization included in the detailed designs will be identified in the CEMP by the Contractor. The enhancement Planting section of the CESMP will include:

- Locations of enhancement planting required in detailed design;
- Provide enhancement planting at construction worker campsites after use;
- Maintenance and monitoring for planted specimens as agreed with the PMU;
- Discussion of the PMU/MPW inspection/monitoring role.

K) Construction Camps, Sanitation and Diseases

The operation of the Contractor worker camps will cause impacts from the generation of raw sewage, wastewater effluent, and construction debris waste materials for disposal, air, and noise

pollution. Waste and control of other impacts will be in line with other sections of the CESMP. Additional measures included in the construction camps section of the CESMP will include:

- Proposed location of construction worker camps to be agreed with local communities and PMU.
- Hiring and training of local workers;
- Provisions to be made for potable water, clean water for showers, hygienic sanitation facilities/toilets, worker canteen/rest area and first aid facilities;
- Provisions for adequate accommodation for workers;
- Provisions for wastewater effluent capture and treatment from worker facilities and Contractor workshops and equipment washing-yards before discharging;
- Solid and liquid waste managed in line with waste disposal practices agreed in the CESMP;
- Use of borrow pits and natural depressions for construction camp waste disposal and options for completely or partially recycling wastes;
- Provision of food from local farm/suppliers;
- Ban on hunting and bushmeat supplies to discourage poaching and gathering of green timber;
- Ban on entry to the mangrove areas, forests and protected areas by workers;
- Provisions to clean construction worker campsites after use and dispose of all waste materials to approved disposal sites;
- Provisions to restore land used for campsites and the area be planted with appropriate trees/shrubs as an enhancement.

Sanitation and diseases will mainly be concerns at the construction worker camps. The Contractor will ensure that additional measures to maintain hygienic conditions in the camps and implement the social and health programmes for the project are included in the CESMP:

- Measures to prevent the proliferation of mosquitos;
- Temporary and permanent drainage facilities to prevent the accumulation of surface water ponds;
- Implementation of the social and health programmes for the project (e.g. HIV-AIDS education as required in line with social programmes.

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L) Power - Utilities Protection and Reprovisioning

The power and utility protection and a reprovisioning section of the CESMP will include method statements and to minimize interruption to power, water supply, and telecommunications to protect them during the works. The requirements need to be reassessed and reconfirmed by the Contractor before works commence. Therefore, the Contractor will include measures to protect power and utilities in the CESMP as follows:

- Consultation with PMU and MPW and utility providers to reconfirm power, water, and telecommunications systems likely to be interrupted by the works and any additional trees to be cut to make room for replacement utilities;
- Contact points in all relevant utilities, local authorities, and local village groups to plan to reprovision;
- Approach to coordinating relocation of utilities ahead of construction works with the relevant utility company at the Municipality and Municipality levels and reconnection;
- Information to be provided to affected communities should be timed well in advance;
- Emergency provisions and action plan for immediate repairs to utilities if accidentally damaged.

M) Drainage System, Irrigation and Water Resources

The natural streams and drains, irrigation channels running close to works areas and water resources on surrounding lands may be affected by construction activities. Local water supplies will need to be tapped to meet campsite and construction requirements. This section of the CESMP will include method statements and to prevent ponding/flooding within the project site, construction camps, borrow/quarry areas, other areas used for project-related activities and adjacent areas.

The Contractor will be required to implement drainage management and provide measures to mitigate adverse impacts on water resources and surface drainage patterns and describe them in the CESMP. The Drainage System, Irrigation and Water Resources section of the CESMP will include method statements covering the following:

- Provision of appropriate temporary drains and measures to keep storm drains and road drainage systems clear of construction debris;
- Identification of any irrigation channels to be avoided or reprovisioned and timing for reprovisioning in advance of the commencement of road works to the satisfaction of PMU in MPW and local community;
- Availability of water for the works including consultation with the local authorities;
- Arrangements to bring in water by tanker without depleting local village supplies;
- Guidelines to minimize the wasting of water during construction operations and at campsites.;
- Preparations (in case of obstruction or damage due to the works) for immediate clearance or repairs to drainage channels, irrigation ditches, and supply ponds;
- Arrangements for close liaison with local communities to ensure that potential conflicts related to common resource utilization are resolved quickly.

N) Safety Precautions for Workers and Public

Workers and Public Safety section of the CESMP will include method statements to identify safe working practices and interfaces between the works and public to ensure worker and public safety and prevent accidents due to the construction works. Workers and Public Safety section of the CESMP will include:

- Statutory requirements for worker occupational health and safety is governed by the labor codes of Timor Leste and National Labour Code as amended principles of rights at work;
- Method statement of how the Contractor work practices will comply with statutory requirements;
- Arrangements to protect public safety;

O) Temporary Traffic Management

Arrangements for vehicles accessing the project area will be formulated to avoid community disturbance and severance and will at least retain a passing lane along all roads used during construction. The Temporary Traffic Management section of the CESMP will include method statements and to minimize disturbance of vehicular traffic and pedestrians during construction including consideration of the following:

- Lane availability and minimizing interference with traffic flow past the works site;
- Establishment of acceptable working hours, constraints and public safety issues;

- Agreement on time scale and establishment of traffic flow/delay requirements.
- Programming issues including the time of year and available resources;
- Discussion of the PMU/MPW inspection/monitoring role;
- Establishment of a complaints management system for the duration of the works;
- Agreement on publicity/public consultation requirements (advance signing etc.).

P) Accidental Discovery of Archaeological Assets







Timor Leste has an archaeological heritage and therefore the contractor will establish precautionary measures to be included in the CESMP implemented to avoid disturbance of any unexpected finding of archaeologically valuable artifacts.







Q) Decommissioning, Rehabilitation, Revegetation and Recontouring of Borrow Areas









Borrow areas and construction material processing areas should be decommissioned and rehabilitated toward the end of the construction activities. Borrow pits should be reclaimed with suitable material while construction material processing areas are cleaned up from spoil, scarified materials, bituminous spill, and other atypical materials. Recontouring should be pursued in areas that are severely impacted as not to create a hazardous condition for the local community. Slopes cutting should be left in the non-hazardous state with proper cut angle according to the type of material. Revegetation should be pursued on suitable locations with local fast-growing species or other species in consultation with landowner or village chiefs. Replanting should be conducted as early as possible to allow for sufficient early care needed for the plants to grow well.









Appendix 4 – Impacts and Risk Assessment Inventory







A. Section 1 – Aituto to Hatubuilico









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	ROW	Out of ROW (meter)		
Houses affected	0 + 000		2			A Kiosk (affected).	 
	0 + 020		2			A semi permanent house (affected).	 
	0 + 090		1			A semi permanent house (affected).	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	5 + 730		1	1		A semi-permanent house; (affected) by new alignment.	 
	7 + 100			5		A semi-permanent house (affected).	 
	11 + 670		1	1		A semi-permanent house (affected).	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
House at height/ House beneath of steep slope	0 + 080	5				A semi permanent house at height. (high risk)	 
	0 + 240				4	A permanent house, beneath of steep slope. (high risk)	 
	0 + 280	5				A permanent house and toilet; near to slope cutting. (high risk)	 
	0 + 300	2				Kitchen near to slope cutting; needs slope protection. (high risk)	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	0 + 940	2				A semi-permanent kitchen. (high risk)	 
	0 + 980	2				A semi-permanent house. (high risk)	 
	7 + 680 – 7 + 720	4				2 Houses beneath of steep slope. (high risk)	 
	8 + 170				8	A semi-permanent house at height. (risk)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	9 + 440			5.5	A semi-permanent house at height. (high risk)	 
	11 + 400			4	A house at height needs slope protection. (high risk)	 
	11 + 740			6	A semi-permanent house at height, needs slope protection. (high risk)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
Cultural Site	0 + 000		1		Monument religion as a symbol for <i>Ramelau</i> Religion Tourism (affected).	 
	0 + 010		2		A Customary house/ <i>Uma Lisan</i> (affected).	 
	0 + 340	6			<i>Hautlautehu</i> heritage is like an altar from stones at height. (consider avoiding)	 
	1 + 020		2		The <i>Boska</i> is kind of an old tree that has died (affected). People around <i>Lauheli aldeia</i> will discuss with a community leader to solve that cultural site.	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	1 + 080	6				Heluli Cultural heritage, the community use it as a ritual place during the harvest season. (high risk, disruption)	 
	4 + 960	4				A customary house; beneath to steep slope needs slope protection. (high risk)	 
	6 + 740				6	A costume house up on the hill needs slope protection. (high risk)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	ROW	Out of ROW (meter)		
	8 + 160				7	A costume house at height; needs slope protection. (high risk)	 
	9 + 440				7	A costume house at height. (high risk)	 
Water Spring	1 + 140	30				Holy spring; used by the community. The community informs to divert the drainage outlet that will impact the water source of <i>Heluli</i> . (risk)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	1 + 440	35				Public springs; used by local communities as water sources, for livestock and gardens. (risk)	 
	4 + 640				6	<i>Hautsanaloda</i> spring; source of clean water for the community consumption, and farmers, near to <i>Hautsanaloda</i> river. (high risk)	 
	4 + 980	2				<i>Lukmali</i> spring; source of clean water for community consumption, for livestock needs, and farmers. (high risk)	 
	5 + 060	3.5				<i>Er Lukmali</i> spring; source of clean water for community consumption, for livestock needs, and farmers. (high risk)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	5 + 080		3			Well water (affected).	 
	7 + 880	3				Water spring used for the farmer. (high risk)	 
	10 + 920	0.5				Well water (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	ROW		
Steeping slope	2 + 040 – 4 + 300	1				The steep slope and prone to landslides; soil disposal. (high risk)	 
Water pipe along the road	5 + 470 – 5 + 820		1			Water pipe along the existing road, 0.5 inches (affected).	 
	11 + 340 – 12 + 120					Water pipe along the road 1" (pipe PVC ± 780 meters). (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
Cross pipes	7 + 120				Cross water pipe 1.5 inches (\pm 30 meters), and along the right side of the road. (affected)	 
	10 + 740				Cross water pipe 1.5 inches (\pm 20 meters). (affected)	 
	11 + 460				Cross pipe 0.5"	 






INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
Water tank	7 + 110	3				Water tank, near to the alignment. (high risk)	 
Rive or waterways	4 + 780					<i>Hautsanaloda</i> is a seasonal river; at the border of <i>Horai Quick</i> and <i>Mulo Suco</i> . The community used water for the plantations and livestock. (risk)	 
	7 + 940					<i>Sauberan</i> River usually uses for farming and livestock. (risk)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	8 + 480					<i>Aifulilala</i> River is a seasonal river. (risk)	 
	8 + 710					<i>Hauspehan</i> river is a seasonal river; usually, used for farming and livestock. (risk)	 
	8 + 760					<i>Letnaro</i> river is a seasonal river; usually, used for farming and livestock. (risk)	 



INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
Trees/Forest	1 + 800 – 4 + 900			13	Both sides are forest area. Dominant is <i>eucalyptus</i> species. (risk)	 
	5 + 780	0.5			Big tree called <i>Ai-Bandeira</i> its tree must be avoided; according to the villager in Mulo Suco (during public consultation) because it's part of cultural heritage. (high risk)	 
	6 + 100 – 6 + 160	3			Big tree (<i>Eucalyptus</i>) near to re-alignement. (risk)	 

INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	7 + 760 – 7 + 860					New alignment passes through <i>Eucalyptus</i> plantation. (risk)	 
	7 + 960			2		Big tree near to the new alignment. (affected)	 
Electricity	7 + 100		4.5			Power pole (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	7 + 180		4			Power pole (affected)	 
	9 + 000 – 9 + 260				0.5	8 Power poles (affected)	 
	10 + 520				1	Power pole (affected).	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	10 + 840		4			Power pole (affected).	
	11 + 040 – 11 + 160			6		3 Power poles (affected).	 
School Building	4 + 980				3	School building (Mulo Elementary school) (high risk)	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	10 + 740 – 10 + 840				50	School area (<i>aldeia Qeorema</i>) (risk)	 
Market	10 + 600	25				<i>Qeorema</i> Traditional market area. (needs sidewalk)	 
Cemetery	5 + 170	5				Cemetery (high risk)	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT								
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS	
		Out of ROW (meter)	ROW	Out of ROW (meter)				
Cave	3 + 560			1		A horizontal cave (affected) (legend of people around <i>Horaic-Quic</i> & Mulo Suco; it can go through <i>Maubisse</i> Suco)		









B. Section 2 – Hatubuilico to Letefoho








INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
Houses affected	21 + 640			1		A semi-permanent garage (affected).	 
	21 + 260			1		A semi-permanent garage (affected).	 
	25 + 840		1			A semi-permanent kiosk (affected).	 








INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	25 + 840			1		A semi-permanent house (affected).	 
	26 + 360			1		A semi-permanent house (for education purposes) (affected).	 
	26 + 840		1			A semi-permanent house (affected).	 
	26 + 900		1			A semi-permanent kiosk (affected).	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	29 + 020		1			A semi-permanent house (affected).	 
	29 + 860		1			A permanent house, (half affected)	 
	29 + 890		1			A semi-permanent kiosk (half affected)	 
	30 + 040		1			A permanent house and kiosk. (half affected)	 








INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	30 + 040		1		A semi-permanent house (half affected)	 
	30 + 060		1		House and kiosk permanent affected (only half)	 
	30 + 060		1		A permanent house, (half affected)	 
	30 + 080		1		A permanent workshop and kiosk. (half affected)	 








INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	30 + 080		1			A permanent house, half affected.	 
	30 + 100		1			A permanent house, half affected.	 
	30 + 120		1			Semi-permanent kiosk and permanent house, (affected)	 
	30 + 120		1			A permanent house, half affected.	 






INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	30 + 240		1			Kiosk and permanent house (affected).	 
	30 + 260		1			A permanent house, (half affected).	 
House at height/ House beneath of steep slope	16 + 260				25	A semi-permanent house at height (risk)	 
	25 + 650				2	A semi-permanent house at height (high risk)	







INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	25 + 650	4			A permanent house at height (high risk)	
	26 + 040	1			A semi-permanent house at height (high risk)	 
	27 + 030	4			A semi-permanent house at height (high risk)	 
	28 + 520	6			A semi-permanent house at height. (risk)	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
Cultural Site	14 + 800				15	An <i>Urbo</i> , a sacred symbol (risk)	 
	25 + 860		1			Cultural heritage, a sacred place. (affected)	 
	28 + 370		1			A sacred place (affected).	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT								
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS	
		Out of ROW (meter)	ROW		Out of ROW (meter)			
Water spring/well	16 + 420	5				Erasale water spring, the main water spring that supplies water to the Letefoho administrative post. (high risk)		
	18 + 060	4				Leana water spring and lake (high risk)		
	25 + 940					0.5	A seasonal water spring; used by the community for consumer purposing and farming (high risk)	
Water pipe along the road and cross pipe	15 + 960					Cross pipe ½” (affected)		







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	16 + 470					Cross pipe 2" from <i>Erasale</i> water spring. (affected)	 
	16 + 730					Cross pipe ½" (affected)	
	16 + 740					Cross pipe ½" (affected)	 
	17 + 500 – 21 + 000					Pipe 2" along the road (affected)	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	17 + 140				Cross pipe ½"	
	18 + 060				Cross pipe ½" (affected)	 
	21 + 200				Cross Pipe 1½" (affected)	
	21 + 400 – 22 + 020				Pipes 1½" and 2" along the road (affected)	







INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	21 + 400				Cross pipe ½” (affected)	
	22 + 500 – 25 + 180				Pipes 1½” and 2” along the road (affected)	 
	22 + 560				Cross pipe ½” (affected)	
	24 + 600				Cross pipe ½” (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	25 + 500 – 26 + 000					Pipes 1½" and 2" along the road. (risk)	 
	25 + 720					Cross pipe ½" (affected)	 
	25 + 850					Cross pipe ½" (affected)	 
	26 + 050					Cross pipe ½" (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	26 + 260					Cross pipe ½"	 
	26 + 580					Cross pipe ½"	 
	26 + 600 – 28 + 500					Pipes 1½" and 2" along the road.	 
	26 + 660					Cross pipe ½"	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	26 + 800					Cross pipe ½"	 
	26 + 900					Cross pipe ½"	 
	27 + 100					Cross pipe ½"	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	27 + 120					Cross pipe ½"	 
	28 + 460					Cross pipe ¾"	 
	28 + 640					Cross pipe ½"	 
	29 + 300 – 30 + 240					Pipes 1½" and 2" along the road.	 






INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	29 + 960					Cross pipe ½"	 
	30 + 020					Cross pipe ½" affected	 
	30 + 140					Cross pipe ½" affected	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	30 + 220					Cross pipe 2" affected	 
Water tank	21 + 420		1			Water tank (affected)	 
	22 + 040	2				Water tank, near to alignment (high risk)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	22 + 480	3				Water tank, near to alignment (high risk)	 
	23 + 440	2				Water tank, near to alignment (high risk)	 
	28 + 600		1			Water tank (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT								
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS	
		Out of ROW (meter)	ROW		Out of ROW (meter)			
Rive or waterways	16 + 320					Erasale River		
	16 + 940					Seasonal River		
	16 + 700					Timber bridge (broken)		
	17 + 460					Tarlabesi River (seasonal)		







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	18 + 360					<i>Aimeta River (seasonal)</i>	 
	19 + 400					<i>Mauniru River (seasonal)</i>	 
	20 + 180					<i>Hofu River (Eratoi)</i>	 
	24 + 260					<i>Ahata Leten River (seasonal)</i>	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	26 + 700				<i>Nunlau</i> River (seasonal)	 
	28 + 300				Seasonal River	
	28 + 480				<i>Pleluli</i> River (seasonal)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
Electricity/ Power pole	24 + 560			1		Power pole (affected)	 
	24 + 800 – 25 + 020			2		6 Power poles (affected)	 
	25 + 200			1		Power pole (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	25 + 660 – 25 + 740		2			2 Power poles (affected)	 
	25 + 900		0.5			Power pole (affected)	 
	26 + 050		1			Power pole (affected)	 





INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	26 + 200		1			Power pole (affected)	 
	26 + 340 – 26 + 360		2			2 Power poles (affected)	 
	26 + 580		1			Power pole (affected)	 

INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	28 + 220		1			Power pole (affected)	 
	28 + 520		2			Power pole (affected)	 
	29 + 320 – 29 + 620		1			5 Power poles (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	29 + 680 – 29 + 990		1			12 Power poles (affected)	 
	30 + 020 – 30 + 140		1			6 Power poles (affected)	 
	30 + 220 – 30 + 300		1			2 Power poles (affected)	 
	30 + 270		1			Power pole (affected)	 








INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
School Building/ Area	18 + 600				10	Aimeta school area (risk due to air quality decrease and disrupted access)	 
	27 + 700				20	Eratoi school area (risk due to air quality decrease and disrupted access)	 
	26 + 580				15	Dukurai school area (risk due to air quality decrease and disrupted access)	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
Market	28 + 840	6				Lefoho Market area (high risk, disrupted)	 
Cemetery	28 + 840				3	Mauleuhata Cemetery (high risk, disrupted)	 
Church area	21 + 560	5				Eratoi Chapel (risk)	 









INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	26 + 300	8			Dukurai Church (risk)	 
	27 + 740	5			Letefoho Church (risk)	 









C. Section 3 – Letefoho to Gleno






INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
Houses affected	39 + 300		1			A permanent kiosk and house (affected)	 
	39 + 420		1			A semi-permanent kiosk (affected)	 
	39 + 480		1			A semi-permanent garage (affected)	 







INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	39 + 700		1		A semi-permanent kiosk (affected)	 
	40 + 840		1		A permanent kiosk (affected)	
	41 + 600		1		Semi-permanent house and kiosk (affected)	 
	41 + 640		1		A semi-permanent house (affected)	 





INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	41 + 700		1			A semi-permanent kiosk (affected)	 
	42 + 440		1	1		A semi-permanent kiosk (affected)	 
	48 + 460			1		2 semi-permanent houses (affected)	 
	48 + 880		1			A semi-permanent kiosk (affected)	 





INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	49 + 980		1	1		A permanent house (affected)	 
	50 + 000			1		A temporary humpy (affected)	 
	50 + 280			1		A temporary humpy (affected)	 
House at height/ House beneath of steep slope	38 + 960				5	A permanent house at height (high risk)	 





INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	48 + 840				4	A permanent house at height (high risk)	 
	50 + 400				4	A semi-permanent house at height (high risk)	 
	52 + 060				6	A semi-permanent house at height (high risk)	 
	52 + 420				5	A kiosk at height (high risk)	 





INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	54 + 280				7	A semi-permanent house at height (risk)	
Cultural Site	50 + 720		1			<i>Nuntali</i> cultural site, affected.	 
Water spring/well	42 + 300				3	<i>Darudu</i> water spring (high risk)	 






INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	42 + 560				8	Water spring (risk)	 
	43 +260	6				<i>Titana</i> water spring (high risk)	 
	53 + 000	5				<i>Ahemou</i> Water spring (high risk)	
Water pipe along the road and cross pipe	38 + 940					Cross pipe 0,5"	









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	39 + 060					Cross pipe 0,5"	
	39 + 060 – 39 + 160		1			Cross pipe 0,5"	
	39 + 280					Cross pipe 1"	
	39 + 280 – 40 + 200		1	1		Pipe 1,5 " along the road (affected)	









INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	39 + 280					Cross pipe 0,5"	
	39 + 400					Cross pipe 0,5"	
	39 + 620					Cross pipe 0,5"	
	40 + 080					Cross pipe 0,5"	


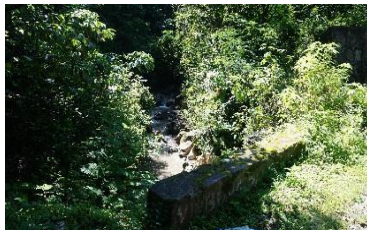




INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	42 + 360					Cross pipe 0,5"	
	42 + 600					Cross pipe 0,5"	
	42 + 600 – 42 + 800			1		Pipe 0,5 "along the road (affected)	
	42 + 760					Cross pipe 0,5"	







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	43 + 240					Cross pipe 0,5"	
	43 + 260 – 44 + 060		1			Water pipe 1" along the road (affected)	
	43 + 640					Cross pipe 0,5"	
	48 + 400 – 51 + 060			1		Water pipe 6" along the road (affected)	







INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	50 + 240					Cross pipe 0,5"	
	51 + 630 – 52 + 200			1		Cross pipe 0,5" (affected)	
	53 + 000 – 53 + 840		1			Water pipe 3" along the road (affected)	
Water tank	39 + 060		1			Concrete tank, affected (2,5m X 2,5m x 2m) (affected)	 




INVENTORY FOR RISK AND IMPACTS ASSESSMENT								
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS	
		Out of ROW (meter)	ROW		Out of ROW (meter)			
Rive or waterways	39 + 100					Karau Ulun Goulolo River		
	40 + 500					Raicala waterway		
	40 + 740					Raicala River		
	17 + 460					Eraulo River		





INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	Out of ROW (meter)		
	49 + 060					<i>Malae Monu River</i>	 
	49 + 900					<i>Lakugoa River (a)</i>	 
	49 + 990					<i>Lakugoa River (b)</i>	 
	50 + 580					<i>Turai Loda River</i>	 



INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	26 + 700					Nuntali River	
	51 + 600					Plomer River	 
	52 + 040					Manten River	 
Electricity/ Power pole	39 + 320 – 39 + 360		1			Two (2) power poles, affected	

INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	40 + 020		1			A power pole affected	 
	40 + 360 – 40 + 480		1			Three (3) power poles, affected	 
	40 + 680 – 40 + 720		1			Two (2) power poles, affected	 

INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	40 + 860		1		A power pole (affected)	 
	41 + 620		1		A power pole (affected)	
	41 + 800 – 41 + 940		1		Three (3) power poles, affected	 
	42 + 800 – 42 + 840		1		Two (2) power poles, affected	

INVENTORY FOR RISK AND IMPACTS ASSESSMENT							
RISK INVENTORY	STA	LEFT		RIGHT		REMARKS	PHOTOS
		Out of ROW (meter)	ROW		Out of ROW (meter)		
	54 + 080				0,5	Power pole (affected)	
School Building/ Area	40 + 900	15				Estado School area (Teboc) Risk	
	42 + 800				10	Eraulo school area (risk)	

INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
Clinic building/ Area	39 + 220	5			Goulolo Clinic (high risk)	
Cemetery	43+ 620	7			Sinai Cemetery (high risk) disrupted	
Church area	39 + 360			5	Goulolo Chapel area (high risk) disrupted	 

INVENTORY FOR RISK AND IMPACTS ASSESSMENT						
RISK INVENTORY	STA	LEFT		RIGHT		PHOTOS
		Out of ROW (meter)	ROW	Out of ROW (meter)	REMARKS	
	43 + 500	6			Sinai Chapel area (risk)	 

Appendix 5 – Potential Disposal Area and Stockpile



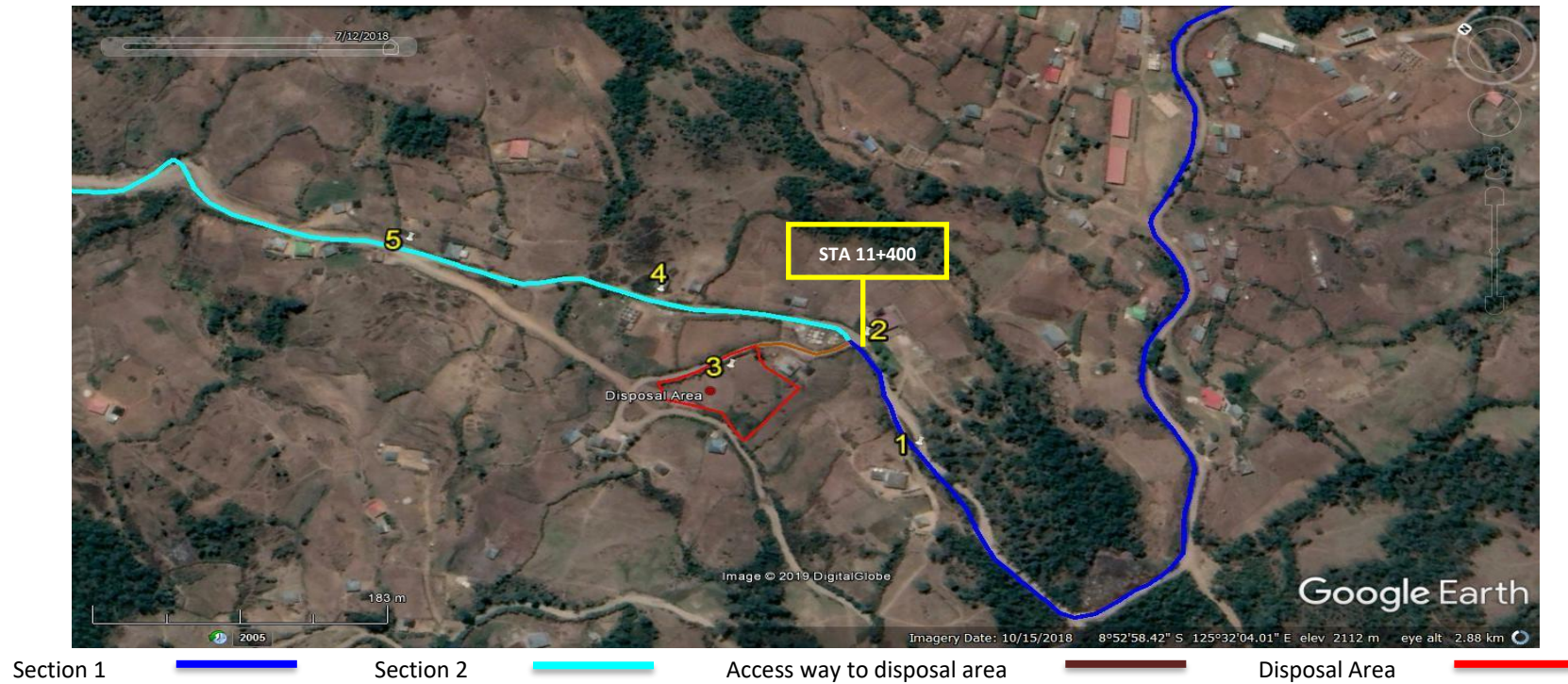
Section 1

Access way to disposal area

Disposal Area

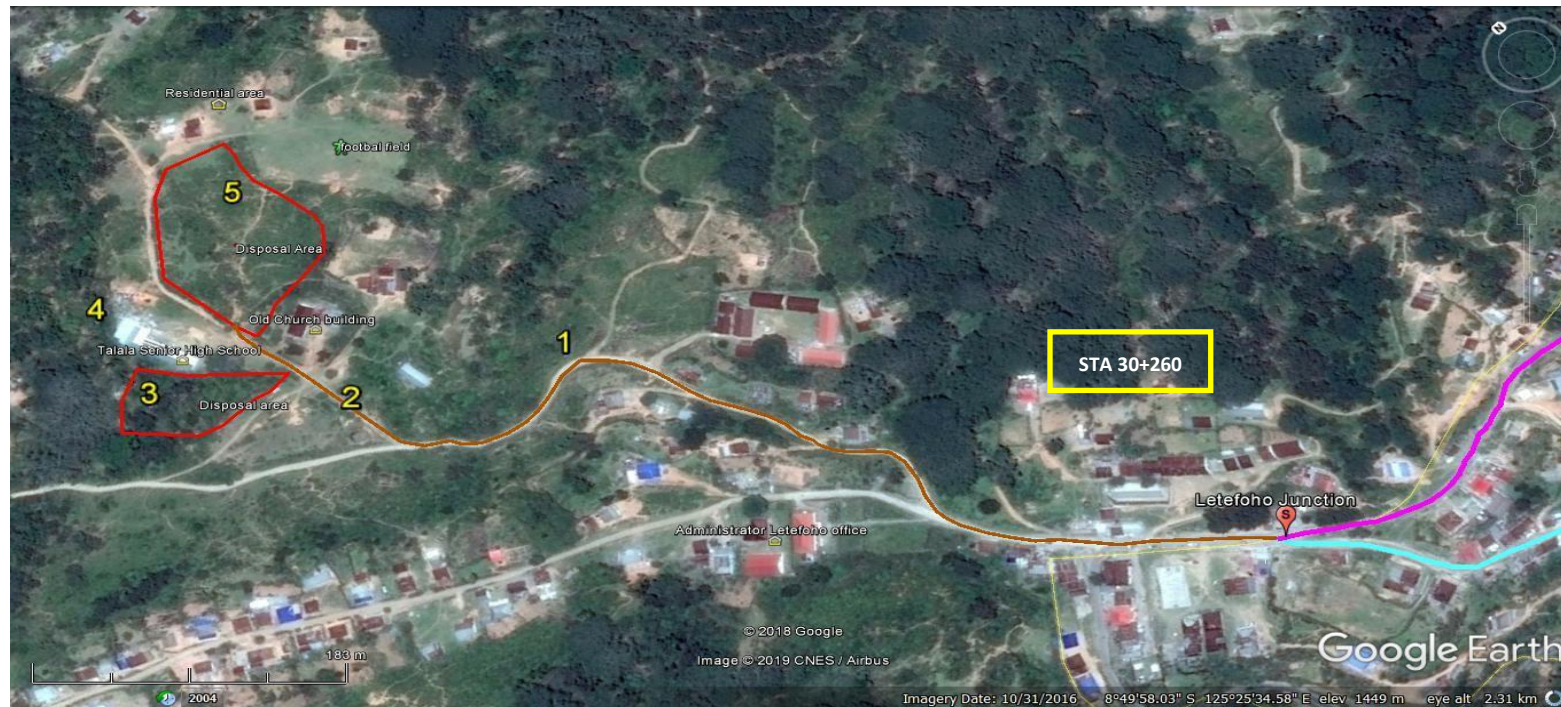
Note: Distance of road project to the disposal area = 350 meters; and total area of spoil disposal = $\pm 12,712 \text{ m}^2$





Note: Distance of road project to the disposal area = 30 meters; and total area of spoil disposal $\pm 3,213\text{m}^2$





Section 1  Section 2  Section 3  Access way to disposal area  Disposal Area 

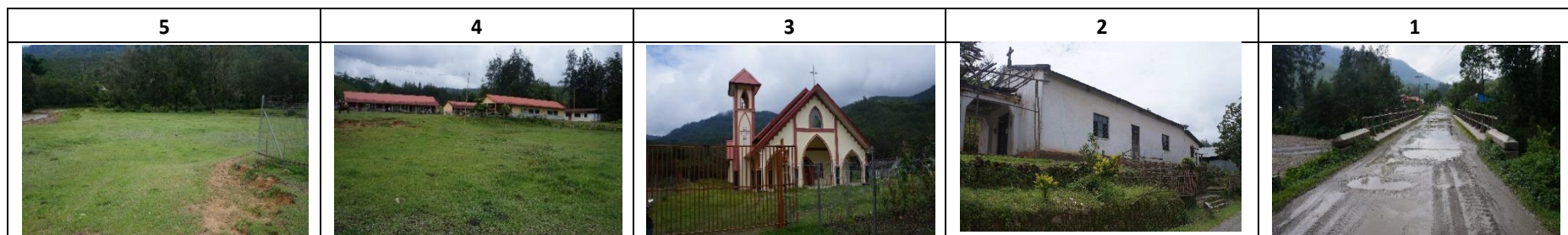
Note: Distance of the disposal area from Letefoho junction = 750 meters; and total area of spoil disposal no. 3 is $\pm 4,369 \text{ m}^2$; and no. 5 is $\pm 11,567 \text{ m}^2$





Section 3 Access way to disposal area Disposal Area

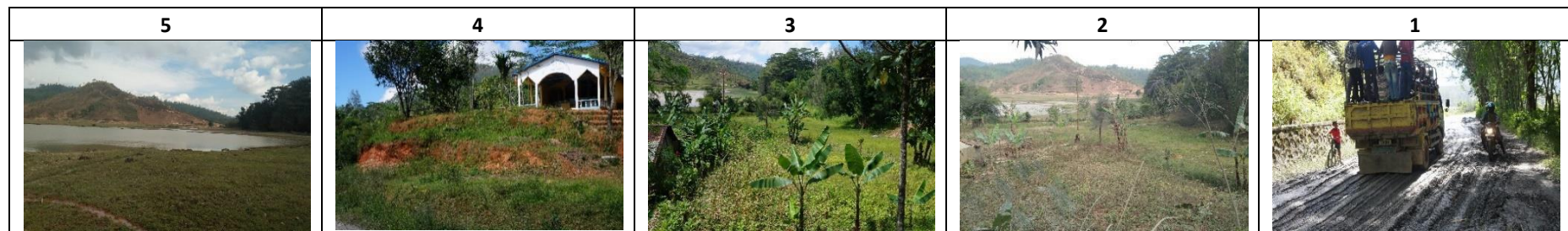
Note: Distance of the disposal area from main road = 50 meters; and total area of spoil disposal $\pm 5,329.4 \text{ m}^2$





Section 3 Disposal Area

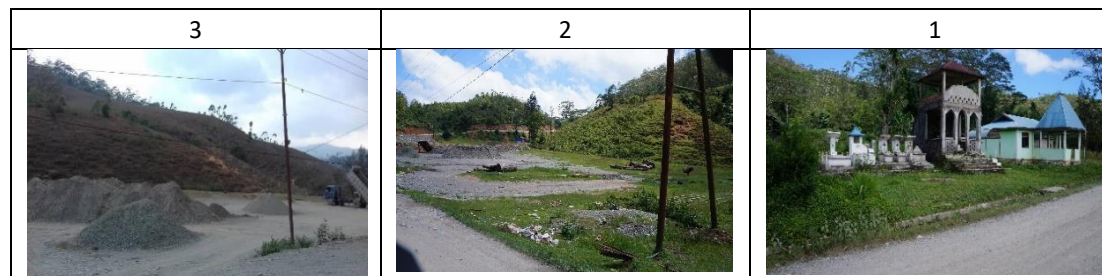
Note: Distance of the disposal area from main road = 5 meters; and total area of spoil disposal $\pm 3,387 \text{ m}^2$





Section 3 Stockpile Area

Stockpile area $\pm 13,290 \text{ m}^2$



Appendix 6 – Mechanism of Sand and Gravel Extraction

REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE
MINISTRY OF ECONOMIC AND DEVELOPMENT

GUIDELINE No. 2: Mechanism of Sand and Gravel Extraction from Rivers and Borrow Pits

Extraction from Rivers

- No work shall be undertaken within a river basin in an area 1 km upstream from a road bridge bearing mechanized vehicles;
- Contractors shall be aware of the boundaries of their area of extraction. Individual company work areas shall be clearly marked. However, no signs shall be placed in the river basin area;
- To ensure security on the site, it shall be clearly marked with signs in Tetum and English during and on completion of the works;
- Entry from the banks shall be on constructed and supported ramps;
- Approach ramps to removal areas shall be constructed by filling rather than cutting. Fill shall be removed immediately following the gravel removal operations;
- All works, undertaken by the Contractor, shall not cause any damage to the vegetation or morphology of the stream bank (riparian zone). Any damage incurred by Contractors shall require immediate rehabilitation to minimize the effects of erosion during the rainy season;
- No extraction work shall be undertaken within 10 meters from the riverbanks;
- No stockpiling shall be undertaken on the bank of the river;
- Skimming of the river bed shall be the preferable method of gravel extraction;
- No washing of gravel material shall be undertaken within the river basin;
- No artificial watercourses shall be dug by the Contractors which redirect water flow to the edge of the river bank;
- No gravel extraction shall be undertaken in actively flowing channels, in order to minimize the mobilization of sediment downstream;
- Any alternative watercourses constructed on site shall be dug a minimum of 10 meters from the riverbanks. Channels dug shall be continuous so as not to restrict the flow of water;
- The works shall not create any deep pools or deep channels;
- Vehicle movement on the site and the nearby area shall be controlled;
- Adequate access to stockpiles of aggregates shall be given to *Suco* and *Aldeia* residents.

Extraction from Borrow Pits

- No extraction without first informing appropriate local authorities as well as relevant community representatives;
- Minimize the need for removal of vegetation and no extraction on steep slopes;
- Apply measures to ensure slope stability during excavation on shallow slopes;
- No extraction within 100 meters of large rivers and 50 meters of small rivers;
- No extraction within 50 meters of other surface water features or other sensitive sites (environmental or socio-cultural).

Appendix 7 – Tracer Study (Rapid Assessment) Result

No.	NAME OF PAP	SUCO	ALDEIA	CLAIM/ REPORTED	SUSPECTED CAUSE	LOCATION	SURROUNDING CONDITION	REMEDIAL SUGGESTION
1	Jose de Deus Maia	Humboe	Borhei	A, E $\pm (1,200 \text{ m}^2)$	Disposal area	Orhala	Coffee Plantation	Materials dump must be the right place
2	Eduardo Soares (picture no. 2)	Humboe	Borhei	A $\pm (200 \text{ m}^2)$	Slope cutting	Hat-ropan	Coffee plantation	Needs to build retaining wall immediately
3	Julio Carvalio	Humboe	Hatali	A $\pm (200 \text{ m}^2)$	Slope Cutting	Faltrae	Prone to a landslide, coffee plantation	Needs to build retaining wall immediately
4	Agostino da C. Xavier (picture no. 3)	Humboe	Hatali	A $\pm (200 \text{ m}^2)$	Slope cutting and soil disposal	Malsuk-Ria	Coffee plantation and prone to landslide	Needs to build retaining wall immediately
5	Domingos Ximenes	Humboe	Borhei	A $\pm (60 \text{ m}^2)$	Slope Cutting	Glor – Sua		Stop slope cutting
6	Adriano da Cruz	Humboe	Hatali	A $\pm (600 \text{ m}^2)$	Slope cutting	Nalelalan	Coffee plantation	Stop slope cutting
7	Saturnino da G. S.	Humboe	Hatali	E $\pm (400 \text{ m}^2)$	Slope cutting	Faltrae	Coffee plantation	Stop slope cutting
8	Fernanda A. dos Santos (picture no. 1)	Humboe	Borhei	B $\pm (300 \text{ m}^2)$	Slope Cutting	Hat-ropan	Coffee plantation and risk to house	Be careful to the house at the height
9	Zeferino da C. Babo	Humboe	Borhei	E $\pm (30 \text{ m}^2)$	Disposal area	Orhala	coffee plantation	Materials dump must be the right place
10	Alarico G. Pinto	Humboe	Borhei	B $\pm (600 \text{ m}^2)$	Slope cutting	Rai – mean	The risk to houses beneath at height	Needs retaining wall to protect the house
11	Gabriel Carvalho	Humboe	Hatali	A, E $\pm (200 \text{ m}^2)$	Disposal area	Faltrae	Coffee plantation	Need gabion to protect the slope
12	Marciano J. Da Cruz	Humboe	Borhei	B $\pm (750 \text{ m}^2)$	Slope cutting	Hat – ropan	Coffee plantation	Needs to build retaining wall immediately

No.	NAME OF PAP	SUCO	ALDEIA	CLAIM/ REPORTED	SUSPECTED CAUSE	LOCATION	SURROUNDING CONDITION	REMEDIAL SUGGESTION
13	Mario M. Exposto	Humboe	Borhei	A, B ± (1,200 m ²)	Slope cutting	Orhala	Coffee Plantation	Needs retaining wall
14	Luis Cardoso	Humboe	Borhei	B, E ± (300 m ²)	Slope cutting and soil disposal	Sotba	Coffee plantation	Additional for compensation 15\$ per coffee
15	Francisco Carvalho	Humboe	Hatali	A, E ± (150 m ²)	Slope cutting and disposal area	Glor – Sua	Coffee plantation	Need considering with the land and coffee owner
16	Cipriano Maia	Humboe	Hatali	A ± (1,200 m ²)	Slope cutting	Faltrae	Coffee plantation	Needs to build retaining wall immediately
17	Filipe salsinha	Humboe	Borhei	A, E ± (300 m ²)	Slope cutting and disposal area	Fatrae	Coffee plantation	Needs to coordinate with the coffee owner
18	Franscisco Carvalho	Humboe	Hatali	A, E ± (150 m ²)	Disposal area	Glor-Su	Coffee plantation	Lost many coffees
19	José de Deus (picture no. 4)	Humboe	Hatali	A ± (480 m ²)	Slope cutting	Erhine	Lost land	Stop slope cutting

Suco:

- 1) *Humboe*
- 2) *Estado*
- 3) *Eraulo*
- 4) *Goulolo*
- 5) *Haupu*

Claim:

- a) Erosion
- b) Landslides
- c) Damage of house
- d) Respiratory disorders
- e) Damage of coffee plantation (m²)
- f) Others → explain the claim

No.	NAME OF PAP	SUCO	ALDEIA	CLAIM/ REPORTED	SUSPECTED CAUSE	LOCATION	SURROUNDING CONDITION	REMEDIAL SUGGESTION
1	Euzebio A. Maia	Haupu	Raipusa	E ± (2,000 m ²)	Slope cutting	Raipusa	Coffee plantation	Needs retaining wall
2	Felix Soares	Haupu	Raipusa	E ± (120 m ²)	Outlet drainage affected to the coffee plantation	Raipusa	Coffee plantation	Re-construction
3	Abilio Afonso	Haupu	Raipusa	A, B (Kailiti ± 140 m ²) (Raipu ± 1,500 m ²)	Disposal area and slope cutting	Raipusa and Kailiti	Coffee Plantation	Retaining wall
4	Silvino de Deus	Haupu	Raipusa	B ± (50 m ²)	Slope Cutting	Raipusa	Houses	Retaining wall
5	Amelia Babo	Haupu	Raipusa	A ± (50 m ²)	Slope cutting	Raipusa	Houses	Retaining wall
6	Carlos Soares	Haupu	Raipusa	B ± (75 m ²)	Slope cutting	Raipusa	Houses and garden	Retaining wall
7	Luciano Soares	Haupu	Raipusa	B ± (75 m ²)	Slope cutting	Raipusa	houses	Retaining wall
8	Francisco Soares	Haupu	Raipusa	E ± (270 m ²)	Slope cutting	Railia	Coffee plantation	Retaining wall
9	Elio P. Soares	Haupu	Raipusa	F	Outlet drainage affected their house	Railia	Houses	Re-construction
10	Lucas da Silva	Haupu	Raipusa	A ± (150 m ²)	Slope cutting	Biqinda	Coffee plantation	Retaining wall
11	Celestino S. Salsinha	Haupu	Raipusa	E ± (320 m ²)	slope cutting	Biqinda	Coffee plantation	Retaining wall
12	Pedro Soares	Haupu	Raipusa	B ± (300 m ²)	slope cutting	Railia	Coffee plantation	Retaining wall
13	Esmael S. De Deus	Haupu	Raipusa	A± (640 m ²)	Slope Cutting	Raipusa	Houses	Retaining wall

No.	NAME OF PAP	SUCO	ALDEIA	CLAIM/ REPORTED	SUSPECTED CAUSE	LOCATION	SURROUNDING CONDITION	REMEDIAL SUGGESTION
14	Abilio S. Vasconcelos	Haupu	Raipusa	C ± (175 m ²)	Slope cutting	Raipusa	Houses	Retaining wall
15	Laurenco da C. Maia	Haupu	Raipusa	A C ± (130 m ²)	Slope cutting	Raipusa	Coffee plantation and houses	Retaining wall
16	Luis Soares	Haupu	Raipusa	E ± (280 m ²)	Slope cutting	Raipusa	Coffee plantation	Retaining wall
17	Abel S. De Deus	Haupu	Raipusa	E, F ± (180 m ²)	Slope cutting	Raipusa	Coffee plantation, Houses, Water pipe	Preventive
18	Pedro S. De	Haupu	Raipusa	B ± (800 m ²)	Slope cutting	Raipusa	Coffee plantation and houses	Retaining wall
19	Francisco Soares	Haupu	Raipusa	E ± (210 m ²)	Slope cutting	Raipusa	Coffee plantation	Retaining wall

Suco:

1. *Humboe*
2. *Estado*
3. *Eraulo*
4. *Goulolo*
5. *Haupu*

Claim:

- a. Erosion
- b. Landslides
- c. Damage of house
- d. Respiratory disorders
- e. Damage of coffee plantation (m²)
- f. Others → explain the claim

No.	NAME OF PAP	Suco	ALDEIA	CLAIM/ REPORTED	SUSPECTED CAUSE	LOCATION	SURROUNDING CONDITION	REMEDIAL SUGGESTION
1	Bendito Maia (picture no. 5)	Goulolo	Goulolo	E ± (1,500 m ²)	Disposal Area	Kailiti	Coffee plantation and river	The culvert should be installed toward the river; thus, the water not directly discharge to the coffee plantation.
2	Joao Lemos Maia (picture no. 6)	Goulolo	Goulolo	E ± (100 m ²)	Disposal area	Kailiti	Coffee plantation and river	The culvert should be installed toward the river; thus, the water not directly discharge to the coffee plantation.
3	Jose De Deus	Estado	Lih-mo	E ± (400 m ²)	Slope cutting	Lih – Mo	Hardwood trees/teak (2), avocado tree (1)	Needs to build drainage and retaining wall.

