MALAITA ROADS IMPROVEMENT AND MAINTENANCE PROJECT

Environmental and Social Management Plan: Resealing of Sealed Roads, Revision C

Prepared by:
SIRAP PST

Quality Information

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Revision History

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			Name/Position
A	28 Nov 2018	First Draft for Review	Kate Walker / TFSU Safeguard Specialist
B	18 Dec 2018	Incorporate comments from RSS	Kate Walker / TFSU Safeguard Specialist
C	09 Dec 2020	Updated to include detailed design	Kate Walker / SIRAP PST International Safeguard Specialist

Contents

GLOSSARY AND ABBREVIATIONS

ADB	Asian Development Bank
AGO	Attorney Generals Office
AP	Affected Person/People
BML	Building Materials License
CAC	Community Advisory Committee
CESMP	Contractors Environmental and Social Management Plan
CLO	Community Liaison Officer
CoC	Codes of Conduct
COL	Commissioner of Lands
CPIU	Central Project Implementation Unit
CSO	Civil Society Organisation
CSS	Country Safeguard Systems
DBST	Double Bituminous Surface Treatment
DC	Development Consent
DPO	Disabled Persons Organisation
EA	Executing Agency
ECD	Environmental and Conservation Department
EIS	Environmental Impact Statement
ESHS	Environmental, Social, Health and Safety
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
FSC	Family Support Centre
GBV	Gender Based Violence
GCLS	Grievance Complaints and Logging System
GCT	GBV Compliance Team
GRM	Grievance Redress Mechanism
HCC	Honiara City Council
HIR	Honiara International Airport
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
HT	Human Trafficking
IA	Implementing Agency
IFC	International Finance Corporation
IOL	Inventory of Losses

IUCN	International Union for Conservation of Nature
LAeq	Equivalent Continuous Level
LAR	Land Acquisition and Resettlement
LARP	Land Acquisition and Resettlement Plan
LBES	Labour Based Equipment Support
LTA	Lands and Titles Act
MCA	Ministry of Communication and Aviation
MECDM	Ministry of Environment, Climate Change, Disaster Management and Meteorology
MFAT	Ministry of Foreign Affairs and Trade
MID	Ministry of Infrastructure Development
MLHS	Ministry of Lands, Housing and Survey
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MRIMP	Malaita Roads Improvement and Maintenance Program
MTTAP	Medium Term Transport Action Plan
MUA	Munda Airport
NDS	National Development Strategy
NGO	Non-government organisations
NSS	National Safeguard Specialist
NTF	National Transport Fund
OHS	Occupational Health and Safety
OP	Operational Policy
PAIP	Pacific Aviation Investment Program
PCCSP	Pacific Climate Change Science Program
PER	Public Environmental Report
PESMP	Project Environmental and Social Management Plan
PIB	Public Information Bulletin
PST	Project Management Unit
PPE	Personal protective equipment
PS	Permanent Secretary
PSC	Project Steering Committee
PST	Project Support Team
PWD	Public Works Department
QuMP	Quarry Management Plan
SEA	Sexual Exploitation and Abuse

SECP	Stakeholder Engagement and Consultation Plan
SI	Solomon Islands
SIG	Solomon Islands Government
SINWC	Solomon Islands National Women Counsel
SIRAP	Solomon Islands Roads and Aviation Project
STC	Save The Children
STD	Sexually transmitted diseases
SWMP	Solid Waste Management Plan
TFSU	Technical and Fiduciary Services Unit
TIMS	Transport Infrastructure Management Services
TMP	Traffic Management Plan
UXO	Unexploded Ordinance
WB	World Bank
WoMP	Worker Management Plan

1 Executive Summary

The Pacific Aviation Investment Program (PAIP) is funded by the World Bank (WB), participating countries, and other donor partners with the development objective to: (i) improve the safety, security, efficiency, management and environmental sustainability of airports, and (ii) improve regional harmonization of aviation safety standards. As part of the regional PAIP, aimed primarily at improving airport safety and security across the Pacific, the Solomon Island Road and Aviation Project (SIRAP) has been established. Through SIRAP, the Solomon Island Government (SIG) and the WB are working together to improve operational safety and oversight of air transport and strengthen the climate resilience of the road and aviation sectors in the Solomon Islands (SI). The participating islands in SI are:

- Honiara International Airport (HIR) located in Honiara, Guadalcanal.
- Munda Airport (MUA) located in Munda, New Georgia Island.
- Existing road network on Malaita Island.