Suco:

1. *Humboe*
2. *Estado*
3. *Eraulo*
4. *Goulolo*
5. *Haupu*

Claim:

- a. Erosion
- b. Landslides
- c. Damage of house
- d. Respiratory disorders
- e. Damage of coffee plantation (m²)
- f. Others → explain the claim

HUMBOE

1



2





GOULOLO



HAUPU



Appendix 8 – Environmental and Social Standard Operational Procedures (SOPs)

This procedure serves as a guideline for the management of road maintenance works, financed under Component 2 on Institutional Strengthening and Project Management (US\$4.0 million of which expected IDA financing is US\$4.0 million).

This component aims at helping strengthening capabilities within MPW and DRBFC on issues related to road assets management, road safety and road maintenance. It will finance technical assistance, equipment, and operational costs associated with the implementation of the Project. It will also finance studies required for the preparation of potential future investments in the road sector.

Under Sub-component 2.1 on Technical Assistance (US\$1.6 million), potential activities involve knowledge, capacity building, data and funding to support transport sector development. Technical Assistance activities include: (i) data collection on road inventory, traffic and condition on national and district roads (approximately 2,240 km) to update the Road Asset Management System for supporting monitoring, planning and programming of road works; (ii) piloting of multi-year performance based maintenance contracts on national roads (two years of maintenance on approximately 125 km) through contractors using community-based groups with female participation, including strengthening supervision activities done by DRBFC; (iii) road safety capacity building program within MPW through the hiring of a road safety advisor to DRBFC; and, (iv) geotechnical capacity building program within MPW through the hiring of a geotechnical advisor to DRBFC.

Piloting of multi-year performance-based road maintenance works may involve activities such as drainage cleaning and pot-hole patching which represent low environmental and social risks. A guideline has been adopted by the Directorate of Road, Bridges and Flood Control (DRBFC) of the Ministry of Public Works of Timor-Leste and hence will continue to be adopted and strengthened through this project. The guideline below hence serves as the overall environmental and social management framework under the project.



**REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE
MINISTÉRIO DAS OBRAS PÚBLICAS
SECRETARIA DE ESTADO DAS OBRAS PUBLICAS
DIRECÇÃO NACIONAL DE ESTRADAS, PONTES E CONTROLE DE CHEIAS**

INSTRUCTIONS TO CONTRACTORS FOR ROAD SAFETY IMPROVEMENT CIVIL WORK

Version 1.0

These instructions are part of the Timor Leste Branch Road Environmental and Social Management Plan and are integrated within the Contract requirements for specific Road Safety Improvement Civil Work contracts.

If there is any doubt about the contents or application of the procedures in these instructions, please contact the responsible PMU/MPW Road Safety Improvement Engineer before proceeding with the activity.

Procedure No. 1

Construction Camp & Site Management

Objective: Define the obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Construction Camp Management**, particularly siting, sanitation, diseases and waste to avoid any harm caused by the workers and the facilities to the environment.

DO

DON'T

Location and Specifications of Camp Areas

- Confirm with the Engineer on duty – and in consultation with the concerned community – about identified and approved locations for the construction of campsites before starting operations.
- Camps need to be located in flat and horizontal areas with adequate natural drainage channels and need to be located at least 500 metres from settlements.
- Ensure adequate drainage of camp sites to prevent mosquito breeding.
- Restore land used for camp sites back to original conditions, including re-vegetation as appropriate.
- **DON'T** build camp sites on slopes **and hills or in the areas which are prone to natural disasters.**
- **DON'T** build camp sites in residential or sensitive areas like forests or protected areas
- **DON'T** build camp sites within 100 metres upstream of local drinking water sources

General Provisions in Camp Areas

- Provide camps with garbage bins and keep the camps clean.
- Provide adequate housing, cooking, bathing and toilet (separate toilets for men and women) facilities for workers living in the camp, and keep them clean.
- Wastewater from sewage is to be managed according to Procedure No. 3 on Waste and Waste Water Management.
- If there is malaria in the area, apply malaria controls procedures such as mosquito nets.
- **DON'T** throw solid waste from construction activities and camp sites into rivers and other water courses
- **DON'T** build open pit latrines
- **DON'T** spill waste. ***Prevention is better than remediation***

Utilities

- Confirm with the Engineer on duty and the community about identified and approved water supply sources.
- Make sure that the project's drinking water requirements do not affect the availability of drinking water for the local population. If this is the case, seek other water sources (for example from water tanker).
- **DON'T** waste water

Storage and Workshop Areas

- Store fuels and other hazardous substances on hard standing area and protect with adequate roofing (to protect it from rain), with a containment wall and a proper system for safe disposal, in case of waste.
- Only personnel with the capacity to handle stored fuel and other hazardous substances and are able to
- **DON'T** spill fuel and hazardous substances. ***Prevention is better than remediation.***

Procedure No. 2

Asphalt Mixing and Rock Crusher Plant Management

Objective: Define obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Asphalt Mixing and Rock Crusher Plant Management**, particularly regarding locations, air pollution, traffic obstacles and contamination.

DO

DON'T

Location and Specification

- Confirm with the Engineer on duty about identified and approved sites for the asphalt plant and rock crusher.
- Asphalt plants and rock crusher must not be located on the road and at least 500 metres away from settlements, schools, hospitals and protected areas.
- Install rock crusher with dust suppression equipment.
- Petroleum products used to heat-up the bitumen shall be handled properly to avoid any spill and empty bitumen drums shall be kept in safe areas.
- Bitumen storage and mixing areas shall be protected against spills and all contaminated soil must be properly handled and dumped in designated areas.
- Bitumen mixing areas shall be protected and any spill shall be contained and disposed in an authorized area. According to Procedure No. 3.
- Empty drums have to be stored in appropriate places on the construction sites.
- Accidental spill of bitumen or chemical should be cleaned up immediately the top 2 cm of contaminated soil and disposed of as chemical waste to approved disposal site.
- **DON'T** use Bitumen as fuel.
- **DON'T** throw empty bitumen drums along road or other project sites.
- **DON'T** dump bitumen in running and dry streambeds or ditches

Procedure No. 3

Waste and Waste Water Management

Objective: Define obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Waste and Waste Water Management**, particularly regarding water pollution and soil contamination as well as threats to the environment and human health.

DO

DON'T

Construction Site

- Confirm with the Engineer on duty about designated landfill for waste and treatment plants for solid and liquid waste disposal before starting the construction.
- All solid, liquid and hazardous wastes will be collected and removed from the work camps and disposed in waste disposal areas defined and approved by local authorities.
- Burning of construction and domestic wastes shall be prohibited.
- Segregate hazardous wastes (oily wastes, used batteries, fuel drums) and ensure that storage, transport and disposal shall not cause pollution, consistent with NDE orientation and national regulations.
- Ensure that all waste storage containers are in good condition with proper labelling.
- **DON'T** use unauthorized sites for specific le
- **DON'T** dispose of solid waste into canals, other water courses, agricultural fields and areas.
- **DON'T** burn waste on site

Procedure No. 4

Tree and Vegetation Management

Objective: Define obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Tree and Vegetation Management**, particularly regarding tree cutting, the use of invasive species and vegetation rehabilitation.

DO

DON'T

Clearing and cutting

- | | |
|--|--|
| <ul style="list-style-type: none"> • Follow the detailed design to minimize loss of trees and other vegetation. Inform the Regional Engineer and the Community if (unmarked) trees are within the alignment and need to be cut. Seek their approval before cutting the trees. • Monitor and mark vegetation that will not be removed, before starting construction, according to the design • If trees are removed they have to be replaced with new ones if possible. Coordinate with the Engineer on duty and the community regarding the replacement of trees. • Use only tree species approved by MAF and local communities. | <ul style="list-style-type: none"> • DON'T plant new/invasive species in the Project area, for reforestation purposes. |
|--|--|

Slope Protection

- | | |
|---|--|
| <ul style="list-style-type: none"> • Minimize tree cutting during slope formation. Follow directions from the Engineer on duty. • Implement bioengineering measures as directed by the project design. • Provide seeding and planting of indigenous grasses in low embankments to protect them from erosion. | <ul style="list-style-type: none"> • DON'T cause fires that may cause loss of vegetation in the project area and increase the risk of erosion. |
|---|--|

Project Daily Use

- | | |
|--|--|
| <ul style="list-style-type: none"> • Make the optimum use of cleared vegetation for re-vegetation purposes. Minimize cutting of trees for firewood. • Trees cut down must be collected and stored for other uses in the construction. Assign someone responsible for this task. • Before giving away wood/trees that have been cut, make sure the project doesn't need the wood anymore for other activities (i.e: camp kitchen, etc.) • Cleared foliage, shrubs and grasses can only be given to local farmers for fodder and fuel, only if it cannot be used in the construction of the project. | <ul style="list-style-type: none"> • DON'T buy or use wood from illegal sources (i.e: illegal logging) |
|--|--|

DO	DON'T
<ul style="list-style-type: none">If fuel wood from clearing is finished and more is required for the construction, coordinate with the Engineer on duty on the collection of fuel wood which must be prioritized as follows:	
1) Buy Local Fuel wood first (if available);	<ul style="list-style-type: none">DON'T buy wood from local suppliers if wood from the clearing activity is available. Be responsible.
2) Collect fallen fuel wood in the immediate area;	<ul style="list-style-type: none">DON'T cut trees if there is fallen fuel wood available on the ground
3) Cut down selected shrubs and small trees, only after 1 and 2 are unavailable.	<ul style="list-style-type: none">DON'T do any tree cutting without coordinating with the Engineer on duty.

Procedure No. 5

Noise, Dust and Traffic Management

Objective: Define obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Noise, Dust and Traffic Management**, particularly regarding noise and air pollution, and traffic obstacles.

DO

Noise, Dust and Traffic Management

- Monitor and investigate complaints and propose appropriate mitigation measures.
- Mixing and crusher plants need to be equipped with dust suppressor devices such as water sprayers.
- As much as possible, noisy activities should be kept to a minimum, in particular in residential areas and near schools, hospitals, temples, etc.
- Set-up speed limits to minimize dust emission near sensitive receptors like residential areas. Indicate speed limits with sign boards and speed bumps.
- Implement appropriate traffic diversions to avoid traffic congestion and dangerous traffic conditions.
- Provide sufficient lighting at night in the construction areas when night work has been instructed or approved by the Engineer on duty.
- Designate a traffic officer and flagman to warn of dangerous conditions (if required for 24 hours/day).
- Construction equipment and vehicles need to be maintained regularly to prevent or minimize pollution.
- Protect all sites and open excavations with barriers and signs to prevent vehicles damaging the work or falling into excavations.

DON'T

- **DON'T** use machines that cause excessive pollution
- **DON'T** turn on machines or keep them running, when not in use

Procedure No. 6

Material and Spoil Management

Objective: Define the obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate **to Material and Spoil Management**, particularly regarding sourcing and disposal.

DO

Soil Disposal

- Confirm with the Engineer on duty about designated areas for spoil disposal before starting the project.
- Storage of stockpiles shall be located at least 50 metres away from water bodies
- Spoils shall only be disposed to areas approved by local authorities.
- If required, stockpiles shall be provided with bunds to prevent siltation of rivers and other water bodies through erosion.
- Spoil disposal sites shall be located at least 50 metres from surface water courses and protected from erosion.
- Spoil disposal areas need to be rehabilitated. Disposed spoil will be spread in layers, compacted at optimum soil moisture content, covered with top soil, landscaped and provided with drainage and vegetation to prevent erosion.
- In consultation with local communities, spoil can be used to fill eroded gullies and degraded lands.

Material Management

- Confirm with the Engineer on duty and the local communities the location of authorized quarries and borrow sites. In the case of new quarries, ensure that they are approved by the local authorities.
- As much as possible, balance cut and fill to avoid excess material excavation or extraction.
- As much as possible, re-use top soils and low quality materials for construction works
- Provide adequate drainage during quarry and borrow operation to avoid the development of mosquito breeding areas

DON'T

- **DON'T** dispose spoil in rivers and streams or other natural drainage channels.
- **DON'T** dispose spoil on fragile slopes, flood ways, wetland, farmland, forest, religious or other culturally sensitive areas or areas where a livelihood is derived
- **DON'T** extract without informing appropriate local authorities.
- **DON'T** extract materials besides roads, on steep slopes or from environmentally sensitive areas
- **DON'T** extract within 100 metres of large rivers and 50 metres of small rivers
- **DON'T** extract within 50 metres of other surface water features or other sensitive sites
- **DON'T** use quarries in productive land.
- **DON'T** stockpile on river banks

DO

- Ensure that borrow pits are left in a stable condition and prevent unstable slopes. Re-vegetate the quarries, in accordance with the original state of the quarried area.
- Minimize health and safety risks of access to quarries (for example by fencing quarries where there is a significant risk of falling rocks or steep drops)

DON'T

- **DON'T** use quarries in areas of natural woodlands, near or on the rivers, on the small rivers, streams and other wetlands and protected areas
- **Don't** use any explosive materials to extract rocks from quarry.

Procedure No. 7

Erosion Control Procedures

Objective: Define the obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Erosion Control Procedures**, particularly regarding sourcing of materials, spoil and bio-engineering methods.

DO

DON'T

Erosion Management	
<ul style="list-style-type: none"> • Confirm with Engineer on duty about the detail design of the civil and bio-engineering methods before starting construction. 	<ul style="list-style-type: none"> • DON'T dispose of spoil in rivers and streams or other natural drainage channels.
<ul style="list-style-type: none"> • Minimizing the impact on the environment by limiting disturbances to vegetation and soil. 	
<ul style="list-style-type: none"> • Minimize works during heavy rains to minimize erosion risks 	
<ul style="list-style-type: none"> • Build temporary drainage structures – as required – to minimize erosion 	
<ul style="list-style-type: none"> • If erosion occurs accidentally, backfill immediately to restore to its original contours/shape, and eliminate the cause of the erosion 	
<ul style="list-style-type: none"> • Protect low embankments with indigenous grasses that are well adapted to the local weather and conditions. 	
<ul style="list-style-type: none"> • If the heights of embankment are 2 metres or more, they need to be protected – using civil engineering structures such as stone pitching or riprap – immediately after the embankment works are completed. This practice also needs to be applied along cross-drainage structures where embankments are more susceptible to erosion. 	

Procedure No. 8

Biodiversity and Sensitive Areas

Objective: Define the obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Biodiversity and Sensitive Areas**, particularly regarding the removal of vegetation and disturbances to biologically important areas caused by project workers.

DO

DON'T

<i>Biodiversity and Sensitive Areas</i>	
<ul style="list-style-type: none"> Confirm with the Engineer on duty about the detail design and the identified protected areas. 	<ul style="list-style-type: none"> DON'T locate construction camps, asphalt mixing plants, material storage sites to be located in protected areas or areas that have biologically important resources.
<ul style="list-style-type: none"> Set land clearing limits to protect vegetation, wetlands and other sensitive areas 	<ul style="list-style-type: none"> DON'T hunt local wildlife
<ul style="list-style-type: none"> Schedule bridge work during the dry season to protect rivers and other streams. 	
<ul style="list-style-type: none"> Buy food from farmers as much as possible 	<ul style="list-style-type: none"> DON'T buy any bush meat
<ul style="list-style-type: none"> For vegetation management related issues refer to Procedure No. 4 	

Procedure No. 9

Workers and Public Safety

Objective: Define the obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Workers and Public Safety**, particularly regarding the maintenance of a safe workers' environment for the project workers, as well as the public.

DO

DON'T

Workers and Public Safety	
<ul style="list-style-type: none"> Confirm with the Engineer on duty regarding the design details related to occupational safety before commencing the project activities. 	<ul style="list-style-type: none"> DON'T allow the public to enter high risks areas, e.g., excavation sites and areas where heavy equipment and vehicles are in operation.
<ul style="list-style-type: none"> Establish safety measures by applying good engineering practices and provide First Aid Kits that are easily accessible by the workers. 	
<ul style="list-style-type: none"> Brief the workers about health and safety issues related to their work. 	
<ul style="list-style-type: none"> Provide workers with Personal Protective Equipment (PPE) such as safety shoes, helmets, safety glasses, ear plugs, gloves, etc. at no cost to the workers and ensure the implementation on the site. 	
<ul style="list-style-type: none"> Provide workers with adequate potable water. 	
<ul style="list-style-type: none"> Protect all work sites with barriers and signs to protect road users from injury and the works from damage. 	

Procedure No. 10

Archaeological and Cultural Heritage

Objective: Define the obligations (DO) and prohibitions (DON'T) regarding Road Safety Improvement civil work activities that relate to **Archaeological and Cultural Heritage**, particularly regarding protecting the archaeological, cultural and historical objects (mobile or immobile) from damage or destruction during construction.

DO

DON'T

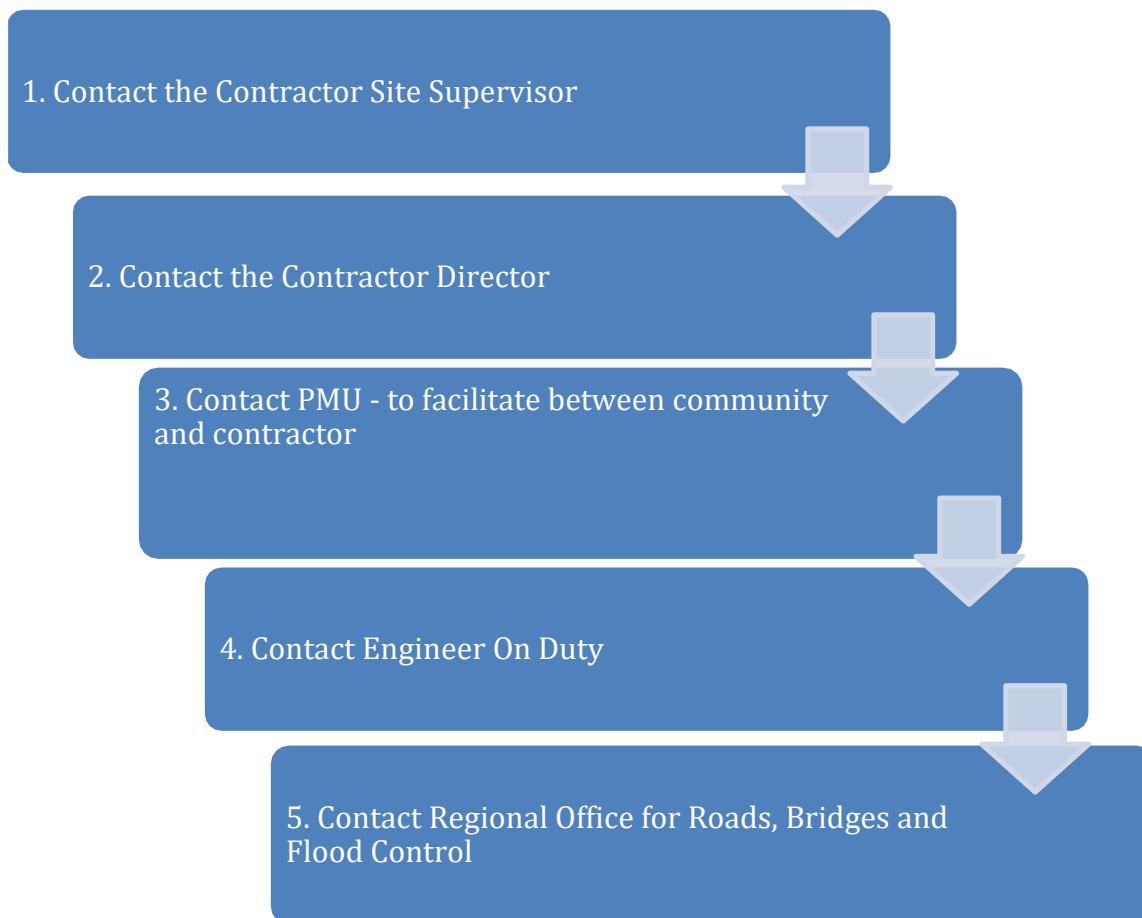
Workers and Public Safety

- Confirm with the Engineer on duty and the community about the detail design and areas identified with objects such as graves, cemeteries, historical buildings, archaeological and other sensitive objects defined by the Government Resolution before starting the construction activities.
- Inform and invite the Department of Youth and Culture or local authorities to inspect if any remains or items of potential archaeological or cultural significance are found and stop the activity immediately until it has been decided by the authorities how the issue needs to be addressed.

Procedure No. 11

Grievance Procedure for Communities

The following procedure should be followed when the Community identifies grievances with the Contractor.



If the community's grievance is not resolved using the above procedure, the formal government procedure can be utilized. Note that no one may inhibit a worker's or community's right to use formal government procedures if they prefer to utilize those procedures at anytime.

Contact Details

Suco Chief, Name _____ ph. _____
Contractor Site Supervisor, Name _____ ph. _____
PMUCommunityDevelopmentOfficer, Name _____ ph. _____
Field Engineering Assistant, Name _____ ph. _____
Engineer on Duty, Name _____ ph. _____

Procedure No. 12

Grievance Procedure for Contractor

The following procedure should be followed when the Contractor identifies grievances with workers, community members or community leaders



If the community's grievance is not resolved using the above procedure, the formal government procedure can be utilized. Note that no one may inhibit the community's desire to use the formal government procedure in the first instance if that is their preference.

Contact Details

Suco Chief, Name _____ ph. _____

PMUCommunityDevelopmentOfficer, Name _____ ph. _____

FieldEngineeringAssistant, Name _____ ph. _____

on Duty, Name _____ ph. _____

Engineer

Appendix 9 – Technical Assistance Guideline of Terms of Reference for Safeguard Instruments

Introduction

1. This guideline is prepared as an annex to the Environmental and Social Management Plan (ESMP) of the Timor Leste Branch Roads (TLBR, the Project). It describes relevant requirements under applicable safeguards policies for the implementation of the proposed activities to be carried out under the Project Component 2 (i.e. Institutional Strengthening and Project Management). This component is split into three sub-components, as detailed below.
 - i. **Sub-component 2.1: Technical Assistance.** This sub-component involves knowledge, capacity building, data and funding to support transport sector development. Technical Assistance activities include: (i) data collection on road inventory, traffic and condition on national and Municipality roads (approximately 2,240 km) to update the Road Asset Management System⁶ for supporting monitoring, planning and programming of road works; (ii) piloting of multi-year performance based maintenance contracts on national roads⁷ (two years of maintenance on approximately 125 km) through contractors using community-based groups with female participation, including strengthening supervision activities done by DRBFC; (iii) road safety capacity building program within MPW through the hiring of a road safety advisor to DRBFC;⁸ and, (iv) geotechnical capacity building program within MPW through the hiring of a geotechnical advisor to DRBFC.⁹
 - ii. **Sub-Component 2.2: Design of Future Projects.** This sub-component will finance feasibility/technical studies and designs required for the preparation of potential future investments in the road sector (approximately 40 km). These road sections to be designed will be selected during project implementation and as of the date of the project preparation, road links to Hatubuilico town and Ermera town (total 10 km) are being considered. Additional 30 km of road design has not been determined. The GoTL confirmed that the design of future projects will be limited to road rehabilitation/improvements, not new roads.
 - iii. **Sub-component 2.3: Project Support (US\$1.0 million).** This sub-subcomponent will finance operational costs associated with implementation of the Project, training of MPW staff, and goods needed by the Project. It also includes yearly audits of the project accounts to be submitted to the Bank.
2. With reference to Interim Guidelines on the Application of Safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank (issued January 2014), sub-components 2.1 and 2.3 does not require safeguard instrument since no safeguard policies are triggered (Type 1 Technical Assistance with Indicative EA Category C). Sub-component 2.2, however, is categorized as Type 4. Each of the proposed infrastructure investments must be screened (like in any Bank financed investment lending operations) for its potential social and environmental impacts to identify/define: (a)

⁶ The Road Asset Management System is being developed with ILO, ADB and JICA support.

⁷ The maintenance contracts will be implemented on Lots 1 and 3 of the ongoing RCRP (around 40 km) and other national roads to be selected by MPW.

⁸ The tasks would include: training of MPW staff, assessment of national and Municipality roads for road safety risks, preparation of road safety improvement works program, and road safety audits of project designs. The assignment is expected to last for 12 months spread over two years.

⁹ The tasks would include: training of MPW staff, assessment of national and Municipality roads for geotechnical hazards, preparation of road geotechnical remedies works program, and geotechnical audits of project designs. The assignment is expected to last for 8 months spread over two years.

safeguards policies triggered; (b) EA category; (c) safeguards instruments to be prepared during preparation of engineering designs; and (d) consultation and disclosure requirements¹⁰.

3. Potential environmental and social risks and impacts from the above proposed road sections will be assessed through separate safeguard instruments, namely Environmental and Social Impact Assessments (ESIAs) and accordingly the associated risk mitigation instruments (ESMPs, LARAPs and other sub plans as necessary) as part of the TA support to GoTL. The Terms of Reference (TORs) for these environmental and social studies have been developed and included as the sub-annexes. In the event this Project component is initiated, environmental and social assessments of proposed activities will be undertaken, and appropriate documents will be prepared as necessary to meet GoTL and the World Bank requirements.

World Bank Environmental and Social Safeguards Policies

4. Management of environmental and social aspects of TA activities should follow the following relevant safeguards policies as summarized below:

¹⁰ It is premature for TLBR project to prepare a full suite of safeguard instruments by appraisal. Instead, it is more appropriate that these TORs for the studies are available to ensure that relevant environmental and social issues are taken into account in conducting the studies in a manner that reflects the principles of Bank's requirements.

No.	Operational Policy	Scope of Assessment
1.	4.01 – Environmental Assessment	<ul style="list-style-type: none"> ▪ Identification of environmental and social risks ▪ Relevant stakeholder capacity analysis related to environmental and social management and monitoring ▪ Planning and implementing public consultation (as required based on project scale and stages) ▪ Provision of baseline data on environmental and social aspect (secondary data, and primary data if available) ▪ Water quality, hydrogeology and bulk water ecology system (watershed, spring and ground water) ▪ Assessment of water balance, conflict potential that may occurs from water usage competition ▪ Recommendation on impact and risk mitigation for further detail impact assessment ▪ Summary of project feasibility based on environmental and social aspect
2.	4.04 – Natural Habitat	<ul style="list-style-type: none"> ▪ Feasibility study must be accompanied by project location map that showing land coverage and forest status ▪ Natural habitat general condition description (region, habitat quality, biodiversity, region status – protected or non-protected areas) critical natural habitat
3.	4.36 – Forestry	<ul style="list-style-type: none"> ▪ Description of forest condition and status, dominant/primary vegetation, secondary ▪ Forest management general activities (private or public) ▪ Local community access to the forest resources
4.	4.11 – Physical Cultural Resources	<ul style="list-style-type: none"> ▪ Description on physical cultural resources and historical value which become a part of community identity. ▪ General risk assessment to the impact cause by project to the cultural heritage sites, if applicable
5.	4.12 – Involuntary Resettlement	<ul style="list-style-type: none"> ▪ Description of the potential residents affected by the project because of the potential land acquisition or involuntary restriction of access to parks and legally protected areas, which in turn may generate negative impact on the living standards of the residents affected by the project. ▪ Identification of resident and project impacted asset. ▪ Socio economic impact due to land acquisition/resettlement, e.g income lost. ▪ Land acquisition and resettlement plan (LARAP). ▪ Process framework action plan.

No.	Operational Policy	Scope of Assessment
6.	4.10 – Indigenous Peoples	<ul style="list-style-type: none"> ▪ Description about project impacted IP character (if any) within the project's influenced boundaries (culture, population, income and other community cultural socio economic) ▪ Public consultation and transparent to communities about planned activities. ▪ Social Analysis ▪ IPP development. ▪ If there are potential resettlement impact, need to develop document for LARPF (Land Acquisition and Resettlement Policy Framework)
7.	4.37 – Dam Safety	<ul style="list-style-type: none"> ▪ Provision of environmental baseline data related to the nature of disaster, and land use in dam's surrounding area. ▪ Dam project health and safety requirement. ▪ Dam safety opinions from panel team consisting of independent experts
8.	7.50 –International Waters	<ul style="list-style-type: none"> ▪ Clear border maps between two countries (rivers, canal, lake) ▪ Water use assessment, community access to water and water supply.
Other requirements		
9.	Public Consultation	<ul style="list-style-type: none"> ▪ Feasibility study document must be publicly consulted
10.	Information disclosure	<ul style="list-style-type: none"> ▪ Publication of environmental and social documents at the MoPW's website and the World Bank's Imagebank

Assessment Potential Environment and Social (E&S) Impacts of the Proposed TA Activities

- The project will finance feasibility/technical studies and designs required for the preparation of potential future investments. The road section to be designed will be selected from the following roads that GoTL showed an interest in receiving the Bank's support for feasibility/technical studies and designs of future projects. These road sections to be designed will be selected during project implementation and as of the date of the project preparation, road links to Hatubuilico town and Ermera town (total 10 km) are being considered. Additional 30 km of road design has not been determined. There have been no environmental and social assessment for any of these proposals. When developing the Feasibility Study (FS) or Detailed Engineering Design (DED), the ESIA and ESMP shall clearly document the impact avoidance, and outline this as the first measure in mitigation hierarchy. The Terms of Reference for ESIA, ESMP and LARAP are provided in Sub-Annex 1 for use by MPW/PMU when initiating the feasibility/technical studies in parallel with the impact assessment.
- The environmental and social assessment will be closely integrated with the project's economic, financial, institutional, social, and technical analyses so that environmental and social considerations are taken into consideration in project selection, siting, and design decisions. MPW/PMU will take measures to ensure that when individuals or entities are engaged to carry out environmental and social assessment, any conflict of interest is avoided. The environmental and social assessment will not be carried out by the consultants who prepare the engineering design, unless MPW/PMU can demonstrate that no conflict of interest exists, and such consultants include qualified environmental and social specialists.

7. When MPW/PMU has completed or partially completed environmental and social assessment prior to the Bank's involvement in a project, the environmental and social assessment is subject to the Bank's review to ensure that it meets the requirements of the World Bank's Environmental and Social Safeguards. If appropriate, MPW/PMU is required to conduct additional work, including public consultation and disclosure.

Institutional Arrangement for Project Implementation

8. Ministry of Public Work, as implementing agency (IA) for the Project has overall responsibility for preparing, implementing and financing of environmental management and monitoring tasks as they pertain to the project and interagency coordination. MPW will exercise its functions through the PMU which will be responsible for general project execution, and which will be tasked with day-to-day project management activities, as well as monitoring.
9. The PMU is already established in MPW to implement the project and manage detailed design and supervision of construction. The PMU is headed by a full-time Project Manager and supported by a team consisting of staff and consultants engaged under different project arrangements.
10. The PMU will be responsible for the following: (i) assisting the IA in implementing the Project; (ii) carrying out procurement and engaging design and supervision consultants (PISC) and contractors; (iii) as required liaising and coordinating with the DRBFC; and (iv) managing the contractors, and liaising with other stakeholders, on the day to day implementation of Project activities. The PMU, through the PISC, will retain experienced consultants to monitor and report on Contractor compliance with the approved CESMP.
11. PMU will prepare bidding documents prior to tender process for the construction. The standard bidding document will use October 2017 version in which provisions of Environmental, Social, Health and Safety (ESHS) has been incorporated (Sub-Annex 2). In addition to ESHS, this guideline also includes labor influx and Gender Based Violence (GBV), and violence against children (VAC) provision (Sub-Annex 3). The issue of labor influx and GBV/VAC may need to be assessed when the proposed civil works is in areas with inhabitants exist and where non-local labor is likely to be mobilized. The assessment on labor influx and GBV will be part of ESIA process and will be included in ESMP document, including labor influx management measures and other plans as needed.

Sub-Appendix 1

Environmental and Social Impact Assessment Terms of Reference

An ESIA report focuses on the significant environmental and social issues of a project. The report's scope and level of detail should be commensurate with the project's potential impacts. The report submitted to the Bank is prepared in English and the executive summary in English, but the disclosure should be in both English and local language. The ESIA report should include the following items (not necessarily in the order shown):

- a) **Executive summary.** Concisely discusses significant findings and recommended actions.
- b) **Policy, legal, and administrative framework.** Discusses the policy, legal, and administrative framework within which the impact assessment is carried out. Explains the environmental and social requirements of any co-financiers. Identifies relevant international environmental agreements to which the country is a party. The impact assessment should be carried out in line with GoTL regulations and Bank Environmental and Social Framework.
- c) **Project description.** A brief description of the project area and salient features of the proposed location such as geographic location, climate, rainfall, soil profile, wind direction, existing drainage system, demographics, etc. should be given. Concisely describes the proposed project and its geographic, ecological, social, and temporal context, including any offsite investments that may be required (e.g., quarry, workforce camps, asphalt mixing plant, etc.). Indicates the need for any resettlement plan or Indigenous Peoples development plan (see also sub-para. (h)(v) below). Normally includes a map showing the project site and the project's area of influence.
- d) **Baseline data.** Assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Also takes into account current and proposed development activities within the project area but not directly connected to the project. Data should be relevant to decisions about project location, design, operation, or mitigation measures. The section indicates the accuracy, reliability, and sources of the data.
- e) **Environmental and social impacts.** Predicts and assesses the project's likely positive and negative impacts, in quantitative terms to the extent possible. Identifies mitigation measures and any residual negative impacts that cannot be mitigated. Explores opportunities for environmental and social enhancement. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention. The assessment should also be based on the review of various earlier studies such as feasibility and detailed project reports, etc., of the project and understand all related aspects. This will provide a base to formulate the environmental and social surveys necessary for the project and assessing its impact. If any climate change impact is envisaged in project implementation or during operation, then relevant information should be collected to appraise that impact. Furthermore, the impact assessment should be carried out in a consultative manner through stakeholder consultations, at various stages, with the affected communities, NGOs, selected government agencies and other stakeholders.
- f) **Analysis of alternatives.** Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental and social impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible. States the basis for selecting the particular project design proposed and justifies recommended emission levels and approaches to pollution prevention and abatement.

- g) **Stakeholder consultation.** The consultant should be held with the purpose to (a) collect baseline information, (b) obtain a better understanding of the potential impact (c) appreciate the perspectives/concerns of the stakeholders, and (d) secure their active involvement during subsequent stages of the project as appropriate. Consultations should be preceded by a systematic stakeholder analysis that would (a) identify the individual or stakeholder groups relevant to the project and to environmental and social issues, (b) include expert opinion and inputs, (c) determine the nature and scope of consultation with each type of stakeholders, and (d) determine the tools to be used in contacting and consulting each type of stakeholder. A systematic consultation plan with attendant schedules should be prepared for subsequent stages of project preparation as well as implementation and operation, as required. Where community consensus is required in respect of proposed mitigation measures for impact on community and public assets including water bodies, places of worships etc., specific plan for modification/relocation etc. have to be disclosed and consensus obtained.
- h) **Environmental and social management plan (ESMP).** Covers mitigation measures, monitoring, and institutional strengthening; see outline below.
- i) **Annexes:**
- List of ESIA report preparers--individuals and organizations.
 - References--written materials both published and unpublished, used in study preparation.
 - Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local non-governmental organizations (NGOs). The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs.
 - Tables presenting the relevant data referred to or summarized in the main text.
 - List of associated reports (e.g., resettlement plan or indigenous people development plan).

Sub-Appendix 2

Environmental and Social Management Plan Terms of Reference

A sub-project's environmental and social management plan (ESMP) consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan also includes the actions needed to implement these measures. To prepare an ESMP, project proponent will (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements. More specifically, the ESMP will include the following components.

Mitigation

The ESMP identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental and social impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the ESMP:

- identifies and summarizes all anticipated significant adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement);
- describes--with technical details--each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
- estimates any potential environmental and social impacts of these measures; and
- provides linkage with any other mitigation plans (e.g., for involuntary resettlement, Indigenous Peoples, or cultural property) required for the project.

Monitoring

Environmental and social monitoring during project implementation provides information about key environmental and social aspects of the project, particularly the environmental and social impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision and allows corrective action to be taken when needed. Therefore, the ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the ESIA report and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides:

- a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and
- monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Capacity Development and Training

To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the ESIA's assessment of the existence, role, and capability of environmental and social units on site or at the agency and ministry level. If necessary, the ESMP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of ESIA recommendations. Specifically, the ESMP provides a specific description of institutional arrangements--who is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). To

strengthen environmental and social management capability in the agencies responsible for implementation, most ESMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

Implementation Schedule and Cost Estimates

For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

Integration of ESMP with the Project

ESMP should be specific in its description of the individual mitigation and monitoring measures and its assignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the EMP within the project so that the plan will receive funding and supervision along with the other components.

Sub-Appendix 3. Lists the sections of the bidding documents where Environmental, Social, Health and Safety (ESHS) provisions will be inserted.

ESHS requirement	Standard Procurement Document (October 2017)					
	Works	Small Works	OPBRC	Design and Build	Design, Build and Operate	Consulting Services
Borrower's ESHS Policy/Statement	<ul style="list-style-type: none"> Section VII Works' Requirements: Environmental, Social, Health and Safety Requirements 	<ul style="list-style-type: none"> Section VII Works' Requirements: Environmental, Social, Health and Safety Requirements 	<ul style="list-style-type: none"> Section VII Specifications: Environmental, Social, Health and Safety Requirements 	<ul style="list-style-type: none"> Section VII Employer's Requirements: Environmental, Social, Health and Safety Requirements 	<ul style="list-style-type: none"> Section VII Employer's Requirements: Environmental, Social, Health and Safety Requirements 	<ul style="list-style-type: none"> Section 7 Terms of Reference
Contractor's/ Contract Manager's Code of Conduct	<ul style="list-style-type: none"> Section II Bid Data Sheet: ITB 11.1 (h); Section IV Bidding Forms; Section VII Works' Requirements: Environmental, Social, Health and Safety Requirements. 	<ul style="list-style-type: none"> Section II Bid Data Sheet: ITB 11.1 (i); Section IV Bidding Forms; Section VII Works' Requirements: Environmental, Social, Health and Safety Requirements. 	<ul style="list-style-type: none"> Section II Bid Data Sheet: ITB 11.1 (h); Section IV Bidding Forms; Section VII Specification: Environmental, Social, Health and Safety Requirements. 	<ul style="list-style-type: none"> Section I Instruction to Proposers: ITP 15.4; Section IV Proposal Forms; Section VII Employer's Requirements: Environmental, Social, Health and Safety Requirements. 	<ul style="list-style-type: none"> Section I Instruction to Proposers: ITP 15.4; Section IV Proposal Forms; Section VII Employer's Requirements: Environmental, Social, Health and Safety Requirements. 	<ul style="list-style-type: none"> Section 3 Technical Proposal: Standard Forms; Section 7 Terms of Reference
Reporting Requirements: Immediate Notification	<ul style="list-style-type: none"> Section IX PCC: 4.21 	<ul style="list-style-type: none"> Section IX PCC: 26.2 	<ul style="list-style-type: none"> Section IX PCC: 17.3 	<ul style="list-style-type: none"> Section IX PCC: 4.21 	<ul style="list-style-type: none"> Section IX PC: 4.21 	<ul style="list-style-type: none"> Section 7 Terms of Reference
ESHS declaration	<ul style="list-style-type: none"> Section III Evaluation and 	<ul style="list-style-type: none"> Section III Evaluation and 	<ul style="list-style-type: none"> Section III Evaluation and 	<ul style="list-style-type: none"> Section IV Proposal Forms 	<ul style="list-style-type: none"> Section IV Proposal Forms 	n/a

Note: Small works means the contract is less than US\$10 Million, if more than US\$10 Million, the column “Works” provision applies; OPBRC is Output and Performance-Based Road Contracts

ESHS requirement	Standard Procurement Document (October 2017)					
	Works	Small Works	OPBRC	Design and Build	Design, Build and Operate	Consulting Services
	Qualification Criteria: 2.5; • Section IV Bidding Forms (without prequalification)	Qualification Criteria: 2.5; • Section IV Bidding Forms	Qualification Criteria: 2.5; • Section IV Bidding Forms			
Key Personnel	• Section III Evaluation and Qualification Criteria; • Section IV Bidding Forms	• Section III Evaluation and Qualification Criteria; • Section IV Bidding Forms	• Section III Evaluation and Qualification Criteria; • Section IV Bidding Forms	• Section III Evaluation and Qualification Criteria; • Section IV Proposal Forms	• Section III Evaluation and Qualification Criteria; • Section IV Proposal Forms	• Section 7 Terms of Reference (Key Experts)
Specification	• Section VII Works' Requirements: Environmental, Social, Health and Safety Requirements.	• Section VII Works' Requirements: Environmental, Social, Health and Safety Requirements.	• Section VII Specification: Environmental, Social, Health and Safety Requirements.	• Section VII Employer's Requirements: Environmental, Social, Health and Safety Requirements	• Section VII Employer's Requirements: Environmental, Social, Health and Safety Requirements	• Section 7 Terms of Reference
MSIPs	• Section II: Bid Data Sheet ITB 11.1 (h); • Section IV-Biding Forms	• Section II: Bid Data Sheet ITB 11.1 (i); • Section IV-Biding Forms	• Section II: Bid Data Sheet ITB 11.1 (h); • Section IV-Biding Forms	n/a	n/a	n/a
Provisional Sum	• Section IV Bidding Forms • Section VII Works' Requirement	• Section IV Bidding Forms • Section VII Works' Requirement	• Section IV Bidding Forms • Section VII Specifications	• Section IV Proposal Forms; • Section VII Employer's Requirement	• Section IV Proposal Forms; • Section VII Employer's Requirement	n/a
Reporting Requirements: Progress Reports	• Section VIII GCC Appendix C: ESHS	• Section VIII GCC Appendix C: ESHS Metrics	• Section VIII GCC Appendix B: ESHS Metrics	• Section VIII GC Appendix C: ESHS Metrics	• Section VIII GC Appendix C: ESHS Metrics	• Section 7 Terms of Reference

ESHS requirement	Standard Procurement Document (October 2017)					
	Works	Small Works	OPBRC	Design and Build	Design, Build and Operate	Consulting Services
	Metrics for Progress Reports; • Section IX: PCC 4.21	for Progress Reports; • Section IX: PCC 26.2	for Progress Reports; • Section IX: PCC 17.3	for Progress Reports; • Section IX: PCC 4.21	for Progress Reports; • Section IX: PC 4.21	
ESHS Performance Security	• Section II: Bid Data Sheet ITB 48.1 and 48.2; • Section IX PCC 4.2;	• Section II: Bid Data Sheet ITB 48.1 and 48.2; • Section IX PCC 50.1;	• Section II: Bid Data Sheet ITB 47.1 and 47.2; • Section IX PCC 53.3.1 and 53.3.2;	• Section II: Proposal Data Sheet ITB 65.1 and 65.2; • Section IX PCC 4.2;	• Section II: Proposal Data Sheet ITB 65.1 and 65.2; • Section IX PCC 4.2;	n/a

Sub-Appendix 4

Addendum on The Guidelines on Labor Influx and Gender-Based Violence (GBV) and Violence Against Children (VAC)

Labor influx

This annex provides guidance on labor influx, GBV and VAC. It will be applied to all works subprojects to be carried out as part of Component 2.

Construction of civil works often requires labor force and associated goods and services that cannot be fully supplied locally for a number of reasons, among them worker unavailability and lack of technical skills and capacity. In such cases, the labor force (total or partial) needs to be brought in from outside the project area. In many cases, this influx is compounded by an influx of other people (“followers”) who follow the incoming workforce with the aim of selling them goods and services, or in pursuit of job or business opportunities. The rapid migration to and settlement of workers and followers in the project area is called **labor influx**, and under certain conditions, it can affect project areas negatively in terms of public infrastructure, utilities, housing, sustainable resource management and social dynamics. This guidance covers **temporary** labor influx in contrast to longer-term or permanent migration of workers.