SIRAP is a Category B project under WB environmental and social screening guidelines and requires the development of a site-specific Environmental and Social Management Plan (ESMP). Due to the nature of the project, it is expected that environmental impacts will be site specific, few if any are irreversible, and mitigation measures can be readily designed and implemented. The ESMP is required to identify and assess environmental and social issues associated with the proposed activities and develop mitigation and management measures consistent with World Bank requirements.

This ESMP focuses on the resealing of the existing sealed roads on and includes information on mitigation, monitoring, responsibilities and institutional capacity. The scope of resealing works is described in detail in Section 3 and summarised below:

- Resealing 15km of sealed roads in Auki and out to the airport
- Improved drainage along resealed sections
- Road safety which provides for road crossfalls, warning signages, speed calming features and pedestrian footpaths

The majority of potential adverse impacts will occur during the construction phase, however, given the scope and nature of the works, mitigation measures should be able to alleviate or lessen any potential negative impacts. Moderate and significant impacts are discussed in detail in Section 4 of this ESMP. The key potential impacts that are being mitigated are:

- Sourcing of aggregate materials
- Solid waste generation
- Hazardous materials handling and storage
- Community disruption during construction activities.
- Transport of equipment and materials from the port and around the island.
- Safety hazards for workers and users of the facilities where upgrades are occurring.
- Water demand management for freshwater resources.

This ESMP is designed to address these issues through a series of mitigation and management measures described in Section 6 and Appendix D. The measures will be implemented through:

- Implementation of this ESMP through the approved Contractor's ESMP (CESMP) and associated sub-managed plans guided by the Code of Practice documents included in Appendix D.
- Regular supervision and monitoring of the implementation of the ESMP (refer ESMP monitoring plan in Section 7.2).
- Meaningful and ongoing consultations with the Malaita communities during the construction phases of this project (see Section 5).

2 Introduction

2.1 Project Overview

Under the World Bank (WB) funded Solomon Islands Road and Aviation Project (SIRAP) the Malaita Roads Improvement and Maintenance Project (MRIMP) has been developed to address a set of key priority interventions aimed at improving the condition and climate resilience of the 215km road network and ensuring its sustainability.

The following table outlines the various approaches that are generally proposed along the length of the identified network. The identified works will only be undertaken on roads which are confirmed as having been declared and gazetted as public roads under the Roads Act.

Table 1: Confirmed approaches to Malaita Road Network

Location	Investment	Description
Auki and towards airport	Reseal the existing 15 km of paved roads	The existing sealed roads in Malaita are past the end of their service life and are failing. This activity will patch existing roads, provide a reseal, and also improve roadside drainage.
Dala-Auki	Bridge upgrading	Three bridges have been identified for upgrading and lengthening: i. Koa Bridge: from 14m to 17.4 m ii. Bio 1 Bridge: from 7.9m to 13m iii. Bio 2 Bridge from 10.6m to 12.9m iv. Fiu Bridge: change alignment and location
Auki to Dala & East Road	Upgrading Key vulnerable spots	Raising of pavement by up to 1m added, shoulder treatment, kerb and channels, concrete lined drains, gabion slope treatment
Auki to Dala & East Road	Routine maintenance and regravelling	Grading 59km of roads, provision of 1 year maintenance period and extensive pothole/edge repairs and crossfall correction
All roads in scope	Road safety improvements	Signage, line marking, footpath, speed humps, edge treatment, retaining wall repairs and guardrail.

An Environmental and Social Management Framework (ESMF)[1] has been developed for MRIMP which has established a process of environmental and social screening which will allow the institutions in charge of the implementation of the subprojects to identify, assess and mitigate the environmental and social impacts of subproject investments. The ESMF also determined the institutional measures to be taken during the project implementation, including those relating to capacity building.

Under the ESMF, all MRIMP subprojects are required to have an Environmental and Social Management Plan (ESMP).

[1] Malaita Road Infrastructure Updates Environmental and Social Management Framework, February 2019

2.2 ESMP Scope and Development

This subproject is for the resealing of existing sealed roads in Auki, a total of 15km of roads. This ESMP provides the environmental and social management protective measures that are to be implemented during the resealing work to the extent as is currently known in the design process.