The influx of workers and followers can lead to adverse social and environmental impacts on local communities, especially if the communities are rural, remote or small. Such adverse impacts may include increased demand and competition for local social and health services, as well as for goods and services, which can lead to price hikes and crowding out of local consumers, increased volume of traffic and higher risk of accidents, increased demands on the ecosystem and natural resources, social conflicts within and between communities, increased risk of spread of communicable diseases, and increased rates of illicit behavior and crime. Such adverse impacts are usually amplified by local-level low capacity to manage and absorb the incoming labor force, and specifically when civil works are carried out in, or near, vulnerable communities and in other high-risk situations. While many of these potential impacts may be identified in a project’s Environmental and Social Impact Assessment (ESIA), they may only become fully known once a contractor is appointed and decides on sourcing the required labor force. This means that not all specific risks and impacts can be fully assessed prior to project implementation, and others may emerge as the project progresses. Thus, measures defined in the project Environmental and Social Management Plan (ESMP) to address such problems sometimes may be insufficient. It is therefore important to develop site-specific measures before the contractor starts work and update them as necessary to reflect project developments. Overall, adequate monitoring and adaptive management of the potential impacts from labor influx are key to properly addressing them and mitigating risks.

Labor influx for construction works can lead to a variety of adverse social and environmental risks and impacts. The list below provides a summary of typical adverse social and environmental impacts but is not exhaustive. While many of these impacts could have been present already or might occur regardless of the labor influx, they are likely to be exacerbated by it. The actual type and degree of impact varies significantly depending on the characteristics of the project, community and incoming workforce. This includes the impacts from workers' camps. It may be difficult to separate some impacts from non-project related factors, specifically if the project area experiences broader social, economic and cultural change during the project period, which may be difficult to assess or predict as part of the ESIA.

The list below indicates common categories of social risk associated with labor influx:

- **Risk of social conflict:** Conflicts may arise between the local community and the construction workers, which may be related to religious, cultural or ethnic differences, or based on competition for local resources. Tensions may also arise between different groups within the labor force, and pre-existing conflicts in the local community may be exacerbated. Ethnic and regional conflicts may be aggravated if workers from one group are moving into the territory of the other.
- **Increased risk of illicit behavior and crime:** The influx of workers and service providers into communities may increase the rate of crimes and/or a perception of insecurity by the local community. Such illicit behavior or crimes can include theft, physical assaults, substance abuse, prostitution and human trafficking. Local law enforcement may not be sufficiently equipped to deal with the temporary increase in local population.
- **Influx of additional population (“followers”):** Especially in projects with large footprints and/or a longer timeframe, people can migrate to the project area in addition to the labor force, thereby exacerbating the problems of labor influx. These can be people who expect to get a job with the project, family members of workers, as well as traders, suppliers and other service providers (including sex workers), particularly in areas where the local capacity to provide goods and services is limited.
- **Impacts on community dynamics:** Depending on the number of incoming workers and their engagement with the host community, the composition of the local community, and with it the community dynamics, may change significantly. Pre-existing social conflict may intensify as a result of such changes.
- **Increased burden on and competition for public service provision:** The presence of construction workers and service providers (and in some cases family members of either or both) can generate additional demand for the provision of public services, such as water, electricity, medical services, transport, education and social services. This is particularly the case when the influx of workers is not accommodated by additional or separate supply systems.
- **Increased risk of communicable diseases and burden on local health services:** The influx of people may bring communicable diseases to the project area, including sexually transmitted diseases (STDs), or the incoming workers may be exposed to diseases to which they have low resistance. This can result in an additional burden on local health resources. Workers with health concerns relating to substance abuse, mental issues or STDs may not wish to visit the project’s medical facility and instead go anonymously to local medical providers, thereby placing further stress on local resources. Local health and rescue facilities may also be overwhelmed and/or ill-equipped to address the industrial accidents that can occur in a large construction site.
- **Gender-based violence:** Construction workers are predominantly younger males. Those who are away from home on the construction job are typically separated from their family and act outside their normal sphere of social control. This can lead to inappropriate and criminal behavior, such as sexual harassment of women and girls, exploitative sexual relations, and illicit sexual relations with minors from the local community. A large influx of male labor may also lead to an increase in exploitative sexual relationships and human trafficking whereby women and girls are forced into sex work.
- **Child labor and school dropout.** Increased opportunities for the host community to sell goods and services to the incoming workers can lead to child labor to produce and deliver these goods and services, which in turn can lead to enhanced school dropout.
- **Local inflation of prices:** A significant increase in demand for goods and services due to labor influx may lead to local price hikes and/or crowding out of community consumers.

- **Increased pressure on accommodations and rents:** Depending on project worker income and form of accommodation provided, there may be increased demand for accommodations, which again may lead to price hikes and crowding out of local residents.
- **Increase in traffic and related accidents:** Delivery of supplies for construction workers and the transportation of workers can lead to an increase in traffic, rise in accidents, as well as additional burden on the transportation infrastructure.

The environmental impacts listed below are more likely to be of relevance for projects that require a larger labor force, which results in a bigger project footprint:

- **Inadequate waste disposal and illegal waste disposal sites:** Large populations of workers generate increased amounts of waste, for which no sufficient local waste management capacities may exist, which would likely lead to improper disposal practices.
- **Wastewater discharges:** Project-related activities, along with workers' camps, and a lack of appropriate wastewater discharges may pollute nearby water resources. Major health risks can occur if latrine pits spill over into local streams that are used for drinking water by the host community.
- **Increased demand on freshwater resources:** The provision of clean drinking water and water for hygiene purposes can result in increased pressure on freshwater resources in the project or camp site area.
- **Camp related land use, access roads, noise and lights:** In ecologically sensitive areas, workers' camps can have impacts on the local wildlife. This may include disturbance of species, as well as illegal hunting. In the same context, new access routes for workers' camps may have impacts on natural habitats.
- **Increased deforestation, ecosystem degradation, and species loss:** These can result from forest or land conversion for worker housing and workers' agricultural subsistence activities.
- **Increased use of / demand for natural resources:** This can include logging for construction, fuel-wood collection, use of water resources, farming and grazing, hunting and fishing, trade in endangered species, potential introduction of invasive or non-native species, and land degradation.

Key principles to properly assessing and managing the risks of adverse impacts on communities that may result from temporary project induced labor influx are as below:

- ***Reduce labor influx by tapping into the local workforce.*** The most effective mitigation measure against labor influx is to avoid or reduce it. Depending on the size and the skill level of the local workforce, a share of the workers required for the project may be recruited locally. This is generally easier for unskilled workers, while more specialized staff (typically required in smaller numbers) frequently will be hired from elsewhere. Depending on the requirements of the project and their skill level, it may be possible to train local workers within a reasonable timeframe to meet project requirements. This may be more likely if such trained staff are needed afterwards for the operation and maintenance of the new infrastructure.
- ***Assess and manage labor influx risk based on appropriate instruments.*** The assessment and management of labor influx should be based on risks identified in the ESIA. Depending on the risk factors and their level, appropriate mitigation instruments need to be developed, i.e. ESMP document, including labor influx management plan and worker camp management plan (if required). Risk factors to consider include, but are not limited to, the following: (i) weak

institutional capacity of the implementing agency; (ii) predominant presence of contractors without strong worker management and health and safety policies; (iii) anticipated high volumes of labor influx; (iv) pre-existing social conflicts or tensions; (v) weak local law enforcement, and (vi) prevalence of gender-based violence³ and social norms towards it in the community; (vii) local prevalence of child and forced labor.

- ***Incorporate social and environmental mitigation measures into the civil works contract.*** Most adverse impacts from labor influx can only be mitigated by the contractor commissioned by the Borrower to carry out the works. It is therefore paramount that the responsibilities for managing these adverse impacts are clearly reflected as a contractual obligation, with appropriate mechanisms for addressing non-compliance.

A Labor Influx Management Plan addresses specific activities that will be undertaken to minimize the impact on the local community, including elements such as worker codes of conduct, training programs on HIV/AIDS, etc. A Workers' Camp Management Plan addresses specific aspects of the establishment and operation of workers' camps.

Gender Based Violence

Gender-based violence is an umbrella term for any harmful act that is perpetrated against a person's will, and that is caused by differences in power between people of different genders, i.e., between males and females and people of other gender and sexual identities. Women and girls are more commonly affected by gender-based violence due to the subordinate status of women in many societies, discrimination against them and their higher vulnerabilities to violence. Gender-based violence takes many forms, including sexual, physical, and psychological abuse.

A Code of Conduct and Action Plan for the prevention of Gender Based Violence (GBV) and Violence Against Children (VAC) will be developed for the project and it is a contractual requirement of the consultant and contractor to adopt this as a minimum Code of Conduct, and to fully implement the action plan. The GBV and VAC Code of Conduct is required to facilitate respectful working environments and to help workers interact with communities in a culturally respectful manner and abide by local laws and customs.

CODE OF CONDUCT REQUIREMENTS

A satisfactory code of conduct will contain obligations on all project staff (including sub-contractors and day workers) that are suitable to address the following issues, as a minimum. Additional obligations may be added to respond to particular concerns of the region, the location and the project sector or to specific project requirements. The issues to be addressed include:

1. Compliance with applicable laws, rules, and regulations of the jurisdiction
2. Compliance with applicable health and safety requirements (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)
3. The use of illegal substances
4. Non-Discrimination (for example on the basis of family status, ethnicity, race, gender, religion, language, marital status, birth, age, disability, or political conviction)
5. Interactions with community members (for example to convey an attitude of respect and non-discrimination)

6. Sexual harassment (for example to prohibit use of language or behavior, in particular towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
7. Violence or exploitation (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior)
8. Protection of children (including prohibitions against abuse, defilement, or otherwise unacceptable behavior with children, limiting interactions with children, and ensuring their safety in project areas)
9. Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)
10. Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection)
11. Respecting reasonable work instructions (including regarding environmental and social norms)
12. Protection and proper use of property (for example, to prohibit theft, carelessness or waste)
13. Duty to report violations of this Code
14. Non-retaliation against workers who report violations of the Code, if that report is made in good faith.

The Code of Conduct should be written in plain language and signed by each worker to indicate that they have:

- received a copy of the code;
- had the code explained to them;
- acknowledged that adherence to this Code of Conduct is a condition of employment; and
- understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities.

The assessment of labor influx and GBV/VAC will be part of ESIA and will be included in ESMP, (including labor influx management measures) and other plans as needed. The measures in the ESMP will be reflected in the civil works bidding document and subsequent contracts and will be part of bid document package.

A Grievance Redress Mechanism for community and worker will be prepared and implement it effectively. The terms of reference of supervision engineer will be ensured to include the relevant responsibilities to monitor and report on the implementation of the ESMP and the GRM.

During the construction phase, the contractor will be ensured to:

- Provide a site-specific CESMP with management plans for: (i) work activities; (ii) traffic management; (iii) occupational health and safety; (iv) environmental management; (v) social management; and (vi) labor influx.
- Implement civil works in accordance with CESMP—including all works conducted by sub-contractors under the contractor's control.
- Train workers on roles and responsibilities under these plans, policies and standards.
- Submit regular reports on implementation
- Proactively address any issues that arise.

Sub-Appendix 5

Indigenous Peoples Planning Framework

A INTRODUCTION

In line with Annex 9 on Technical Assistance Guideline of Terms of Reference for Safeguard Instruments, this Indigenous Peoples Planning Framework (IPPF) serves to guide the management of potential environmental and social risks for future investments under sub-component 2.2 on Design of Future Projects (approximately US\$1.4 million). This sub-component will finance feasibility/technical studies and designs required for the preparation of potential future investments in the road sector (approximately 55 km). The road section to be designed will be selected from the following roads that GoTL showed an interest in receiving the Bank's support for feasibility/technical studies and designs of future projects. These road sections to be designed will be selected during project implementation and as of the date of the project preparation, road links to Hatubuilico town and Ermera town (total 10 km) are being considered. Additional 30 km of road design has not been determined.

Since the feasibility and design studies under sub-component 2.2 are expected to result in new road investments, application of the World Bank's safeguards policies will be required in the event that financing is requested by the GoTL from the World Bank. Hence, screening of potential social and environmental impacts under feasibility and design studies should comply with the Bank's Environmental and Social Safeguards Policies and their relevant provisions.

Therefore, while the parent project is prepared with Operational Policies in mind and relevant instruments have been prepared, covering the ESIA, ESMP and LARAP, future new and/or additional investments resulting from feasibility and design studies funded by the World Bank will need to be prepared under the World Bank's safeguards policies. This IPPF therefore addresses relevant provisions of the OP 4.10 Indigenous Peoples, which cover:

- a. The standard applies when the people are present or have a collective attachment to the land, whether they are affected positively or negatively and regardless of economic, political or social vulnerability;
- b. The option to use different terminologies for groups that meet the criteria set out in the Standard;
- c. The use of national screening processes, providing these meet World Bank criteria and requirements;
- d. Coverage of forest dwellers, hunter-gatherers, and pastoralists and other nomadic groups;
- e. Requirements for meaningful consultation tailored to affected parties and a grievance mechanism;
- f. Requirements for a process of free, prior and informed consultations as further elaborated in the IPPF.

OP 4.10 requires the GoTL to engage in meaningful engagement with Indigenous Peoples to obtain their broad support. In the contexts where Indigenous Peoples are present in or have collective attachment the project area and for the preparation of an Indigenous Peoples Plan (IPP) and/or Indigenous Peoples Planning Framework (IPPF). The objectives of the standard are that broad support from Indigenous

Peoples in the project area should be obtained and that such plans aim to minimize impacts and provide culturally and socially appropriate benefits and mitigation measures.

B PURPOSE OF THE IPPF

The IPPF has been developed as a pre-cautionary measure in the event that future feasibility and design studies financed by the TLBR project are being implemented in areas where there are presence and claims of Indigenous Peoples. The IPPF serves as a management framework to address relevant provisions under OP 4.10 in the event financing is requested from the World Bank, which at the present remains unidentified.

This framework provides guidance to the PMU to engage in an inclusive and participatory process to screen, conduct consultations and ensure that the rights and aspirations of Indigenous Peoples who may be affected by future road projects are fully protected and respected. By doing so, it is expected that long-term sustainability of future road investments, which the project may provide support in terms of feasibility and design, can be enhanced through broad community participation and ownership.

Under OP 4.10 on Indigenous Peoples, the GoTL is required to engage a process of meaningful engagement and consultations with Indigenous Peoples. In any cases, the PMU, during the course of feasibility and design studies should seek to ascertain that broad community support to future road activities. In the event that adverse impacts on Indigenous Peoples are envisaged, initial community consent must be observed and confirmed once financing has been determined.

A framework approach has been adopted since the exact locations and activities, along with their potential risks and impacts will only be known at the project implementation stage. Hence, the framework has therefore been prepared to serve the following purposes:

1. to lay out a process to ensure free, prior, and informed consultations for activities that affect Indigenous Peoples in road sections where future feasibility and design studies will be proposed; and
2. to set out risk mitigation measures to avoid potentially adverse effects on these communities and ensure that they have opportunities to equitably share the benefits of the proposed road investments. If such impact avoidance is not feasible, to establish measures to minimize, mitigate or compensate for such effects.
3. To ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples;
4. To promote sustainable development benefits and opportunities for Indigenous Peoples in a manner that is accessible, culturally appropriate and inclusive;
5. To improve project design and promote local support by establishing and maintaining an ongoing relationship based on meaningful consultation with the Indigenous Peoples affected by a project throughout the project's life cycle.
6. To engage in a process of Free, Prior, and Informed consultations with affected Indigenous Peoples;
7. To recognize, respect and preserve the culture, knowledge, and practices of Indigenous Peoples and to provide them with an opportunity to adapt to changing conditions in a manner and in a timeframe acceptable to them.

On the basis of this IPPF, an Indigenous Peoples Plan (IPP) will be prepared as part of the development of environmental and social risk management instruments in areas where these community groups are present.

The application of the framework will remain the responsibility of the PMU. Further institutional arrangements at the implementation level will be elaborated once investments and potential impacts are fully known during the implementation phase.

C INDIGENOUS PEOPLES IN TIMOR LESTE

Timor-Leste is an island positioned between Southeast Asia and Oceania. Home to nine ethnic groups, the country is both multiethnic and multilingual, with more than twenty Indigenous languages and dialects in active use¹¹.

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.

Among the largest ethnic groups are the Tetum whose language is one of the country's two official languages (the other being Portuguese). They live mainly around Dili and on the neighbouring northern coast. The Mambae who may constitute around 8 percent live mainly in the central mountains. Some of the other main groups are the Tukudede, Galoli, and the Baikeno. There are also small populations of Portuguese and Chinese, as well as of people of mixed Timorese and Portuguese origin known as *mestiços*. The vast majority, perhaps as much as 90 percent, of East Timorese are Catholics, as a legacy of the Portuguese colonial era.

Amongst traditional communities, *Tara Bandu* represents a widely held view which refers to local laws, social norms and morality, art and rituals and a system of community leadership and governance. The process of forming *Tara Bandu* is a process of coming to communal agreement or social contract that outlines the behaviors and practices that members of the community deem to be appropriate and want to enforce. Hence, the legitimacy of the *Tara Bandu* concerned is largely dependent on the degree of engagement within the communities and their accord.

Given the ethno-linguistic diversity in Timor Leste, there are different terms used across the country for *Tara Bandu*, entailing nuances specific to each region. For instance, Fataluku-speaking communities prefer to use the term “*sikua*” which refers to the harmonization of people with each other and their environment. Other terms that are also commonly used include “*kahe-aitahan*, *kait-aitahan*, *tara-aitahan*’”. According to a study commissioned by The Asia-Foundation¹², *Tara Bandu* across Timor Leste can be broadly classified groupings, which cover:

- a. **Tara Bandu Regulating ‘People to People’ Relations:** *Tara Bandu* regulating ‘people to people’ relations typically relate to socio-cultural, economic and political interactions between people.

¹¹ “*East Timor Ethnologue*.” Ethnologue.com. Web. 11 Mar. 2016.

¹² “*Tara Bandu: Its Role and Use in Community Conflict Prevention in Timor Leste*”, The Asia Foundation, 2013

Examples include dowry practices or protection of properties against infringement or claims from others.

- b. **Tara Bandu Regulating ‘People to Animal’ Relations:** this category refers to how people manage their own cattle and others, including wild animals. In some communities, such *Tara Bandu* is enforced to minimize potentials for conflict, which restricts people from stealing, killing or injuring other people’s animals or wild animals in the forests, rivers and oceans.
- c. **Tara Bandu Regulating ‘People to Environment’ Relations:** such *Tara Bandu* may be commonly observed in instances where there are community restrictions from slash and burn practices. Other examples also include some regulations on natural resource extraction such as quarries or logging which may lead to land slides or changes in river flows.

Sanctions continue to represent a significant and have been reported to have historically involved human sacrifice. In modern times, sanctions typically involve exchange of sacrifice of animals or fines. Evolution of *Tara Bandu* has been perceived to cause substantial financial burden for those who infringe *Tara Bandu* regulations or undermine formal law enforcement since certain criminal acts may be absolved from formal punishments with the exchange of goods or money, such as in the case of violence against women.

Beyond material sanctions, communities may also recognize the existence of “spiritual sanctions” Such sanctions may include disasters, sickness and other bad luck as a form of punishment for those who infringe *Tara Bandu*.

D GAP ASSESSMENT OF GOVERNMENT OF TIMOR-LESTE’S LEGAL FRAMEWORK IN RELATION TO ESS 7

There are ethnic groups in Timor-Leste, but the legal regime does not use the term ‘indigenous peoples’, nor does it appear to use ‘ethnic minority’ or ‘ethnic group’ or any other term to signify cultural identification with any of those groups.

Constitution 2002 Section 2 (Sovereignty and Constitutionality) stipulates that the State shall recognize and value the norms and customs (or hereafter known as *Tara Bandu*) of East Timor that are not contrary to the Constitution and to any legislation dealing specifically with customary law. *Tara Bandu* generally refers a traditional Timorese custom that enforces peace and recognition through the power of public agreement to define social norms and practices to a given community. The process of forming *Tara Bandu* represents a process of coming to communal agreement or ‘social contract’ that outlines the behaviors and practices that members of the community deem to be appropriate and want to enforce. As such the legitimacy of the *Tara Bandu* is largely dependent on the degree of local level consultation and engagement in the generation of the terms of such communal accord.

Basic Environment Law 2012 Article 8 contains relevant provisions on *Tara Bandu*, which stipulates that:

- a. the State shall recognize the importance of all types of *Tara Bandu* as integral part of the culture of Timor-Leste and accepted traditional mechanisms regulating relationships between people and the environment around them;
- b. *Tara Bandu* can be carried out according to the rituals preserved through the local customary law aiming at the preservation and promotion of environment and conservation and sustainable use of natural resources, provided that such action is consistent with the objectives and principles established by the law;
- c. The state must ensure effective protection of the *Tara Bandu*;

The Environmental Licensing Law 2011 does not contain explicit requirements for screening processes to determine whether affected community groups are Indigenous and the nature of impacts on them. Community consultations are required at the design stage only.

While consultations and more robust social impact assessments are generally prescribed for projects classified as Category A, risk categorization tends to favor environmental impacts and is often informed by environmental footprints of the projects. This suggests that social impact assessments often follow environmental assessments, which is not necessarily the case and projects with lower categories (Category B and C) are often exempted from such requirements.

The Basic Environment Law 2012 Article 47 stipulates provisions on access and distribution of benefits which further define forms of sharing and equitable distribution of tangible and intangible benefits arising from the projects or use of environmental and natural resources for the communities located in the same area of the project's footprints. Depending on the process to reach benefit sharing agreements, such negotiation may provide affected communities with the opportunity to actively participate in the project development and overall design. However, such provisions tend to be applicable for Category A projects. In addition, the scope of such negotiation does not include consent requirements for commercial development of cultural resources and traditional knowledge.

The Basic Environment Law 2012 guarantees access to environmental information, including information about potential project impacts on public health and human welfare. The Environmental Licensing Decree-Law 2011 requires public consultation on an EMP. However, there is no explicit requirement in the legal regime to disclose a draft EMP and there is no requirement whatsoever to disclose an EMP for a Category B project.

E APPLICATION OF THE IPPF

The following processes as guided by the IPPF should be undertaken as part of Environmental and Social Impact Assessments (ESIAs), to inform future feasibility and road design studies financed by the project.

a. Screening and Identification

OP 4.10 applies to a distinct social and cultural group identified in accordance with paragraphs screening criteria in the IPPF.

The terms “Indigenous Peoples”, “indigenous ethnic minorities” and “tribal groups”, describe social groups with a social and cultural identity distinct from the dominant society that makes them vulnerable to being disadvantaged in the development process. For the purposes here, “Indigenous People” is the term that is used to refer to these groups. Regardless of which terminology is used, the requirements set out in the IPPF will apply to all such groups.

As guided by this IPPF, the term Indigenous Peoples is used in a generic sense to refer exclusively to a distinct social and cultural group possessing the following characteristics in varying degrees:

- a. Self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;

- b. Collective attachment¹³ to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- c. Customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- d. An indigenous language, often different from the official language of the country or region.

The requirements of the IPPF also applies to communities or groups of Indigenous Peoples who, during the lifetime of members of the community or group, have lost collective attachment to distinct habitats or ancestral territories in the project area, because of forced severance¹⁴, conflict, government resettlement programs, dispossession of their land, natural disasters, or incorporation of such territories into an urban area¹⁵. The IPPF also applies to forest dwellers, hunter-gatherers, pastoralists or other nomadic groups, subject to satisfaction of the criteria as above.

Site screening will commence in consultations with representatives of affected Indigenous Peoples and their leaders and recognized institutions. This process will also seek participation of women and Indigenous youth and other vulnerable segments of the target communities.

Such screening is aimed to identify the presence of Indigenous Peoples, including their tenure characteristics and existing claims in areas where specific activities will be implemented, the nature of vulnerability, as well as relevant safeguards risks and communities' acceptance to the proposed road projects. The results of the screening will inform potential risks before their participation in activities is sought.

b. Consultations and Engagement

As part of the screening and identification, a process of consultations and community engagement must be undertaken as part of the overall ESIA processes. Once Indigenous Peoples are confirmed to be present in a project area, the GoTL, through relevant social specialists, will prepare a consultation strategy that allows for the participation of Indigenous Peoples concerned in the design of the project and of the development and mitigation measures addressing particular concerns and issues of Indigenous Peoples.

Based on the consultation strategy, PMU and ESIA consultants must undertake meaningful community engagement and consultations as part of the initial impact assessments. In the event that Indigenous Peoples are present, such consultations will need to explore potential impacts of new road investments, as well as communities' level of acceptance and their nature of vulnerability.

Planning instruments, such as Indigenous People Plans (IPPs) produced through consultative process will require that such free, prior and informed consultations remain an iterative process over preparation and implementation of proposed road investments. These consultations should be revisited over time to

¹³ Collective attachment" means that for generations there has been a physical presence in and economic ties to lands and territories traditionally owned, or customarily used or occupied, by the group concerned, including areas that hold special significance for it, such as sacred sites. "Collective attachment" also refers to the attachment of transhumant/nomadic groups to the territory they use on a seasonal or cyclical basis.

¹⁴ Forced severance" refers to loss of collective attachment to geographically distinct habitats or ancestral territories occurring within the concerned group members' lifetime because of conflict, government resettlement programs, dispossession from their lands, natural calamities, or incorporation of such territories into an urban area. For purposes of this policy, "urban area" normally means a city or a large town, and takes into account all of the following characteristics, no single one of which is definitive: (a) the legal designation of the area as urban under domestic law; (b) high population density; and (c) high proportion of non-agricultural economic activities relative to agricultural activities

¹⁵ Generally, it does not apply to individuals or small groups migrating to urban areas in search of economic opportunity. It may apply, however, where Indigenous Peoples have established distinct communities in or near urban areas but still possess the characteristics stated in the IPPF.

ensure that Indigenous Peoples' views are adequately represented and broad community support to the activities proposed can be ascertained in addition to agreed risk mitigation measures developed to protect their well-being, rights and address their concerns.

The extent, frequency and degree of engagement required by the consultation process should commensurate with the identified potential risks and concerns raised by respective Indigenous Peoples. Meaningful engagement and consultations are built on mutually accepted process by community representatives and their legitimate leaders. Such consultations serve at least two purposes:

- a. Provide a platform to undertake a process of consultations in good faith and in a manner, that provides affected communities with opportunities to express their concerns, views on the ERP benefits, risks, impacts, and mitigation measures and explore ways to ensure project implementation is culturally and socially acceptable; and
- b. Enable decision making processes based on local/customary mechanisms.

Meaningful engagement and consultations should be orientated towards obtaining broad community support for all activities and FPIC for activities with potential adverse impacts.

Such adverse impacts may include circumstances where proposed road upgrading works and/or re-alignment may impact on sacred sites or objects/trees with cultural and social significance, relocation of Indigenous Peoples, access restrictions to land uses or activities which may disturb the wellbeing of the affected communities (i.e. labor influxes, use of water and other resources for the purpose of road construction).

In the event of adverse impacts, free, prior and informed consent¹⁶ will be required for the following circumstances in which the project will:

- a. have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation;
- b. cause relocation of Indigenous Peoples from land and natural resources subject to traditional ownership or under customary use or occupation; or
- c. have significant impacts on Indigenous Peoples' cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected Indigenous Peoples' lives.

Meaningful engagement and consultations may use existing community institutions and local/customary decision-making processes, when deemed feasible and culturally appropriate and inclusive. Gender-responsive approaches and perspectives should be added to make sure that women in the community can benefit from future road investments.

Community participation needs to be based on gender-sensitive and inter-generationally inclusive approaches. Meaningful engagement and consultations are built upon two-way processes that should:

- a. Involve members of affected communities and their recognized representative bodies and organizations in good faith;
- b. Capture the views and concerns of men, women and vulnerable community segments including the elderly, youth, displaced persons, children, people with special needs, etc. about impacts,

¹⁶ Further elaboration of the Free, Prior and Informed Consent (FPIC) can be referenced in the World Bank's new Environmental and Social Framework (ESF), Environmental and Social Standard 7.

mitigation mechanisms, and benefits where appropriate. If necessary, separate forums or engagements need to be conducted based on their preferences;

- c. Begin early in the process of identification of environmental and social risks and impacts and continue on an ongoing basis as risks and impacts arise;
- d. Be based on the prior disclosure and dissemination/socialization of relevant, transparent, objective, meaningful, and easily accessible information that is in a culturally appropriate language(s) and format and is understandable to affected communities. In designing consultation methods and use of media, special attention needs to be paid to include the concerns of Indigenous women, youth, and children and their access to development opportunities and benefits;
- e. Focus on inclusive engagement on those directly affected than those not directly affected;
- f. Ensure that the consultation processes are free of external manipulation, interference, coercion and/or intimidation. The ways the consultations are designed should create enabling environments for meaningful participation, where applicable. In addition to the language(s) and media used, the timing, venues, participation composition need to be carefully thought through to ensure everyone could express their views without repercussions; and
- g. Be documented.

While there is no universally accepted definition of FPIC, for the purpose of this IPPF, FPIC is established as follows:

- a. The scope of FPIC applies to project design, implementation arrangements and expected outcomes related to risks and impacts on the affected Indigenous Peoples;
- b. FPIC builds on and expands the process of meaningful consultations as above and will be established through good faith negotiation between the GoTL and affected Indigenous Peoples;
- c. The GoTL/PMU will document: (i) the mutually accepted process to carry out good faith consultations, (ii) the outcome of the consultations, including all agreements reached as well as dissenting views; and
- d. FPIC does not require unanimity and may be achieved even when individuals or groups within or among affected Indigenous Peoples explicitly disagree.

For the purposes of this framework, consent refers to the collective support of affected Indigenous Peoples for the project activities that affect them, reached through a culturally appropriate process. It may exist even if some individuals or groups object to such project activities.

When the FPIC of the affected Indigenous Peoples cannot be ascertained by the Bank, the aspects of the proposed project activities relevant to those affected Indigenous Peoples for which the FPIC cannot be ascertained will not be processed further. The ESIA financed for future road investments should also gauge such consent and will not recommend any World Bank's investments in case FPIC cannot be ascertained.

The ESIA through the above consultative process must ensure that the following are in place:

- a. Documented evidence of meaningful consultations as well as measures taken to avoid and minimize risks and adverse impacts to environment and socio-cultural aspects. This will be in the form of written agreements with authorized community representatives;
- b. Documented consent from communities in the event that the proposed activities are envisaged to create adverse impacts (as elaborated in this section);
- c. Action plan and recommendations to address adverse risks during project preparation, implementation, and operationalization and

- d. Any formal agreements reached with affected communities and/or their representative institutions.

c. Social Assessment

Building on earlier screening and consultative processes, an assessment of future projects' implications on Indigenous Peoples where they are present or have collective attachments to the proposed areas will need to be made as part of the ESIA process.

The assessment is expected to provide a more informed understanding and analysis of risks as well as opportunities through which mitigation measures can be tailored to specific contexts and needs. Both qualitative and quantitative data will inform the assessment, including baseline information on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples and the land and territories that they have traditionally owned or customarily used or occupied or have attachments to, and the natural resources on which they depend.

The PMU will engage qualified researchers and experts to carry out this assessment. Main areas to be covered include:

- a. Nature of vulnerability and attachments to land and natural resources;
- b. Specific risks and potential adverse impacts as a result of future road project implementation (both direct, indirect, and cumulative impacts);
- c. Level of community acceptance to the activities being proposed;
- d. Analysis of relevant stakeholders, either who will be impacted or who have interest to the activities in question and the elaboration of a culturally appropriate process for consulting with the Indigenous Peoples at each stage of activity preparation and implementation;
- e. Opportunities to enhance participation of the communities concerned as well as benefits of the project; and
- f. Approach to participation, including specific measures to promote participation and inclusion of vulnerable groups into the project preparation and implementation;

d. Development of Risk Mitigation Instruments

Where future road projects resulting from the feasibility and design studies financed by the project involve acquisition of and restrictions to Indigenous Peoples' lands and have impacts on their access to natural resources and livelihoods, the GoTL will prepare a plan for the legal recognition of such ownership, occupation, or usage, with due respect to the customs, traditions and land tenure systems of the Indigenous Peoples concerned.

The GoTL will consider feasible alternative project designs to avoid the relocation of Indigenous Peoples from communally held or attached land and natural resources subject to traditional ownership or customary use or occupation.

If such relocation is unavoidable the GoTL will not proceed with the project unless FPIC has been obtained as described above. The GoTL will not resort to forced eviction and any relocation of Indigenous Peoples will meet the requirements of OP 4.10.

Where feasible, the relocated Indigenous Peoples will be able to return to their traditional or customary land, should the cause of their relocation cease to exist.

Where a project may significantly impact cultural heritage that is material to the identity and/or cultural,

ceremonial, or spiritual aspects of the affected Indigenous Peoples' lives, priority will be given to the avoidance of such impacts. Where significant project impacts are unavoidable, the GoTL will obtain the FPIC of affected Indigenous Peoples as above.

If Indigenous Peoples are present in a project area, an Indigenous Peoples Plan (IPP) or Community Development Plan (CDP) will be required and cover specific measures:

- a. Ensure FPIC is secured in the event that project activities may result in adverse impacts as further elaborated in this IPPF;
- b. Ensure that Indigenous Peoples affected by the project receive culturally appropriate social and economic benefits.
- a. Ensure that measures to minimize adverse effects on Indigenous Peoples are in place through a process of meaningful engagement and consultations;

Such IPPs or CDPs will need to be prepared in a flexible and pragmatic manner and its level of detail varies depending on the specific activities and nature of risks.

For activities where the social assessment indicates that Indigenous Peoples are the sole or the overwhelming majority of direct beneficiaries, a separate IPP is not required and the elements of an IPP should be mainstreamed as part of the project design and/or ESMP.

Key components of an IPP/CDP cover:

- a. Social assessment summary, including key findings and observations from the screening process;
- b. Summary of consultations, including documentation of consultation processes, evidence of broad community support and FPIC in circumstances where such consent is required;
- c. Proposed mitigation measures and time-bound action plans, including measures to foster community participation and enhance proposed projects' benefits;
- d. Estimation of costs, resources and technical support required, including specific expertise to address risks; and
- e. Feedback and Grievance Redress Mechanism (FGRM).

e. Feedback and Grievance Redress Mechanism

The GoTL will ensure that a grievance mechanism is established for the project, which is culturally appropriate and accessible to affected Indigenous Peoples and takes into account the availability of judicial recourse and customary dispute settlement mechanisms among Indigenous Peoples.

Sub-Appendix 6

Land Acquisition and Resettlement Planning Framework

A. Introduction

This RPF is based on the World Bank's Policy OP 4.12 on Involuntary Resettlement as well as the Timor-Leste's applicable/domestic policy instruments and laws, equally, in conjunction with the entitlement matrix that has been formulated for World Bank funded projects to mitigate adverse effects.

This RPF is prepared for two purposes, which are intended to serve as a safeguards instruments to address land acquisition and resettlement risks under sub-component 2.2 on Design of Future Projects (approx. USD 1.4 million). Under sub-component 2.2, the project provides financing for feasibility/technical studies and designs required for the preparation of potential future investments in the road sector (approximately 40 km). These road sections to be designed will be selected during project implementation and as of the date of the project preparation, road links to Hatubuilico town and Ermera town (total 10 km) are being considered. Additional 30 km of road design has not been determined. The GoTL confirmed that the design of future projects will be limited to road rehabilitation/improvements, not new roads.

Since the feasibility and design studies under sub-component 2.2 are expected to result in new road investments, application of the World Bank's Environmental and Social Safeguards Policies will be required in the event that financing is requested by the GoTL from the World Bank. Hence, screening of potential social and environmental impacts under feasibility and design studies should comply with the Bank's Environmental and Social Safeguards Policies and their relevant provisions.

B. WB OP 4.12 on Involuntary Resettlement

OP 4.12 recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons. Project-related land acquisition or restrictions on land use may cause physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, leading to loss of income sources or other means of livelihood), or both. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement.

OP 4.12 applies to permanent or temporary physical and economic displacement resulting from the following types of land acquisition or restrictions on land use undertaken or imposed in connection with project implementation:

- a. Land rights or land use rights acquired or restricted through expropriation or other compulsory procedures in accordance with national law;
- b. Land rights or land use rights acquired or restricted through negotiated settlements with property owners or those with legal rights to the land, if failure to reach settlement would have resulted in expropriation or other compulsory procedures;
- c. Restrictions on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage where they have traditional or customary tenure, or recognizable usage rights. This may include situations where legally designated protected

- areas, forests, biodiversity areas or buffer zones are established in connection with the project;
- d. Relocation of people without formal, traditional, or recognizable usage rights, who are occupying or utilizing land prior to a project-specific cut-off date;
- e. Displacement of people as a result of project impacts that render their land unusable or inaccessible;
- f. Restriction on access to land or use of other resources including communal property and natural resources such as marine and aquatic resources, timber and non-timber forest products, fresh water, medicinal plants, hunting and gathering grounds and grazing and cropping areas;
- g. Land rights or claims to land, or resources relinquished by individuals or communities without full payment of compensation; and land acquisition or land use restrictions occurring prior to the project, but which were undertaken or initiated in anticipation of, or in preparation for, the project.

The framework does not apply to impacts on incomes or livelihoods that are not a direct result of land acquisition or land use restrictions imposed by the project. Such impacts will be addressed in accordance with OP 4.01 on Environmental Assessment.

The framework does not apply to voluntary, legally recorded market transactions in which the seller is given a genuine opportunity to retain the land and to refuse to sell it and is fully informed about available choices and their implications. However, where such voluntary land transactions may result in the displacement of persons, other than the seller, who occupy, use or claim rights to the land in question, relevant provisions under the framework will apply.

The application of this framework for the purpose of future project activities will be limited to land acquisition which may impact on private properties, assets and agricultural crops. In addition, future construction activities may result in temporary restrictions on land uses, and hence warrants the application of the framework.

The following principles must be adhered to in order to be fully compliant to OP 4.12:

- 1) Compensation to replace lost assets, livelihood and income at replacement costs;
- 2) Assistance for relocation including provision of relocation sites with appropriate facilities and services;
- 3) Assistance for rehabilitation to improve or achieve at least the same level of standards of living prior to the project. replacement property (e.g., agricultural or commercial sites) of equal or greater value will be provided, or, where appropriate, cash compensation at replacement cost;
- 4) Transitional support will be provided as necessary to all economically displaced persons based on a reasonable estimate of the time required to restore their income-earning capacity, production levels and standards of living. Affected business owners will be compensated for the cost of identifying a viable alternative location; for lost net income during the period of transition; for the cost of the transfer and reinstallation of the plant, machinery, or other equipment; and for reestablishing commercial activities. Affected employees will receive assistance for temporary loss of wages and, if necessary, assistance in identifying alternative employment opportunities
- 5) Economically displaced persons who are without legally recognizable claims to land will be compensated for lost assets other than land (such as crops, irrigation infrastructure and other improvements made to the land), at replacement cost. Additionally, the GoTL will provide assistance in lieu of land compensation sufficient to provide such persons with an opportunity to reestablish livelihoods elsewhere.

Economically displaced persons will be provided opportunities to improve, or at least restore, their means of income-earning capacity, production levels, and standards of living:

- a. For persons whose livelihoods are land-based, replacement land that has a combination of productive potential, locational advantages, and other factors at least equivalent to that being lost will be offered where feasible;
- b. For persons whose livelihoods are natural resource-based and where project-related restrictions on access envisaged in paragraph apply, measures will be implemented to either allow continued access to affected resources or to provide access to alternative resources with equivalent livelihood-earning potential and accessibility. Where common property resources are affected, benefits and compensation associated with restrictions on natural resource usage may be collective in nature; and
- c. If it is demonstrated that replacement land or resources are unavailable, the GoTL will be required to offer economically displaced persons options for alternative income earning opportunities, such as credit facilities, skills training, business start-up assistance, employment opportunities, or cash assistance additional to compensation

The GoTL is not required to compensate or assist persons who encroach on the project area after the cutoff date for eligibility provided that such a cut-off has been publicly and widely disseminated and consulted.

The policy requires provision of support and assistance for those who lose their land, assets or livelihood due to land acquisition of land or restriction on land use. Resettlement planning is designed to provide PAPs with a standard of living equal to if not better than the level prior to the project.

The policy is guided by the following principles:

- 1) Involuntary resettlement is to be avoided or at least minimized;
- 2) Compensation must ensure the maintenance or improvement of the APs/AHs pre-project living standards;
- 3) PAPs should be fully informed and consulted on compensation options;
- 4) PAPs' socio-cultural institutions should be supported/used as much as possible;
- 5) Compensations will be carried out with equal considerations for both women and men as well as their constraints;
- 6) Lack of formal legal land title should not be a hindrance to assistance/rehabilitation;
- 7) Particular attention should be given to women-headed households as well as vulnerable groups such as indigenous people and ethnic minorities;
- 8) Appropriate assistance should be provided to help PAPs restore and/or at least maintain their livelihoods and standard of living;
- 9) Land acquisition and resettlement should be conceived and executed as a part of the project. The full costs of compensation should be included in the project costs; and
- 10) Compensation/rehabilitation assistance should be paid prior to ground levelling and demolition and in any case before an impact occurs.

The GoTL will not resort to forced evictions of affected persons. "Forced eviction" is defined as the permanent or temporary removal against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection, including all applicable procedures and principles in this framework.

The exercise of eminent domain, compulsory acquisition or similar powers by the GoTL will not be considered to be forced eviction providing it complies with the requirements of national law and the provisions of the framework and is conducted in a manner consistent with basic principles of due process (including provision of adequate advance notice, meaningful opportunities to lodge grievances and appeals, and avoidance of the use of unnecessary, disproportionate or excessive force).

As an alternative to displacement, the Borrower may consider negotiating in situ land development arrangements by which those to be affected may elect to accept a partial loss of land or localized relocation in return for improvements that will increase the value of their property after development. Any person not wishing to participate will be allowed to opt instead for full compensation and other assistance.

C. Existing Policy and Legal Framework of GoTL

Currently there are no specific laws on involuntary land acquisition and compensation, although the proposed Expropriation Law would be the most relevant one but still under the parliament for approval. The legal basis for declaring the right of way outside the current road footprints has not been neither established nor delineated.

Hence, the RPF will prevail and serve as a gap filling measure and will be revisited once laws and regulations pertaining to land acquisition and resettlements have been issued.

However, there is a mere pronouncement and information both from the MPW and NDLPSC prescribing 3-5 meters strip of land reserved for public use or for infrastructure development and though no written policy, yet, the government started its implementation in which community along the road has the same understandings and provided mutual consensus. Such consensus will be revisited and, in the event that communities object or have competing claims, the provisions in the LARAP will prevail.

When road works required land in the past, the Government negotiated with the owners or users including informal settlers on a case by case basis. According to past practice, when land was required for project development, concerned parties under the direction of local authorities (district and sub- district Land and Property Units and village) negotiated and reached agreement on compensation rates, total compensation amount, and the procedures or mechanism for compensation and transfer.

The following describes relevant policies, entitlements and eligibility for compensation and other resettlement entitlements.

National Policies and Legislation. Section 141 of the Constitution of RDTL states that the ownership, use and development of land as one of the factors for economic production shall be regulated by law and Section 54 of the Constitution covers the right to private property and states that prescribes:

- 1) Every individual has the right to private property and can transfer it during his or her lifetime or on death, in accordance with the law;
- 2) Private property should not be used to the detriment of its social purpose;
- 3) Requisitioning and expropriation of property for public purposes shall only take place following fair compensation in accordance with the law and;
- 4) Only national citizens have the right to ownership of land

The first land law of Timor-Leste was promulgated in March 2003 and was designed to serve as an umbrella law for the rest of the land and property regime. The law established by the DLPCS as a legal entity and defined its jurisdiction, and articulated general rules concerning land tenure and property rights to be further developed by ensuing legislation. Moreover, this law established a one-year period for both nationals and non-nationals to register their land claims. Effectively Law No. 1/2003 vests all land that belonged to the Portuguese state, and all state property acquired or built by the Indonesian regime, in the new state of Timor-Leste.

A decree issued by the Government in February 2011 provides for granting compensation to relocate unlawful occupants of State property based on humanitarian considerations. The Ministry of Justice (MOJ) through Ministerial Decree, which is yet to be finalized, will establish the basis for calculating compensation.

Another decree promulgated in July 2011 passed in June 2011 allows private property rights registration by landowners/persons in areas where cadastral surveys have been completed (following registration and verification of claims by the government) and confirmed that the claims to land are undisputed. Among the claims registered so far under the Ita Nia Rai program, which has been limited to urban areas, some 92 percent of claims are undisputed.

The Civil Code promulgated in 2011 (which will come in force in March 2012) includes a section that governs day-to-day land decisions such as the sale and lease of land. The following three draft legislations relating to land are awaiting parliamentary approval:

- 1) The Transitional Land Law would decide who owns what land and in the case of conflicting claims, who has the strongest right to the land;
- 2) The Expropriation Law that would allow the state to take land for "public good" for example, to build ports and other infrastructure;
- 3) The Real Estate Finance Fund would provide compensation as determined under the other laws.

D. Gap Assessment

A gap assessment was conducted as part of the LARAP. The following provides a summary of key gaps in the current country systems in light of key provisions in the OP 4.12:

Formal land recognition and compensation entitlements: a formal legal basis for determining land ownership is still being developed. Most Timorese in the countryside access and hold land through customary and informal systems, which have no legal recognition. Only a minority ever got access to formal land titles during the Portuguese or Indonesian administrations. This situation is further complicated by urban migration, especially to Dili, where without mechanisms to legally access land, people can only rely on informal schemes. Without a land title, land rights are not recognized under the current land law, leaving the majority of the population without any legal tenure security. Based on a survey commissioned by the Asia Foundation, at least a quarter of the population in urban Dili (63,000) would not have any land rights recognized by law.

The draft law on land expropriation included provisions to protect those households from eviction that do not fulfil the criteria of the law for land ownership recognition and cannot afford resettlement.

Replacement costs: Section 141 stipulates that requisitioning and expropriation of property for public purposes shall only take place following fair compensation in accordance with the law. The draft law

requires that land expropriation should follow principles of justice and equality on account of ensuring that expropriation must ensure that the standard of living of PAPs is equal to or higher than the one enjoyed prior to compensation. The draft law is also required to guarantee fair compensation based on market value. While some elements of replacement costs are alluded in the draft law, there is no specific definition or methodology to define replacement costs. The National Directorate of Land Property and Cadastral Services (NDLPCS) has the mandate and responsibility to assess the value of land and related assets.

Compensation to squatters: Decree no. 11/2011 on Compensation for Resettlement authorizes the payments of compensation to unlawful occupants of state property to resettle elsewhere. However, such payment is not mandatory.

Assistance to vulnerable groups: The draft law on land expropriation stipulates that special needs of minorities and vulnerable groups should be taken into consideration throughout land expropriation processes. Subject to the adoption of the law, the draft law provides sufficient legal basis to achieve policy objectives.

Gender and access to land: in a study commissioned by the Asia Foundation, men tend to have greater access to and ownership of land and housing. There were cases where land is claimed to be owned individually by men, but the house built on the land is jointly owned by the couple. Existing processes of land registration or titling do not incorporate clear measures to mitigate gender discrimination and hence, cash compensation will warrant further assessment and monitoring whether current practices may reinforce such structural inequalities.

Eviction: the national law 1/2003 allows evictions of occupants in state property. However, the law provides no detail regarding the process of identifying a property as state property. In practice the state only declares that a property is state property in the notification for eviction. Furthermore, access to meaningful appeal may be limited. While financial compensation is paid by the state to evicted people, such a practice likely happens on an ad-hoc basis without any legal framework.

Recognition of customary rights: the legal framework for customary rights is incipient. While the Constitution recognizes customary practices – as long as they are not contrary to the Constitution – no specific reference on customary land rights. Law 10/2011, Article 4, establishes that the land that is used communally by a community according to its usages and customary practices represent community's property. However, there is no other reference to community property, leaving the legal regime unclear.

Further analysis on a policy and regulatory gap assessment along with recommendations to address the gaps is provided in **Sub-Appendix 7**. The project will follow the entitlement matrix as presented in **Table 1** to ensure compliance with OP 4.12.

E. Land Acquisition and Resettlement Principles

The legal and policy framework on resettlement in Timor-Leste has been compared with the requirements of WB and some gaps have been identified. The gap-filling measures required to resolve its differences and those measures then are incorporated into the identification of PAPs, their eligibility to compensation and entitlements and other forms of resettlement assistance. The resettlement policy principles for the project are as follows:

- 1) The Constitution gives the power to the state to expropriate land for public purposes paying due compensation in accordance with the law. The Expropriation Law is one of the three legislations relating to land that are awaiting parliamentary approval;
- 2) A substantive amount of land in Timor is not registered. The Government has started issuing land title certificates in urban areas, which will help in identifying land owners. In rural areas where most of the road sections will be improved, the NDLPSC will identify and establish ownership claims for the land parcels required for the project roads;
- 3) The absence of an active land market in rural areas poses a challenge to determine the market or replacement value of the affected land. The Project Management Unit (PMU) with the assistance of Social Safeguards Consultant and the NDLPSC provide valuation of affected assets to determine fair compensation at replacement cost to PAPs;
- 4) Resettlement impacts will be minimized through careful engineering design;
- 5) PAPs will be systematically informed and consulted during the entire process of resettlement planning and implementation, including assessment of possible impacts on their livelihoods, purchase of land/assets, determining compensation/resettlement options and socio-economic rehabilitation measures. They will be informed of their rights and options and be invited to participate actively in the identification of mitigation and rehabilitation measures;
- 6) PAPs will be identified and recorded as early as possible in order to establish their eligibility through a population record or census that serves as an eligibility cut-off date, usually around the time of initial consultations at the subproject identification stage to prevent a subsequent influx of encroachers or others who wish to take advantage of such benefits;
- 7) Eligible PAPs are entitled to compensation and livelihood rehabilitation measures sufficient to assist them to improve or at least maintain their pre-subproject living standards, income earning capacity and production levels;
- 8) In the consultation process, representatives of local governments, Suco chiefs, other community leaders and civil society organizations such as non-government organizations (NGOs) from the operational areas will be included. The customs and traditions, as well as the religious practices of all PAPs, will be respected and protected;
- 9) The institutions of PAPs, and, where relevant of their hosts, are to be protected and supported. Physically displaced PAPs will be assisted to integrate economically and socially into host communities so that adverse impacts on the host communities are minimized and social harmony is promoted;
- 10) Lack of formal legal rights to assets lost will not deprive any PAPs from receiving compensation and payments for non-land assets and entitlements;
- 11) Particular attention will be paid to the needs of vulnerable PAPs. This group of PAPs may include those without legal or recognizable title to the land or other assets, households headed by females, the elderly or disabled, and other vulnerable groups, such as people living in extreme hardship, and indigenous people that may be a minority in specific locations. Appropriate assistance will be provided to help them improve their socio- economic status;
- 12) The concerns of women will be identified based on gender disaggregated socio- economic data, separate discussions on women's concerns, and ensuring adequate measures and budgetary allocations in the resettlement plan to compensate and resettle them in a manner that does not disadvantage them. In this effort the assistance of national NGOs currently engaged in women's welfare will be sought;
- 13) Since there are no significant differences in cultural and socio-economic identity among the different language groups, no specific adverse impacts are anticipated to warrant separate indigenous people's plans. To ensure that the different language groups fully participate in planning and implementing resettlement, discussions and reports will be prepared and disclosed

appropriately in the relevant languages. LARAP will also include provision for any special measures that may be required;

- 14) Resettlement planning decisions will be preceded by a social preparation phase where consultations will be held with PAPs, community leaders, local administrators, and NGOs to enhance the participation of these PAPs in negotiation, planning, and implementation;
- 15) Payment for physical assets, i.e. land, houses, buildings and other structures, and non- physical assets such as lost income from productive assets or jobs, will be calculated at replacement cost and included in the LARAP;
- 16) PAPs losing only part of their physical assets will not be left with a proportion inadequate to sustain their current standard of living. Such a minimum size will be identified and agreed upon during the resettlement planning process;
- 17) A grievance redress mechanism linked with existing traditional formal and informal systems and cognizant of cultural requirements will be established to solve resettlement related disputes and complaints from PAPs;
- 18) Land for land or asset for asset compensation is always the preferred method. However, if insufficient land or assets are available, or if the affected people have a preference for cash and settlement impacts are considered to be minor and do not undermine the livelihoods of PAPs, cash payments at replacement costs will be provided based on negotiation with PAPs. For those experiencing severe impacts (more than 10% of productive land severely affected people (i.e. those PAPs experiencing significant impacts) assistance will be given to identify and purchase alternative land. Efforts will also be made to provide sustainable livelihood restoration measures so that affected people can improve or at least restore their standard of living to pre-project levels;
- 19) The full cost of land purchase and resettlement will be included by the government in the project cost and adequate budgetary provision shall be made available during implementation;
- 20) All land purchase, compensation, resettlement activities will be satisfactorily completed, and the subproject areas cleared of all obstructions before the commencement of civil works; and
- 21) No works with resettlement impacts will be implemented before a LARAP has been prepared and approved. The general process for preparing LARAP includes:
 - Consultation with PAPs relevant stakeholders, and whenever necessary, assistance of relevant institutions to ensure effective consultations;
 - Undertaking of a participatory inventory of losses (IOL), which will be updated during a detailed measurement survey (DMS) following the detailed design;
 - Determination of replacement cost for PAPs losing assets (land, physical assets, means of livelihood, or social support systems) will be compensated and assisted, through adequate and satisfactory to the PAPs, replacement land, housing, infrastructure, resources, income sources, and services, in cash or in kind, so that their economic and social circumstances will be improved or at least restored to the pre-project level. All compensation will be based on the principle of replacement cost at current market value. When necessary, livelihood restoration programs acceptable to the local community will be put in place to help people improve, or at least restore, incomes to pre-project levels;
 - Preparing a cost estimate and budget including the costs of compensation, relocation and rehabilitation, social preparation and livelihood programs. The budget will also include the costs for planning, management, supervision, monitoring and evaluation, land taxes, land fees, physical and price contingencies, and implementation of the LARAP;
 - Inclusion of a grievance mechanism based on cultural practices and agreeable to PAPs;

- Inclusion of a monitoring system, appropriate reporting and monitoring and evaluation will be established as part of the resettlement management system, this will be set out in the RP.

F. Category of Project Affected Person (PAPs)

A person is considered as a PAP if, at the time of census, they are verified to be occupying, living/residing, doing business and/or utilizing the land, resources and improvements that will be acquired for the project, irrespective of ownership thereof.

Members who share a common kitchen are considered as one household regardless of the number of families or extended families living together under one roof, thereby, PAPs shall be reckoned by the household as a unit of representation.

a. Definition

Affected Family/Affected Household (AF/AH) - consists of all members of a household residing under one roof and operating as a single economic unit, who will be adversely affected by the project. For resettlement purposes, Project Affected Persons (PAPs) will be dealt with as members of Project Affected Families/Households.

Project Affected Person(s) or Household Head (HH) - dealt with as member of project affected families/households who on account of the execution of the project, would have the right, title or interest in all or any part of a house, land (e.g., residential, agricultural or pasture) or any other fixed or moveable asset acquired or possessed, in full or in part, permanently or temporarily.

Informal Settlers - a person using or occupying vacant state land and who does not have title or formal agreement from the owner to use, the land.

b. Tenorial Status

PAPs are categorized based on their tenorial status at the time of census cut-off date as follows:

- 1) Land owners – PAPs who are land title holders or who have formal legal rights to land including customary and traditional land rights recognized under the law;
- 2) Structure Owners on private lots - PAPs who own the structure built on own lot or on another person's private lot with or without the consent of the owner;
- 3) Informal Settlers – APs who do not have formal legal rights to land they are occupying.

c. Severity of Impacts

Properties to be acquired for the project may include the entire area or a portion of it. Hence, compensation for such assets depend on whether the entire property will be affected or just a portion of it.

Marginally affected/ Minor or insignificant impact – the impact is only partial, and the remaining portion of the property or asset is still viable for continued use. Compensation will be on the affected portion only. PAPs are not physically displaced and less than 10 percent of their productive assets are lost and fewer than 200 PAPs are affected;

Severely affected or significant impact – the portion of the property to be affected is more than 10 percent of the total area or even less than 10 percent if the remaining portion is no longer economically viable or

it will no longer function as intended, PAPs are eligible to full compensation of the whole property. More than 200 people are affected by resettlement or significant impacts on productive assets (income generating) or physical displacement (i.e. loss of housing).

d. Eligibility and Cut-off date

Eligibility: consistent with the World Bank's policies, eligible PAPs will be entitled to receive compensation for their losses in addition to allowances and other special assistance to ensure they can restore their livelihoods and achieve at least if not improve their pre-project living standards. Vulnerable PAPs will also be entitled to additional assistance. The following eligible PAPs are those that:

- 1) Legal PAPs: have legal rights to land (including customary and traditional rights recognized under the laws of the government);
- 2) Legalized PAPs: do not have legal rights to land but have a claim to such land or assets provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan; and
- 3) Non-titled PAPs/informal settlers: have no recognizable legal right or claim to the land they are occupying or using, these PAPs are not eligible for compensation for the land but are eligible for compensation for their assets on the land and other assistance to restore and/or improve their livelihoods and living standards to the pre-project level;
- 4) Owners of Assets: PAPs losing structures, trees or crops irrespective of the status of ownership of the land;

Cut-off Date: The Cut-off Date is the date of commencement of the census of affected families within the project boundaries. Any persons that were not covered during census survey will not be eligible for claims of compensation as it was announced to the local communities during the public consultations. People moved into the project boundaries after the cut-off date will not be entitled to any compensation unless the Suco/Aldeia Chief will attest that newly identified PAPs were missed out or rather living in the area for over the years during the previous census.

If there is long gap between the approval date of LARAP completion and its implementation, PMU will update or conduct validation of the LARAP prior to its implementation, as necessary, to accommodate the factual and/or additional affected assets.

G. Principle of Replacement Cost

Replacement cost is defined as a method of valuation yielding compensation sufficient to replace assets, plus necessary transaction costs associated with asset replacement. Where functioning markets exist, replacement cost is the market value as established through independent and competent real estate valuation, plus transaction costs.

Where functioning markets do not exist, as in the case of rural parts of the proposed road segments, replacement cost may be determined through alternative means, such as calculation of output value for land or productive assets, or the undepreciated value of replacement material and labor for construction of structures or other fixed assets, plus transaction costs. Transaction costs include administrative charges, registration or title fees, reasonable moving expenses, and any similar costs imposed on PAPs.

Compensation at negotiated settlements for land and other fixed assets such as temporary, semi-permanent and permanent structures, kiosks, trees, crops and other improvements will be adequate to replace losses. In the event that physical displacement results in loss of shelter, replacement cost must at

least be sufficient to enable purchase or construction of housing that meets acceptable minimum community standards of quality and safety. Those PAPs whose structures will be affected will receive a reconstruction and reorganize work costs. Each PAP having loss business will also be entitled to assistance for restoring their incomes.

The unit prices to be offered to PAPs whose residential and commercial structures including other improvements are presented in Chapter VII on the Financing Plan and Resettlement Budget. Unit prices for various species of affected trees are based from the Ministerio Agrikultura e Peskas and the rate of additional assistance and entitlements are attached in the Appendices.

To ensure compensation at replacement cost, planned compensation rates may require updating in project areas to ensure inflation is fully factored into the overall budget calculation or the period of time between calculation of compensation rates and delivery of compensation is extensive.

G. Assistance to Vulnerable Group

Special attention shall be extended to extremely vulnerable PAPs such as the poorest of the poor, female-headed households and other vulnerable households. On top of the entitlements accorded for them, PAPs will be entitled to an additional allowance for two months at monthly rate of US\$ 100.00 and would qualify for any special assistance.

H. Determination of Compensation and Entitlements

In the absence of specific law on social safeguards consideration or policy, A Resettlement Framework for the World Bank assisted projects was formulated and this framework requires that any impacts on land or assets will be kept to a minimum. Alternative design options will be considered to avoid and/or minimize involuntary resettlement.

As a result, the framework practically adopts and endeavors to be compliant with most of the basic principles of involuntary resettlement for World Bank and other financiers such as the Asian Development Bank (ADB) and Japan International Cooperation Agency (JICA) with some modifications and refinements in conformity with the GoTL policy that are specific and responsive to the needs, circumstances and nuances of the project area.

Further, considering that no standard procedure in determining the cost of materials to be assumed in the computation of compensation and entitlements, as consequence, the price lists/unit prices acceptable and agreed upon to all concerned stakeholders for the project will be applied.

In general, the determination of compensation and entitlements is based on the prevailing practice of a negotiated settlement which represents an agreed amicable rates or package of compensation and entitlements for the PAPs.

A standardized entitlement matrix is provided in Table 1. GoTL's standard prices for crops and land parcels will serve as benchmarks for negotiation with PAPs and hence, are used for the purpose of RAP budget calculation. However, final prices will be made based on consensus with PAPs.

I. Entitlements

The proposed entitlement matrix is summarized below. This matrix was made available during Suco-

consultations.

Table 1: Entitlement Matrix

Item	Type of Loss	Entitled Persons	Details of Entitlements	Responsibility
1	Permanent Agriculture land Productive Land, including residential land	Title holders/ recognized or recognizable claims under national laws	<ul style="list-style-type: none"> Cash compensation for the loss of land at replacement value based on negotiated settlements¹⁷ (land valuation will be carried out by the National Directorate of Land Property and Cadastral Services (NDLPCS) based on the prevailing market price or productive value of agricultural land (whichever is higher). Final price will be made based on consensus. If the residual land is not viable or if land acquired is 75% or more of the total land holding of the title holder, full cash compensation of the affected land and livelihoods restoration assistance (including assistance to identify alternative suitable land, replanting assistance, temporary subsistence allowance proportional to income losses or a combination of those). Subsistence allowance proportional to temporary income losses if residual land is viable. All fees, taxes and other charges, as applicable under relevant laws incurred in the relocation and resource establishment are to be borne by the project. Additional compensation for vulnerable households (item 10). 60 days of notice for agricultural lands to harvest standing crops. If notice cannot be given, compensation for share of crops will be provided. Refer to item 8 for other applicable compensation. 	PMU in coordination with MOJ/DLPCS, Ministry of Finance, with assistance from valuation specialist, local authorities and community leaders.
2	Permanent loss of homestead and agriculture land	Tenants and leaseholders	<ul style="list-style-type: none"> Cash compensation at \$200 of up to 6 months of land lease. 60 days of notice for agricultural lands to harvest standing crops. If notice cannot be given, compensation for share of crops will be provided. Additional compensation for vulnerable households. 	PMU in coordination with MOJ/DLPCS, Ministry of Finance, with assistance from valuation specialist, local authorities and community leaders.

¹⁷ The term “negotiated settlements” refers to situations where MoPW first attempts to arrive at mutually agreeable negotiated settlement with the landowner/user rather than doing so expropriation proceeding.

3	Temporary Loss of Land	Landowners/ Lessee	<ul style="list-style-type: none"> Cash compensation at \$200 of up to six months of land lease. 60 days of notice for the use of land. Two months of disturbance allowance (lump sum of \$100 per month). 	Responsibility of the contractor with assistance/oversight from PMU in coordination with MOJ/DLPCS, Ministry of Finance and assistance from consultant, local Authorities and community leaders.
4	Permanent loss of residential/ commercial structures.	Owners of structure	<ul style="list-style-type: none"> Cash compensation equivalent to replacement value of whole structures (or part of structure if still viable) without depreciation. Replacement value covers the costs of the materials and reconstruction costs, including labour. Compensation for land affected (see item 1); Subsistence allowance of \$100/month of up to two months for affected residential/commercial structure. Transportation allowance equivalent to \$ 100¹⁸. Right to salvage materials from the demolished structure without deduction from their compensation. Additional compensation for vulnerable households. 	PMU in coordination with MOJ/DLPCS, Ministry of Finance, with assistance from valuation specialist, local authorities and community leaders.
5	Permanent loss of residential / commercial structures	Informal settlers/squatters /non-tilted PAPs	<ul style="list-style-type: none"> Cash compensation equivalent to replacement value to rebuild whole structures (or part of structure if still viable) without depreciation. Replacement value covers costs of the materials and reconstruction costs, including labour. Assistance to find alternative land Subsistence allowance of \$100/month of up to two months for affected residential structure (see item 4 for income loss from affected business)¹⁹. \$100 transportation allowance²⁰. Right to salvage materials from the demolished structure without deduction from their compensation. Additional compensation for vulnerable households (item 10). 	DLPCS with Assistance from the PMU Resettlement Specialist and in consultation with relevant authorities will finalize the compensation at replacement cost for the affected structure as identified during IOL.

¹⁸ The allowance is only applicable if there is a physical relocation of structures.

¹⁹ The allowance is only applicable if there is a physical relocation of structures.

²⁰ The allowance is only applicable if there is a physical relocation of structures.

6	Permanent loss of Ancillary ²¹ structures	Owners / Squatter of Structures	<ul style="list-style-type: none"> • Cash compensation equivalent to replacement value structure (or part of structure) without depreciation. Replacement value covers the costs of the materials and reconstruction costs, including labour; • Cash compensation equivalent to replacement value of permanent fence (\$20-\$35/Ln.m) and temporary fence (\$3/Ln.m); • Right to salvage materials from the demolished structure without deduction from their compensation. 	PMU in coordination with MOJ/DLPCS, Ministry of Finance, with assistance from valuation specialist, local authorities and community leaders.
7	Income from business	Business owners, vendors (stalls)	<ul style="list-style-type: none"> • Replacement for lost income based on minimum of two months income lost, based on average monthly income, for semi-permanent and permanent kiosks; • One-time payment of \$50 for temporary and movable stall; • Additional compensation for vulnerable households (item 10). <p><i>Note: two months represent average time requirements for businesses (i.e. kioks, workshops, etc.) to recover.</i></p>	PMU in coordination with DLPCS and with assistance from local authorities and community leaders.
8	Loss of crops and trees	Owner of the affected crops	<ul style="list-style-type: none"> • Cash compensation for perennial crops and fruit bearing trees based on the Standard price of affected trees / crops issued by the Ministry of Agriculture. This standard pricelist will be used as the benchmark for negotiation with owners and final prices will be determined based on consensus; • Provisions of 60 days' notice to harvest standing seasonal crops. If harvest is not possible, cash compensation for crops affected (or share of crops) equivalent to the prevailing market price; • Replanting assistance will be offered 	DLPCS with assistance from the PMU's valuation specialist in consultation with relevant authorities will determine the fair compensation at replacement cost.
9	Loss of paddies	Owner of the affected paddies	<ul style="list-style-type: none"> • Compensation for rice paddies equals to the market value of its annual yield for three (3) years²². 	DLPCS with assistance from the PMU's valuation specialist in consultation with relevant authorities will determine the fair compensation at replacement cost.

²¹ Ancillary (Toilet, Kitchen, Fence or Garage)

²² Based on the updated information from PMU during a Resettlement Training held on 12th of July 2017

10	Impact on vulnerable APs	Vulnerable and women-headed households identified by IOL	<ul style="list-style-type: none"> • Additional subsistence allowance equivalent at \$100 for three months for loss of land or structure. • Landless/vulnerable APs will be assisted to find alternative land plots to rebuild affected structures or redevelop agricultural land; • One-time rehabilitation grant in the form of productive assets (e.g. seeds and planting materials)²³. • Vulnerable households will have priority in any employment required for the project. 	PMU with assistance of DLPCS and local community leaders.
11	Unforeseen impact	Concerned persons affected	<ul style="list-style-type: none"> • Unforeseen impacts will be documented and mitigated based on the entitlement matrix and negotiation with PAPs in conjunction with the Resettlement Planning Framework in the document. 	PMU identifies and mitigates impacts as required.

J. Institutional Arrangement

MPW as the EA has overall responsibility for implementing the RP. The PMU under MPW has established an Environmental and Social Unit (ESU) composed of an international and national social safeguards and environmental specialists to work with the DC and PISC safeguards consultants. The DC and PISC on the project will also provide an international social safeguards specialist to work with the PMU on all resettlement and consultation tasks. At the project completion, a final social safeguards compliance report will be submitted to ADB by the MPW/PMU.

The PMU/ESU will be responsible for all environmental and social aspects of the road development work. On the social safeguards side, they shall manage all resettlement activities. The following tasks enumerated below are its key functions:

- Strengthen its capacity with a social safeguards specialist in planning, coordination, implementation and monitoring of land acquisition and resettlement;
- Train counterpart staff and monitor resettlement in the sub-projects;
- Conducting of consultations and ensuring that the PAPs are well-informed on the resettlement and compensation;
- Conducting negotiation with the PAPs with the value of compensation at replacement cost based on the reference price unit.
- Coordination with the MPW, MOJ and NDLPSC and ensuring a prompt, adequate and timely implementation of the RP according to the RF Monitoring and reporting resettlement activities.

²³ Productive assets will be determined during the IOL and if found that affected assets represent the main source of income of PAPs.

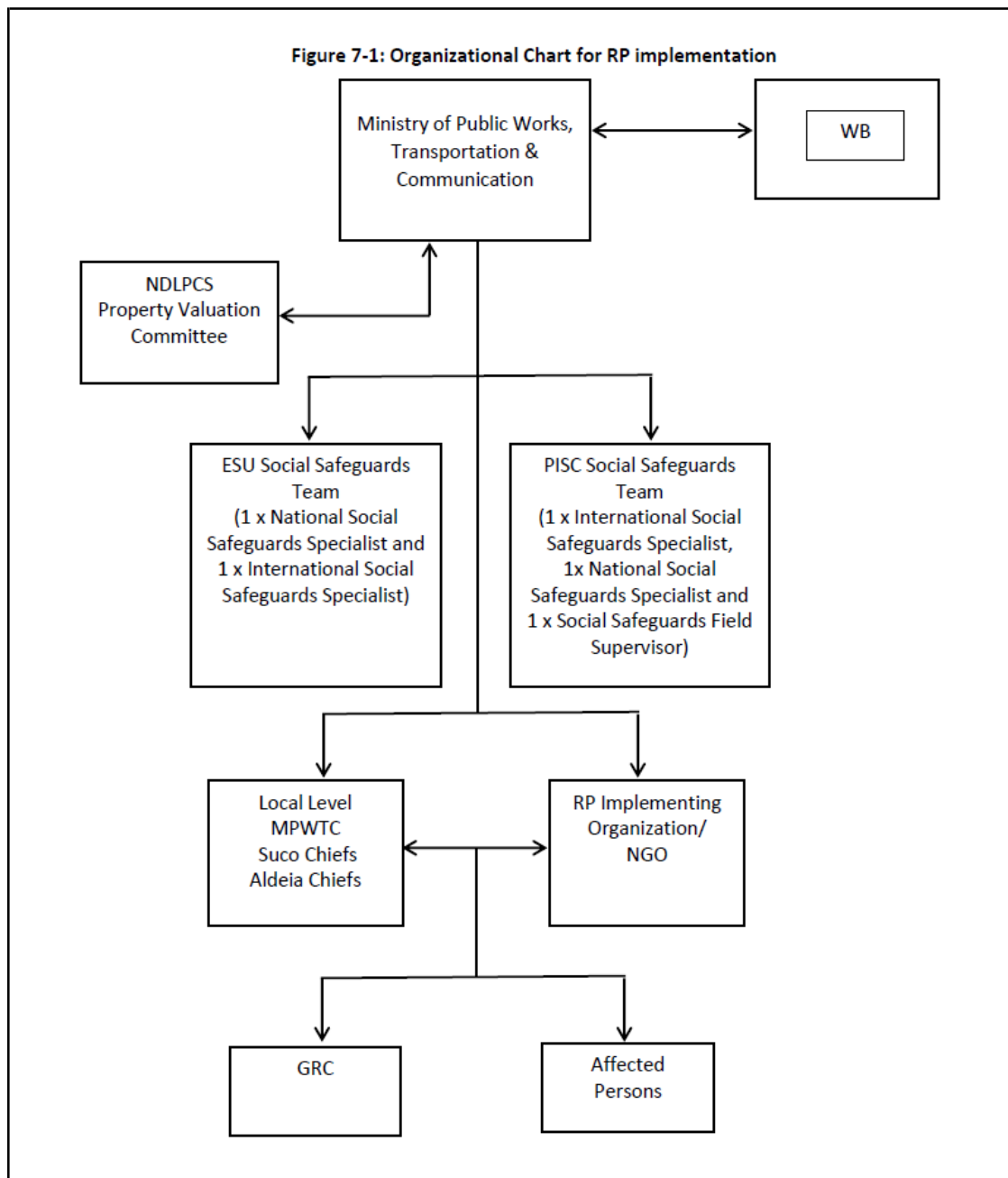


Diagram 7.1: LARAP Institutional Arrangement

K. Roles and Responsibilities

All concerned public and private organizations and institutions must strive to work closely together in policy and program formulation and implementation of the project as well as the land acquisition and resettlement implementation.

Table 2: Roles and Responsibilities

Agency	Roles and Responsibilities
Executing Agency: MOF/CAFI Implementing Agency - MPW	<ul style="list-style-type: none"> a. Overall execution of the project; b. Directs the PMU; c. Provide funds for land acquisition and resettlement implementation; d. Liaise with the World Bank
MoPW and PMU	<ul style="list-style-type: none"> a. Manages social and resettlement aspects of the project, including financing of land acquisition and resettlement; b. Works with the design and supervision consultants relative to all resettlement planning and implementation; c. Organizes public consultations and disclosure of resettlement planning documents in accessible language and forms; d. Disclose RAPs in local websites as well as in accessible places in project locations; e. Carries out land acquisition, including negotiation with PAPs according to the provisions in RAPs and GoTL's laws in coordination with the Ministry of Justice as well as NDLPSCS; f. Ensures that PAPs receive prompt compensation payments and livelihoods support – adequately and effectively – in compliance with RAPs, the World Bank's safeguards policy and Timor Leste's laws and regulations; g. Establishes a grievance redress system designed to address complaints from PAPs in a responsive and timely fashion; h. Liaises with the World Bank on all matters related to resettlement and submit regular implementation of land acquisition and resettlement.
MOJ/NDLPSCS	<ul style="list-style-type: none"> a. Oversees and reviews the implementation of land acquisition and resettlement according to the agreed RAPs; b. Guides PMU in addressing issues that require policy direction in conjunction with the current/prevaling laws and regulations; c. Collaborate with the PMU to verify and validate land compensation values in conjunction with the provisions in the RAPs.

L. Financing Arrangement

All costs associated with resettlement are provided by the government. The Ministry of Finance (MoF) and Ministry of Public Works (MoPW) will ensure that adequate funds are available for carrying out resettlement according to the budget prepared for the project. The PMU will coordinate on the allocation of funds, approval of payments and delivery of funds, monitoring of progress and reporting.

In order to fully comply with the provisions in this framework, the PMU must likewise ensure that sufficient funds are available in anticipation to the additional assets that could be affected until the completion of the project.

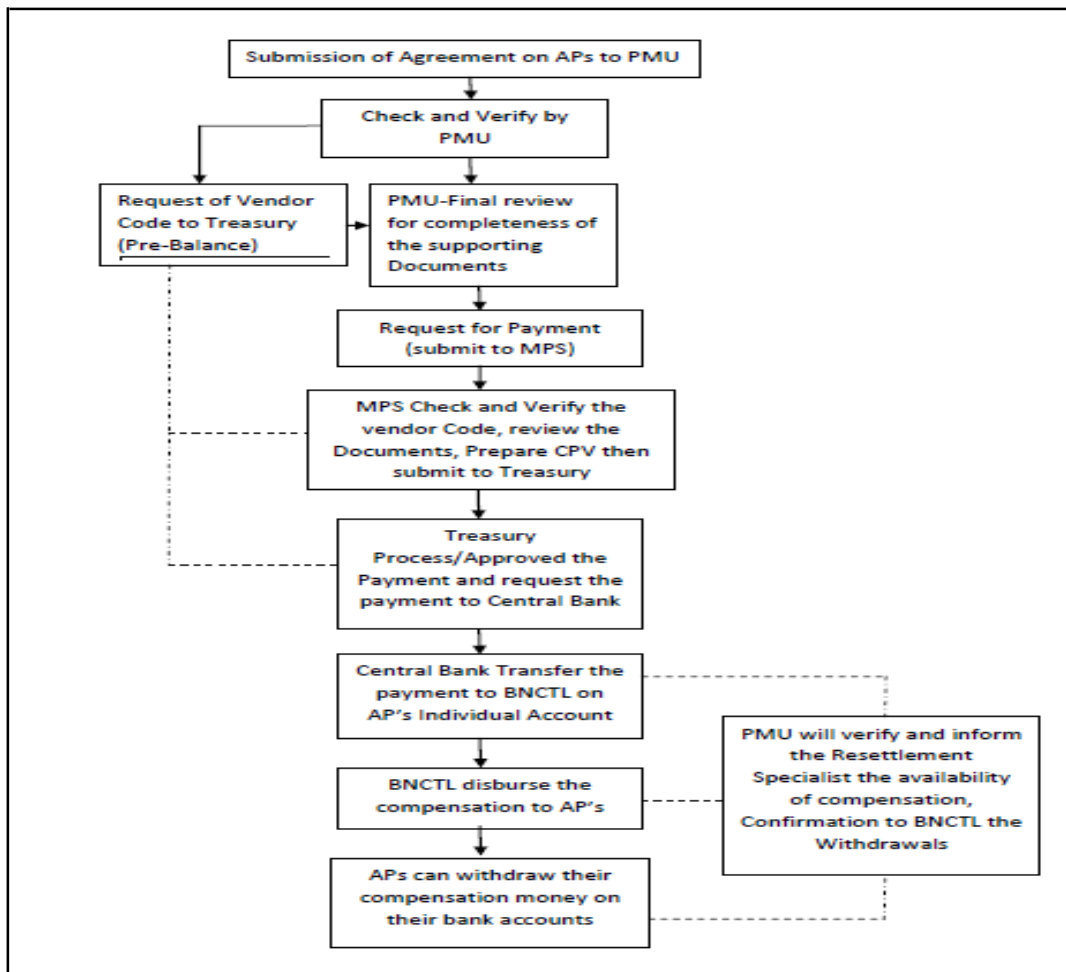


Diagram 1: Compensation Payment Arrangement

M. Payment of Compensation

Compensation payments will be made through these established processes, which have been adopted for other road projects in Timor Leste.

1. **Preparation of Request for Payment.** Request for payment with summary list for each of the PAPs will be prepared by the PMU. This document entitles the PAP to receive the amount indicated in the invoice.
2. **Delivery of Money to Local Banks.** The PMU will initiate the opening of bank account for each PAP who doesn't have existing BNCTL accounts. The compensation and entitlements then accorded to the APs will be remitted by MPW/MOF to the PAPs individual BNCTL accounts.
3. **Payment of Compensation.** Each PAP will receive compensation for their affected assets directly to their respective BNCTL account. The PAP shall sign acknowledgement receipt and a waiver detailing the whole amount deposited in their bank account and has no longer any pending claims over the affected property. A photograph shall likewise be taken with the PAP upon receipt of compensation as record of proof and as part of project documentation.
4. **Identity of Affected Person.** Complete required documents such as Original Karta Konkordansia, Photocopies of National Identity Card, Photocopy of BNCTL/IBAN Account Number and Detailed Description/Photographs of Affected Properties.

N. Disclosure and Consultations

The primary objective of the disclosure and consultations is to inform and continually update about the project and to engage with affected stakeholders to seek and maintain active participation and support of PAPs, project-affected communities and their representatives throughout the various stages (appraisal, planning, implementation, follow up, monitoring and evaluation) of the project. Specific objectives include the following:

- To inform PAPs and other stakeholders about and discuss the nature and scale of adverse and beneficial socio-economic impacts of the project on their livelihoods in a more transparent and direct manner and seek their active participation in the project cycle and;
- To give PAPs and other members of affected communities a chance to have a say and express their views in the planning and implementation of the Project that affect them directly.

Draft RAPs will be disclosed to PAPs in Tetum and serve to inform PAPs about key aspects of the compensation and entitlements established for road projects and any impacts on land and properties and the implementation and monitoring mechanisms that will ensure transparent and fair execution of these aspects. For this purpose, an information booklet with a summary of impacts, asset valuation, unit rates, eligibility criteria, compensation entitlements, compensation delivery and grievance redress mechanism with institutional arrangements for implementation of resettlement plans will be prepared.

Draft RAPs will be updated including final impacts, inventory and compensation costs following the finalization of the DED. Final RAPs will be endorsed by the PMU for the World Bank's review and approval. Following the World Bank's approval and clearance, the approved RAPs will also be uploaded on PMU and the World Bank's websites while hard copies of the approved RAPs will be placed in relevant government departments and offices.

The main consultation activities during land acquisition and resettlement planning and implementation cover:

- Updating, implementation and monitoring of land acquisition and resettlement plan;
- Updating the census of PAPs by type, category and severance and preparation of compensation packages based on agreed unit rates and entitlements criterion;
- Distribution of the notices to the entitled PAPs regarding their payment of compensation;
- Facilitation to PAPs in completion of necessary documentation to receive their entitled payments;
- Providing guidance for the submission of their requests for compensation as per-eligibility and entitlements.
- Payments of compensation;
- Facilitation to the PAPs to put their complaints (if any) in front of Grievance Redress Committee (GRC) and;
- Internal and external monitoring.

O. Monitoring and Evaluation

The main objective of monitoring the implementation of the Resettlement Plan is to determine whether or not the required provisions in the framework is carried out in accordance with the World Bank's Safeguards 4.12 and to provide feedback to PMU/MPW and to assess its effectiveness. It involves the

monitoring of compensation for lost assets and land acquisition if necessary. Follow up monitoring and evaluation of the implementation of the compensation process will be conducted to make sure that PAPs receive their compensation as described in the agreed RAPs.

Moreover, evaluation of the resettlement activities will be resorted following completion of land acquisition and resettlement to assess whether the resettlement objectives are appropriate and whether they are met, specifically, whether livelihoods and living standards have been restored or enhanced if there is any. The evaluation will also assess resettlement efficiency, effectiveness, impact and sustainability, drawing lessons as a guide to future resettlement planning.

Monitoring - Monitoring of all resettlement activities, consultation tasks and reports to the World Bank will be conducted by the national and international social safeguard specialists of the Environmental and Social Unit (ESU) established in the PMU. Monitoring will include reporting on progress in the activities envisaged in the implementation schedule with particular focus on public consultations, land purchase (if required), determination of compensation, compensation payment occurred, record of grievances and status of complaints, financial disbursements, and level of satisfaction among PAP's. Potential indicators for monitoring are presented in Matrix below.

Table 3: Monitoring and Evaluation Matrix

Monitoring Issues	Indicators
Budget and timeframe	<ul style="list-style-type: none"> a. Have all safeguards staff under the ESU been appointed and mobilized for field and office work? b. Have capacity building and training activities been completed? c. Are resettlement implementation activities being achieved in accordance to the agreed implementation plan? d. Are funds for resettlement being allocated on time? e. Have the PMU received the scheduled funds? f. Have funds been disbursed according to the agreed plan?
Delivery of PAP entitlements	<ul style="list-style-type: none"> a. Have all PAPs received entitlements according to the numbers and categories of losses as set out in the entitlement matrix? b. How much compensation has been paid? c. What is the status of other payments not yet paid? d. How many affected households relocated and built their new structures at new locations? e. Are income and livelihoods restoration activities being implemented as planned? f. Have the affected businesses received appropriate entitlements? g. How many kilometers are free as workable areas?
Consultation, Grievances and Special Issues	<ul style="list-style-type: none"> a. Have resettlement information brochures/leaflets been prepared and distributed? b. Have consultations taken place as scheduled including

	<p>meetings, groups, community activities?</p> <p>c. Have any PAPs used the grievance redress procedures?</p> <p>d. What were the outcomes?</p> <p>e. Have conflicts been resolved?</p>
Benefit Monitoring	<p>a. What changes have occurred in patterns of occupation compared to pre-project situations?</p> <p>b. What changes have occurred in income and expenditure patterns compared to pre-project situations?</p> <p>c. Have PAPs income kept pace with these changes?</p> <p>d. What changes have occurred for vulnerable groups?</p>

P. Reporting

The Social Safeguards Monitoring (SSM) is undertaken by the International and National Social Safeguards Specialists from the PISC. The National Social Safeguards Specialists prepare monthly reports for submission to PMU and the monthly reports are integrated into quarterly progress reporting (QPR) by the International Social Safeguards Specialist to be submitted to MPW and WB. The ESU has inputs to the QPR. Semi-annual safeguards monitoring reports adopting a structured Table of Contents will be prepared by PMU and to be submitted to MPW and WB. Relevant information from these reports will be disclosed in the project areas and shall be available in local languages.

Q. Grievance Redress Mechanism

The Grievance Redress Mechanism (GRM) is established to handle the questions and complaints coming in on the project. It involves a multi-level structure that encouraged immediate resolution of issues on the ground and created access to more senior authorities to handle issues that could not be resolved on the ground. It is expected that there are two broad categories of grievances, first is related to land acquisition and asset removal and second is related to construction. The handling of each is described as follows:

Category I: Land, physical asset and trees acquisitions grievance

To handle any concern regarding category I, the GRM follow GRM in the approved RAPs. The complaint that cannot be solved on the spot, it may need to be mediated by involving outside parties. One or more Grievance Redress Committee/s (GRCs) will be set up for the project/sub-project based on the local administrative units (District/Sub-district/Sucos/Aldeis) as well as to facilitate easy accessibility of APs to address any complaint regarding the category I.

The proposed composition of the GRCs is as below:

- MPW-PMU;
- Project Implementation Supervising Consultant (RS, EO, RE) Local Administration (District/Sub-District and Suco/Aldeis Chiefs) Recognized civil society leaders;
- Government representatives;
- At least one female member within the GRC.

Table 4: Land/Compensation Related Grievances

Step	Process	Duration
1	PAPs submit grievances to Suco Chiefs in person and Suco Chiefs notify the PMU focal point (PISC)	
2	Suco Chief in coordination with PMU/Consultant facilitates to redress grievance and reports back to PAPs	7 days
If unresolved or if PAPs want to go directly to the GRC or PMU		
3	PAPs or PMU focal person will take the grievance to the GRC/PMU/Community Liaison Officer	Within 2 weeks of receipt
4	Issues discussed at project liaison meetings of Grievance Redress Meeting	1 week
5	PMU/Community liaison officer reports back to Sucos/PAPs	5 days
If unresolved		
6	PAP take grievances to MPW/SEFOPE (Secretario Estado de Formacau Professional)	Within 2 weeks of receipt
7	MPW/SEFOPE refers to the matter to an internal committee (PMU)	2 weeks
If unresolved		
9	PAPs can take the matter to the appropriate court	As per judicial system

Category II: Construction Grievance

The process of the GRM to handle any grievance regarding category II is as follows:

Table 5: Construction Related Grievances

Step	Process	Duration
1	PAPs submit grievance to the local administration or through Suco Chief in person and Suco Chief notifies the PMU focal point/Consultant who then notifies the grievance to contractor or Suco Chief notifies directly to Contractor	Contractor has to address the grievance within 2 weeks after the grievance is received by contractor
2	Suco Chief in coordination with PMU/Consultant facilitates to address grievance and reports back to PAPs	
3	Consultant can forward the grievance to PMU in order PMU to instruct the contractor to redress the grievance	

Grievance Documentation: All complaints are logged in writing and maintained in a database such as in a simple excel file. The grievance log will capture the name of the complainants, date of submission, the complaint being made verbally or in written directly to project proponent or through informal or traditional systems (such as Suco Chiefs or community leaders); the issue raised and location of complaints circle around, the status of the complaint (resolved or not resolved or referred to third party). After the resolved agreed, the database should also cover the solution and the date of solution.

All supporting documents of meetings needed to achieve resolution should be part of the file related to the complaint. This should include meetings that have been escalated to an appeals level or are handled by a third party.

The Engineer under PISC is encouraged to log all complaints.

At a minimum, the database should track and report in the project monthly report the following information:

- a. #complaints received;
- b. #complaints addressed;
- c. #complaints responded and/or resolved within stipulated service standards for response times (3 months);
- d. The above information will become monitoring indicators.

Sub-appendix 7: Regulatory Gap Assessment on Land Acquisition And Resettlement

Scope / Topic	Provision of the ESS 5	GoTL	Gap in Bank Policy and GoTL Laws and Regulations	Suggested Measures to Fill-in the Gap
1	2	3	4	5
Policy Objectives	PAPs (Project Affected Persons) should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher	<p>Section 54 of the Constitution stipulates that private property rights are protected. These include i) citizens' rights to own and transfer private property, and ii) expropriation of private property for public purposes following payment of fair compensation in accordance with law. 3).</p> <p>The draft law on land expropriation further elaborates the constitutional provisions by requiring that expropriation should follow the principles of legality, justice, equality, proportionality, impartiality and good faith. Expropriation must ensure affected people's circumstances such that their standard of living is equal to or higher than the one they enjoyed prior to expropriation. Furthermore, special needs of minorities and vulnerable groups should be taken into consideration throughout the land expropriation process.</p>	In principle, livelihoods restoration is ensured under the constitution and the draft law. However, since the law is yet to be passed, there is essentially an absence of further regulatory frameworks that define the operationalization of relevant constitutional provisions.	Application of the agreed resettlement planning framework and entitlement matrix in the LARAP.