Key activities include:

- Land clearance and preparation for laydown site and stockpile sites
- Road resealing
- Aggregate extraction
- Construction / installation of road and traffic safety infrastructure
- Management of road construction traffic
- Management of local traffic at the construction interface, and
- Decommissioning of laydown site

Initial project screening based on field investigations and community consultations have confirmed the ESMFs assessment of Category B for this subproject. It finds that potential impacts are less than significant, site specific, mostly reversible and that a range of potential measures for mitigation can be readily designed in the majority of cases. In accordance with WB safeguard policies, an environmental assessment is required to adequately screen and assess potential environmental and social impacts and to prepare an Environmental and Social Management Plan (ESMP) based on the MRIMP ESMF.

The ESMP has been developed and subsequently updated based on the SIRAP ESMF, detailed engineering design, site visits and community consultations.

2.3 Integration of ESMP

It is the responsibility of the SIRAP Project Support Team (PST) to ensure that this ESMP is fully integrated into the project. The ESMP shall form part of any bid documentation of physical works for the resealing subproject, and it shall be the PST's responsibility to ensure that ALL procurement documents and contractual specifications is subject to review against this ESMP and appropriate up to date version of the World Bank standard procurement documents to ensure that all appropriate safeguard measures are captured at the bid stage and in all contracts.

It is further the responsibility of the PST to ensure that this ESMP is considered in review of any Terms of Reference (TOR) for Technical Assistance developed for the subproject. The safeguard requirements for any design or supervision of the Subproject will be fully integrated into TOR to ensure that all safeguard responsibilities allocated within the ESMP are realized at the tender stage.

In this way, the ESMP will be fully integrated within the Subproject so that the required measures will be fully appreciated by all responsible parties and successful implementation will be achieved.

2.4 Disclosure

As part of the requirements of Solomon Islands law and World Bank policy, the ESMP is to be publicly disclosed by the Ministry of Infrastructure Development (MID) as the agency responsible for project preparation, on the SIRAP project pages hosted at the Ministry of Communications and Aviation (MCA) website. ECD (MECDM) is the national responsible ministry under their mandate to publicly disclosed all environmental and social reports in the media that is available. The PST will ensure the ESMP Executive Summary is translated into Pigin prior to disclosure in hard copy and online, in a manner that can be easily downloaded with existing network bandwidth and the accessibility that people

currently have to the internet. A public flyer and/or radio advert will alert the public to the disclosure of the instruments. Likewise, the PST will ensure that several copies of all prepared safeguard instruments are available locally at the Malaita MID office and easily accessible to affected groups and local Non-Governmental Organisations (NGOs).

The ESMP will be reviewed, updated and approved if necessary. For each approved updated version of this ESMP, the PST will be responsible for disclosure through the above channels.

3 Road Resealing Subproject Description

3.1 Current Situation

Malaita Province has the highest population and largest road network outside of Guadalcanal, but the condition and standard of the road network on Malaita are of a lesser standard.

SIRAP has selected main roads for upgrading and maintenance that have a high priority under the National Transport Plan (2017–2036) and the Medium-Term Transport Action Plan (2017–2021). These roads carry the most traffic and are lifeline to over half the province's wards and 70% of its population.

The project plans to support the maintenance and upgrade of the entire main road network that have been gazetted, spot improvements to improve climate resilience, construction of three bridges, the resealing of about 15.07km of the Auki roads and routine maintenance work of north (17km) and east unsealed roads(42km). It should be noted that only publicly gazetted roads will be addressed through the Project, while it is expected that the entire road network will be improved.

The details of the current condition of the sealed roads in Auki is described in Section 2 of the Detailed Design Report[2] for sealed roads based on actual site investigations which shows that most part of the roads are in deteriorative state and a hazard to road commuters including pedestrians and vehicle users. Some of the issue identified on the sealed roads are stated below which SIRAP proposes to rectify to ensure integrity of the road and promote safety. The examples of the current state of the road is in Table 2.

- The average cross-section of the road has a width of 7m with no cross falls and constrained to a 4m width in some sections.
- The road does not have any regulatory signage along the road, and the general speed observed is between 30km/h to 80km/h. There were also no warning signages for substandard curves, narrow road sections and high pedestrian areas such as villages and schools.
- It was noted that untreated vegetation on the roadside had become an issue, hindering adequate sight distance for drivers. This raises safety issues as there is a daily flight schedule to Auki during which there are a high traffic volume and vehicle speeds greater than 50km/h.
- Poorly maintained drainages or absence of drains at critical locations have helped to exacerbate the deterioration of the road seals.
- The existing pavement surfaces were observed to have deteriorated with a number of defects and rated as average to poor condition. The pavement defects observed includes;
    - A lot of minor and major potholes, the majority had recently been patched with coronus material as a temporary measure which will not last for long;
    - Major stripping or loss of aggregate from the seal, leaving the binder and base material exposed to direct tyre contact;
    - Loss of bitumen surface treatment in various sections; and
    - Pavement edge breakage and scouring.

[22] D7 - MLT Resealing and Spot Upgrade Works Detailed Design Report, SMEC

Table 2: Examples of existing road conditions in the sealed roads in Malaita

		
At chainage 0.59km, MC01, it shows a section with a curve and a narrow width of 4m. Dense vegetation on the left is causing reduced sight distance – this is a high risk for vehicle accidents.	At chainage 0.89km, MC01, shows signs of stripping, loss of aggregate from the seal, leaving binder, and base course material exposed to direct tire contact.	Scoured pavement seal at chainage 0.65km, MC 02
		
Scoured road edge and broken U-drain (MC02)	Silted and blocked culvert in Auki Town (MC02)	Scoured pavement edge at CH 4.42 (MC02) of 1m depth and 2m length.
		
Pothole in front of MC14	Pavement Scouring on MC08	No Guardrails at Fiu Bridge Approaches (MC02)

3.1.1 Road Accidents in Auki

From the accident data presented in Section 1.7.7 of the Resealing of Sealed Roads Detail Design Reports[3] , the data showed that approximately 31% of the accidents that occurred from 2010 to 2019 in the entire MLT are within Auki town, i.e. sealed road network. These accidents are scattered within

[3] SMEC (2020), MLT Resealing and Spot Upgrade Works Detail Design Report Draft, Honiara, SIRAP

the Auki Town, and along the three main roads of Malaita, i.e., North Road, South Road, and East Road. Although there is no specific recorded classification of the data along these sections, the data provided for all of Malaita shows that the accidents generally involve loss of control crashes, intersection crashes, head-on crashes, and crashes involving pedestrians.

Severe and fatal accidents account for approximately 14% and 9% respectively. That equates to 23 fatal and 15 serious accidents out of a total of 162 accidents over 10 years. This data is essential in the road safety design approach. With new sealed roads, this usually means an increase in vehicle speeds if speeds limits are not strictly enforced. Road safety design can assist by minimising the risk and hazards which in turn can assist in reducing accident fatalities.

The only facility in Malaita that was intended to handle severe injuries as such from vehicles accidents is Kilu'ufi Hospital that is located approximately 2km north of Auki Town. Like most hospitals in the Solomon Islands, Kilu'ufi hospital is equipped to handle critical care, staffed with 6 doctors, 30 registered nurses, and 32 beds, however, the condition of facilities and supply of drugs is limited and can impact the response provided for the crash care. The sealed roads provide access to this primary care facility for the local urban communities but also the other rural communities from East Road, North Road, and South Road.

3.2 Overview of Proposed Works

The Project site is in the Malaita Province of the Solomon Islands. The sealed roads to be worked on centralises in Auki, starting from Kwainiketo at south road to Gwaunaru'u airport (north of Auki) along the main road and also feeder roads in Auki as stated in Table 3 and shown in Appendix A.

The in-depth detailed designs and drawings of the proposed works on the 15.07 km sealed roads can be found in Section 4 of the Detailed Design Report[4] and is not limited to resealing only. The Design Development for the sealed roads looks at the wholistic view of the roads and their uses with specific consideration to the following aspects to ensure that road safety and sustainability is achieved:

a) Road Safety which provide for road crossfalls, warning signages, speed calming features and pedestrian footpaths;
b) Drainages that includes replacement of undersized culverts and installation of concrete drains to avoid scouring; and
c) Resealing with a sturdier material that ensure durability.

The existing carriageway width of roads has been maintained except for localised widening to meet the minimum cross-section requirements for the provision of widened shoulders.

The existing horizontal and vertical alignments have been maintained except for Airport Road where sections of low-lying roads are to be raised.