Resettlement as Sustainable Development Program.	Resettlement activities should be conceived as sustainable development programs, providing sufficient resources to enable persons displaced to share in project benefits	Section 141 of the National Constitution stipulates that ownership, use and development of land are factors for economic production and shall be regulated by the law.	Different modes of compensation other than cash, particularly relocation and land-for-land, are not sufficiently elaborated	LARAP requires the project proponent to provide sufficient resources for development of resettlement sites, where necessary; together with provision of relocation assistance and for planning and implementation of income rehabilitation measures for those affected by loss of incomes and livelihood.
Direct Impacts due to Land Acquisition	Covers provision of benefits to address direct social and economic impacts caused by the acquisition of land including restrictions of access to legally designated parks and protected areas resulting in adverse impacts on livelihoods	The draft law stipulates direct impacts related to land expropriation and easements. Once fair compensation is given, further consideration and impact mitigation are not elaborated.	Adverse social and economic impacts due to restriction of access to legally designated parks and protected areas are not explicitly covered under the draft law.	The ESMP for the project requires mitigation measures related to temporary restrictions on land use caused by the project.
Linked Activities	Covers impacts that result from other activities if they are (i) directly and significantly related to the proposed project; (ii) necessary to achieve its objectives; and (iii) carried out or planned to be carried out contemporaneously with the project	Not covered	Not covered	Legacy issues and linked activities need to be assessed and Due Diligence/Tracer assessment needs to be carried out, as necessary. Remedial measures shall be consistent with OP 4.12 and any land acquisition

				linked to the project shall be covered under the LARAP approved by the World Bank.
Compensation for indirect impact caused by acquisition of land or structures	<p>It is good practice for the borrower to undertake a social assessment and implement measures to minimize and mitigate adverse economic and social impacts, particularly upon poor and vulnerable groups</p> <p>States that other environmental, social and economic impacts that do not result from land taking should be addressed under ESS 1</p>	Environmental Licensing Decree No. 5/2011 only requires management of indirect impacts and benefit sharing with affected communities for Category A projects. Indirect impacts caused by acquisition of land and/or assets are not covered under the current law.	Indirect impacts are not covered	Indirect impacts due to land acquisition will be covered under the ESMP.
Compensation at full Replacement cost	Compensation for lost land and other assets should be paid at full replacement costs	Section 141 stipulates that requisitioning and expropriation of property for public purposes shall only take place following fair compensation in accordance with the law. The draft law requires that land expropriation should follow principles of justice and equality on account of ensuring that expropriation must ensure that the standard of living of PAPs is equal to or higher than the one enjoyed prior to compensation. The draft law is also required to guarantee	While some elements of replacement costs are alluded in the draft law, there is no specific definition or methodology to define replacement costs. The National Directorate of Land Property and Cadastral Services (NDLPCS) has the mandate and responsibility to assess	Compensation (valuation) for affected structures should be free of depreciation and deductions for salvaged material. The TOR for NDLPCS and/or appraisers deployed by the project should ensure that no depreciation is applied for assessment of compensation for affected assets.

		fair compensation based on market value.	the value of land and related assets.	The LARAP for respective project/subproject will provide basic principle for assessment of compensation for affected assets.
Support for affected persons who have no recognizable legal right or claim to the land they are occupying	Financial assistance to all project affected persons to achieve the policy objective (to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher	Decree no. 11/2011 on Compensation for Resettlement authorizes the payments of compensation to unlawful occupants of state property to resettle elsewhere. However, such payment is not mandatory.	Partially covered. Such compensation is not mandatory.	All affected households without recognizable legal rights including those occupying public or private land are provided compensation for their lost assets at replacement cost and assistance, as necessary, for their relocation to meet the policy objectives as established in the entitlement matrix of the LARAP.
Assistance to Vulnerable Groups	To achieve the objectives of this policy, particular attention is paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples ethnic minorities, or other displaced persons who may not be	The draft law on land expropriation stipulates that special needs of minorities and vulnerable groups should be taken into consideration throughout land expropriation processes.	Subject to the adoption of the law, the draft law provides sufficient legal basis to achieve policy objectives.	The Land Acquisition and Resettlement (LAR) survey has attempted to identify vulnerable groups within affected communities (the poor, women and people with disabilities). The LARAP requires special measures to address impacts on these groups

	protected through national land compensation legislation			including additional livelihoods assistance.
Compensation for loss of income sources or means of livelihood	Loss of income sources should be compensated (whether or not the affected persons must move to another location)	Compensation is limited to direct land acquisition and assets.	Legal provisions are deficient to recognize entitlements for loss of incomes and means of livelihood due to land acquisition.	Households affected by loss of households incomes or livelihood will be entitled to compensation for income loss and assistance for restoration of livelihood to meet the policy objectives as established in the entitlement matrix of the LARAP.
Income restoration plan and assistance	The resettlement plan or resettlement policy framework also include measures to ensure that displaced persons are: (i) Offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living such support could take the form of short-term jobs, subsistence support, salary maintenance or similar arrangements; and (ii) Provided with development assistance in	Once fair compensation given further consideration and impact mitigation are not elaborated.	The draft law on land expropriation does not elaborate the option and implementation of assistance and livelihood restoration.	Project authorities will be required to provide sufficient resources for planning and implementation of livelihood restoration measures such as: temporary livelihoods assistance, replanting assistance for significant impacts on agricultural land (i.e. coffee plantations), and land replacement assistance at the request of PAPs.

	addition to compensation measures (iii), such as land preparation, credit facilities, training, or job opportunities			
Assistance to Physically Displaced	Includes measures to ensure that the displaced persons are provided assistance during relocation; residential housing, or housing sites, or, as required, agricultural sites; and offered support after displacement, for a transition period, and provided with development assistance in addition to compensation measures	The draft law on land expropriation does not provide for any specific assistance, including transitional support and development assistance to displaced persons other than offering compensation for lost assets.	Assistance to displaced households due to land acquisition are not covered by the draft law on land expropriation.	All displaced households will be entitled to relocation assistance such as: transport allowance, transition allowance and other resettlement measures as necessary as established in the entitlement matrix of the LARAP.
Compensation Options	Provide technically and economically feasible resettlement alternatives and needed assistance, including (a) prompt compensation at full replacement cost for loss of assets attributable to the project; (b) if there is relocation assistance during relocation and residential housing, or housing sits, or agricultural sites of equivalent productive potential, as required; (c) transitional support and development assistance, such as land preparation, credit facilities, training or job	Provisions for fair compensation as enshrined in the National Constitution and the draft law on land expropriation. The draft law also contains special measures for vulnerable groups.	Provision of replacement land and relocation assistance are not sufficiently elaborated. In practice, only compensation in cash is given priority in deciding the form of compensation.	The entitlement matrix in the LARAP outlines a range of compensation options, which not only cover direct compensation for lost assets but also relocation assistance, temporary livelihoods assistance and special assistance for vulnerable groups. Further consultations and impact survey will explore PAPs' preferences (i.e. whether land-based resettlement,

	opportunities as required, in addition to compensation measures; (d) cash compensation for land when the impact of land acquisition on livelihoods is minor; and (e) provision of civic infrastructure and community services as required.			compensation or other assistance based on needs). Project proponents will be required to assist resettled households to identify suitable land, preferably in-situ or near the original locations to minimize impacts.
Eligibility for Indigenous Peoples.	If land of Indigenous Peoples is to be taken, requires broad community support through free, prior and informed consultations. Preference is given to land-based resettlement strategies for these groups that are compatible with their cultural preferences and are prepared in consultation with them	Not covered.	Not covered	ESMF for the program will include provisions for recognition of affected IP communities, conducting social assessment, consultation and FPIC requirements and appropriate compensation and assistance consistent with the requirement of the Bank's OP 4.10.
Host Community	Displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information offered opportunities to participate in planning, implementing, and monitoring resettlement; infrastructure and public	Not covered in the draft law on land expropriation. Such provisions are limited to only minimizing impacts on cultural values and spiritual sites both for direct impacts on land acquisition and resettlement in host communities.	Not covered.	Impacts on host communities are not envisaged for the direct physical investments/road upgrading works as in-situ resettlement will be sought.

	services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host communities			The ESMF for future feasibility studies or unidentified land acquisition for the program will specify the need for consultation with host communities and identification and mitigation of any adverse impacts due to relocation of PAPs
Resettlement Cost to be included in project cost	The full costs of land acquisition and/or resettlement activities necessary to achieve the objectives of the project are included in the total costs of the project.	Not specifically regulated. Cost estimation and proposal for budget allocation are carried out at the planning stage, whereby detail surveys for each land plots and measurement are carried out during the implementation stage of land acquisition.	The current laws, including the draft law on land acquisition do not specify resettlement cost to be part of the total project cost. However, the Feasibility Study at the planning stage is required to include overall project cost as well as estimated cost of land acquisition; and a cost benefit analysis. By inference it is assumed that resettlement cost is therefore included in overall project cost.	Feasibility Studies and overall project costing to ensure inclusion of cost of land acquisition and resettlement in overall project cost and for conducting cost-benefit analysis.
Public Participation and Consultation	Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs	The draft law on land expropriation stipulates the requirements to ensure PAPs are informed of their rights, which include consultations prior to land expropriation.	Consultations are only required at the planning stage and the draft law does not explicitly require consultations and public engagement	Public consultation procedures for public consultation and their participation in decision-making both during project

			during implementation. The Law also do not ensure that all modes of information dissemination are applied, and affected households are fully informed of all options of mode of compensation in detail.	preparation and implementation will be mandatory and will be further strengthened through recruitment of a social specialist in the PMU and facilitators.
Disclosure of Planning instrument	The relevant draft resettlement document is made available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to them. Once acceptable, the Bank makes it available to the public	The draft law requires that administrative possession is to be obtained after the publication and notification of the declaration of public interest, including all information associated with the property to be expropriated and compensation entitlements.	Although the draft law on land expropriation requires dissemination of information on affected land and other assets, and applicable compensation amounts to affected households, there is no clarity on public disclosure of documents: FS, LARAP, etc.	All documents will need to be disclosed to public in suitable and accessible forms to meet the Bank's disclosure requirements.
Grievance Redress Mechanism	Appropriate and accessible grievance mechanisms are established	The draft law on land expropriation guarantees judicial appeal.	The draft law is not clear with regards to the requirement of a project-specific GRM to be established, including roles and responsibilities and documentation of grievances.	All complaints in regard to land acquisition, compensation, relocation and/or other entitlements will need to be documented. The LARAP provide specific procedures for a project-level GRM.
Monitoring and Evaluation	Adequate monitoring, both internal and external, by an	National Directorate of Land Property and Cadastral Services (NDLPCS) and project proponents	The draft law on land expropriation does not provide for external	All project/subprojects under the will be required to monitor

	<p>independent agency, required.</p> <p>Upon completion of the project, an assessment is required to determine whether the objectives of the resettlement instrument have been achieved</p>	<p>have the responsibility to monitor land expropriation processes. However, the legal framework does not require external monitoring of land acquisition/resettlement impacts on the livelihoods and living standards of displaced persons and does not require assessment whether the objectives of the resettlement plan have been achieved.</p>	<p>monitoring of resettlement implementation and post-implementation evaluation to assess whether the objectives of the resettlement plan have been achieved.</p> <p>Further it is deficient in providing details on objectives of evaluation.</p>	<p>land acquisition and resettlement activities by an independent monitoring and supervision consultant team prior to, during and post-implementation of the road upgrading works.</p>
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Appendix 10: Procedures for Managing the Risks of Adverse Impacts on Communities from Project-Induced Labor Influx

A. Background

The Branch Road will involve construction of civil works for which the required labor force and associated goods and services cannot be fully supplied locally for a number of reasons, among them worker unavailability and lack of technical skills and capacity. In such cases, the labor force (total or partial) needs to be brought in from outside the project area. In many cases, this influx is compounded by an influx of other people (“followers”) who follow the incoming workforce with the aim of selling them goods and services, or in pursuit of job or business opportunities. The rapid migration to and settlement of workers and followers in the project area is called labor influx, and under certain conditions, it can affect project areas negatively in terms of public infrastructure, utilities, housing, sustainable resource management and social dynamics. This procedure covers temporary labor influx in contrast to longer-term or permanent migration of workers.

The influx of workers and followers can lead to adverse social and environmental impacts on local communities, especially if the communities are rural, remote or small. Such adverse impacts may include increased demand and competition for local social and health services, as well as for goods and services, which can lead to price hikes and crowding out of local consumers, increased volume of traffic and higher risk of accidents, increased demands on the ecosystem and natural resources, social conflicts within and between communities, increased risk of spread of communicable diseases, and increased rates of illicit behavior and crime. Such adverse impacts are usually amplified by local-level low capacity to manage and absorb the incoming labor force, and specifically when civil works are carried out in, or near, vulnerable communities and in other high-risk situations. These potential impacts have been considered in the project’s ESIA and this note serves as a supplementary measure in the ESMP. However, such potential impacts and their magnitude may only become fully known once a contractor is appointed and decides on sourcing the required labor force. This means that not all specific risks and impacts can be fully assessed prior to project implementation, and others may emerge as the project progresses. Thus, measures defined in the project ESMP to address such problems sometimes may be insufficient. It is therefore important to develop site-specific measures before the contractor starts work and update them as necessary to reflect project developments. Overall, adequate monitoring and adaptive management of the potential impacts from labor influx are key to properly addressing them and mitigating risks.

This procedure has been developed to guide the PMU and contractors in establishing an approach to identifying risks to and impacts on local communities associated with the temporary influx of labor that typically results from construction works. The procedure focuses on the assessment and management of social and environmental risks and impacts, both anticipated and unanticipated, from the influx of labor into a project area. It summarizes key types of potential adverse impacts, and describes some potential measures to manage (e.g., avoid, minimize, mitigate, monitor) these impacts.

B. REGULATORY FRAMEWORK

a. Labor Law

The 2012 Labor Law put in place regulations for labor conditions, including a 44-hour work week, standard benefits such as leave and premium pay for overtime, and minimum standards of worker health and safety. In June 2012, the government set the minimum wage for full-time employment at USD 115 per

month. Enforcement of labor laws is uneven but increasing. Special economic zones are allowed to have different labor laws.

The government's labor inspectorate identifies and remediates labor violations and holds violators accountable, investigates and prosecutes unfair labor practices, such as harassment and/or dismissal of union members; and investigates and prosecutes instances of forced and/or child labor. Most of the cases come from temporary labor agreements in the construction and service sectors.

As stipulated in labor code, workers have the right to strike. Workers must notify companies in advance of the planned strike, and most labor disputes are settled through the mediation and conciliation service and the labor arbitration council. Workers must present claims in writing to their employer and give the employer five days to respond prior to declaring a strike. If the employers do not respond within that timeframe or respond but the parties do not reach agreement within 20 days, the organization representing the workers must provide five days' advance notice of a strike. The strikes can be stopped by the government if they disturb public order. Strikes against international companies have occurred, primarily over employment contracts and salary entitlements, but generally create limited disruption. The Government of Timor-Leste has acceded to many of the major international labor and human rights conventions including:

- International Labor Organization (ILO) Convention No. 29 on Forced Labor
- ILO Convention No. 87 on Freedom of Association and Protection of the Right to Organize
- ILO Convention No. 98 on the Right to Organize and Collective Bargaining
- ILO Convention No. 182 on the Worst Forms of Child Labor
- International Covenant on Civil and Political Rights
- International Covenant on Economic, Social, and Cultural Rights

As of 2018, no new labor-related laws were enacted. However, the Secretary of State for Professional Training and Employment Policy (SEPFOP) is planning to review some articles of the labor code, including possibly adjusting minimum wage to reflect the current market.

b. Prevention of Child Labor

In 2013, Timor-Leste made advancement in efforts to eliminate the worst forms of child labor. The Government passed a resolution to establish the National Commission against Child Labor and a law on child labor. The law also provides protection for children working in family-owned businesses. However, children continue to engage in child labor in Timor-Leste, primarily in agriculture.

Timor Leste has ratified most key international conventions concerning child labor including ILO C. 138, minimum age, ILO C. 182, Worst Forms of Child Labor, UN CRC, UN CRC Optional Protocol on Armed Conflict, UN CRC Optional Protocol on the Sale of Children, Child Prostitution and Child Pornography, Palermo Protocol on Trafficking in Persons.

The law on Child Labor establishes the following provisions (table 1):

Table 1. Laws and Regulations on Child Labor

Standard	Yes/No	Age	Related Legislation
Minimum Age for Work	Yes	15	Article 68 of the Labor Code (9)
Minimum Age for Hazardous Work	Yes	17	Article 67 of the Labor Code (9)

List of Hazardous Occupations Prohibited for Children	No		
Prohibition of Forced Labor	Yes		Article 67 of the Labor Code (9)
Prohibition of Child Trafficking	Yes		Article 81 of the Immigration and Asylum Act of 2003; Article 164 of the Penal Code of Timor-Leste; Article 67 of the Labor Code (9-11)
Prohibition of Commercial Sexual Exploitation of Children	Yes		Article 175 of the Penal Code of Timor-Leste; Article 67 of the Labor Code (9, 11)
Prohibition of Using Children in Illicit Activities	Yes		Article 67 of the Labor Code (9)
Minimum Age for Compulsory Military Recruitment	Yes	18	Article 14.1 of the Law on Military Service (12, 13)
Minimum Age for Voluntary Military Service	No		
Compulsory Education Age	Yes	14/15	The Constitution; The Law of Basic Education (7, 14)
Free Public Education	Yes		The Constitution; The Law of Basic Education (7, 14)

The Law of Basic Education provides free and compulsory primary education for children for nine years. The Law requires children to start school in the year they turn 6, regardless of whether they have reached that age by the time the school year begins.

The GoTL has established institutional mechanisms for the enforcement of laws and regulations on child labor, including its worst forms (Table 2).

Table 2. Agencies Responsible for Child Labor Law Enforcement

Organization/Agency	Role
National Police of Timor-Leste (PNTL)	Enforce laws related to child labor and criminal laws against forced labor, commercial sexual exploitation, and human trafficking. Includes the Vulnerable Persons Unit (2, 14, 16)
The Ministry of Social Solidarity (MSS)	Enforce laws related to child labor. Receive referrals from agencies responsible for conducting investigations including child victims. Includes the National Directorate of Social Services. Maintain a directory of service providers for which trafficking victim referrals can be made.
Immigration Police; Border Police	Enforce criminal laws against forced labor, commercial sexual exploitation, and human trafficking.
The Secretariat for Professional Training and Employment (SEFPOPE)	Enforce laws related to child labor. Administer the Labor Inspection Directorate, which is responsible for investigating incidents of forced labor.
National Commission against Child Labor (NCACL)	Address the worst forms of child labor. Tripartite body comprised of members from relevant government ministries,

	the Chamber of Commerce and Industry, and the Unions' Confederation and support activities conducted by the CLC.
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C. KEY PRINCIPLES

Key principles to manage potential impacts resulting from labor influx follow a risk mitigation hierarchy which starts from impact avoidance and development of risk mitigation measures commensurate to the anticipated impacts. Broadly speaking, the following principles should guide the management of labor influx:

- a. **Reduce labor influx by tapping into the local workforce.** The most effective mitigation measure against labor influx is to avoid or reduce it. Depending on the size and the skill level of the local workforce, a share of the workers required for the project may be recruited locally. This is generally easier for unskilled workers, while more specialized staff (typically required in smaller numbers) frequently will be hired from elsewhere. Depending on the requirements of the project and their skill level, it may be possible to train local workers within a reasonable timeframe to meet project requirements. This may be more likely if such trained staff are needed afterwards for the operation and maintenance of the new infrastructure.
- b. **Assess and manage labor influx risk based on appropriate instruments.** The assessment and management of labor influx should be based on risks identified in the ESIA or other previous project experiences. Depending on the risk factors and their level, appropriate mitigation instruments need to be developed. This may range from broad requirements set out in the ESMP in a low-risk environment, to the need to develop more specialized instruments, such as a site-specific Labor Influx Management Plan and/or a Workers' Camp Management Plan³² (or other instruments with similar purpose) in a high-risk environment. Risk factors to consider include, but are not limited to, the following: (i) weak institutional capacity of the implementing agency; (ii) predominant presence of contractors without strong worker management and health and safety policies; (iii) anticipated high volumes of labor influx; (iv) pre-existing social conflicts or tensions; (v) weak local law enforcement, and (vi) prevalence of gender-based violence³³ and social norms towards it in the community; (vii) local prevalence of child and forced labor.
- c. **Incorporate social and environmental mitigation measures into the civil works contract.** Most adverse impacts from labor influx can only be mitigated by the contractor commissioned by the MoPW to carry out the road construction works. It is therefore paramount that the responsibilities for managing these adverse impacts are clearly reflected as a contractual obligation, with appropriate mechanisms for addressing non-compliance. This allows the MoPW through the road PMU to enforce the implementation of such mitigation measures, which are required to ensure duly compliance with the World Bank policy requirements. The PMU will be responsible to: (i) ensure the safeguard instruments are reflected in the contractor's ESMP

³² Labor Influx Management Plan addresses specific activities that will be undertaken to minimize the impact on the local community, including elements such as worker codes of conduct, training programs on HIV/AIDS, etc. A Workers' Camp Management Plan addresses specific aspects of the establishment and operation of workers' camps.

³³ Gender-based violence is an umbrella term for any harmful act that is perpetrated against a person's will, and that is caused by differences in power between people of different genders, i.e., between males and females and people of other gender and sexual identities. Women and girls are more commonly affected by gender-based violence due to the subordinate status of women in many societies, discrimination against them and their higher vulnerabilities to violence. Gender-based violence takes many forms, including sexual, physical, and psychological abuse.

(CESMP), and (ii) ensure the project is implemented in accordance with the CESMP, safeguard instruments and other relevant contractual provisions.

While the procedure focuses on the adverse impacts on the host community that can result from temporary labor influx, it is important to recognize that appropriately managed labor influx can provide potential benefits for the community. These benefits are typically related to economic opportunities through employment and/or training by the project, or through selling goods and services. Other benefits include the provision of local infrastructure (e.g., access roads, power or water connection) which is developed for the project and which serves the community beyond the project duration.

D. ENVIRONMENTAL AND SOCIAL RISK ASSESSMENT

Previous road construction experiences in Timor Leste indicate that there could be around 250 temporary road construction workers to be mobilized at a time by a contractor for one road section (for a length on average 25 km). Most of these workers are usually locally outsourced from the affected Sucos and employed to perform semi-skilled and non-skilled works. Road engineers and skilled workers are usually foreign workers, with a typically a smaller ratio to the overall workforce (one fifth). These foreign would typically reside in an enclosed camp near the construction site. While the overall number of foreign workers appears to be relatively small than bigger construction projects, the presence of construction workers concentrated in specific sites over an extended period (can be up to 30 months) present potential environmental and social implications that are considered in this section.

Labor influx for construction works can lead to a variety of adverse social and environmental risks and impacts. The list below provides a summary of typical adverse social and environmental impacts but is not exhaustive. While many of these impacts could have been present already or might occur regardless of the labor influx, they are likely to be exacerbated by it. The actual type and degree of impact varies significantly depending on the actual project implementation and contractors' performance. This includes the impacts from workers' camps. It may be difficult to separate some impacts from non-project related factors, specifically if the project area experiences broader social, economic and cultural change during the project period, which may be difficult to assess or predict as part of the ESIA.

A. Adverse Social Impacts

Social impacts are critical to address, as even a modest labor influx already may lead to negative impacts on the host community. Pre-existing social issues in the host community can easily be exacerbated by the influx of labor. There is also the risk that Bank Task Teams fail to recognize the relationship of such pre-existing social issues to the project, specifically when problematic social behavior is culturally tolerated or even accepted, nationally or locally. The list below indicates common categories of social risk associated with labor influx:

- 1) Risk of social conflict: Conflicts may arise between the local community and the construction workers, which may be related to religious, cultural or ethnic differences, or based on competition for local resources. Tensions may also arise between different groups within the labor force, and pre-existing conflicts in the local community may be exacerbated. Ethnic and regional conflicts may be aggravated if workers from one group are moving into the territory of the other;
- 2) Increased risk of illicit behavior and crime: The influx of workers and service providers into communities may increase the rate of crimes and/or a perception of insecurity by the local community. Such illicit behavior or crimes can include theft, physical assaults, substance abuse, prostitution and human trafficking. Local law enforcement may not be sufficiently equipped to deal with the temporary increase in local population.

- 3) Influx of additional population (“followers”): Especially in projects with large footprints and/or a longer timeframe, people can migrate to the project area in addition to the labor force, thereby exacerbating the problems of labor influx. These can be people who expect to get a job with the project, family members of workers, as well as traders, suppliers and other service providers (including sex workers), particularly in areas where the local capacity to provide goods and services is limited.
- 4) Impacts on community dynamics: Depending on the number of incoming workers and their engagement with the host community, the composition of the local community, and with it the community dynamics, may change significantly. Pre-existing social conflict may intensify as a result of such changes.
- 5) Increased burden on and competition for public service provision: The presence of construction workers and service providers (and in some cases family members of either or both) can generate additional demand for the provision of public services, such as water, electricity, and medical services. This is particularly the case when the influx of workers is not accommodated by additional or separate supply systems.
- 6) Increased risk of communicable diseases and burden on local health services: The influx of people may bring communicable diseases to the project area, including sexually transmitted diseases (STDs), or the incoming workers may be exposed to diseases to which they have low resistance. This can result in an additional burden on local health resources. Workers with health concerns relating to substance abuse, mental issues or STDs may not wish to visit the project’s medical facility and instead go anonymously to local medical providers, thereby placing further stress on local resources. Local health and rescue facilities may also be overwhelmed and/or ill-equipped to address the industrial accidents that can may occur.
- 7) Gender-based violence: Construction workers are predominantly younger males. Those who are away from home on the construction job are typically separated from their family and act outside their normal sphere of social control. This can lead to inappropriate and criminal behavior, such as sexual harassment of women and girls, exploitative sexual relations, and illicit sexual relations with minors from the local community.
- 8) Child labor and school dropout: Increased opportunities for the host community to sell goods and services to the incoming workers can lead to child labor to produce and deliver these goods and services, which in turn can lead to enhanced school dropout.
- 9) Local inflation of prices: A significant increase in demand for goods and services due to labor influx may lead to local price hikes and/or crowding out of community consumers.
- 10) Increase in traffic and related accidents: Delivery of supplies for construction workers and the transportation of workers can lead to an increase in traffic, rise in accidents, as well as additional burden on the transportation infrastructure.

B. Adverse Environmental Impacts

The environmental impacts listed below will vary in degree depending on the total workforce that will be mobilized and thus result in a bigger project footprint:

- 1) Inadequate waste disposal and illegal waste disposal sites: concentrated populations of workers, especially in a big number, generate increased amounts of waste, for which no sufficient local waste management capacities may exist, which would likely lead to improper disposal practices.

- 2) Wastewater discharges: Project-related activities, along with workers' camps, and a lack of appropriate wastewater discharges may pollute nearby water resources. Major health risks can occur if latrine pits spill over into local streams that are used for drinking water by the host community.
- 3) Increased demand on freshwater resources: The provision of clean drinking water and water for hygiene purposes can result in increased pressure on freshwater resources in the project or camp site area.
- 4) Camp related land use, access roads, noise and lights: In ecologically sensitive areas, workers' camps can have impacts on the local wildlife. This may include disturbance of species, as well as illegal hunting. In the same context, new access routes for workers' camps may have impacts on natural habitats.
- 5) Increased deforestation, ecosystem degradation, and species loss: These can result from forest or land conversion for worker housing and workers' agricultural subsistence activities.
- 6) Increased use of / demand for natural resources: This can include logging for construction, fuel-wood collection, use of water resources, farming and grazing, hunting and fishing, trade in endangered species, potential introduction of invasive or non-native species, and land degradation.

E. MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISK AND IMPACTS

It is important to recognize the different roles and functions of the instruments to assess and mitigate project related risks:

- 1) the project ESIA and ESMP, which are prepared by the MoPW and reviewed and cleared by the Bank and which are part of the Bank's Financing Agreement with the GoTL. The ESMP has been developed during project preparation and contains general mitigation measures and is part of the tender package and construction contract. The ESMP should be included in the bid documents.;
- 2) the CESMP, which is part of the contract between the GoTL and the contractor. Contractually, the contractor must follow the CESMP, which is why it is important to ensure that the CESMP builds upon the findings and proposed measures identified in the project ESIA and ESMP.

Key responsibilities of the PMU and contractors are outlined the following:

- 1) Prior to starting construction, the contractor should prepare and submit the CESMP and the potential labor influx data (see Table 2) to the PMU and supervision consultant for review and approval;
- 2) The CESMP should provide a detailed explanation of how the contractor will comply with the project's safeguard documents such as the ESMP and demonstrate that sufficient funds are budgeted for that purpose;
- 3) The CESMP must include specific mitigation measures based on the ESMP, the final DED, the proposed work method statements, the nature of the project site, etc. It is recommended that it include specific management plans for: (i) work activities; (ii) traffic management; (iii) occupational health and safety; (iv) environmental management; (v) social management; and (vi) labor influx.
- 4) It is essential to ensure that the CESMP effectively addresses relevant risks identified in the project ESIA in addition to any risk identified by the ESMP or CESMP, or additional issues identified through PMU monitoring, Bank supervision, and/or grievance mechanisms.

- 5) To that end, the PMU needs to verify and ensure consistency of the ESMP and CESMP while the Bank Task Team needs to confirm such verification. If issues emerge during implementation for which the CESMP does not contain appropriate mitigation measures, the PMU needs to have the contractor update the CESMP to include such mitigation measures and, if necessary, the MoPW through its PMU amends the civil works contract.
- 6) The PMU should never permit civil works to commence until the CESMP, which properly identifies and proposes risk mitigation measures, is approved.
- 7) Should works begin nonetheless, the PMU will not be able to demonstrate compliance with the Bank's policy requirements, the Bank Task Teams will need to flag this to both the MoPW/PMU and Bank Management and may need to take remedial steps.

Effective assessment and management of the potential impacts of labor influx on communities include the following steps, which are best undertaken in parallel with the respective stages of the project cycle:

- 1) Screening and assessment of the type and significance of potential social and environmental impacts that may be generated by labor influx;
- 2) Assessment of the location of the project, contextual factors in the country, and assessment of the policy and legal framework of the Government of Timor Leste;
- 3) Development of a management plan for social and environmental impacts in consultation with affected communities;
- 4) Implementation of appropriate mitigation and monitoring programs, which includes development and implementation of a stakeholder engagement program;
- 5) Establishment of a grievance redress mechanism (GRM) for workers and host community; and
- 6) Monitoring and supervision, and, as needed, adaptive management actions.

For each of these stages, the different roles of the PMU, the World Bank, contractor and supervision consultant can be broadly summarized in Table 1 (these represent generic responsibilities related to social and environmental management, which in some projects may be modified to reflect project-specific characteristics and labor influx aspects and requirements):

Table 3: GoTL, Bank, Contractor and Supervision Consultant – Social and Environmental Responsibilities

Project Cycle	PMU's role	Bank's role	Contractor's role	Supervision Consultant's role
Identification and screening	Conduct the screening and scoping	<ul style="list-style-type: none"> Review and approve the screening. Review and provide no objection to the terms of reference for the ESIA and various plans. 	None: contractor not usually appointed at this stage	None: supervision engineer not usually appointed at this stage
Preparation and Appraisal	<ul style="list-style-type: none"> Conduct the ESIA and prepare the ESMP, (including labor influx management measures) and other plans as needed; Consult on ESIA, ESMP and other plans with stakeholders and document consultation process. Prepare and disseminate GRM guidelines for the project; Implement an effective GRM. Ensure that applicable commitments made in the social and environmental documents, such as the ESMP, are reflected in the civil 	<ul style="list-style-type: none"> Provide guidance and technical advice on the preparation of the ESIA and associated ESMP or other plans, and the consultation process; Ensure that commitments and responsibilities in the social and environmental documents are reflected in: (i) the Bank-GoTL Legal Agreement, and (ii) the contractor bidding documents (and subsequently in the GoTL-contractor contracts) as part of the no objection process. 	None: contractor not usually appointed at this stage	None: supervision engineer not usually appointed at this stage

	<p>works bidding documents and subsequent contracts.</p> <ul style="list-style-type: none"> • Ensure the ESMP is part of the bid document package. • Ensure that relevant responsibilities to monitor and report on implementation are reflected in the terms of reference for the supervision engineer. • Coordinate with other government agencies as necessary and formalize cooperation arrangements for implementation. 	<ul style="list-style-type: none"> • Provide no objection to the terms of reference for the supervision engineer consultant, ensuring that detailed and effective safeguards oversight is included. 		
Implementation and Supervision	<ul style="list-style-type: none"> • Implement the GRM and act on grievances received. • Allocate necessary resources for social and environmental measures in bidding documents. • Ensure the contractual social and environmental commitments are established in project sub-contracts. 	<ul style="list-style-type: none"> • Support the GoTL's implementation of the project in accordance with the safeguard instruments. • Review monitoring reports and GRM resolutions, conduct field visits, and provide technical advice. • Check accessibility and functionality of GRM. • For issues that arise or mitigation measures that are not fulfilling 	<ul style="list-style-type: none"> • Provide a site-specific CESMP and potential labor influx data with management plans for: (i) work activities; (ii) traffic management; (iii) occupational health and safety; (iv) environmental management; (v) social management; and (vi) labor influx. • Implement civil works in accordance with 	<ul style="list-style-type: none"> • Supervise the contractor's implementation of the works in accordance with the contract requirements and the ESMP and CESMP. • Update the ESMP to reflect changes to the project, area of influence or activities, with PMU to re-disclose. • Inspect and approve contractor's work.

	<ul style="list-style-type: none"> • Ensure and monitor the implementation of the ESMP and other relevant plans. • Prepare periodic reports, and submit them to the Bank, on implementation and results of the ESMP and other relevant plans as well as GRM resolutions. • Proactively address any issues that arise. • Update and re-disclose the ESMP in the event of changes to the project which alter the area of influence or have impacts on local communities. • Ensure CESMP is updated to reflect changes to project, and publicly disclose. 	<p>their objectives, agree with GoTL on what additional measures are necessary and monitor resolution.</p> <ul style="list-style-type: none"> • Review and provide no objection to revised ESMP in event of changes. • Review CESMP to ensure it is appropriate and addresses key issues. 	<p>CESMP—including all works conducted by sub-contractors under the contractor’s control.</p> <ul style="list-style-type: none"> • Train workers on roles and responsibilities under these plans, policies and standards. • Submit regular reports to the GoTL on implementation, including updates on labor influx data if different from the previous submission • Proactively address any issues that arise. 	<ul style="list-style-type: none"> • Provide frequent reports on contractor compliance and performance to PMU.
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Screening and Identification

Following a preliminary screening which was conducted during the ESIA process, the PMU is recommended to consider further investigations and assessments on potential labor influx risks. This can be done once the DED has been finalized and understanding of potential impacts are better known. This includes the estimated total workforce requirements, including the number of foreign workers to be mobilized and local workforce availability. Initial screening of the project is summarized as follow:

Table 4: Preliminary Screening Assessment

Key aspects	Initial assessments
Will the project involve an influx of workers to the project location, and will the influx be considered significant for the local community?	<ul style="list-style-type: none"> A road construction project with an average length of 25 km will typically require 250 temporary road construction workers to be mobilized at a time by a contractor. Most of these workers are usually locally outsourced from the affected Sucos and employed as semi-skilled and non-skilled workers; In all five <i>Sucos</i> affected, communities express their aspirations to be involved in road construction works and there appears an adequate local workforce to be mobilized; Road engineers and skilled workers are usually foreign workers, with a typically a smaller ratio to the overall workforce (one fifth). <p>274.</p>
Based on the socio-economic, cultural, religious and demographic qualities of the local community and the incoming workers, is there a possibility that their presence or interaction with the local community could create adverse impacts?	<ul style="list-style-type: none"> Incoming foreign would typically reside in an enclosed camp near the construction site and language barriers can be anticipated. However, some of these workers may have been rotated from other road projects in Timor Leste and some basic understanding of the language and culture can be expected. While the overall number of foreign workers appears to be relatively small than bigger construction projects, the presence of construction workers concentrated in specific sites over an extended period (can be up to 30 months) may present potential environmental and social implications that warrant further assessments during project implementation.

On the basis of the above preliminary screening process, labor influx risks are not expected to be significant for the Branch Road Project. However, the PMU is committed to ensuring further due diligence processes to minimize risks resulting from labor influxes, particularly in the following key project cycles: bidding process, deployment of workforce by contractors, recruitment of local workforce and oversight of construction works. The PMU is committed to ensure that relevant mitigation measures and costing are reflected proportionately in the CESMP. Table 5 provides an outline for a detailed screening assessment during project implementation.

Table 5: Detailed Screening for Labor Influx Impacts

Factors	Aspects or information to consider
Project and civil works	<ul style="list-style-type: none"> • Size of the project, the duration of construction (and possible stages); • Type of project footprint (single site, linear, clustered); • Project size in relation to local community, taking into account project type and distance; • Community experience with similar projects in the area, including possible legacy issues from other projects; • Likely number of contractors and sub-contractors; • Presence of other projects in the area with work force requirements
Incoming labor force and migrants	<ul style="list-style-type: none"> • Ability to provide local workers to reduce labor influx; • Likely numbers of expected incoming workers and where they would come from (non-local, national, foreign, rural, urban); • Proposed accommodation options for workers; • Proposed mode of transport from point of origin, and between labor camp(s) and site(s); • Likelihood that family members accompany workers (visiting, resident); • Service providers, including businesses and individuals aiming to provide goods and services to the project, contractors, sub-contractors, and workers
Labor issues and conditions	<ul style="list-style-type: none"> • Updated review on national legislation on employment of workers relevant to project (migrant workers, minimum age, etc.); • Country- and sector-specific considerations, including coverage and enforcement of legislation; • Self-assessment of PMU capacity to manage labor influx issues with support from supervision engineer • Capacity and track record of contractors and sub-contractors to manage labor influx issues
Local Community	<ul style="list-style-type: none"> • Size of working-age population and capacity (education, skills, experience); • Capacity of local public infrastructure, services and utilities (including health, education, transportation, water and sanitation, electricity, etc.) and budget supporting their provision; • Municipality and Suco government capacity and track record in the project area, including law enforcement; • Socio-economic and cultural characteristics of local population; • Availability of worker accommodation in the community and related cultural rules; • Level of local food supply and possible shortages and cost issues; • Existing health or environmental issues and potential for deterioration; • Existing security or conflict risks, and potential for exacerbation;

	<ul style="list-style-type: none"> • Presence of specific marginalized, vulnerable, ethnic, and/or indigenous groups and considerations relating to these.
Self-assessment of institutional capacity	<ul style="list-style-type: none"> • PMU's capacity for the preparation and implementation of the project; • Capacity and track-record of entities responsible for managing labor issues, including project-specific labor influx; • Capacity to assess and manage social and environmental risks

Project Preparation

The project will address labor influx through the ESMP. The ESMP has been guided by the ESIA which identifies and, to the extent possible, assesses the potential impacts resulting from labor influx. The specific arrangements for construction are currently not fully known at the preparation stage and will only be confirmed only later once a contractor has been selected. The more specific assessments and mitigation measures will need to be developed as part of the ESMP, and later the CESMP. Those should reflect findings of the ESIA and measures proposed in the ESMP which may need to be updated. The CESMP should also be updated when there are changes to the anticipated project area of influence or impacts on local communities.

Labor influx related risks and proposed mitigation measures have been consulted with *Suco* communities and stakeholders as part of the preparation of the ESIA and ESMP. Such consultations will be revisited as part of the CESMP prior to the contractor's mobilization. With a view to the variety of potential impacts stemming from labor influx on the community, it is recommended that enhanced efforts be made to reach out to men and women separately, as well as to different age groups and vulnerable groups.

The ESMP contains a FGRM established for the project and is subject to further assessments to ensure that the mechanism is accessible and inclusive of community members. The project is also proposing an independent audit assessment by a third party or NGO to assess measures to address labor influx risks have been implemented, including identify suggested improvements by affected communities.

Project Implementation

Effective implementation of mitigation measures depends on cooperation and commitment of all key agencies and stakeholders responsible for road construction and supervision. To ensure that the mitigation measures are contractually binding and actually implemented by the contractor, the PMU will ensure the following:

- a. Labor influx issues are adequately covered in the contract between the MoPW and the construction contractor during the bid submission, bid evaluation and contract awarding. Standard bidding documents and construction works contracts do not fully address all the details or project-specific aspects related to labor influx and associated social and environmental risks, impacts and mitigation measures;
- b. Key measures are included in the bidding document. These include "particular conditions of contract" (PCCs) relating to labor influx, and (ii) ensuring that the key safeguard documents such as the ESMP, Labor Influx Management Plan and/or Workers' Camp Management Plan, or other relevant documents, are included in the bidding document. General guidance for addressing social and environmental aspects in the contract process/stage is summarized in Table 6.
- c. Explicit provisions of monitoring of environmental and social aspects, including labor-related aspects in the contract between MoPW and the supervision consultant. During construction, the

supervision engineer acts on behalf of the MoPW/PMU and is assigned contractual authority on behalf of the MoPW/PMU implementing the project. The terms of reference for the supervision consultant need to be specific with regard to their responsibilities for managing safeguards, in particular labor influx, and they should have appropriate staff on their team to ensure this is done effectively.

Table 6 summarizes examples of mitigation measures that can be used to mitigate the impacts of labor influx. This list is not fully inclusive, and project-specific measures are typically established as part of the labor influx assessment. The table is organized according to the type of impact and delineates the different mitigation measures and responsibilities of the contractor, the MoPW/PMU and the Bank. The assignment of responsibilities between the contractor and MoPW/PMU may vary in a specific project to improve effectiveness and efficiency in implementation.

Table 6: Suggested Mitigation Measures by Impacts during Project Implementation

Expected Adverse Impact	Potential Mitigation Measures			
	Contractor	MoPW/PMU		World Bank
		Project-specific with support of the Supervision Consultant	Broader Enabling Environment	
All		<ul style="list-style-type: none"> • Establishment and operation of an effective GRM accessible to community members— ideally with involvement of NGOs—to facilitate early identification of problems and targeted mitigating interventions by Borrower; • Provision of information to communities on how to use the GRM to report issues; • Monitoring and taking appropriate actions to ensure CESMP provisions are met; • Inclusion of relevant provisions in the ESMP; • Inclusion of relevant provisions in the contract. 		<ul style="list-style-type: none"> • Inclusion of relevant provisions in the ESMP and Legal Agreement; • Provision of advice on expected or likely issues based on Bank experience; • Implementation support to verify compliance with the ESMP and CESMP; • Monitoring of GRM resolution rates and identification of recurring issues to discuss with Borrower.
Risk of social conflict	<ul style="list-style-type: none"> • Provision of information regarding Worker Code of Conduct in local language(s); • Provision of cultural sensitization training for workers regarding engagement with local community. 	<ul style="list-style-type: none"> • Consultations with and involvement of local communities in project planning and implementation; • Awareness-raising among local community and workers. 		

Increased risks of illicit behavior and crime (including prostitution, theft, and substance abuse)	<ul style="list-style-type: none"> • Paying adequate salaries for workers to reduce incentive for theft; • Paying salaries into workers' bank accounts rather than in cash; • Sourcing of local workforce; • Creation of supervised leisure areas in workers' camp; • Cooperation with local law enforcement; • Introduction of sanctions (e.g., dismissal) for workers involved in criminal activities; • Provision of substance abuse prevention and management programs. 	<ul style="list-style-type: none"> • Reinforcement of local law enforcement staff; • Enforcement of laws on drug abuse and traffic; • Police monitoring to prevent drugs trafficking; • Sensitization campaigns both for workers and local communities. 		
Adverse impacts on community dynamics	<ul style="list-style-type: none"> • Provision of services in the workers' camp to reduce the need for workers to use local community facilities (internet, sports); • Provision of entertainment and events for workers within camp to reduce incentives for mixing with local community. 	<ul style="list-style-type: none"> • Liaison with civil society organizations to create integrative action plans; provision of upfront information on potentially detrimental impacts on local communities. 	<ul style="list-style-type: none"> • Investment in community participation and engagement programs. 	
Influx of Additional	<ul style="list-style-type: none"> • Contractor to hire workers through 	<ul style="list-style-type: none"> • Communications campaign to manage expectations and 		

Population (“Followers”)	recruitment offices and/or through a formal hiring process in consultation with Suco administration and avoid hiring “at the gate” to discourage spontaneous influx of job seekers.	discourage spontaneous influx of job seekers; <ul style="list-style-type: none"> • Local government to address this additional influx of the “followers” to ensure that no illegal and unsafe settlements develop; • Explore options for orderly accommodation on open space that can be monitored by law enforcement. 		
Increased burden on public service Provision	<ul style="list-style-type: none"> • Workers’ camp to include wastewater disposal and septic systems; • Identification of authorized water supply source and prohibition of use from other community sources; • Separate service providers for community and workers’ camp/construction site; • Worker Code of Conduct on water and electricity consumption. 	<ul style="list-style-type: none"> • Contingency plans for temporary rise in demand for utilities and public service provision. 	<ul style="list-style-type: none"> • Investment in and capacity building of local public service providers. 	
Increased risk of communicable diseases (Including STDs and HIV/AIDS)	<ul style="list-style-type: none"> • Vaccinating workers against common and locally prevalent diseases; • Contracting of an HIV service provider to be available on-site; 	<ul style="list-style-type: none"> • Establishment or upgrade of health centers at camp and construction sites (unless designated as contractor responsibility); • Free testing facilities; • Provision of condoms; 	<ul style="list-style-type: none"> • Community sensitization campaigns; • Awareness raising about public health impacts from labor influx. 	

	<ul style="list-style-type: none"> • Implementation of HIV/AIDS education program; • Information campaigns on STDs among the workers and local community; • Education about the transmission of diseases; • Provision of condoms. 	<ul style="list-style-type: none"> • Monitoring of local population health data, in particular for transmissible diseases. 		
Gender-based violence, including sexual harassment, child abuse and exploitation	<ul style="list-style-type: none"> • Mandatory and regular training for workers on required lawful conduct in host community and legal consequences for failure to comply with laws; • Commitment / policy to cooperate with law enforcement agencies investigating perpetrators of gender-based violence; • Creation of partnership with local NGO to report workers' misconduct and complaints/reports on gender-based violence or harassment through the GRM; • Provision of opportunities for workers to regularly return to their families; • Provision of opportunities for workers to take 	<ul style="list-style-type: none"> • Instruction and equipping of local law enforcement to act on community complaints; • Collaboration with reputable service providers (NGOs) to handle cases; • Information and awareness-raising campaigns for community members, specifically women and girls; • Provision of information to host community about the contractor's policies and Worker Code of Conduct (where applicable). 	<ul style="list-style-type: none"> • Application of long-term community-based approaches to address the issue; • Enforcement of laws on sexual violence and human trafficking. • Strengthening suco-level surveillance and security presence; • Reinforcement of police force where needed and deployment of female police officers in project area; 	

	<p>advantage of entertainment opportunities away from rural host communities.</p>			
Child Labor and school dropout	<ul style="list-style-type: none"> Ensuring that children and minors are not employed directly or indirectly on the project. 	<ul style="list-style-type: none"> Communication on hiring criteria, minimum age, and applicable laws. 	<ul style="list-style-type: none"> Enforcement of legislation on child labor. 	
Local inflation of prices and crowding out of local consumers	<ul style="list-style-type: none"> Appropriate mix of locally and non-locally procured goods to allow local project benefits while reducing risk of crowding out of and price hikes for local consumers. 		<ul style="list-style-type: none"> Monitoring of local prices and security of supply. 	
Increased pressure on accommodation and rents	<ul style="list-style-type: none"> When accommodation supply is limited establishment of workers' camp facilities with sufficient capacity for workers—including sub-contractors—and associated support staff. 	<ul style="list-style-type: none"> Inclusion in contract of funding for establishment of workers' camp. 		
Increased traffic and rise in accidents	<ul style="list-style-type: none"> Preparation and implementation of a traffic management plan to be approved by supervision engineer; Building additional/separate roads to project and workers' camp sites; 	<ul style="list-style-type: none"> Local government engagement with contractor and communities to identify accident hotspots and formulation of solutions. 	<ul style="list-style-type: none"> Upgrading and maintaining roads affected by project (unless designated as contractor responsibility). 	