The following are the other consideration for the development of road design which can be read in detail in the detailed design report by SMEC in Section 4.1:

- Provision of cross fall on all the roads;

[4] D7 - MLT Resealing and Spot Upgrade Works Detail Design Report (SIRAP-SM-MLT-RD-0011-RP-1.0) (SMEC)

- Warning signages for substandard horizontal and vertical alignment and intersections that cannot be seen by vehicles, where due to budget constraints the geometric alignment cannot be improved;
- Warning signage and/or speed humps for key villages, churches, and schools;
- Installation of footpaths for total of 2.5km spread over between Kwaibala Bridge and northern end of Aimela school;
- Geotechnical considerations that provide reinforcements of unstable sections of roadsides or sleep road sections as well as increasing the vertical alignment of the road leading up to Gwaunaru'u airport three different sections totally up to approximately 700m in length. The raising of the road will be between 500mm-1000mm of the original level; and
- Maintenance of road and road features after the construction works that will be fully implemented by MID is vital to ensure longevity of the road package.

3.3 Limit of Works

3.3.1.1 *Longitudinal*

The finalised sections of road shown in Figure 1 will be subjected to resealing work and other improvements. The description of the roads is tabulated in Table 3.

Table 3: Road IDs under SIRAP Scope

Road ID	Description
MC01	Gwaunaru'u Airport Road (km 0.00 to km 2.832) from the junction with North Road (km 7.70) to Gwaunaru'u Airport;
MC02	North Road (km 0.00 to km 7.70) from the junction at Auki Old Market to the junction at Gwaunaru'u Airport Road;
MC03A	South Road (km 0.00 to km 1.15) from the Bank South Pacific (BSP) Junction to Ambu;
MC04	Wharf Drive (km 0.00 to km 0.072), located in Auki Town;
MC05	Auki Motel Street (km 0.00 to km 0.049), located in Auki Town;
MC06	Unnamed Road, (km 0.00 to km 0.144), from Lili's Building to Post Office Junction, Auki Town;
MC07	Unnamed Road, (km 0.00 to km 0.394), form Auki Shell Depot to Arania Warehouse Junction, Auki Town;
MC08	Unnamed Road, (km 0.00 to km 0.537), from Auki Lodge Junction to Faasitoro Height/Fulisango Junction, Auki Town;
MC09	Unnamed Road, (km 0.00 to km 0.054), from the junction at Auki Prison Service to Auki Solomon Power (SP), Auki Town;
MC10	Agriculture Junction Road, (km 0.00 to km 0.114), from the junction with North Road (km 0.9) to Agriculture Office Junction, Auki Town;
MC11	Sikita Junction Road, (km 0.00 to km 0.200) from the junction with North Road (km 0.9) to Sikita Community, Auki Town;
MC12	Kilu'ufi Hospital Road, (km 0.00 to km 0.638) from the junction with North Road (km 3.1) to junction at Kilu'ufi Hospital, Auki Town;
MC13	Louisana and Rose (LR) Auki Ministry of Infrastructure (MID) Loop Road (km 0.00 to km 0.328), Auki Town;
MC14	Unnamed Road, (km 0.00 to km 0.106), from Aekema to Rarasu, Auki Town;
MC15	Unnamed Road, (km 0.00 to km 0.133) from Sawane Plaza Junction to Court House Junction, Auki Town; and
MC16	Unnamed Road, (km 0.00 to km 0.344) from Saint Paul Church to Premiers Residence Gate, Auki Town.

Figure 1: Malaita Road Network - Sealed Roads

The road for resealing transects three wards: Buma, Aimela, and Auki. Auki ward hosts the Malaita Provincial Government Headquarters and is the only urban centre of Malaita. Auki accommodates commercial houses, Non-Government Organisation (NGOs), State-Owned Enterprises (SOEs), and national government offices. Auki is also home to the main port on Malaita. Public Utility providers, including Solomon Power, Solomon Water, and Telekom also operate in Auki. Solomon Power's infrastructure stretches from Ambu to the southern side of Fiu bridge, Solomon Water from Ambu to Aligegeo and Telekom from Ambu to Kilu'ufi. The Auki ward, compared to the other two wards, is densely populated with a high concentration of residential dwellings. Aimela and Buma are sparsely populated with communities spread over a larger landmass and is mostly rural.