	<ul style="list-style-type: none"> • Organization of commute from camp to project to reduce traffic; • Road safety training and defensive driving training for staff; • Sanctions for reckless driving. 			
Inadequate waste disposal and creation of illegal waste disposal sites	<ul style="list-style-type: none"> • Reduction of waste generation; • Sound practices for waste disposal. 	<ul style="list-style-type: none"> • Inspection of waste disposal arrangements. 		
Wastewater Discharges	<ul style="list-style-type: none"> • Ensuring workers' camp and associated facilities are connected to septic tank or other wastewater systems which are appropriate and of sufficient capacity for the number of workers and local conditions. 	<ul style="list-style-type: none"> • Regular inspection to ensure proper functioning. 		
Increased demand on freshwater resources	<ul style="list-style-type: none"> • Water conservation and recycling of water; • Consideration of use of rainwater where feasible; • Avoiding contamination of fresh water sources. 	<ul style="list-style-type: none"> • Inclusion in contract of requirement for rainwater capture, use of non-potable water for construction works, etc. 		
Camp related land use, access roads, noise and lights	<ul style="list-style-type: none"> • Placement of workers' camp away from environmentally sensitive areas to avoid impacts on the local wildlife; 	<ul style="list-style-type: none"> • Inclusion in contract of requirements for camp locations. 		

	<ul style="list-style-type: none"> • Routing of new access routes for workers' camp to avoid/minimize environmentally sensitive areas. 			
Increased deforestation, ecosystem degradation, and species loss	<ul style="list-style-type: none"> • Only wood from commercial sources to be used on the project; • Use of wood for fuel prohibited; • Reduction in energy demand, reduced noise and light generation, reduced and safe use of dangerous chemical substances. 	<ul style="list-style-type: none"> • Cooperation with environmental organizations in the area to seek their advice and allow for early feedback on adverse impacts. 		
Increased use/demand on natural resources	<ul style="list-style-type: none"> • Minimized land use change and use of other natural resources; • Avoidance of deforestation around camp area; • Prompt and effective response to environmental and social issues raised by supervision engineer. 	<ul style="list-style-type: none"> • Close monitoring of impact on natural resources with enforcement of contract or legislative options. 		

Table 7: Suggested Due Diligence for Environmental and Social Mitigation Measures in Contracts

Stage of Contractual Process	Due Diligence by PMU (Environmental and Social Specialists)
Before bidding	<ul style="list-style-type: none"> • Ensure that the terms of reference clearly define the supervision engineer’s responsibilities regarding oversight of, and reporting on, labor influx and workers’ camps. • Ensure the team skills in the terms of reference clearly include key staff qualified and experienced in managing similar projects, and demonstrated capacity to manage social and environmental issues, including issues pertaining to community health and safety. • Ensure that the project GRM is established and its use is widely publicized.
Preparation of bidding documents	<ul style="list-style-type: none"> • Review contract conditions included in bidding documents to: <ul style="list-style-type: none"> - Ensure that the relevant mitigation measures in the ESMP are reflected and budgeted in the contract, - Ensure the ESMP forms part of and is explicitly referred to in the bidding documents. - Identify relevant provisions (workers, camps, child and forced labor, safety, grievance redress, etc.) regulating the contractor’s responsibility and identify any gaps, inconsistencies or areas of concern that could be addressed through additional provisions in the “particular conditions of contract” and/or technical specifications. - Include a requirement that all workers sign ‘Codes of Conduct’ governing behavior and identifying sanctions. - Clearly identify that training programs on HIV/AIDS, implementing the Codes of Conduct, etc. will be undertaken by external providers • Ensure the contract conditions clearly specify what type of penalty the contractor will face if the provisions of the ESMP and CESMP are not adhered to—including by sub-contractors. This may include direct incentives to contractors in the form of penalties for poor performance on social and environmental matters or specific Performance Securities for ESMP and CESMP compliance. • Ensure bidding documents make clear the responsibilities of the contractor to prepare and adhere to a CESMP based on the ESMP and that no civil works will commence until the CESMP has been approved by the supervision engineer. • Ensure the bidding documents detail how the contractor and supervision engineer will be required to monitor and report on the impacts on the local community, issues related to labor influx and workers’ camps. • Propose Key Performance Indicators (KPIs) for Contract Management, reflecting issues and risks specific to the contract and the monitoring plan.

Bidding evaluation	<ul style="list-style-type: none"> • Review and verify the recommended bidder that documents related to the ESMP, safeguard implementation capacity, and other obligations of the contractor required to be submitted with the bid are sufficiently detailed and cover the contractual requirements. • Require the contractor’s representative or dedicated community liaison staff to have the ability to communicate in Tetum. • Verify that the contract management framework identifies clearly lines of communication and that these are formalized, and a consistent record is provided. • Ensure that the contractor meets the project’s OHS requirements for capability and experience.
After contract signing	<ul style="list-style-type: none"> • Prior to commencing works, the contractor submits site-specific CESMP(s) and potential labor influx data based on the ESMP, which includes specific management plans for: (i) work activities; (ii) traffic management; (iii) occupational health and safety; (iv) environmental management; (v) social management; and (vi) labor influx. • Supervision engineer reviews and approves the CESMP—with inputs from appropriate Government agencies—before any works start. • Set up a process for contract management that plans for regular meetings of the parties to monitor the contractor’s performance in all areas. • Ensure the ESMP, CESMP and mitigation plans are updated promptly and re-disclosed as appropriate to address new issues • Ensure that the following measures are fully documented for the World Bank’s review: <ul style="list-style-type: none"> - Training activities for workers on OHS, activities related to the Code of Conduct, etc. - Performance for the six areas of recommended specific management plans. - GRM reports. - KPIs (including the local community/stakeholder engagement plan, if applicable).

Community Engagement

Information disclosure, community involvement, and GRMs are fundamental for projects that have potentially significant social and environmental impacts. Extensive guidance has been written on community engagement in general, and specifically regarding labor influx issues. The section below highlights some key elements.

Transparent local community engagement and participation should begin during initial project decision-making and continue routinely throughout the life of the project. The key objectives for a project’s community engagement are to: (i) provide accurate and timely information, (ii) help manage community expectations, (iii) help promote widespread awareness and understanding of potential issues and measures to address them, and (iv) harness local knowledge about potential risks and pre-existing problems. In this context, it is important to specifically target vulnerable groups, including women and children. Engaging community service organizations active in these areas may help to provide such outreach.

Collecting timely feedback from local communities on the project's social and environmental performance is an invaluable tool for risk management. To allow for such feedback, the project requires an effective communication system to disseminate relevant information and receive input in a timely manner. This is done through regular community meetings.

A working project-level GRM that is known to and accessible by the host community is indispensable to manage labor influx related risks. A Suco-level system will be established to connect community members with the MoPW/PMU through the supervision consultant who will be responsible to engage with the contractor. It is important that the GRM be sensitive to all reported concerns and not be limited to dealing with specific issues only (i.e., compensation or land acquisition). An effective GRM should be able to refer complainants to police and other service providers where appropriate (e.g., in case of gender-based violence complaints) – see Procedure to Manage GBV issues – **Annex 11 and 12**.

Monitoring, Reporting and Supervision during Implementation

As part of the ESMP or related management plans, a monitoring and reporting system is required for the PMU, the project implementing agency, the supervision engineer and the contractor to monitor implementation progress and report to the World Bank. The cost of monitoring is included in the cost of the ESMP, related management plans or Operation Manual (as applicable). The main objectives of the monitoring are to:

- a. Help identify the presence and significance of project-related impacts on local communities;
- b. Ensure that adequate mitigation measures are established (and modified as needed) and implemented in a timely manner;
- c. Ensure that the mitigation measures are achieving their objectives of addressing corresponding impacts, and
- d. Provide information to adjust the ESMP, related management plans or Operation Manual according to the results achieved and new circumstances or findings (including reporting on accident rates, traffic incidents, fatalities, grievance management, labor influx, etc.).

Monitoring of and reporting on the project should be complemented by an effective GRM in order to address issues arising from project implementation. An effective GRM also helps to detect unanticipated or recurring problems, and to manage them.

Key principles that the MoPW/PMU commits to ensuring for the project's GRM include: (i) publicity and accessibility, (ii) the transparency of their operation, (iii) the credibility of their decision-making process and structure, (iv) their confidentiality and hence protection from any potential retaliation, and (v) the effectiveness of the associated business processes to resolve grievances where appropriate. The MoPW/PMU ensures contractor compliance with the applicable management plans (ESIA, CESMP, Labor Influx Management Plan and/or Workers' Camp Management Plan). This includes a regular review of progress and compliance reports issued by the supervision engineer and contractor, facilitating consultation meetings with the host community during site visits, and tracking and recording the number of project workers recruited by contractors within and from outside the communities.

Implementation Support

The World Bank will provide implementation support based on the monitoring and reporting conducted by the MoPW/PMU, contractors, supervision engineer or external parties, the reporting on the GRM, and its own direct monitoring site visits. The frequency and detail required in the reporting provided by the implementing agency and the Bank's implementation support visits will be conducted on the basis of

needs and risks reported/observed. A formal Implementation Support Mission (ISM) will be conducted bi-annually. Key areas that will be reviewed include but not limited to CESMP implementation in workers' camps, review of the GRM's complaint receipt and resolution statistics, discussion with the contractor's and/or PMU's community liaison focal point; and meetings with affected community members. Each implementation support site visit must be followed by clear communication to the MoPW/PMU, the contractor and the supervision engineer regarding any compliance concerns or emerging risks. The role of the supervision engineer is critical in overseeing the contractor, providing reports on progress and compliance, and assisting the implementing agency to enforce the contract and impose sanctions when needed.

Bank implementation support helps to ensure that the MoPW/PMU and its supervision engineer are familiar with the environmental, social, and health and safety requirements in the legal agreement and the construction and construction supervision contracts. For example, the Bank Task Team works to ensure that:

- a. The MoPW/PMU has a contract management framework with a risk management plan identifying all risks and mitigating measures and providing for regular meetings of the parties to monitor the contractor's performance in all areas.
- b. The contractor, the supervising/resident engineer and/or supervision engineer are familiar with the ESMP and CESMP approved by the MoPW/PMU.
- c. The supervising/resident engineer or supervision engineer retains at all times key staff qualified and experienced in managing social and environmental issues, including issues pertaining to labor influx and community health and safety.
- d. Communications between the MoPW/PMU, the contractor and the supervision engineer are well managed.
- e. The contractor and the MoPW/PMU follow up on feedback from community leaders, beneficiaries and other project-affected parties.
- f. Mitigation measures for issues that were previously not identified but have emerged during implementation are swiftly planned and implemented.
- g. Consultation and community engagement activities are carried out as planned.
- h. The GRM is in place and functioning effectively.

Even with the best programs and management measures in place, unexpected and unforeseen project impacts can occur, and this is the basis for requiring monitoring and adaptive management. It is recommended, therefore, that adaptive management measures, including contingency plans and associated resources, be put in place to address such situations. For example, delays or cost overruns during construction can occur, resulting in significant changes to the construction strategy, such as a need to bring on additional workers. Some projects may overlap with the construction of other major projects in the area, which could increase the potential social impacts on local communities. Other threats include events such as sudden disease outbreaks.

Under exceptional circumstances, the MoPW/PMU may fail to comply with its legal obligations concerning the management of social and environmental risks due to labor influx. In such cases, the Bank will exhaust all available measures to support the MoPW/PMU in implementing corrective measures. If such efforts are unsuccessful in obtaining adequate corrective action, the Bank may consider its legal remedies, including suspension of disbursement and cancellation.

Appendix 11: Prevention and Protection Measures against Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA)

1. PREVENTION MEASURES

Prevention of GBV is a multifaceted effort which should deal with/focus on:

- women empowerment/agent of change
- women participation and capacity to influence decision making
- women economic empowerment
- increased access to sexual and reproductive health and rights
- incorporate men and boys in efforts (as perpetrators, victims and agents of change)
- social gender norms and behavior transformation (challenging gender stereotyping)

The specific prevention measures should be included in a GBV action plan to ensure the implementation of actions in this regard and to allow for close monitoring of the Contractor work by PMU/World Bank.

Considering the role and scope of the road construction project, it is strongly suggested that the GBV action plan of this project be divided in:

- A) Prevention measures with Contractor and PMU staffing
- B) Prevention measures with Local Community

A Prevention measures with Contractor and PMU staffing

GBV prevention, including sexual harassment and SEA committed by workers against other workers or community members, needs to start with the Contractor staffing practices.

A number of proposed measures are highlighted in the matrix below.

Focus/Feature	Proposed Measure	Additional Observation
Women empowerment or agent of change	Women lead teams <i>Pre-construction and Construction Phases</i>	For example, determine the need for women-led maintenance team as part of the Contractor bidding requirement
	Employee of the month <i>Construction Phase</i>	Ensure every second month the employer of the month shall be a female worker. This system is preferred than to have two “employees of the month” a male and a female
	Pre-selected movies which deal with women empowerment <i>Construction Phase</i>	At the camp allow for Movie Nights as a social gathering to support locally engaged and outsourced workers. Films to be screened which deal with women empowerment (indirect message). Possibly these could include more “male oriented movies” like female superhero movies. Pre-screening of movies essential. Free TV watching of Indonesian channels not recommended due to reinforcement of gender stereotypes
	Separate meeting with Women Workers <i>Construction Phase</i>	PMU/ Contractor to consider holding meeting with women only to discuss specifically the challenges they face. Ensure that these issues are then informed to all the workers through a Board or other communication means

	Training <i>Pre-construction and Construction Phases</i>	Consider specific training for women to meet specific capacity gaps
Women participation and capacity to influence decision making	Staff representative Committee <i>Pre-construction and Construction Phases</i>	Important to ensure that women representatives' role is not confined to "women issues". Participation of women should be meaningful, their views should be sought and heard on all issues, and they should be viewed and accepted as also representing male staff
Women economic empowerment	Minimum percentage of women workers <i>Pre-construction and Construction Phases</i>	Fulfilling GovTL gender equality commitments, a minimum of 30% female workers in the project is recommended. This should ideally be integrated as part of the Contractor bidding requirement
Increased access to sexual and reproductive health and rights	Camp Clinic <i>Construction Phase</i>	Access to contraceptives and family planning information; access to sanitary napkins
	Awareness Sessions <i>Pre-construction and Construction Phases</i>	Information on transmissible diseases and sexual and reproductive health by external provider
		Access to information on Hotline maintained by NGOs (Marie Stopes International)
Incorporate men and boys in efforts	Men-led awareness and training sessions <i>Pre-construction and Construction Phases</i>	Promote some awareness sessions and part of training delivered/facilitated by men
	Promote reporting of sexual harassment witnessed by male workers <i>Construction Phases</i>	Raise awareness of the power of bystanders and shared responsibility by encouraging men to report on sexual harassment committed by colleagues
Social gender norms and behavior transformation	Code of Conduct <i>Pre-construction and Construction Phases</i>	Approval of Code of Conduct which demands equal treatment and prohibits behaviour which impact negatively on women (see below)
	Training <i>Pre-construction and Construction Phases</i>	Note that several vocational training providers in Timor-Leste regularly provide OHS training, materials have been adapted from mainly Australian OHS standards and exist in Tetum; Some have integrated gender perspectives in them (for example ISAT deliver an OHS module within the Certificate III in Social Services currently mostly catering to GBV service providers) Ensure that training on HIV/AIDS, sexual harassment and other types of GBV address norms and behaviors which reflect gender stereotyping. Use of simple and participatory activities to meet different education levels
	"Light" discussions (eg. Toolbox meeting) on issues of gender stereotypes	Consider the need to build capacity of a male worker to facilitate a group discussion in a relaxed atmosphere on gender roles and gender stereotypes.

	<i>Construction Phase</i>	
	Engagement of male staff for “typical female” duties and vice-versa	To facilitate challenging gender stereotype contractor could ensure to have a number of male workers doing cleaning and cooking duties. Similarly, ensure to have female workers driving trucks and piloting heavy machineries.
	<i>Construction Phases</i>	
	Pre-selected movies which support dismantling gender stereotypes	Similar to the proposed measure above
	<i>Construction Phases</i>	

In addition, a specific training on GBV (i.e. what constitutes GBV, especially SEA and workplace sexual harassment, referral systems/available supports services; potential disciplinary and criminal consequences) should be considered. This training could be either integrated within the STI/HIV workshop by external service provider mentioned in ESMP para. 192 and SEIS para. 339 and in the health and safety induction and instructions mentioned in EMP para.186 and SEIS para.333 or could be run as a separate training effort by an expert service provider or training organization.

[as per guidance in para.81 of the 2018 **WB’s Good Practice Note on GBV**: ‘To properly address GBV, the training and sensitizing of workers is essential. These workers include civil works contractors (including sub-contractors and suppliers), supervision consultants, other consultants who may have a presence in the project adjoining communities—as well as the IAs. Projects can seek to embed training modules that incorporate GBV into the regular Occupational Health and Safety (OHS) ‘toolbox’ meetings with workers, official training and/or standalone training efforts. Linking the curriculum to actors outside the project such as health and education sector professionals may also be beneficial. Training on GBV should be thorough and proportional to the GBV risk. The modality, frequency and content of the training should be detailed in the GBV Action Plan.’]

B Prevention Measures for Local Community

The intensity and the level of prevention measures to be implemented with the local community are to be considerably lower than those implemented with Contractor and PMU staff. One needs to be realistic as to the expected impact that a road project can have on the overall GBV prevalence in a given community and therefore the proposed measures take this fact into account.

It is recommended that partnership be established with a local organization working in the area – as part of the Referral Network – as well as with the local community leadership structure. Some of the prevention measures for local community mirror or replicate the above suggested internal prevention measures and/or to make them accessible to the local community, thus multiplying the effect with additional limited effort.

Considering the different aspects which need to be considered for effective GBV prevention efforts as highlighted above a number of proposed measures are included in the matrix below:

Focus/Feature	Proposed Measure	Additional Observation
Women empowerment or agent of change	Female Liaison Officer <i>Pre-Construction and Construction Phases</i>	Within the Contractor liaison team, a two-person liaison team composed of one male and one female may be more appropriate. Male local leaders, including xefe suku, will easily communicate with male contractor staff, but female community representatives may feel more at ease articulating concerns of the women in the community to a female liaison staff of the contractor
	Pre-selected movies which deal with women empowerment <i>Construction Phase</i>	Support access at community level of large screens for movie screening. Activity should be implemented by youth groups or local leadership and not by the Contractor. Contractor to support with access to equipment. Consider partnering with Cinema Lorosa'e, who develop subtitle or dubbed films in Tetum and have a screening programme in the countryside
	Publication of Employee of the Month Result <i>Construction Phases</i>	Using a board placed in local authority building – as previously agreed with local authority – publish the result of the employee of the month results.
Women participation and capacity to influence decision making	Women participation in Consultations <i>Pre-Construction and Construction Phases</i>	Initial consultations showed a merely average of 17% women participation in community consultation efforts (EMP). Contractor and PMU need to take proactive efforts in increasing this rate of participation, including by demanding minimum number of women to hold a meeting, directly approaching women representatives in the Suco structure and expressly adding to the agenda issues directly relevant for women. If women participation continues to be low despite those efforts, consider requesting local authority for a women-only meeting.
Women economic empowerment	Minimum percentage of women workers <i>Construction Phases</i>	Fulfilling GovTL gender equality commitments, 30% minimum female workers is recommended. This should ideally be integrated as part of the Contractor bidding requirement. The same percentage should apply for locally engaged worker. This 30% 'quota' or temporary special measure (in terms of CEDAW) should be clearly advertised and explained to nearby communities by the Contractor, and men – with help of community leaders – should be cautioned against backlash including GBV against women empowerment (eg. Husband beating wife out of jealousy when she gains employment in the project)
Increased access to sexual and reproductive health and rights	Outreach Information/Awareness Session <i>Construction Phase</i>	Information on transmissible diseases and sexual and reproductive health by external provider Access to information on Hotline maintained by NGOs (Marie Stopes International). Consider the implementation of partnership with relevant NGOs, including Marie Stopes International and MOFFE (Women Youth Movement)
Incorporate men	Men-led awareness	Promote some awareness sessions and part of training

and boys in efforts	and training sessions <i>Pre-Construction and Construction Phases</i>	delivered/facilitated by men
	Promote reporting of SEA witnessed by male community members <i>Construction Phase</i>	Raise awareness of the power of bystanders and shared responsibility by encouraging male community members to report on SEA committed by Contractor staff
Social gender norms and behavior transformation	Access to relevant materials <i>Construction Phase</i>	Promote the sharing of existent materials on GBV and gender equality. Financial support to print materials (for written materials and visuals such as posters) could be needed.
	Showcase of Women Workers Activities <i>Construction Phase</i>	Consider recording and displaying through photos and/or social media posts the engagement of women in “typical male” technical work This is common practice in Timor-Leste under a slogan ‘women can also do x’ – “ <i>feto mós bele</i> ” and has worked well so far.
	Pre-selected movies which support dismantling gender stereotypes <i>Construction Phase</i>	Similar to the measure above

2. GBV AND SEA SERVICE PROVIDER MAPPING: SUMMARY INFORMATION SHEET

Timor-Leste counts with an emerging strong service delivery model for victims of gender-based violence as well as children victims of crimes.

The services provided include physical protection, social, psychological and legal support. Services providers work together within an umbrella coordinating framework – *rede referál* or referral network – where under the direct coordination of the Ministry of Social Solidarity and Inclusion, public social support officers, police authorities together with civil society organization work together at the Municipal levels to provide complementary security, social, psychological and legal support to GBV survivors.

The location of the services provided within the Dili – Ainaro Road project area is illustrated in the map and table below.



	SERVICES	Administrative Post Level					Municipal Level (Municipal Capital)		
		Ermera Munic		Ainaro Munic					
		Gleno	Letefoho	Hatubulico	Aituto	Maubisse	Ermera	Ainaro	Bobonaro Covalima
Referral Network Members	Court							(Mobile Court)	
	Prosecution Service							(Mobile Court)	
	Specialized Police Officer (VPU)								
	Legal Service – Public Defenders							(Mobile Court)	
	Legal Service – NGO								
	GBV Officer (Referral Net Coord)								
	Child Protection Officer								
	Social Welfare Officer (general)								
	Psychosocial Support (Shelters)								

At the Road Construction area there is only the presence of Specialized Police and Social Welfare Officers. No shelters for victims (providing psychosocial support) or legal support is found within the road construction area.

Specialized Police: The Specialized Police Unit (Vulnerable Persons Officer/Unit) is staffed with 1 or 2 officers at the Administrative Post level, with the majority of them women. These officers' main activity is to support the intake of criminal complaints related to GBV and crimes against children and to serve as a liaison between victims of crimes and other police authorities (like investigation) and judicial authorities. The challenges faced by VPU in Ermera and Ainaro Administrative Posts are similar to those faced in other areas, i.e. limited communication and transport facilities, limited access to IT facilities, unplanned transfer of personnel and limited capacity

Social Welfare Officers: The social welfare officer serves as a focal point between the government agency responsible for social safety network and the local community and works within the Administrative Post local authority. The social welfare officer is a low-level public servant without specialized training providing support to all social related areas, including veterans, financial support to vulnerable families as well as GBV Referral Network. Limited capacity in the specific subject-matter of GBV, large area of intervention and limited access to transport and communication facilities can have a serious impact on the effectiveness of the work of these officers to support GBV victims.

Psychosocial and Legal Support (shelters): GBV shelters are inexistent in the road geographic location, with GBV victims requiring supporting accessing services in Suai or Dili. Victims residing in the Municipality of Ermera often travel to Dili to access these services. Those residing in Ainaro may travel to the capital or reach to these services in Suai.

Specifically shelters nearby the road construction area:

- **Transit Shelter in Suai (*Uma Tránsito Fokupers*):** Operated by the local NGO Fokupers. Transit shelter serves victims requiring support between 3 days to a week. Include general counselling and psychosocial support services. If longer residency support is required victims are either transferred to Suai or Dili shelters, depending on personal factors. Serviced by two staff with technical training on social services. No access to vehicle so when requiring transport of the victims (to medical examination or to court hearing, for example) uses vehicle of other Referral Network participating NGO. In 2018, this shelter served 54 clients (women and girls) with 5 of them being from Ainaro Municipality (including 1 victim from Maubisse).
- **Emergency Shelter (PRADET) in Suai:** temporary accommodation (one or two days and nights), and access to specialized services for victims of sexual violence and/or domestic violence, and/or child abuse or neglect, and/or trafficking. Provision of emergency medical support and forensic service for evidence collection. Located within Suai hospital facilities.
- **Shelter in Suai (Uma Mahon Salele):** run by religious group, it focuses on providing shelter for people with disabilities. Receive state funding.

It shall be noted that the unavailability of Shelters and Legal Support Services in this specific geographic area is the result of limited human and financial support, but also due to the small size population living in those areas and the different priorities faced in relation to this area in Timor-Leste.

The main directory of the services existent in Timor-Leste is currently accessible through an applicative and website tool www.hamahon.tl. It is noted that while the contacts are the most updated which one can find; the contacts are limited to Municipal level only and this directory does not contain direct contact information to the police and social services existent at the Administrative Post level.

Within a general perspective, the main strengths and weakness of the GBV Referral Network are:

STRENGTH	WEAKNESSES
Strong coordination mechanism to support multidisciplinary survivor services	Insufficient infrastructures at the Administrative Post – requiring transport and communication facilities and fast networking to ensure quality service delivery to remote areas
High level of commitment based on strong involvement of civil society organizations	Complex and time-consuming case management, at times requiring numerous actions involving several authorities/institutions
Public and private partnership, sharing of resources (including transport facilities)	Lack of postal services and communication challenges require physical travel to share information and deliver documents
Increased awareness of seriousness of GBV	Lack of legal recognition of Specialized Police within the organic structure of the police
Financial commitment from different stakeholders, including public funding	Challenges meeting legal issues in complex criminal cases
Specialized training for social support with GBV victims	Long stay in shelters (increased costs and disruption of education and work) due to legal proceeding delays and culture practices requiring the family “approval” of a woman return to her community
Specialized legal services providing victim centred support for criminal cases	
Direct support to strengthen economic independence of victims through capacity	Long distance and movement of persons bring added challenge to transport limited services

development and employment opportunities (even if insufficient)	Lack of regular OHS for social service staff to ensure their wellbeing and continued quality service delivery
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Appendix 12: GBV/SEA Codes of Conduct and Feedback and Grievance Redress Mechanism (FGRM)

1. GENERAL OVERVIEW OF CODES OF CONDUCT

A Code of Conduct which shall serve as a conscious agreement and recognition of knowledge of its content to be signed by every worker on the behaviour expected from them.

Some basic aspects which should be considered when developing the Code of Conduct:

- **Brief:** The Code of Conduct of Civil Servants is a 1-page list of 15 items, some worded in the affirmative and others negative/prohibition. A draft teacher Code of Conduct has less than 20 conduct rules. The fact that the Labour Law already identifies the general duties of workers means that there is no need to repeat that information in the Code of Conduct;
- **Simple and culturally appropriate language:** Considering the number of lowly skilled workers as well as the need for workers to fully understand the rules in the Code, it is of utmost importance to use plain and simple language. Consideration shall be given to drafting the Code of Conduct in Tetum;
- **One single standard:** every worker – whether national or foreign, low level staff or supervisor – should be regulated by the same rules. This has been the practice of public institutions so far. It is understood that the determination of different Codes to different levels of staff (with higher number of management staff potentially being foreigner) can bring about a feeling of “injustice” and double standard. Even if managers CoC would be more “rigorous” it cannot be expected that lower level worker will be acquainted with the content of these other CoC and will fully understand the differences. Any duties applied specifically to managers can be “shaped” as tasks or responsibilities and integrated in the Terms of Reference or Job Description;
- **Participatory development:** The Code’s development shall be undertaken through a participatory process including MPW staff, local community representatives, representatives of GBV protection network/service provider and other key individuals who have direct experience on civil road works in Timor-Leste and GBV. It is possible to speed up the drafting process by collecting initial ideas for rules for the Code through a simple questionnaire or survey or even individual interview. Ideas could then be presented in a “workshop-style” process to be further developed and agreed upon;
- **Ceremonial signature:** considering the cultural practice in Timor-Leste, the signature of agreements and other documents of similar nature bring about an increased compliance duty when signature takes place within a specially dedicated ceremony. Participation of high-level authorities and local leadership is key to reinforce the importance of the process.

As it relates to the **content of the Code of Conduct**, it is understood that GBV and other related content, needs to be included and incorporated into the Code of Conduct. It is suggested that the Code not only deal with issues related to GBV, so as not to be marginalized considering the challenges faced in Timor-Leste on widespread acceptance of existence of social norms and practice in violation of the rights of women.

Considering the cultural reality of Timor-Leste and the challenges at times to make a clear division between the public and private life aspects, it is generally acceptable to require compliance with behaviour that goes beyond the work relationship (work related duties, management relationship and

relationship between colleagues) to include specific rules which relate to out-of-work hours and behaviour expected within a purely private relationship. With this, similar to other Codes developed within a World Bank civil work project, inclusion of rules on limitation of sexual activities outside the scope of work can be included.

As per applicable laws and regulations in Timor-Leste and World Bank standards, **some of the rules which can be included** as they relate to GBV are found below:

- Treat all persons, work colleagues and community members included, with respect regardless of gender, race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status
- Not use language or behavior towards another person that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Not engage in sexual harassment with work personnel or staff (include, making unwelcome sexual advances, sending messages of sexual content, demanding romantic relationship, requesting sexual favors, and other unwelcomed physical, verbal or visual acts of a sexual nature)
- Prohibition of conducting any activity of sexual nature with any individual younger than 17 years old (including kissing, hugging and grooming), irrespective of the young person or child consent
- Serve as exemplary or role model to the community by acting in compliance with legal duties, including in relation to payment of debts and committal to spousal and parent economic support
- Prohibition of use of prostitution in any form (payment for sex) and not engage in exchange of sexual favours
- Take active steps to support the employer in promoting the protection of children, including by reporting presence of children in the construction site and camp

The proposed rules are in addition to general rules included in CoC for civil works, such as wearing safety gears and respecting the environment.

While drafting the rules it shall be prevented the use of terms which require further explanation, such as “sexual abuse of children”. It is preferred to use explanatory language as “any activity of sexual nature”, similarly instead of “children” to use “individuals younger than 17 years old”.

Another option on the language to be used is to identify straightforward rules, which is then developed in a more explanatory manner. Examples to this structure would be:

Do not discriminate	Treat all persons, work colleagues and community members included, with respect regardless of gender, race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status
Be respectful	Not use language or behavior towards another person that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate
Act/behave within the law	Not engage in sexual harassment with work personnel or staff (include, making unwelcome sexual advances, sending messages of sexual content, demanding romantic relationship, requesting sexual favors, and other unwelcomed physical, verbal or visual acts of a sexual nature) Prohibition of conducting any activity of sexual nature with any

	individual younger than 17 years old (including kissing, hugging and grooming), irrespective of the young person or child consent
	[rules related to environment laws – prohibitions]
Be a role model	Serve as role model to the community by acting in compliance with legal duties, including in relation to payment of debts and committal to spousal and parent economic support
	Prohibition of use of prostitution in any form (payment for sex) and not engage in exchange of sexual favours
Protect yourself and others	[rule on safety gears]
	Take active steps to support the employer in promoting the protection of children, including by reporting presence of children in the construction site and camp

The option above can be a good format to support induction process and to reach out to non-skilled workers.

It is important to note that the Code of Conduct shall be developed before the contractual engagement with workers and shall form part of the contract, serving as an Annex. In simple terms, content of the Code of Conduct will probably light private-life activities beyond the legal norms imposed in Timor-Leste, and therefore a worker needs to agree to abide by these rules as a pre-condition to the employment.

2. GBV AND SEA-TAILORED FGRM

At a starting point, it is essential to ensure that there is clarity as the GRM relates to:

- The scope of the GRM
- The linkage of the GRM to internal accountability mechanisms (i.e. disciplinary procedure)
- The linkage of the GRM to GBV survivors' service providers

A Scope of GRM

As it is currently written in the EMP and SEIS, the GRM is to deal with external/community complaints on the “performance” of the Contractor. It appears to focus when the Contractor – through its work or workers – encroach on the environment (including land) or the social harmony of the local community. Within a GBV approach this would mean to receive complaints and deal with issues of SEA. It is unclear as to whether the GRM is also to be used when internal complaints merit a grievance system, which would include dealing with sexual harassment complaints between co-workers.

It is understood that ideally one procedure would meet the need for both levels of grievances. Since a number of workers would be from the local community, a separate procedure could bring confusion in the eyes of these workers.

There is the need to decide as to whether a separate GRM is to be established to deal with GBV. It is proposed, based on similar arguments as the one put forward above, that a one only system be put in place. It is possible that a different (or parallel) path away be designed to deal with GBV cases.

It is noted that the current information on the GRM does not shed light on the specific internal procedure to be used when implementing the First Level Grievance procedure.

B Linkage of the GRM to internal accountability mechanisms (i.e. disciplinary procedure)

As it relates to GBV, allegations of GBV (which are a violation of the Code of Conduct) have to give rise to disciplinary procedure against the relevant worker.

The Contractor has, in law, the power (and the duty) to discipline its workers. General rules on the disciplinary procedure and possible sanctions are provided in the Labour Law. It is understood that low level disciplinary measures are to be dealt by the Contractor through its managers and other support staff on site.

It is also noted that in cases of GBV, disciplinary measures can result in retaliation against the complainant (GBV survivor).

Capacity to manage a disciplinary procedure which at the same time complies with legal criteria, promote accountability and safeguard the rights of the complainant is not an easy task and will require development of internal procedures, guidance and specific capacity development initiative.

Current diagram on the GRM procedure is unclear on this matter as it simply refers to “Grievance Redressed”.

C Linkage of the GRM to GBV survivors to Service Providers

It is paramount that both Liaison officers and ESOs are fully aware of the role of Referral Network on GBV and should be able to inform the complainant/survivor on the support s/he can receive from the service providers.

The linkage shall be done as one of the first steps on the process. In no way shall the information sharing on the service providers reflect a “redress” of the grievance and all complaints of GBV shall be duly registered and the GRM procedure shall become operational.

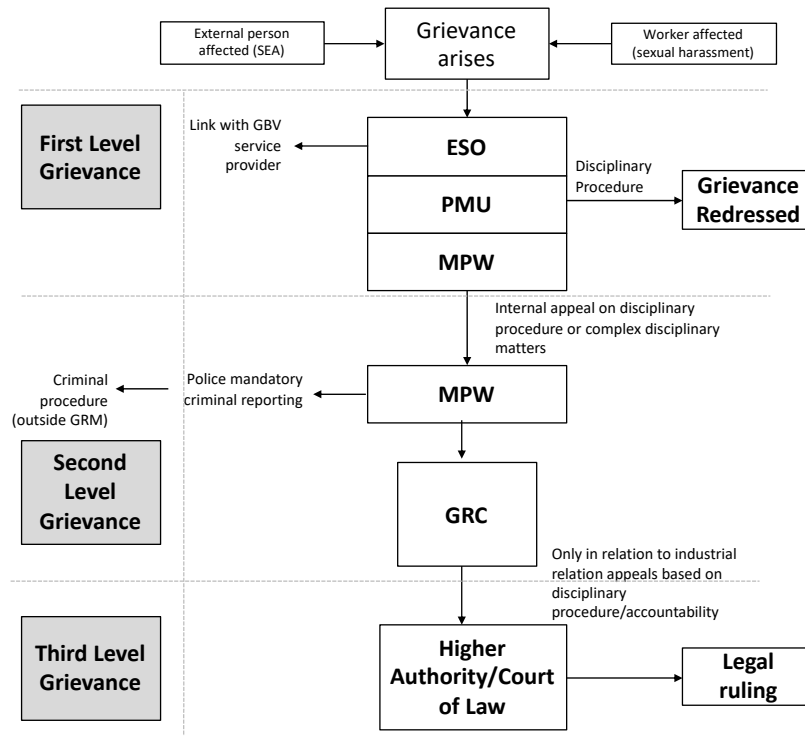
3. GENDER BASED VIOLENCE: ISSUES TO CONSIDER IN THE FGRM

A number of issues need to be closely considered in order to ensure that the GRM will indeed be an effective procedure to deal with GBV – promote accountability of the perpetrator and protect the rights of survivors. These are summarized below:

- **Confidentiality:** No identifiable information on the GBV survivor should be stored in the GRM; and GRM should primarily serve to refer complaints to GBV service provider and record solution of the complaint (as per guidance in World Bank, Good Practice Note Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works, 28 September 2018, para.86)
- **Dealing with GBV complaints:** GBV complaints are not to be dealt from a “solution perspective” to reach an “agreement” between the respondent and the complainant. As such the “redress” measures are: (1) accountability within the work relationship (disciplinary procedure); (2) support to the survivor (linkage to service providers).

- **Internal capacity to deal with GBV related complaints:** It is understood that the entry point for the GRM is the Environment and Safety Officer (ESO), who is understood to be located within the PMU. If the ESOs are indeed to be the entry point for the GRM, these staff will need to work on the construction site in order to promote dealing with GBV complaints as a disciplinary measure. It is noted that the existence of a BV Team to communicate with the local community is not sufficient to support the implementation of a robust GRM. They can indeed support the ESOs, when complaints are made from community members. ESOs will need to be knowledgeable on GBV (sexual harassment and SEA, including interviewing survivors’);
- **First-level information on Service Providers:** Liaison officers and ESOs should be fully aware of the role of Referral Network and should be able to inform the complainant/survivor on the support s/he can receive from the service providers.
- **No use of traditional mediation for GBV:** Using local tradition methods to solve general disputes with the local community on issues relevant to land, environment or similar issue is a most welcome step. The same does not apply to GBV. At no time shall the Contractor or the PMU promote or participate in this conflict resolution mechanism if the complaints relate to a worker who has committed GBV.
- **Not a “one-only” avenue:** GRC ‘doesn’t impede the complainant’s access to the GoTL’s judicial or administrative remedies’; Information booklets should make this crystal clear that survivors have right to complain anywhere: Going to the project’s GRM doesn’t preclude/prevent them from at the same time reaching to local police officers, reporting to social welfare officers, prosecutor’s office, or legal support
- **Criminal Reporting:** GRM ought to ensure that all crimes are reported by the relevant civil servants in the GRC who have mandatory crime reporting obligation (and especially public crimes because than the non-reporting is itself a crime)—this is particularly relevant in cases such as rape, sexual assault, child abuse...; [as per guidance in WB GPN para. 116: ‘As noted earlier, the Services Provider, and IA representatives involved in the GBV case resolution, need to understand their legal obligations when it comes to reporting GBV cases to the police. Reporting should be done in accordance with the law, especially in cases that require mandatory reporting of certain types of GBV incidents, such as sexual abuse of a minor. When there is no legal obligation to report the case according to the local law, survivors hold the decision of whether to report cases to the GRM for resolution and other service providers and reporting of a case to anyone can only be made with the consent of the survivor.]

Taking into consideration the issues highlighted above, a proposed adaptation of the GRM for GBV cases is provided below.



Appendix 13: Managing Safeguards Incidents throughout the Project Cycle

A. Introduction

The safeguards incident response procedure has been prepared to guide the PMU and the World Bank how to respond to incidents in terms of internal reporting, where contractors and PMU and World Bank's staff could seek additional support and the respective contractors, PMU and the World Bank's roles in relation to remedy on the ground. This procedure was developed in alignment with the World Bank's Safeguards Incident Reporting Toolkit (SIRT), which is an internal guideline for the World Bank's staff in the event of incidents as a result of the World Bank investments.

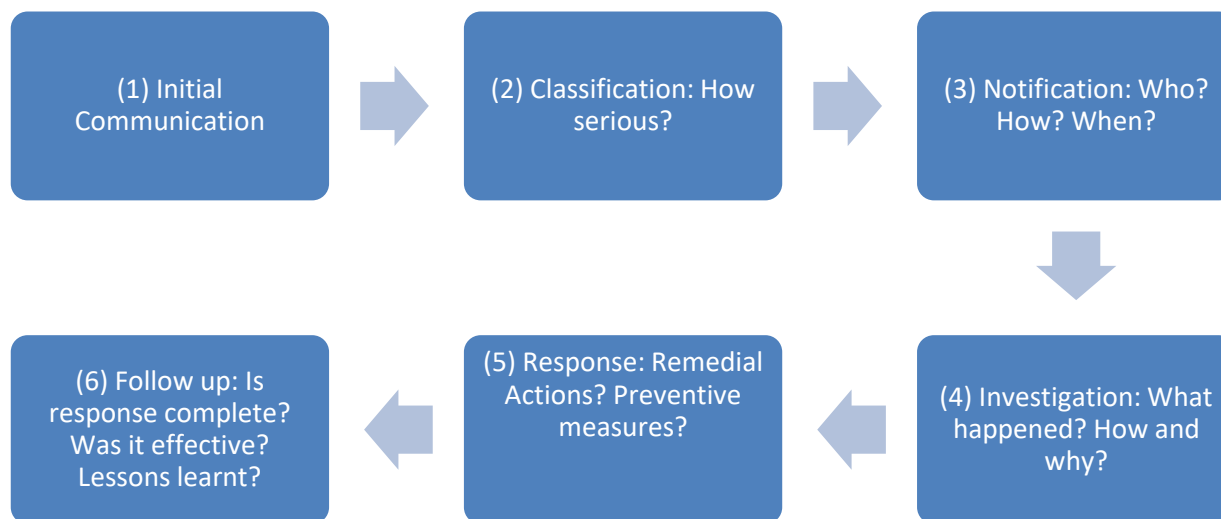
Incident is defined as an accident, incident or negative event resulting from failure to comply with the project's Environmental and Social Management Plan (ESMP), Resettlement Action Plan (RAP), and other safeguards measures OR conditions that occur as a result of unexpected or unforeseen safeguards risks or impacts during project implementation. Examples of safeguards incidents include: fatalities, serious accidents and injuries, social impacts from labor influx, sexual exploitation and abuse (SEA) or other forms of gender-based violence (GBV), major environmental contamination, child labor, loss of biodiversity or critical habitat, loss of physical cultural resources and loss of access to community resources. The procedure is concerned with accidents involving communities, construction workers, supervision consultants, suppliers, as well as PMU staff.

The procedure highlights the role of the PMU versus the World Bank at each step and provides guidance on which tools to use along the way.

The overarching incident management and reporting process comprises six steps (*see Figure 1 below*). Each step includes a sub-set of activities. Tools and templates have been designed to support some of those specific activities. The procedure also includes specific information on how to handle Gender Based Violence (GBV) related incidents (see Annex 11 and 12). The GBV incident reporting reflects the World Bank's GBV Good Practice Note.

Occupational, Health and Safety (OHS) fatality tracking process as part of this procedure has been prepared to enable PMU Environmental and Social Safeguards Specialists and the World Bank Project Task Team to properly documents and track information related to all fatalities in Bank financed projects in a one coherent system. Through the system, PMU and the World Bank Project Task Team will have a dedicated process to manage cases, and will be able to track actions that are being undertaken to address root causes causing the fatalities, stay informed of the status of each case, conduct analysis of the data and discuss preventative measures that the PMU and contractors must put in place to avoid similar problems in the future.

The above processes should be considered as a living document to reflect the evolving status of safeguards performance during project implementation. These processes will be updated from time to time, based on continued feedback from teams in the field.

Figure 1 - Overarching Incident Management and Reporting Process

In some instances, the safeguards incident response procedure might not apply beyond initial reporting and review. For instance, if a road section rehabilitated and/or upgraded under the project has been completed and turned over by the contractor to the Government of Timor Leste, any subsequent incidents and/or fatalities on that section that are not related to the contractor shall not be counted and/or adjudged as a project related accident or fatality. Other examples would be in the case of natural disasters. These would be clearly outside the scope of control of the project and would be documented but not be considered project related.

B. Management and Reporting Process

Once contractors, PMU and the World Bank become aware of an incident, the following process must be followed:

1) Initial Communication

In the event an incident is reported, the PMU must quickly provide information to the World Bank on the following:

- What happened? How serious was the incident? How is it being addressed? How is the contractor responding?
- Who should be notified and how is best to respond immediately?
- What, if any, additional follow-up action is required, and what are the associated timelines?

Table 1: Initial Communication following an Incident

Action	PMU Role	World Bank Role	Tool
Incident occurs	Inform the Bank, inform appropriate authorities in compliance with local regulations, secure the safety of workers, public and provide immediate care	Ensure TTL is aware, advise PMU and/or government counterparts if not aware, and launch the SIRT process	Template for initial communication (Sub-Annex 1)

Contractors, supervision consultants and PMU and the World Bank’s environmental and social safeguards specialists are typically the first to become aware of an incident, but such information may come as a call or email or social media contact or letter from a community member, an injured party, the PMU, the media or a non-governmental organization (NGO).

The information may also be reported through the project’s Grievance Redress Mechanism (GRM) or the World Bank’s Grievance Redress Service (GRS). There could be instances where the incidents are factual or may be a vague allegation. The source of the information should not affect the response. PMU environmental and social specialists must conduct investigation of the reported facts and surrounding circumstances as promptly as possible and shares the results of the early investigation to the internal PMU and the World Bank so that an assessment of the seriousness of the incident can be made quickly and decisions can be made on how the PMU should respond. In some cases, the incident may become known and/or reported several days/weeks/months after the event. Under such circumstances, the same procedure must be followed, albeit with a delay.

In the event that an incident of Gender Based Violence (GBV), including Sexual Exploitation and Assault (SEA), understanding the facts related to a GBV/SEA case should only involve information about where to/to whom the incident was reported, what type of incident has been reported and whether the person who experience the alleged incident was referred to appropriate services. See Annex 11 and 12 for detailed information related to reporting and follow up of GBV and SEA incidents.

2) Classification and Assessing the Seriousness of the Incident

Table 2: Classification

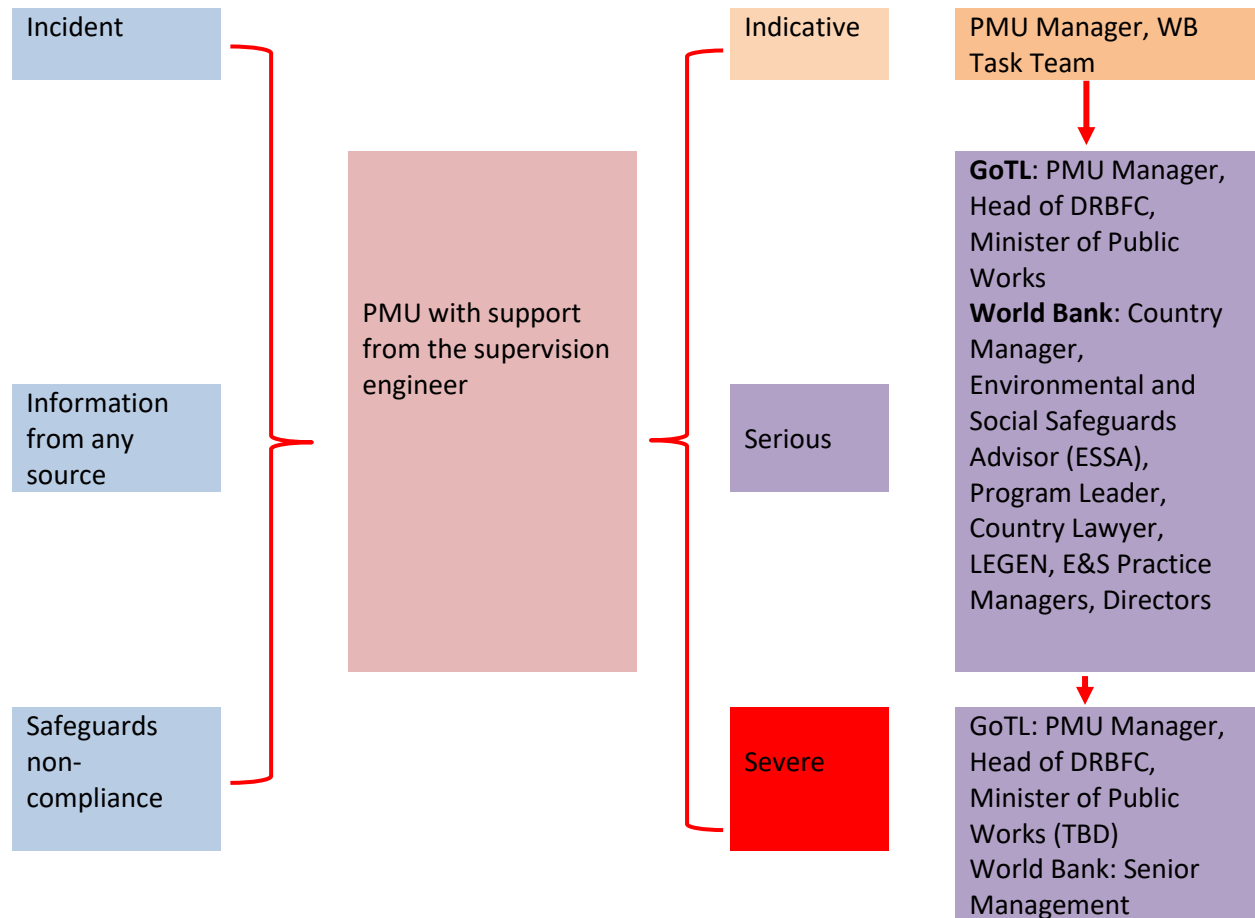
Action	PMU Role	World Bank Role	Tool
Classify incident	Promptly provide information about the incident to the Bank	TTL with support of E&S specialists classifies incidents to determine severity	Incident classification Tool (see Sub-Annex 2)

Classifying the incident will guide decisions as to who in the PMU and the Bank will be informed about it and what resources will be available to understand the incident and support the PMU and contractor in addressing the underlying causes.

Classification must be done as rapidly as possible, so that the PMU and contractor are able to address the

incident within a reasonable time-frame and for the Bank to make informed management decisions. Ideally, the incident should be classified within 24 hours of receipt of the information. If it cannot be fully classified due to missing information, then a preliminary classification should be provided and confirmed as details become available. Figure 2 illustrates the classification process and how it is communicated internally within the PMU and relevant officers at the Ministry of Public Works and the Bank. The classification is based on several factors, including the nature and scope of the incident, as well as the urgency in which response may be required.

Figure 2 – Classification and Communication of Safeguards Incident



Three levels of classification include indicative, serious and severe. Each of these classifications is briefly described as follows (see **Sub-Annex 2** for further guidance on safeguards incident classification):

Indicative - A relatively minor and small-scale incident or non-compliance that is limited in its immediate effects but may be indicative of wider-scale issues within a project that could lead to serious or severe incidents. These may be escalated to serious or severe incidents, when for example there is recurrence of the incident within a six-month period, increasing severity of impact of the incident, or inability or unwillingness of the contractors to rectify the condition within the agreed timeframe.

Serious - An incident that is causing or will cause significant harm to the environment, workers, communities, or natural or cultural resources, is complex and/or costly to reverse and may result in some level of lasting damage or injury. This may include repeated non-compliance, injuries to workers that

require off-site medical attention and result in lost time, improper treatment of vulnerable groups, inadequate consultation, consistent lack of OHS plans in a civil works environment, and medium-scale deforestation. These types of incidents require an urgent response and could pose a significant reputational risk for the Bank.

Severe - An incident or repeated pattern of non-compliance of sufficient seriousness that it may, in addition to the actual or potential harm caused, pose a corporate risk to the Bank. A severe incident is complex and expensive to remedy, and likely irreversible. A fatality is automatically classified as severe, as are large-scale deforestation, major contamination, forced or child labor, human rights abuses of community members by security forces or other project workers, including GBV, violent community protests against a project, kidnapping, and trafficking in endangered species.

If documented circumstances and relevant discussions between the PMU, contractors, supervision engineer and within the Bank team confirm that the incident is **Indicative**, **Serious**, or **Severe**, then a one-to two-page Incident Report (IR) (see **sub-Annex 3**) should be prepared and issued by the PMU Manager, which shall be then forwarded to the WB Task Team (through Task Team Leader) within 24 hours of receipt of the information, with the support of the project's Safeguards specialist(s), for internal communication.

3) Notification – Who needs to know about the incident?

Table 3 Notification

Action	PMU's role	Tool	Bank's Role
Notify MoPW senior management and the World Bank according to level of severity of the incident	PMU Manager prepares Incident Report (within 24 hours) and circulates internally within MoPW and notify the World Bank (through the Task Team Leader and Environmental and Social Specialists as per-Classification and Notification Guide (see sub-Annex 2). Note exceptions for GBV/SEA related incidents (see Annex 11 and 12)	Incident Report (see sub-Annex 3) Classification and Notification Guide (see sub-Annex 2)	Depending on the level of severity of the incident, take necessary actions to address the incidents and inform the World Bank's Senior Management if the incident is classified as Serious or Severe.
Notify the World Bank's	Communicate with contractor regarding investigation requirements		Respond to Bank requests regarding investigation

Within the PMU, ensuring that the correct level of management is aware of and understands the issues surrounding any given incident is critical to achieving an appropriate response, including securing the resources necessary to address any issues arising. The Notification guide provides specific instructions as to which PMU staff and manager and high level GoTL officials should be made aware of incidents according to their classification. See Sub-Annex 2 for details on the notification process.

It is also critical at this stage to open lines of communication with the contractor to make sure that a) the contractor is fully aware of the incident, understands the severity of the situation, and has or will undertake response measures as needed, and b) that the contractor is able to work with the PMU and the World Bank to conduct the investigation required during Step 4.

4) Investigate: What actually happened?

Table 4 Investigate – What actually happened?

Action	PMU Role	Tool	World Bank's Role
Understand facts on the ground	Promptly provide information requested by the Bank and facilitate incident site visit For severe incidents or in cases where information is lacking, the PMU and the World Bank fields a preliminary fact-finding mission with necessary expertise for the specific incident. Due consideration will be given to safety issues prior to fielding a mission, following all normal country protocols and/or practices. Input from the PMU Environmental and Social Specialists and supervision consultants will be extremely important in understanding the event and contexts, including interactions with the contractor.		Join the field investigation and provide expertise required to conduct proper field investigations.
Root cause analysis (RCA)	Undertake RCA in consultation with the Bank to understand and document the root cause(s) of the incident. The RCA should be based on existing country processes, where available. Depending on	ToRs for consultant(s) retained by PMU to undertake RCA and other analyses (See Sub-Annex 4)	Support the PMU to carry out RCA. An RCA or equivalent analysis will be required for all serious and severe incidents

Action	PMU Role	Tool	World Bank's Role
	the complexity of the incidents/issues, expert consultants (national or international) may need to be recruited to undertake the RCA. The MoPW/PMU is responsible for funding the preparation of the RCA from project funds or other own resources. RCA should be completed as soon as possible, ideally within 10 days. Findings of RCA will inform measures to be included in Safeguards Corrective Action Plan (SCAP) Provide complete information about the incident to the Bank and facilitate site visit(s)		
Communication	PMU Manager communicates to the Head of DRBFC and Minister of Public Works		CM communicates to relevant ministers (Finance, implementing ministry) orally and/or in writing to discuss findings of the RCA

The PMU will investigate the incident, to determine what happened and why, so that processes can be put in place to avoid reoccurrences and apply appropriate remedies. GBV related cases will be treated separately (see annexes 11 and 12). In many cases, the World Bank Task Team may support the PMU in the investigation, for example by identifying experts, providing sample ToRs, etc. Both the PMU and the Bank should have a clear understanding of the facts in order to supervise and provide implementation support for the investigation and remedies.

The extent of such investigation should be appropriate to the severity of the incident. Sample ToRs for an RCA, Legal Consultant, and Monitoring for Forced or Child Labor are provided at **sub-Annex 4**. These tasks may be carried out concurrently. The findings would be used to develop the Safeguards Corrective Action Plan (SCAP) as a complement to existing project Safeguards instruments.

In severe cases, or where there is relatively little or confusing information available, the PMU with support from the World Bank's Task Team may need to send a preliminary fact-finding mission with appropriate expertise to determine next steps. The preliminary mission may determine that no further investigation is necessary. In most serious or severe cases however, and in all Health and Safety related cases, the PMU would need to conduct a Root Cause Analysis (RCA) or equivalent, with support from the World Bank as needed. The PMU is responsible for funding the preparation of the RCA from project funds or other own resources.

While an RCA per se is not mandatory, especially in cases where information is clear and readily available, it is nonetheless essential that the PMU and Bank understand very well the underlying cause(s) of the incident, to agree on measures to prevent recurrences. It is most important that the PMU and the Bank are swift in their response and clarify what exactly happened, how and why, and is then able to advise and guide in the development of appropriate mitigation measures, analysis of root causes, and identification of follow up actions.

5) Respond

Table5 Respond

Action	PMU Role	Tool	Bank Role
Develop Safeguards Corrective Action Plan (SCAP)	Agree SCAP with Bank, including own actions, responsibilities and timelines for implementation, and PMU monitoring program	Example of the types of measures that can be included in a SCAP are included in Sub- Annex 5 .	Work with the PMU to design and agree an appropriate SCAP

Based on the findings of the RCA as appropriate, the PMU and the World Bank Task Team agree on a set of measures to strengthen the project and prevent any recurrence of the incident. These measures are captured in the SCAP (**see sub-Annex 5**).

An example of Response Mechanism following a fatality is included in **Sub-Annex 6**. The SCAP specifies the actions, responsibilities, and timelines to be implemented by the Bank and the PMU. The PMU is responsible for implementation of the SCAP, from project funds or other own resources, with support by the Bank as agreed. The SCAP may call for provision of technical assistance by the Bank, loan restructuring, including additional financing if necessary. It could also include PMU's actions such as the design or upgrading and implementation of Environmental, Social or Health and Safety management systems, processes and training to support consistent performance, compensation for injuries or a fatality, pollution prevention and control remedies to be implemented over a few weeks or a multi-year period, according to the specific project circumstances. It might include requirements for community consultation, compensation payments relating to a resettlement program, or remediation of coffee plantations damaged by contractors.

6) Follow-up

Table 6 Follow up

Action	PMU Role	Tool	Bank Role
Implement SCAP	Implement SCAP and ensure that contractors and sub-contractors follow and implement key action items in the SCAP	SCAP template (sub-Annex 5)	Monitor SCAP implementation and provide on-going technical support if necessary
Documentation	Conduct internal documentation and provide sections in the safeguards report on the implementation of the SCAP		TTL reflects incident in Implementation Status Report (or interim ISR); ISR section relating to incident is reviewed by Country Lawyer
Monitoring and Evaluation	For Serious and Severe cases, conduct a third-party (independent) monitoring and supervision of the SCAP		Monitor SCAP implementation and provide on-going technical support if necessary

Once the SCAP has been put in place, the PMU and the World Bank are responsible for fulfilling their commitments outlined in the document.

The PMU with support from the supervision consultant will also monitor the contractors' implementation of the SCAP to ensure that the SCAP commitments are being met.

From the World Bank's side, the TTL should close out the incident formally by completing the ISR and updating the overall project risk rating. Finally, the TTL is responsible for preparing an After-Action memo for the Country Director, to formally close out the process³⁴.

C. Remedies and Responses

The following section includes examples of preventive measures and remedies or responses available for different classes of incidents prior to and during project implementation. In addition, **sub-annex 6** provides an example of a response process following a fatality on a Bank project

a. Preventive Measures

- Adequate project design and full consultation with the PMU including ToRs for key contracts, clear implementation arrangements, appropriate E&S tools, and a required E&S section in the PMU's regular project progress reporting;
- Key details for the project are reflected in the legal agreement(s), including remedies for non-compliance of E&S (including EHS/OHS) provisions. The legal remedies need to be described

³⁴ The After-Action memo is prepared once the SCAP is under implementation and is cc'd to Bank managers and units that were notified about the incident.

in sufficient detail such that all obligations are clear to the implementing organizations (including contractors)³⁵.

- Bid documents and contracts for works use the Standard Procurement Document (SPD) for Works, which incorporates environmental, social, health, and safety (ESHS) performance. These include (as applicable) an ESHS Performance Declaration, the Bidder's ESHS Code of Conduct, and the Bidder's Management Strategies and Implementation Plans (MSIP) to manage the key ESHS risks, including an Accountability and Response Framework for responding to allegations of GBV/SEA.
- Ensure that all relevant E&S documents are provided to project implementers, including bidders in the relevant language(s).
- PMU E&S Specialists regularly conduct regular supervision in collaboration with the World Bank E&S Specialists.
- Procurement and contract supervision involve E&S Specialists for moderate/high risk projects.
- Both the PMU and World Bank's E&S Specialists review monthly works reporting to detect trends or emerging issues that could indicate that safeguards incidents may occur or have occurred.

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b. Remedy and Response Measures

Health and Safety Examples

Examples of **potential responses** by the PMU and World Bank to address worker occupational health and safety incidents of varying severity are presented in Table 7.

Table 7 Potential Responses to Health & Safety Incidents of Different Severity

Health & Safety	Potential PMU actions to implement Root Cause Analysis recommendations contained in SCAP	Potential Bank responses
Severe Any fatality, Permanent disability, and outbreak of life- threatening communicable disease	<ul style="list-style-type: none"> • Improve barriers, alarms, signage, training, work processes and procedures • Address gaps in competence, expertise, numbers of project OHS team and/or project management team • Invoke Safeguards/OHS clause in International Competitive bid (ICB) contract • Ensure Health and Safety risk assessment and management plan is in place, adequate, implemented and enforced 	<ul style="list-style-type: none"> • Allocate additional senior safeguards staff for site visits and guidance to team and PMU. • Require PMU to retain independent consultant to do spot checks of project sites. • Written notification to government. • Inclusion in ISR. • Suspension of the project or project component, or project works.

³⁵ The appropriate legal remedies are described in the Bank Standard Procurement Document (SPD) for Works.

Health & Safety	Potential PMU actions to implement Root Cause Analysis recommendations contained in SCAP	Potential Bank responses
Serious Major (non-fatal) accident	<ul style="list-style-type: none"> • Improve barriers, signage, training, working methods • Enforce use of personal protective equipment • Complement project OHS or management team/Project Implementation Unit (PIU) with adequate competencies and expertise 	<ul style="list-style-type: none"> • Report in ISR • Project Safeguards risk classification increased • Review/verify RCA • Require PMU to retain independent OHS consultant to do spot checks of project sites
Serious Near-miss	<ul style="list-style-type: none"> • Review relevant sections of health and safety risk assessment for adequacy • Enforce use of personal protective equipment • Train on-site OHS professionals and workers 	<ul style="list-style-type: none"> • Require PMU to retain independent OHS consultant to do spot checks of project sites • Report in ISR • Amend risk rating of project in IRT as appropriate
Serious Repeated observations of dangerous behavior or clear violations of safety protocols	<ul style="list-style-type: none"> • Improve use of grievance redress mechanism • Review relevant sections of health and safety risk assessment for adequacy • Implement (revised) OHS management plan, including training 	<ul style="list-style-type: none"> • OHS Spot checks of project sites • Country Manager writes to finance minister or equivalent • Report in ISR • Project safeguards risk classification increased
Indicative Repeated failure to respond to notification to remedy safeguards issues (e.g., safety kit incomplete or not present)	<ul style="list-style-type: none"> • Remedy the outstanding issues • Repeated awareness training and messaging • Improve work process or procedure 	<ul style="list-style-type: none"> • Report in ISR • Country Manager highlights issue in Aide Memoire transmittal memo • Increase frequency of missions and site visits with OHS focus

E&S Example

Examples of **potential responses** by the PMU and the World Bank to E&S related incidents of varying severity are presented in Table 8.

Table 8 Potential Responses to Environmental and Social Incidents of Different Severity

Environmental/Social	Potential PMU actions to implement Root Cause Analysis recommendations contained in SCAP	Potential Bank responses
<p>Severe (Social)</p> <p>Gender-based violence by project workers</p>	<ul style="list-style-type: none"> • Dismissal of perpetrators of GBV and removal from project area • Provide information to authorities for prosecution of perpetrators (if feasible) • Provide medical care and specialist counseling for victim(s) • Provide training for project workers highlighting clear penalties for GBV or other mistreatment of community members • Include sanctions for inappropriate behavior of workers in contractors' language to ensure it gets pushed down to all workers • Consider requiring changes to worker camp arrangements where appropriate • Consistent and close monitoring of project workers and community by PMU social safeguards specialist 	<ul style="list-style-type: none"> • Allocate additional senior safeguards staff for site visits and guidance to team and PMU • Require PMU to retain independent consultant to do frequent and regular spot checks of project sites • Written notification to government • Inclusion in ISR • Partial suspension of the project component or civil works. • Refer to Annexes 11 and 12 regarding specific reporting and monitoring steps for incidents of GBV/SEA
<p>Severe (Social)</p> <p>Forced resettlement without due process or compensation</p>	<ul style="list-style-type: none"> • Identify evicted people and provide compensation and support for identification of new housing/other facilities as relevant, in line with Bank safeguards requirements, including appropriate consultation • Clear instructions to project implementer(s) with respect to resettlement process, including severe sanctions for non-compliance with SCAP requirements; • Implement all measures identified in SCAP 	<ul style="list-style-type: none"> • Allocate additional senior safeguards staff for site visits and guidance to team and PMU • Require PMU to retain independent consultant to do frequent and regular spot checks of project sites and, if necessary, to do capacity building work with the PMU team • Written notification to government. • Inclusion in ISR • Monitor SCAP implementation

Environmental/Social	Potential PMU actions to implement Root Cause Analysis recommendations contained in SCAP	Potential Bank responses
		<ul style="list-style-type: none"> Partial or total suspension of project component or civil works.
Severe (Environmental) Poaching or trafficking in endangered species	<ul style="list-style-type: none"> Engage with law enforcement to halt the poaching Anti-poaching training for project workers and community members to make clear incentives and penalties Include sanctions for inappropriate worker behavior, including poaching, in contractors' contracts Potential measure: Develop an alternative livelihoods program for communities around protected areas 	<ul style="list-style-type: none"> Allocate additional senior safeguards staff for site visits and guidance to team and PMU Require PMU to retain independent consultant to do frequent and regular spot checks of project sites and, if necessary, to do capacity building work with the PMU team Written notification to government. Inclusion in ISR Partial or total suspension of project component or civil works.
Serious (Social) GRM not functioning	<ul style="list-style-type: none"> Review GRM and address issues (upgrade, improve access, publicize GRM in community/ies, better organize response process etc.) Train PMU staff on GRM management and monitoring Assign responsibility to qualified PMU staff 	<ul style="list-style-type: none"> Allocate additional senior safeguards staff for site visits and guidance to team and PMU Written notification to government Inclusion in ISR <p>276.</p>
Indicative (Environmental) Hydrocarbon or chemical spills with low to medium environmental impact	<ul style="list-style-type: none"> Improve work process or procedures as necessary Training for project staff on spills and associated procedures Increase on-site monitoring if necessary Review contractors contract language for appropriate sanctions language 	<ul style="list-style-type: none"> Increase frequency of monitoring until remedies are completed and risks of repeated incidents are reduced to acceptable levels Report in ISR Country Manager highlights issue in Aide Memoire transmittal memo

Sub Annex 1: Template for Initial Communication

As soon as the PMU and/or supervision engineer received any information about an alleged or actual incident, the team member receiving the information prepares an email and/or provide direct notification to the PMU Manager and PMU's environmental and social specialists.

The PMU manager shall then inform in writing to the World Bank Task-Team (the E&S specialists and Task Team Leaders) to alert them. This initial communication is sent prior to classifying the incident.

The most important element of this communication is speed. Therefore, time should not be lost in data gathering at this stage. That said, the more information that can be provided to the PMU Manager and the World Bank's Task Team immediately, the easier it will be for the PMU Manager and the World Bank's Task Team Leader to know how to respond. Hence, the following questions should be used as a guide for the type of information that should be provided.

- a. What was the incident? What happened? To what or to whom?
- b. Where and when did the incident occur?
- c. What is the information source? How did you find out about it?
- d. Are the basic facts of the event clear and uncontested, or are there conflicting versions?
- e. What were the conditions or circumstances under which the incident occurred?
- f. Is the event still ongoing or is it contained?
- g. Is loss of life or severe harm involved?
- h. What measures have been or are being implemented? By who?
- i. Have other GoTL agencies/officials been informed? What is their response (if any yet)?

Sub-Annex 2: Safeguards Incident Classification and Notification Guide

The incident classification tables (1-3) presented below provide examples of **indicative**, **serious** and **severe** incidents. These examples are intended to illustrate the range and variety of environmental, social, and OSHA incidents, but are not an exhaustive listing of all possible types of incidents. The questions provided in tables 4 and 5 below will aid in the classification of the incident.

A. Indicative Incidents

These are relatively small-scale, localized and one-off non-compliance incidents that negatively impact a small geographic area or a small number of people, and do not result in significant or irreparable harm to people or the environment. These incidents can be investigated, evaluated, managed, and resolved by the contractor or PMU using existing, project-level resources. The PMU is required to notify the World Bank's Task Team and provide regular updates on the implementation status of mitigation measures, with support from the supervision engineer.

These may, however, be situations where minor but persistent non-compliances are occurring despite corrective actions, indicating a generalized underlying organizational weakness that could lead to Serious or Severe incidents if left uncorrected. Criteria for determining when to escalate indicative incidents to Serious or Severe categories include recurrence of the incident on more than one occasion within a six-month period despite corrective actions, cumulative impacts of the incident, or inability or unwillingness of the contractor to rectify the condition within an agreed timeframe.

Table 1 – Examples of Indicative Incidents (these are not necessarily inter-related)

Environmental	Social	Occupational Health & Safety
Small-volume hydrocarbon or chemical spills	Small-scale crop damage or livestock deaths	Underuse of personal protective equipment (PPE) by Works Contractor
Localized dust, light, or noise pollution	Grievances due to project use of public roads	Local increase in the occurrence of communicable disease
Illegal hunting of wildlife (non-endangered)	Project interference with locally significant incidents and sites	Minor job site injuries
Small volume sediment, pesticide, or fertilizer run-off into local waterways	Vehicle damage to public or private roads caused by Works Contractors	Poor “housekeeping” at site, e.g., littering and random disposal of solid waste
Minor off-site disposal of solid waste from project	Nuisance-level contact between employees and community	Lack of understandable warning or traffic control signage
Poor quality or delayed site restoration and revegetation	Minor instances of inappropriate behavior of security forces or other Contractor personnel	Almost empty first aid kit at work site
Poorly functioning erosion-control measures	Overloading of local commercial services from use by project personnel	Poorly organized or sporadic health & safety induction and training
	Minor impacts on livelihood restoration and/or access to community natural resources	Multiple “slip and trip” hazards throughout the site

Environmental	Social	Occupational Health & Safety
	Minor impacts on cultural sites/areas	Lack of Health & Safety plan and/or training for staff
	Minor social conflict related to or affecting the project	
	Some problems with consultation/outreach about the project	
	Delays by GRM in handling/addressing minor grievances	

B. Serious Incidents

Incidents that negatively impact moderate to large geographic areas; many members of a community; or result in significant or irreparable harm to individual people, community resources, or the natural environment. Also, repeated non-compliance incidents/failure to remedy non-compliance.

These are situations where evaluating and resolving incidents may require additional support in the form of resources or specialists from outside the PMU or the World Bank. Serious Incidents require immediate attention by the PMU/MoPW. The PMU manager will promptly notify the head of Directorate of Road, Bridges and Flood Control (DRBFC), and Minister of Public Works and the World Bank Task Team (through the Task Team Leaders and Environmental and Social Specialists. From the World Bank's side, the Task Team Leader will promptly the CMU's country manager, copying to the World Bank's management³⁶.

Table 2 – Examples of Serious Incidents (these are not necessarily inter-related)

Environmental	Social	Occupational Health & Safety
Large-volume hydrocarbon or chemical spills, or other hazardous substances impacting the environment	Widespread crop damage or livestock deaths	Injury/ies requiring off-site medical attention
Poaching of threatened or endangered species, or systematic over-exploitation of local resources	Cases of mistreatment of communities potentially, including vulnerable groups, by project workers or security forces, including incidents such as sexual harassment	Instances of serious communicable diseases among workforce
Large-volume or long-term sediment, pesticide, or herbicide runoff into waterways	Significant impacts to protected physical cultural resources	Presence of Unexploded Ordinance (UXO) at worksite
Medium to large-scale deforestation	Works have commenced without compensation and resettlement being completed	Consistent lack of health & safety plans and training at work site
Lack of implementation of agreed environmental	Significant and repeated community impacts from	Chronic non-use of PPE at project work site

³⁶ This includes Home GP Practice Manager, Environmental and Social Safeguards Advisors, Environmental and Social Practice Managers, Chief Environmental and Social Safeguards Officer (CESSO), Directors, Environmental and International Law Practice Group (LEGEN), Regional Safeguards Coordinator and External and Corporate Relations.

restoration program	project vehicles and construction activities	
	Lack of clarity about consultations with Indigenous Peoples and broad community support for the project	Repeated non-compliance or failure to remedy non-compliance
	GRM not functioning	
	Inadequate consultation and engagement of stakeholders in the project leading to significant conflict and/or delays	
	Non-violent community protests against the project, or mild community unrest	

C. Severe Incidents

Incidents that result in great harm to individuals or the environment, or present significant reputational risks to the MoPW and the World Bank. Also, persistent non-compliance by the contractor, including inability or unwillingness to remedy situations that could result in serious or severe harm. Severe incidents will often exceed the PMU and World Bank Task Team's resources.

Resolving the incident will also require the notification and engagement of the GoTL's high level government as well as the World Bank's senior management, and hence require tracking at the corporate level.

Under such circumstances, the PMU manager will promptly notify the head of Directorate of Road, Bridges and Flood Control (DRBFC), and Minister of Public Works and the World Bank Task Team (through the Task Team Leaders and Environmental and Social Specialists. From the World Bank's side, the TTL will promptly notify the CMU's country manager and the Country Manager will inform the World Bank's senior management³⁷.

A severe incident may cause the PMU with recommendation from the World Bank's Senior Management to temporarily suspend civil works or relevant component, depending on the circumstances.

Table 3 – Examples of Severe Incidents (these are not necessarily inter-related)

Environmental	Social	Health & Safety
Hydrocarbon or chemical spills, or release of other hazardous substances into the environment, causing widespread impacts, and/or requiring large-scale	Forced evictions or resettlement of communities without due process or compensation	Any fatality Permanent disability

³⁷ The Country Manager will notify the Regional Vice President, Sustainable Development Vice President and/or other network VP if appropriate, copying the home GP Practice Manager (PM), Director and Senior Director, Environmental and Social Safeguards Advisor, Chief of Environmental and Social Safeguards Officer, Environmental & Social Practice Managers and Directors and Senior Directors, LEGEN (with cc to the Country Lawyer), Environmental & Social specialists, Regional Safeguards Coordinator, and External Communications and Relations.

Environmental	Social	Health & Safety
remediation		
Poaching or hunting and trafficking of threatened or endangered species	Abuses of community members (including vulnerable groups e.g., women, children, youth, elderly, disabled/sick, LGBT) by site security forces or other project workers, including but not limited to GBV	Outbreak of life threatening communicable disease
Sediment, pesticide, or herbicide runoff causing permanent damage to waterways	Significant damage to nationally protected areas or to UNESCO World Heritage sites	Criminal and political attacks at worksite
Large-scale deforestation or destruction of internationally recognized critical habitat	Human trafficking and child labor	Forced labor by project's Works Contractor
Major river contamination causing decimation of fish population or other aquatic resources	Violent community protests against the project	Works Contractor is unresponsive regarding ongoing worksite risks of bodily injury
	Significant impacts on Indigenous Peoples' land/natural resources and/or culture and there is no evidence of consultation, broad community support, mitigation of harm and/or culturally appropriate benefit-sharing	Persistent non-compliance and/or inability or unwillingness to remedy non-compliance that could result in bodily injury or harm
		Murders, kidnappings, manslaughter and assaults, while criminal matters and not Safeguards incidents per se, have occurred in Bank projects and should be treated as severe incidents. These incidents would be referred to local authorities with notification to WB Security

D. Toolkits to Support the Classification Process

The following questions are designed to help the PMU, with support from the supervision consultant, classify an incident.

Table 4 - Incident Details

1	Is the incident GBV related? ³⁸	If yes, specific incident protocols should be followed (see Annex 11 and 12)
2	What was the reported or identified incident, and what is the information source?	
3	Are the basic facts of the incident clear and uncontested, or are there various conflicting versions?	
4	Does the incident appear to be caused by the project?	
5	Where did the incident occur?	
6	When did the incident occur?	
7	What were the conditions or circumstances under which the incident occurred?	
8	What is the extent of the incident? Individual person, local, regional, national, international?	
9	How urgently is a response required on the ground?	
10	Is the incident still ongoing or is it contained?	
11	Is loss of life or severe harm involved?	
12	Has a similar incident occurred before?	If so, when and how often? If so, has the PMU tried to encourage compliance around this issue in the past?

³⁸These questions do not apply to GBV. With any information on GBV, it is important to protect the identity (or identities) of the complainant(s). This includes removing all identifiable characteristics (this goes beyond name and address, and may include conditions such as being handicapped, blind in one eye, etc. which in small settings becomes an identifiable characteristic). GRMs should record no more than two points of data on the incident: i) nature of the complaint (what the complainant says in her/his own words); ii) if to the best of their knowledge the perpetrator was associated with the project. Additional demographic data such as age and sex can be collected as usual.

Table 5 - Key Incident Context Questions

1	What is the financial cost of the incident?	
2	Have major biodiversity or cultural heritage assets been affected by the incident?	
3	Does the PMU have the personnel and other resources to evaluate and advise on how to address or resolve the incident?	
4	Does the incident violate the terms of the Project Legal Agreement and Contractor's contract(s) or ToR(s)? Different incidents require specialized skills, e.g., follow up on GBV cases requires staff specialized in this type of situation.	
5	Does the Contractor have sufficient capacity to evaluate and address or resolve the incident in a timely manner (including financial and technical resources)? Is this evaluation likely to be deemed objective (non-biased)?	
6	Who is directly responsible for the incident? For its investigation? For its resolution?	
7	Does the incident suggest potential larger Safeguards compliance or EHS issues are present? Does the incident indicate larger project-wide problems may be present?	
8	Are additional internal specialist resources or external contracted specialists needed to investigate, evaluate and resolve the incident?	
9	Does the incident have the potential to prevent or impede implementation of the project?	
10	Is the Contractor resistant to or hindering the evaluation, or resolution of the incident? Consider the appropriateness/effectiveness of the contractor's response (ownership; timeliness; technical expertise; adequate attention to causes, systemic issues related to identification,	

	reporting, etc.; adequate follow-up with victims/negatively affected sites/etc. After initial data collection, review of generic/systemic lessons that should be learned from the incident and follow up on implementation of corrective actions should be carried out.	
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If documented circumstances and discussion confirm that the incident is **Indicative**, **Serious**, or **Severe**, then a brief one- to two-page Incident Report should be prepared and issued by the PMU Manager within 24 hours, with the support of the PMU’s Safeguards specialist(s) for communication internal to MoPW and external to the World Bank.

Reports should be communicated according to the Incident Classification and Notification Guide in this Sub-Annex.

Sub-Annex 3: Template for Incident Report

Following classification as either Indicative, Serious or Severe, the PMU Manager is responsible for issuing an Incident Report for distribution according to the classification and notification guide (see Sub-Annex 2). The incident report should be 1 – 2 pages and include, at a minimum, the following information:

- a. Country, Name of Project, Name of PMU Manager and Environmental and Social Specialists in the PMU.
- b. Preliminary classification of the incident
- c. What was the incident? What actually happened? To what or to whom?
- d. Where and when did the incident occur?
- e. How did we find out about it and when?
- f. Are the basic facts of the incident clear and uncontested, or are there conflicting versions?
- g. What are those versions?
- h. What were the conditions or circumstances under which the incident occurred (if known at this stage?
- i. Is the incident still ongoing or is it contained?
- j. Is loss of life or severe harm involved?
- k. What measures have been or are being implemented?
- l. Has anyone in the PMU or other government agencies been informed? If so, how specifically? What has response to date been?

Sub-Annex 4: Samples of Terms of References

Sample 1: Terms of Reference³⁹ for Consultant⁴⁰ to Carry Out a Root Cause Analyses for a Workplace Accident

Background

The Project was approved by the Bank's board in (...) and was effective in (...). Construction Works started on (...) and are currently ongoing. The project closing date is (...).

Environmental and Social Impact Assessments (ESIAs) (...) including Environmental and Social Management Plans (ESMPs) were prepared. All Safeguards documents included measures for mitigating Occupational Health and Safety (OHS) risks. The ESMP requires that workers should be trained to recognize potential hazards and use safe work practices (...).

According to preliminary information, a serious accident occurred during Construction Works in one of the Project sites (...) on (...). By way of background, according to the verbal report communicated by the PMU/MoPW, *Description of event*.

The objectives of these TORs are to: 1) identify the root cause of the accident, 2) identify immediate measures to be taken to improve the safety at the site and at other Project sites throughout the Project and 3) identify effective preventive measures to be implemented to reduce OHS risks.

Scope of work

- Conduct root-cause analysis of the incident and identify the sequence of events and factual circumstances. The analysis should identify what failing(s) led to the accident, what safety measures were in place, and the risk information/training provided to workers on site. The level of supervision of unskilled labour should also be assessed.
- Recommend actions to be taken to rectify the failure(s) that led to the incident.
- Review the safety procedures at different sites and identify the health and safety measures to be taken to minimize the risks of future accidents both to workers and to local residents. Site visits should be carried out to a representative sample of construction sites, activities, regions and Contractors as applicable. Health and safety representatives of the Contractors and implementing agencies, as well as other technical counterparts as necessary should be interviewed to gain a comprehensive understanding about health and safety management.
- Review the OHS measures in Safeguards instruments and plans in construction contracts and recommend enhancements as needed. The assessment should identify what the existing procedures for safe performance of construction activities (excavation, scaffolding, working at heights, welding, etc.) are and should recommend appropriate procedures should the existing ones have gaps.
- Review the capacity of Contractors and supervision consultants to implement OHS standards. The assessment should review the training plans for skilled and unskilled labour for effectiveness and propose improvements to the training and communication program so that workers are adequately guided to safely perform their work.
- Review the existing arrangements for recruiting labour and what type of insurance (life or injuries and occupational health risks) and compensations are provided.

³⁹ This sample ToR will need to be adapted according to the specific situation at hand, in consultation with the PMU SG specialist(s) and/or the Bank task team.

⁴⁰ Consultant will be retained by the PMU.

- Review compliance to the Labour Law and other international treaties by Contractors or Subcontractors.
- Assess the sufficiency of the measures that the Contractors take to minimize risk on the local communities and communicate with them. Recommend improvements as necessary.

Outputs

The consultant shall prepare the following outputs:

- A root-cause incident investigation report for the accident, including the recommended measures to improve OHS conditions at the site
- A diagnostic analysis of OHS measures and recommended measures for improvements

Timing

The draft incident investigation and OHS diagnostic analysis reports should be submitted within (...) days from commencement. The final report should be submitted within (...) days of receipt of comments on the draft.

Confidentiality

All documents provided to the consultant for carrying out this task should be considered confidential except if otherwise indicated.

Sample 2: Terms of Reference⁴¹ - Legal Consultant (Labor) for an Incident or Accident

Background

The (...) Project was approved by the Bank's board in (...) and was effective in (...). The Project Development Objective is to (...). The project consists of (...) in (...). Construction Works started on (...) and are currently ongoing. The project closing date is (...).

An Environmental and Social Impact Assessment (ESIA) including Environmental and Social Management Plans (ESMPs), was prepared for each location (*adapt as necessary*). All Safeguards documents include measures for preventing and reducing Occupational Health and Safety (OHS) risks. The ESMP requires (*summarize relevant measures here*).

According to preliminary information, (*summarize what is known about the incident/accident*).

Objectives and activities

The objective of this consultancy is to provide an overview of the local legal context and institutions, as relevant to the incident or accident, as well as recommendations to ensure adequate immediate response and compensation and longer-term adjustments to the Project's legal arrangements.

The Legal Consultant will be part of a team of independent consultants (*if applicable*). The Legal Consultant will review documents, and conduct site visits, interviews, and any other activities and research deemed necessary.

Key responsibilities of the Legal Consultant in relation to the incident or accident:

- Identify key labour aspects and issues in the contracts between the PMU or implementing agency and the Contractor, and between the Contractor and the Subcontractor(s), as applicable, and examine them against local laws. This must include, but should not be limited to, examining the employment agreements (nature of employment); wages; health; social, life and accident insurance for workers; age of workers; workers' qualifications against the needed tasks; and the information and training provided to skilled and unskilled workers to enable them to carry out the various tasks.
- Examine the contract between the PMU or implementing agency and the supervision engineer and identify any labour-related issues that the latter is mandated to follow up on.
- Assess the adequacy of labour conditions of the workers and provide background information on local practices, laws and enforcement mechanisms (e.g., level of skills needed for the job, capacity for carrying out the job, contractual relationship, etc.)
- Examine the sufficiency of the actions taken in response to the incident or accident and provide background information on local practice in similar situations (e.g., provision of compensation).
- Provide any immediate recommendation(s) as needed in response for the case.

Key responsibilities in relation to the systematic analysis for the Project at large:

- A systematic analysis should be conducted by the Legal Consultant for a representative sample of the contracts (e.g., different locations, different sizes, public and private contractor) to cover the points 1 and 2 above. The consultant should also verify what is stipulated in the contracts against the actual practices on the ground using different sources.
- The consultant should provide analysis on the key findings, areas for improvement, and an action plan for the improvements to ensure that the contracts comply with the GoTL laws.

⁴¹ This sample ToR will need to be adapted according to the specific situation at hand, in consultation with the SG specialist(s) and/or lawyer, as appropriate.

Outputs

The consultant shall prepare the following outputs:

- Report covering the legal aspects of the incident or accident
- Report covering the systematic legal analysis of the project at large

Timing

The draft incident or accident legal report should be submitted within (...) days from commencement. The final report should be submitted within (...) days of receipt of comments on the draft.

The draft legal report covering the entire Project should be submitted within (...) weeks of commencement. The final report should be submitted within (...) weeks of receipt of comments.

Confidentiality

All documents provided to the consultant for carrying out this task should be considered as confidential except if otherwise indicated.

Sample 3: Terms of Reference⁴² Independent Monitoring for Potential Forced or Child Labor

Background

The (...) Project was approved by the Bank's board in (...) and was effective in (...). The Project Development Objective is to (...). The project consists of (...) in (...). Construction Works started on (...) and are currently ongoing. The project closing date is (...).

An Environmental and Social Impact Assessment (ESIA) and associated Environmental and Social Management Plans (ESMPs) were prepared for Project Appraisal (*adapt as necessary*). All Safeguards documents include measures for preventing and reducing Environmental, Social and Occupational Health and Safety (OHS) risks, including the potential for forced adult, or child labor. The ESMP requires (*summarize relevant measures here*).

Description of issue or allegation as applicable.

Independent monitoring will be used to improve the development outcome of the project by providing timely and results-oriented information about project implementation to the PMU and World Bank. The objective is to monitor the project (or portfolio of projects) by regularly monitoring any issues related to the potential use of child or forced adult labor (as defined by international conventions and national legislation).

An independent firm or consultant will be engaged to periodically monitor any issues related to the potential use of child or forced adult labor in specific project areas. The consultant/firm will also design and manage a feedback system that will collect and scrutinize all reports on matters related to forced labor that might be associated with the project(s). The consultant or firm will prepare periodic reports and assessments to track any potential evidence of the use of forced labor in connection to the project(s) and provide recommendations on whether and how measures undertaken by the project(s) in this respect could be strengthened.

Activities

- Preparation phase: (i) description of project activities including work site, recruitment, human resources function for the relevant work sites or project areas under consideration; (ii) diagnostic analysis of labour practices and recommended measures for improvement, including areas where forced adult or child labour practices may be of concern; (iii) develop detailed methodologies and materials that will be used to implement a monitoring program and gather feedback.
- Site visits: (i) In collaboration with implementing agency/ies, identify possible areas where forced adult and/or child labour may be present; (ii) conduct announced site visits to gather feedback and any other evidence on the potential use of forced adult or child labour in specific project areas.
- Periodic assessment of local context and conditions: (i) develop a methodology for random selection of sites that will be visited as part of each mission; (ii) conduct in-depth interviews with local stakeholders as part of each visit.
- Design and management of a shared feedback mechanism: (i) design and manage a feedback mechanism on forced and child labour for the project(s) including update, processing of reports, investigation of reports and follow-up and (ii) design and lead awareness raising activities both within the project team and with local stakeholders.

⁴² This sample ToR will need to be adapted according to the specific situation at hand

- Analysis and reporting: (i) prepare detailed reports after each monitoring mission and (ii) prepare detailed periodic reports on the feedback mechanism process. The reports will be shared with the World Bank and implementing agency/ies. After the correction of any factual errors the report will be completed and publicly disclosed, if applicable.

The consultant/firm will develop the methodology for the implementation of this assignment in close consultation with the project teams and the implementing agency/ies. This will include a mechanism to distinguish between cases of forced labor and voluntary labor, and of child labor. It will rely on both quantitative and qualitative methods (e.g., surveys, questionnaires, focus groups, in-depth interviews, Information and Communications Technology (ICT)-enabled tools etc.), as appropriate, to gather feedback from project stakeholders who can contribute to the understanding of the potential use of forced or child labor in specific areas. The consultant/firm will also employ a blend of quantitative and qualitative analysis to evaluate the performance of the feedback mechanism.

Consultant Qualifications

- Extensive experience in conducting social analysis and social impact assessment in the project's sector(s) and country/region.
- Extensive experience in measurement and evaluation of development projects in the project's sector(s). Focus on social performance and demand-side indicators.
- Established reputation and proven track record in carrying out activities related to forced or child labour.
- Experience with the design and implementation of feedback mechanisms in development projects.
- Robust quantitative and qualitative analysis capacity with strong quality control. Excellent track record on interviewing respondents in local communities, conducting surveys, random sampling, designing focus group discussions, etc.
- Robust staffing, including familiarity with country context, fluency in local languages, independence and knowledge of international standards.
- Extensive experience of collaborating with a diverse range of stakeholders involved in development projects (including governmental authorities, local and international civil society, international development agencies etc.)

Outputs

The consultant shall prepare the following outputs:

- A report that describes relevant project activities including work site, recruitment, human resources function for the relevant work sites or project areas under consideration.
- A diagnostic analysis of labour practices and recommended measures for improvement, including the potential for forced adult or child labour
- An appropriate monitoring program for forced adult and child labour in the project areas including a feedback mechanism
- Regular reports based on feedback
- Regular monitoring reports as requested by the Task Team Leader (TTL)

Timing

The draft reports should be submitted on the following timeline: (.....).

Confidentiality

All documents provided to the consultant for carrying out this task should be considered confidential except if otherwise indicated.

Sub-Annex 5: Example Safeguards Corrective Action Plan (SCAP) Outline

The contents of the SCAP are driven by the findings of the Root Cause Analysis (RCA), and are specific to the type of incident, its location, severity, and incorporate necessary measures to strengthen the project's institutional capacity to implement corrective and preventative measures. The SCAP will be implemented by the PMU for Serious and Severe incidents, with Bank supervision and support.

Table 1: Possible Sections for a SCAP

Example SCAP Sections		Possible Actions
Immediate to near term actions		Stop works, secure the site, provide medical care and counseling, pay compensation, remediate contamination, enforce anti-poaching, notify relevant authorities, design and implement response mechanism etc.
Medium term/ongoing actions	Documentation, monitoring and reporting	Streamline, consolidate and review as necessary existing ESHS/OHS monitoring and reporting tools, with a focus on increased monitoring of leading indicators to increase effectiveness.
	Contractual agreements /enforcement	Review bidding/contractual arrangements to determine if existing language is adequate to ensure <u>sufficient onsite</u> presence of <u>qualified</u> and independent safeguards professionals for adequate implementation of the health safety plan and identify if any adjustments may be necessary for future agreements.
	Risk assessment, processes, procedures and training plans for managing risks	Update risk assessment and management plans to address: <ul style="list-style-type: none"> • Fire risk and adequate fire extinguishers placement • Electric risk should also be reviewed, and safe work procedures developed for handling, maintaining and checking electric equipment and extension cords. • Permit to work procedures should be developed for high risk activities with daily verification and sign-off of competent health and safety officers or supervisors.
		Delayed Resettlement Compensation example: update risk assessment and management plans to address: <ul style="list-style-type: none"> • Based on the RCA determination of the reasons for the continued delays in payment of compensation, put in place an effective strategy for addressing them as necessary • Ensure that all outstanding and new claims are appropriately addressed • Determine whether there were impacts that have not previously been considered (livelihoods/loss of

Example SCAP Sections		Possible Actions
		<p>business income, vulnerable groups) for which compensation or assistance may be required</p> <ul style="list-style-type: none"> • Ensure continuing consultation with Project-affected people and a well-functioning grievance mechanism (GRM) • Monitor implementation and provide fortnightly progress reports • Recruit a separate expert to conduct an audit to confirm satisfactory implementation of the process above
	Competencies, roles and responsibilities:	Onsite staffing resources and organizational arrangements dedicated to environment, social safeguards, health and safety by the implementer(s) (e.g., construction company and the supervision consultant) should be reviewed considering the updated risk assessment and findings. This may include adjustments in terms of number, competence, onsite presence, organization, communication and reporting, so that project activities may comply with the EHS/OHS plan requirements.
	High level monitoring and evaluation:	Once the monitoring and reporting system is consolidated, the supervision consultant and PMU should be able to monitor leading indicators such as near-misses (e.g., a heavy load that falls near a worker), and deviations with high risk potential (e.g., absence of protective barriers, uninsured workers) based on daily observations by the contractor and the supervision consultant.

Sub-Annex 6: Example of Response Mechanism following a Fatality

This example was developed and agreed by the PMU and Bank following a fatality on a Bank project:

- Monthly site meetings attended by PMU and covering safeguards updates
- The supervision consultants' monthly progress report will provide details on ESMP implementation status as well as accidents and grievances
- PMU will send to the Bank monthly progress reports within 1 week of receipt from the supervision consultants
- Accidents and grievance log books are placed in all construction sites
- Any severe injury (requiring off-site medical care) or fatality incident shall be reported to the Bank within 24 hours with basic information and a detailed incident report including the following will be submitted within 10 working days:
 - a. root cause analysis and
 - b. corrective action plan on
 - i. immediate mitigation measures in case of continuing danger (e.g. fencing, signboard, guards)
 - ii. compensation to the affected family based on a clear rational
 - iii. risk assessment and correct application of ESHS management procedures, and
 - iv. medium- and long-term mitigation measures including enhancement of safety measures, audits, and additional training.

Appendix 14: Environmental and Social Management under the Contingent Emergency Response Component (CERC)

A. INTRODUCTION

The contingent emergency response component (CERC) is a contingent financing mechanism available to gain rapid access to financing to respond to a crisis or emergency and provides for immediate rehabilitation or reconstruction needs without needing to first restructure the original project thus facilitating rapid implementation. The CERC minimizes time and effort needed to make available uncommitted funds from an Investment Project Financing (IPF) to finance urgent needs. Following an eligible crisis or emergency, the Government of Timor Leste may request the Bank to re-allocate project funds to support emergency response and reconstruction. This component would draw from the uncommitted loan proceeds under the Project from other project components to cover emergency response. Consistent with OP 8.00 the CERC does not finance humanitarian assistance or relief.

Timor-Leste is susceptible to crisis events and has been impacted in the past by geophysical and weather-related extreme events. Having the CERC contributes to a robust and meaningful rapid response capacity and overall helps to build a holistic disaster risk management strategy. The inclusion of the CERC in an investment operation provides advantages in that it establishes an *ex-ante* mechanism through which Timor-Leste can rapidly fund its post-disaster needs and reduce the need for a project restructuring to use allocated financing to respond to post-disaster priorities.

The reallocation of funds in an emergency would not cause serious disruption to the Project as Timor-Leste has had previous experience in dealing with crisis or emergency events. In addition, the sector is frequently called upon to handle aspects of emergency response following extreme events. The inclusion of the CERC in the Project will help to support the aviation and road sectors, which are susceptible to crisis events.

Key principles relevant to CERCs include: (i) focus on activities that can readily be implemented on the ground considering the circumstances; (ii) favor smaller-scale, local activities that have potential minimum environmental and social implications, generate buy-in and goodwill; (iii) keep the scope simple and realistic, especially where local conditions do not allow much situational analysis and preparation of safeguards instruments; and, (iv) take advantage of working with and completing the activities of development partners to maximize impacts.

B. ACTIVATION CRITERIA

The project-specific CERC will be funded under the BRP budget. Following an eligible crisis or emergency, the CERC would be implemented in accordance with the rapid response procedures governed by the WB under OP/BP 8.0 *Rapid Response to Crises and Emergencies* and the safeguards policies triggered for this Project. In addition, the provisions of the IPF Policy, paragraph 12, regarding “Projects in Situations of Urgent Need of Assistance or Capacity Constraints” apply to CERCs when they are triggered. The funding provision for the CERC is SDR0.00 million, however can be increased by drawing down against uncommitted IDA funds under other components if necessary. Disbursement conditions would define the circumstances under which the CERC funds would become available.

Upon the “Declaration of Disaster”, the Recipient will undertake the necessary steps to complete a rapid

initial impact assessment with the objective of identifying a list of potential activities for inclusion. Upon compilation of the list of potential activities, GoTL will review and select those for financing under the CERC based upon: (i) eligibility and safeguard criteria outlined in the Negative List (see **below**) which will be reflected Financing Agreement; and, (ii) national priorities.

The request to trigger the CERC and seek approval of activities to be eligible expenditures for financing under Disbursement Category 3 will be communicated to the WB by Timor-Leste in a letter. The letter should include information pertaining to: (i) the nature of the emergency, its impacts and confirmation of causal relationship (as supported by the “Declaration of Disaster”) between the event and the need to access the financing allocated to Disbursement Category 3; (ii) the nature of emergency activities (brief description); and, (iii) the CERC action plan of activities.

The Financing Agreement stipulates the establishment of adequate implementation arrangements, satisfactory to the Bank, including staff and resources for implementation of activities under Component E: Contingent Emergency Response, to the Bank for its review and approval. The project will prepare a CERC Project Operations Manual within six months of project effectiveness. The manual will detail: (i) the process for triggering the CERC; (ii) the proposed emergency activities to be financed by the proceeds of the CERC; and, (iii) the coordination and implementation arrangements related to the execution of the activities.

At the start of project implementation, a CERC Manual will be prepared providing specific details on how the CERC will be triggered and implemented referring to OP 8.00 Rapid Response to Crises and Emergencies. This will be done by the PMU. This manual will emphasize the importance of addressing the risks of increased GBV and human trafficking as these cases tend to increase in a post-disaster situation. As part of the CERC Manual, safeguards screening and approval procedures will be developed in line with Bank Guidance on Contingent Emergency Response Components (issued and effective 16 October 2017). The Manual will indicate the kinds of emergency response actions that can proceed with no additional environmental or social assessments, and which ones would require assessment (and at what level) prior to being initiated.

C. MANAGEMENT OF ENVIRONMENTAL AND SOCIAL ASPECTS UNDER THE CERC

This Environmental and Social Management Procedure addresses safeguards instruments relating to Component 3 of the Government of Timor Leste’s Branch Road Project – the Contingency Emergency Response Component (“CERC”).

Since the emergency sub-projects financed under the CERC are likely to be related to emergency provision of critical goods, it is expected that those subprojects will be low risk and therefore would require no environmental screening or assessments. However, some CERC activities could include demolition, removal, repair or reconstruction of damaged public infrastructure, clearing of debris, or other activities, which could have potential negative impacts if not mitigated. The CERC, as it is currently envisaged, will not be used to finance activities which warrant upgrading of the current Environment and Social Risk as per OP/BP 4.01.

In order to ensure that the CERC emergency subproject activities duly comply with the requirements of the WB’s Safeguard Policies (as outlined in the ESMP), the activities identified in the action plan for financing under the CERC will be subject to a review by safeguards specialists to determine if they are eligible under the safeguard policies and compliance procedures used by the PMU for all activities

financed under the TLBR.

The screening and environmental management procedures, which will be further described in the POM will then be utilized. This will allow the possibility to exclude certain activities if the environmental or social impacts are too great, or to include appropriate mitigation measures for a proposed activity if feasible. Having the existing safeguards screening process in place will also allow a certain degree of flexibility and efficiency in processing potential subprojects or activities. The screening process will be guided by the following negative and positive lists as further outlined below.

a. CERC Negative List

Inclusion of CERC activities will be screened against the following negative list. The PMU Environment and Social Safeguards Specialists:

- a. The CERC negative list is the first screening tool for any proposed activities to be financed under the CERC following its activation. The CERC will not facilitate and finance the following activities that could potentially have adverse environment and social impacts;
- b. Any activities with significant, sensitive, complex, irreversible and unprecedented potential adverse environmental and social impacts requiring a full environmental assessment to manage and mitigate such impacts in accordance with the GoTL's regulations and relevant World Bank Safeguards Policies;
- c. Any activities requiring large scale acquisition and require involuntary resettlement;
- d. Activities that result in significant conversion or degradation of natural habitats or activities where the conservation and/or environmental gains do not clearly outweigh any potential losses and/or necessitate any resettlement.
- e. Activities that do not meet minimum design standards with poor design or construction quality, particularly if located in vulnerable areas;
- f. Greenfield investments which require upgrading of the current safeguards category;
- g. Large-scale construction expected to lead to significant adverse environmental and social impacts.
- h. Any activity that is likely to create major or significant adverse impacts on communities and vulnerable groups;
- i. Activities that will cause loss or damage to cultural property, including sites with archaeological (prehistoric), paleontological, historical, religious, cultural and unique natural values;
- j. Activities that do not appreciate the traditional knowledge and cultural values of indigenous and local peoples by referring to international legal obligations including the UN Declaration on the Rights of Indigenous Peoples.
- k. Activities that violate human rights, including gender discrimination and child labor.
- l. Activities producing or using materials or commodities that directly or indirectly disrupt public health, such as tobacco, liquor, narcotics and others as defined in GOI regulations.
- m. Activities that require or involve:
 - purchase, application or storage of pesticides or hazardous materials (e.g. asbestos);

- building a dam, structures that will alter coastal process or disrupt breeding sites of protected species;
- sand mining or land reclamation;
- land that has disputed ownership, tenure or user rights.

n. Activities that are political in nature.

b. CERC Positive List

The following subproject or activities will be deemed eligible CERC-related activities, subject to each component being covered by way of explicit mitigation measures as set out in Section 3 of this ESMF.

a. Debris removal

- Clearance of debris from roadways, such as vegetation, large trees or tree members, construction debris (from work sites or from structures demolished during the event), abandoned vehicles, etc.
- Remove and dispose of debris associated with any eligible activity;
- Re-establish drainage systems damaged by the event (no new footprints)

b. Rehabilitation of road infrastructure, that may have been damaged during the event

- Repair or reconstruct streets, roads, bridges, transportation and other infrastructure damaged by the event (no new footprints)

c. Coastal Erosion

- Stabilise heavy coastal erosion;

d. Revegetation

- Replace vegetation destroyed by the event using native (not invasive) species or repair/mitigate damage caused by the event to a protected area or buffer zone (such as mangroves).

e. Hazardous waste removal

- Removal of hazardous wastes or asbestos containing materials from selected site
- Construction of a secure temporary asbestos containing facility

f. Provision of water and Rehabilitation of water infrastructure

- Desalination of Water
- Repair to water infrastructure
- Delivery of water to areas that are cut-off

D. MITIGATION HIERARCHY

Develop an Environmental Management Plan, based around elements of the impact mitigation hierarchy:

1. Avoidance	Take measures to avoid creating impacts from the outset, such as careful spatial or temporal placement of infrastructure or disturbance. Avoidance is often the easiest, cheapest and most effective way of reducing potential negative impacts.
2. Minimisation	Measures taken to reduce the duration, intensity and/or extent of impacts that cannot be completely avoided. Effective minimisation can eliminate some negative impacts. Examples include such measures as reducing noise and pollution, working with adjacent landowners and land users to minimise disruption where possible.
3. Rehabilitation/restoration	Measures taken to improve degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimised. Restoration tries to return an area to the original ecosystem that occurred before impacts, whereas rehabilitation only aims to restore basic ecological functions and/or ecosystem services (e.g. through planting trees to stabilise bare soil).

E. CERC POSITIVE LIST ACTIVITIES - ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

CERC-RELATED ACTIVITY	POTENTIAL IMPACT	ACTION TO BE INCLUDED IN ENVIRONMENTAL PLAN
A. Debris removal		
A.1.Clearance of debris from roadways, such as vegetation, large trees or tree members, construction debris (from work sites or from structures demolished during the event), abandoned vehicles, etc.	<input type="checkbox"/> Damage to surrounding land and vegetation through excessive clearance operations. <input type="checkbox"/> Interference with land use activities	<input type="checkbox"/> Adopt measures to avoid or minimize collateral damage <input type="checkbox"/> Environmental and Social Management Plan to be developed
A.2.Remove and dispose of debris associated with any eligible activity;	<input type="checkbox"/> Disposal to locations where act of disposal causes adverse impacts.	<input type="checkbox"/> Disposal to approved locations (landfills) <input type="checkbox"/> Environmental and Social Management Plan to be developed
A.3.Reestablish drainage systems damaged by the event	<input type="checkbox"/> Damage to surrounding land and vegetation. <input type="checkbox"/> Interference with land use activities.	<input type="checkbox"/> Adopt measures to avoid or minimize collateral damage <input type="checkbox"/> Environmental and Social Management Plan to be developed
B. Rehabilitation of road infrastructure, that may have been damaged during the event		
B.1.Repair or reconstruct streets, roads, bridges, transportation and other infrastructure damaged by the event;	<input type="checkbox"/> Damage to surrounding land and vegetation. <input type="checkbox"/> Interference with land use activities	<input type="checkbox"/> Adopt measures to avoid or minimize collateral damage <input type="checkbox"/> Environmental and Social Management Plan to be developed <input type="checkbox"/> Works to be supervised by qualified engineer.
C. Coastal Erosion		
C.1.Stabilize heavy coastal erosion;	<input type="checkbox"/> Access to stabilization material (rock) could cause adverse impacts on land use and on biophysical environment such as biodiversity impacts, siltation.	<input type="checkbox"/> Stabilization works to be supervised by qualified engineer to avoid or minimize any adverse impacts. <input type="checkbox"/> Environmental and Social Management Plan to be developed

D. Revegetation		
D.1. Replace vegetation destroyed by the event using native (not invasive) species or repair/mitigate damage caused by the event to a protected area or buffer zone (such as mangroves).	<input type="checkbox"/> Insufficient seed stock or seedlings required to undertake replanting <input type="checkbox"/> Removal of seedlings/small trees from an area damages existing ecosystem	<input type="checkbox"/> Adopt measures to avoid or minimize damage <input type="checkbox"/> Environmental and Social Management Plan to be developed
E. Hazardous waste removal		
E.1. Removal of hazardous wastes or asbestos containing materials from selected site	<input type="checkbox"/> No facility available to receive waste for appropriate disposal <input type="checkbox"/> Health risks associated with handling hazardous wastes or asbestos if appropriate equipment unavailable.	<input type="checkbox"/> If there is a risk of hazardous materials, the PMU on testing the debris or water supply. If hazardous materials are detected, the PMU shall inform the Ministry of Health and relevant authorities to determine the best method to dispose of the hazardous waste. Please refer to the Waste Management Act 2005 and the Hazardous Wastes and Chemicals Act 2010. <input type="checkbox"/> If the PMU determines that waste removal is beyond the capacity of the Waste Authority, a contractor should be hired to remove the waste using bidding. <input type="checkbox"/> Environmental and Social Management Plan to be developed.
E.2. Construction of a secure temporary asbestos containing facility	<input type="checkbox"/> Damage to surrounding land and vegetation. <input type="checkbox"/> Conflict with other land use activities	<input type="checkbox"/> Adopt measures to avoid or minimize damage and access to entry. <input type="checkbox"/> Environmental and Social Management Plan to be developed.
F. Provision of water and Rehabilitation of water infrastructure		

F.1. Desalination of Water	<input type="checkbox"/> Power demand too great to undertake process impacting other essential services <input type="checkbox"/> Conflict with other land use activities	<input type="checkbox"/> Adopt measures to avoid or minimize collateral damage. <input type="checkbox"/> Environmental and Social Management Plan to be developed.
F.2. Repair to water infrastructure	<input type="checkbox"/> Damage to surrounding land and vegetation. <input type="checkbox"/> Conflict with land use activities	<input type="checkbox"/> Adopt measures to avoid or minimize collateral damage. <input type="checkbox"/> Environmental and Social Management Plan to be developed.
F.3. Delivery of water to areas that are cut-off	<input type="checkbox"/> Safety risk to personnel	<input type="checkbox"/> Ensure adequate protection is provided.

F. INSTITUTIONAL ARRANGEMENT

The implementation arrangement of TLBRP's CERC will follow the same implementation arrangements of the ongoing RCRP and the road projects being financed by ADB and JICA. The executing agency will be CAFI, which is the government's infrastructure fund, which is administratively and technically supported by the government's Major Projects Secretariat. The implementing agency will be MPW through DRBFC. The project will be implemented by the multi-donor Project Management Unit (PMU), which is responsible for managing ADB, JICA, and World Bank's road upgrading projects.

The PMU manages externally supported major road upgrading projects, being a single PMU in charge of project monitoring and reporting as well as the safeguards assessments and monitoring system, thereby reducing the project management costs. The PMU will undertake the day-to-day project management and assist the National Procurement Commission (NPC) with the preparation of bidding documents for civil works and terms of reference for consultants' services. The NPC, which directive is to provide procurement services to the line ministries and other public entities in major infrastructure projects and achieve proper transparency for the State procurement process, handles all public procurement above a value of US\$1 million and will procure all works and services under the project in accordance with the World Bank regulations.

The PMU is under the responsibility of MPW, is headed by a project manager, and was staffed with local and international consultants. In 2018, the PMU had 22 established positions, which were sufficient for its activities. Among these, 16 were employed (of which eight were international) and six were about to be or planned to be employed (See table below). However, in December 2018 GoTL started a process of restructuring the staffing of the PMU to promote more effective capacity building of MPW staff, include more MPW staff to support PMU activities, and strengthen the management of the PMU's portfolio, with an intention to integrate more the PMU into the MPW structure. GoTL is in the process of defining a long-term plan for the restructuring and staffing the PMU, with support of ADB, World Bank and other donors. As the first step of the restructuring, MPW instructed the discontinuation of the international advisors in October 2018 with effect of 31 December 2018. Following the discontinuation of the foreign advisors the PMU is staffed only by the PMU Project Manager, supported by secretaries and the Finance Administrator, who has support of local staff. The local specialists, including the PMU Manager, are under contract with MPW, these are not staff of MPW, thus, formal departmental knowledge transfer is not being provided. As a result, during 2019, the PMU will have very limited capacity, however once the restructuring is finalized, it is expected that the PMU staffing will go back to the same levels as in 2018 and that some MPW staff will be assigned to work within the PMU. The PMU staff will be strengthened under TLBRP and RCRP by the financing of a World Bank Projects Coordinator, who will focus on World Bank projects, and, if needed, other possible staff to be decided during the restructuring process.

Project Management Unit Staff

1	Project Manager	N
2	Chief Technical Advisor	I
3	Road Construction Advisor	I
4	Contract/Document Specialist	I
5	Environmental Specialist	I
6	Resettlement Specialist	I

7	Quality Assurance Engineer	I
8	Contract/Quality Engineer	I
9	Bio-engineering Specialist	I
10	Gender and Social Development Specialist	I
11	Road Maintenance Engineer	N
12	Finance Administrator	N
13	Environmental Specialist	N
14	Resettlement Specialist	N
15	Bio-engineering & Tech Officer	N
16	Finance Administrator Assistant	N
17	Gender and Social Development Specialist	N
18	Project Coordinator	N
19	Finance Administrator Assistant	N
20	Jr. Cost/Quality Engineer	I
21	World Bank Project Coordinator	N
22	Environmental Specialist	N

G. GRIEVANCE REDRESS MECHANISM

a. Steps and Procedures for the GRM

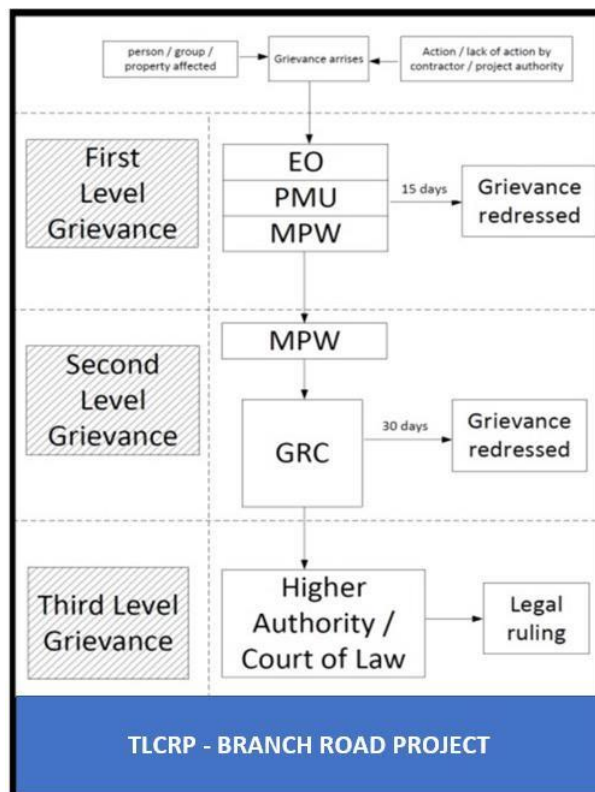
First Level. The Contractor and/or PMU are the first level of GRM which offers the fastest and most accessible mechanism for the resolution of grievances. One of the two safeguards officers or designated officer in the PMU shall be the key officers for grievance redress. Resolution of complaints will be done within fifteen (15) working days and will include disciplinary actions in relation to workers behavior in violation with the Code of Conduct. The safeguards officers in PMU will provide the support and guidance in grievance redress matters. Investigation of grievances will involve site visits and consultations with relevant parties (e.g., affected persons, contractors, traffic police, etc.). When the grievance relates to a specific worker behavior, investigation shall be undertaken within the disciplinary procedure. Grievances will be documented and personal details (name, address, date of the complaint, etc.) will be included unless anonymity is requested. Confidentiality of the disciplinary procedure will be secured, including confidentiality in relation to gender-based violence.

A tracking number shall be assigned for each grievance, and it will be recorded including the following elements: (i) initial grievance record (including the description of the grievance), with an acknowledgement of receipt handed back to the complainant when the complaint is registered; (ii) grievance monitoring sheet, describing actions taken (launching a disciplinary procedure investigation, corrective measures); and (iii) closure sheet, one copy of which will be handed to the complainant and the respondent once the procedure is concluded and signed-off. The updated register of grievances and complaints, which do not relate with behaviour of individual worker, will be available to the public at the PMU office, construction sites, and other key public offices along the project corridor (offices of the suco and Municipalities). Should the grievance remain unresolved it will be escalated to the second level.

Second Level. At the second level GRM specific procedure will take place dependant on the nature of the grievance. The PMU will activate the second level of GRM by referring to the unresolved issue (with written documentation) to the PMU who will pass unresolved complaints upward to the

Grievance Redress Committee (GRC). The GRC shall be established by MPW before the commencement of site works. The GRC will consist of the following persons: (i) Project Director; (ii) representative of Municipality and Suco; (iii) representative of the affected person(s); (iv) representative of the local land office; and (v) representative of the National Directorate of Environment (DNCPIA) (for environmental-related grievances). As it relates to grievances caused by worker in violation of the Code of Conduct, the second level will be activated when an appeal is made related to the conclusion of the disciplinary action taken at the first level or when the complexity of the disciplinary procedure meant that the procedure could not be concluded at the first level.

Figure 1: Grievance Redress Mechanism



A hearing will be called with the GRC, if necessary, where the affected person can present his/her concern. The process will facilitate resolution through mediation. The Grievance Redress Mechanism and procedure is provided in the above figure.

The Grievance Redress Committee (GRC) will meet as necessary when there are grievances that cannot be solved at the first level and within thirty (30) working days will suggest corrective measures at the field level and assign clear responsibilities for implementing its decision and a timeframe that must be adhered to. The functions of the GRC are as follows:

- a. resolve problems and provide support to affected persons arising from various environmental issues which including dust, noise, utilities: power and water supply, waste and soil disposal, landslides, traffic interference and public safety as well as social issues land acquisition (temporary or permanent); asset acquisition; and eligibility for entitlements, compensation

and assistance;

- b. Resolve appeals against decisions on disciplinary measures against a worker or unsatisfactory disciplinary outcome from the complaint perspective;
- c. Reconfirm grievances of affected persons, categorize and prioritize them and aim to provide solutions within a month; and
- d. Report to the aggrieved parties about developments regarding their grievances and decisions of the GRC.

The PMU will be responsible for processing and placing all papers before the GRC, maintaining a database of complaints, recording decisions, issuing minutes of the meetings and monitoring to see that formal orders are issued, and the decisions carried out. The Contractor will have observer status on the committee. If unsatisfied with the decision, the existence of the GRC shall not impede the complainant's access to the GoTL's judicial or administrative remedies.

Third Level. In the event that a grievance cannot be resolved directly by the Contractor or PMU officers (first level) or GRC (second level), the project affected person can seek alternative redress through the Suco or Municipality Committees under the existing arrangements for redress of grievances for affected persons. The PMU or GRC will be kept informed by the Municipality, municipal or national authority.

Monitoring reports shall include information about the GRM including: (i) the cases registered, level of jurisdiction (first, second and third levels), number of disciplinary procedures held, decisions made, and the status of pending cases; and (ii) an appendix which lists cases in process and already decided upon may be prepared with details such as name, ID with unique case serial number, date of notice/registration of grievance, date of hearing, decisions, remarks, actions taken to resolve issues, and status of grievance (open, closed, pending) and if it is a repeat of a previous grievance. In relation to GBV complaints the name included in the appendix refers to the worker name and not that of the complainant or the survivor and the GRM shall look at it within a labour disciplinary measure.

b. GRM for GBV and SEA

Monitoring Complaints about GBV situations will require urgent action to take care of the survivor by the local specialized NGO and will follow a separate process of treatment to allow for an immediate response. They must be reported to the compliance team immediately by the MGP operator while respecting the confidentiality of the survivors.

Medical assistance will be the priority for cases involving rape and other physical injuries. In the case of rape, assistance must be provided in accordance with the World Health Organization (WHO) Guide and the country's national protocol. To be optimal, this help must be provided within 72 hours. Assistance should include emergency contraception and post-exposure prophylaxis to prevent transmission of HIV to an HIV-negative person who may have been infected during a rape, when available.

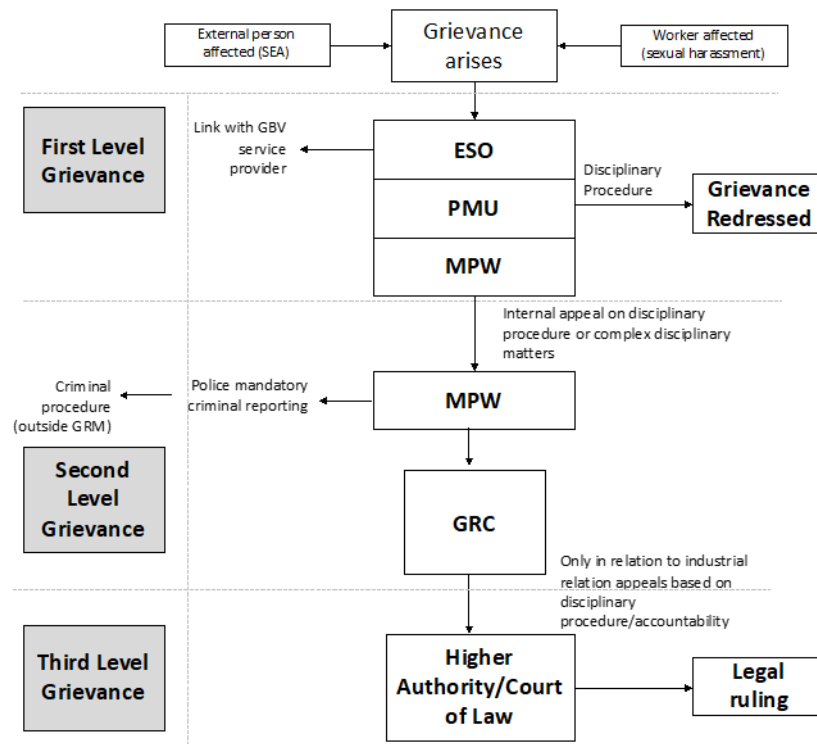


Figure 2: Grievance Redress Mechanism for GBV and SEA incidents

For GBV specific complaints, a specialized NGO will be recruited to provide a 'survivor-centric' approach either directly or by referral of survivors to other specialists or service providers.

The GBV Compliance Team set up by the project will include focal points. The GBV expert of the NGO providing the services will have to complete this form after receiving the survivor and only after having informed consent to be referenced to the project's complaint management system. The NGO expert will have to share the form with the MGP operator and send a copy of this form to the World Bank within 24 hours after the registration of the survivor's complaint.

This information should also be included and communicated in an aggregated way to the complaints database on a monthly basis.

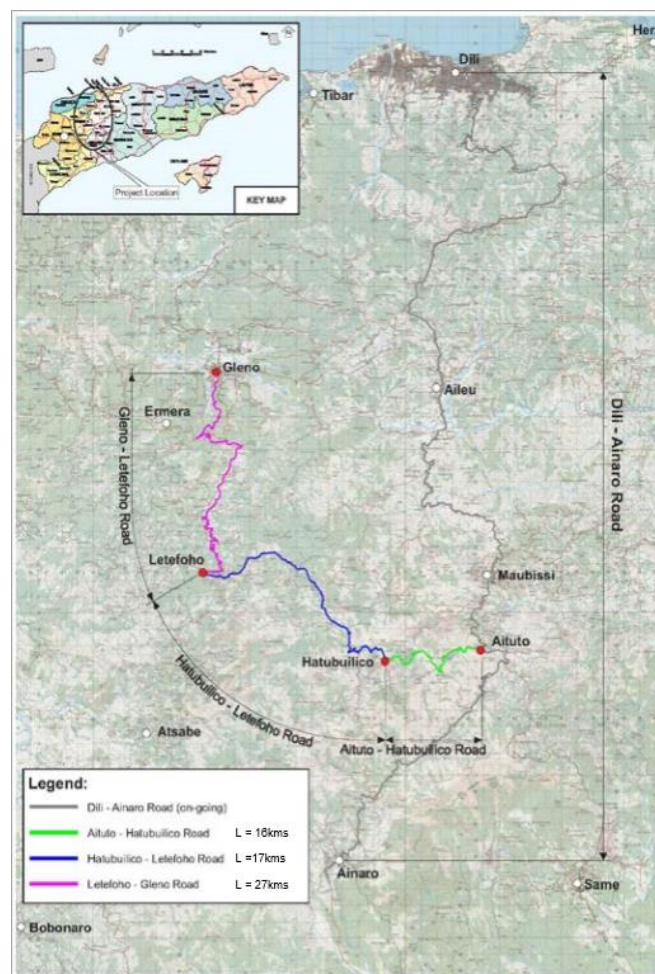
Appendix 15: Terms Of Reference For Avifauna Survey

A Project Overview

The World Bank (WB) - financed Timor-Leste Road Climate Resilience Project (TLRCRP) provided for emergency repairs and upgrading of the high priority road sections, the 110 km Dili-Ainaro Road which serves as a key link between the North and the South of the country, the Timor-Leste. In order to further realize the benefits, the road segments linked to the Dili-Ainaro road will be upgraded and one of the Branch Roads that needs to be improved is the Hatubuilico-Letefoho-Gleno road sections (hereafter Sections 2 and 3).

The Section 2 Hatubuilico-Letefoho road (17 km) section continually passes through mountain ranges with a narrow and in a very poor road condition then deliberately runs down to the sparsely populated route traversing mountainous and rolling terrain towards Letefoho junction.

The Section 3 Letefoho-Gleno road (27 km) section in a fair road condition, gradually drops down as it veers inland passing the abreast coffee plantation and mountainous terrain, a densely inhabited rolling path of the Lehumu Lake before the Humboe junction. The forest range finally descends to follow the Goomeca River until reaching the completed ADB-assisted road project, Tibar-Gleno road of Gleno sub-district. The location map of the project is shown below.



B. Policy Framework












The World Bank Operational Policy 4.04 on Natural Habitat requires the conservation of natural habitats and specifically prohibits the support of projects that involve significant conversion or degradation of critical natural habitats, as defined by the Policy. The Policy further requires the environmental assessment to identify impacts on biodiversity and species and to determine endemism, endangered species and to determine project impacts on these species and to propose acceptable mitigation and monitoring measures.

The following definitions apply:

- a) *Natural habitats*¹ are land and water areas where (i) the ecosystems' biological communities are formed largely by native plant and animal species, and (ii) human activity has not essentially modified the area's primary ecological functions. All-natural habitats have important biological, social, economic, and existence value. Important natural habitats may occur in tropical humid, dry, and cloud forests; temperate and boreal forests; Mediterranean-type shrub lands; natural arid and semi-arid lands; mangrove swamps, coastal marshes, and other wetlands; estuaries; sea grass beds; coral reefs; freshwater lakes and rivers; alpine and sub alpine environments, including herb fields, grasslands, and paramos; and tropical and temperate grasslands.
- b) *Critical natural habitats* are:
 - i. existing protected areas and areas officially proposed by governments as protected areas (e.g., reserves that meet the criteria of the World Conservation Union [IUCN] classifications²), areas initially recognized as protected by traditional local communities (e.g., sacred groves), and sites that maintain conditions vital for the viability of these protected areas (as determined by the environmental assessment process); or
 - ii. sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit (RESU). Such sites may include areas recognized by traditional local communities (e.g., sacred groves); areas with known high suitability for bio-diversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species. Listings are based on systematic evaluations of such factors as species richness; the degree of endemism, rarity, and vulnerability of component species; representativeness; and integrity of ecosystem processes.
- c) *Significant conversion* is the elimination or severe diminution of the integrity of a critical or other natural habitat caused by a major, long-term change in land or water use. Significant conversion may include, for example, land clearing; replacement of natural vegetation (e.g., by crops or tree plantations); permanent flooding (e.g., by a reservoir); drainage, dredging, filling, or channelization of wetlands; or surface mining. In both terrestrial and aquatic ecosystems, conversion of natural habitats can occur as the result of severe pollution. Conversion can result directly from the action of a project or through an indirect mechanism (e.g., through induced settlement along a road).
- d) *Degradation* is modification of a critical or other natural habitat that substantially reduces the habitat's ability to maintain viable populations of its native species.

- e) *Appropriate conservation and mitigation measures* remove or reduce adverse impacts on natural habitats or their functions, keeping such impacts within socially defined limits of acceptable environmental change. Specific measures depend on the ecological characteristics of the given site. They may include full site protection through project redesign; strategic habitat retention; restricted conversion or modification; reintroduction of species; mitigation measures to minimize the ecological damage; post development restoration works; restoration of degraded habitats; and establishment and maintenance of an ecologically similar protected area of suitable size and contiguity. Such measures should always include provision for monitoring and evaluation to provide feedback on conservation outcomes and to provide guidance for developing or refining appropriate corrective actions.

For further details on the Bank's Policy on Natural Habitat can be found in the following link: <https://policies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822f74ac.pdf>
The preliminary screening in 2018 from Integrated Biodiversity Assessment Tool (IBAT) provides the following information:

KBA Factsheet				
International Name	Monte Tatamailau			
Country/Territory	Timor-Leste			
Area	30245 ha			
This site has been identified as an Important Bird and Biodiversity Area and Key Biodiversity Area based on the presence of:				
<ul style="list-style-type: none"> Significant populations of globally threatened species Significant populations of endemic species known only to be found in a limited area 				
A more detailed IBA factsheet is available from BirdLife International's Data Zone .				
Taxonomic group	Species	Common name	IUCN Red List Category	Factsheet
Birds	<i>Aprosmictus jonquillaceus</i>	Jonquil Parrot	NT	
Birds	<i>Cyornis hyacinthinus</i>	Timor Blue-flycatcher	LC	
Birds	<i>Ducula cineracea</i>	Timor Imperial-pigeon	NT	
Birds	<i>Ficedula timorensis</i>	Black-banded Flycatcher	NT	
Birds	<i>Gerygone inornata</i>	Plain Gerygone	LC	
Birds	<i>Lichmera flavicans</i>	Flame-eared Honeyeater	LC	
Birds	<i>Philemon inornatus</i>	Timor Friarbird	LC	
Birds	<i>Phylloscopus presbytes</i>	Timor Leaf-warbler	LC	
Birds	<i>Trichoglossus euteles</i>	Olive-headed Lorikeet	LC	
Birds	<i>Turacoena modesta</i>	Black Cuckoo-dove	NT	
Mammals	<i>Rusa timorensis</i>	Javan Rusa	VU	

C. Objectives of the Assignment

The objectives of the assignment are to perform an Avifauna Survey for baseline information and examine the potential environmental risks and impacts of the proposed project along Section 1 and 2 on avifauna by an ornithologist to supplement the ESIA.

D. Scope of Work

- a) Undertake a baseline survey of globally threatened avifauna species and endemic avifauna species known only to be found in limited area in Mount Tatamailau and relate this to other populations on Timor Leste;

- b) Map occupied habitats on Mount Tatamailau in relation to the Project footprint with three alternative scenarios;
- c) Comment on the importance of the habitat on Mount Tatamailau for the globally threatened avifauna species;
- d) Assess the importance of the Project area with three alternative scenarios to the species;
- e) Examine the potential environmental risks and impacts of the proposed project with the three alternative scenarios along Section 1 and 2 on the globally threatened avifauna species and endemic avifauna species and assess how/why the Project can meet the World Bank OP 4.04 Natural Habitat requirements;
- f) Identify requirements for additional surveys, monitoring, and conservation;
- g) Consult government agencies regarding conservation, local conservation awareness;
- h) Undertake consultation to outline education and awareness raising, including possibility of establishment of village managed areas and antipoaching groups (regular patrols etc) - prepare TOR and cost estimates;
- i) Draft a report summarizing the above. Item (i) above, baseline survey objectives are to: (i) use point-count surveys to develop a pre-construction database of bird species richness (number of species) and abundance; (ii) determine the current status of globally threatened avifauna species in the forests surrounding the ROW of the road improvement project; (iii) use the resulting information to update the information compiled from previous work; (iv) update the status of the range-restricted bird species in Tatamailau; and, finally (v) to use the updated database as an improved foundation for assessment of potential project impacts on forest birds, especially for the globally threatened avifauna species.

E. Survey Method and Timeframe

Field recording of birds at selected locations in along Sections 2 and 3 will be performed, though some additional locations for bird observation may be needed. Observation will be made along 1-2 km long transects, or shorter distance if deemed necessary.

The field recording of birds will involve:

- a) visual and aural (song) recording of birds;
- b) recording at the roadside and several hundred meters along the trail away from the roadside (consider the alternative of road widening);
- c) (digital) photographic documentations of birds.

The protocol for the ornithological field work will be developed along the lines of similar protocols implemented during a similar study at Mt. Fatumasin (2017).

At least one avifauna survey event for one-week long will be completed. It will involve surveying multiple locations and transects. Some additional information on bird occurrence in the area will be obtained from interviews with local people.

The bird list resulting from this inventory will be supplemented with the names of birds that have been previously observed in the area. The IUCN and CITES status of the species listed will be checked and annotations will be made in case species are of concern (e.g. endangered).

E. Required Consultant/Expert

International Ornithologist with a minimum of 15 years of relevant professional experience in the environmental issues related to birds, preferably in Timor Leste/South East Asia. The specialist must have experience in applying World Bank safeguards policy OP 4.04 (or similar policy or standard from other international financial institutions), in particular identifying and managing impacts of infrastructure development on Critical Habitats. The Specialist must have the skills to translate the findings from the previous study (IIE/ESIA) into an effective and feasible Environmental Management Plan to mitigate the project's impacts on birds. He/she should have relevant experience of bird surveys, investigations and nature protection management in Timor Leste/South East Asia.

F. Available Documentation

The following documents will be made available:

- a) Simplified Environmental Impact Statement, Branch Road Section Aituto – Hatubuilico – Letefoho – Gleno, 2018.
- b) Feasibility Study, Branch Road Section Aituto – Hatubuilico – Letefoho – Gleno, 2018.
- c) Avifauna Survey District Road Rehabilitation and Maintenance Project C17-C16 Part 2 (Sta. 13.500 – Sta. 32.045) Bazartete – Tokoluli, September 2017

Appendix 16: Chance Finds Procedures (CFP)

1. **Definition.** Chance find procedure (CFP) or cultural heritage finding procedure outlines the follow up for finding object with archaeological, historical, cultural, karsts, geological features, and remaining materials encountered unexpectedly during project construction or operation. CFP is a project-specific procedure which will be followed if previously unknown cultural heritage or natural features is encountered during project activities. Such procedure generally includes a requirement to notify relevant authorities of found objects or sites by cultural heritage experts; to fence off the area of finds or sites to avoid further disturbance; to conduct an assessment of found objects or sites by cultural heritage experts; to identify and implement actions consistent with the requirements of the World Bank and GoTL Law; and to train project personnel and project workers on chance find procedures. Based on the project's environmental and social risk and impact inventory, potential physical cultural resources which will be at risks of being impacted include religious monuments, traditional houses, karsts and other geological features which warrant further protection and conservation.

2. **Objectives.** To protect physical cultural resources from the adverse impacts of project activities and support its preservation.

3. **Procedure.** If the proposed activity discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, shall:

- a. Site agents will be instructed to keep on an eye on relics in excavations and do a consultation to the community, especially customary leader on the site;
- b. Should any potential items be located, the PMU will immediately be contacted, and work will be temporarily stopped in that area;
- c. Delineate and fence the discovered site or area;
- d. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the, or the local Institute of Archaeology if available to take over. Project Management Unit with the assistance of the Project Implementation and Supervision Consultant (PISC) will determine whether there is potential significance and contact MPW to pass the information to the relevant department in GoTL (i.e. State Secretary of Art and Culture) who will be invited to inspect the site and work will be stopped to allow time for inspection.
- e. Forbid any take of the objects by the workers or other parties;
- f. Notify all subproject personnel of the finding and take the preliminary precaution of protection;
- g. Record the chance find objects and the preliminary actions;
- h. Responsible local authorities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by relevant authorities. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, natural and conservation, scientific or research, social and economic values;
- i. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the subproject layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;

- j. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities;
- k. The mitigation measures could include the change of proposed project design/layout, protection, conservation, restoration, and/or preservation of the sites and/or objects;
- l. Construction work at the site could resume only after permission is given from the responsible local authorities concerning safeguard of the heritage; and
- m. The subproject proponent responsible to cooperate with the relevant local authorities to monitor all construction activities and ensure that the adequate preservation actions already taken and hence the heritage sites protected.