3.3.1.2 *Cross-Section*

The limit of works in the cross-section of the sealed road to be upgraded is within the 30m gazetted right of way, measured 15m from road centreline, and shown in Figure 2 below.

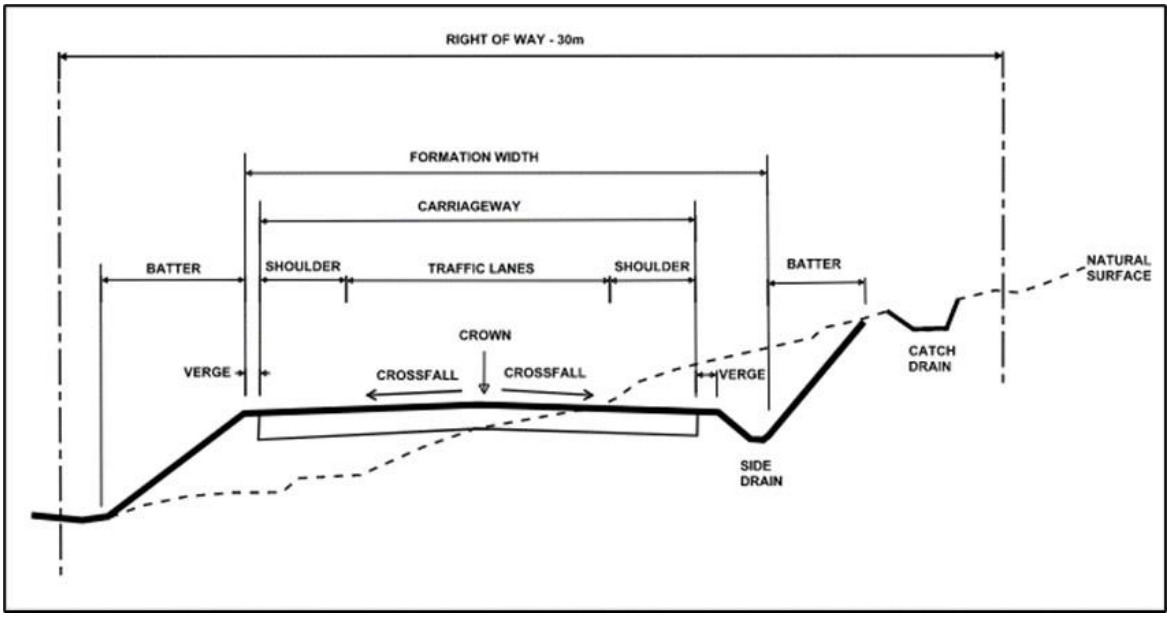

Figure 2: Road cross-section elements (Source: Austroads 1989)

Based on the designs, generally the carriageway will have 2 lanes at 3m each lane and 0.3m-1m shoulders on each side of the roads before longitudinal drains on the far side. In sections where footpaths will be installed, the footpaths shall be 1200mm in width and will replace the shoulders. There are sections where the footpaths shall only be on one side of the road and other areas where the footpaths shall be on both sides. The shoulders will either be unsealed or sealed. Based on the above measurements, the roads would generally require about 8m minimum width to cater for the road lanes and shoulders or footpath. Additional width is required for drainage systems and adequate workspace. All work on the drainage system will be within the road reserve and local utility providers will be consulted onsite prior to any works commencing. No ecologically sensitive areas or mature tree specimens are within the road reserve of the existing sealed sections.

All waterflow from the drainage system will be contained within the road reserve using established drainage paths. There are no municipal sewerage systems in Malaita.

There are some areas especially in the CBD area that have been constricted by buildings and road widening is not possible and the designs have catered for this as well.

Generally, it has also been assumed that at road junctions with secondary roads the limit of works will be for 10m along the secondary road measured from the centre line of the main road.

3.4 Construction Methodology

This ESMP is updated based on the final design plans and corresponding construction methodology as outlined below.

3.4.1 Weather Conditions

Resurfacing works requires relatively dry weather and these construction works will need to be conducted in the dry season.

The reported seasonal weather split for the site is:

- Dry Season: April to October; and
- Wet Season: November to March.

3.4.2 Equipment

Specialised equipment such as asphalt concrete plant, ordinary concrete batching plant, cranes and materials may need to be imported for the SIRAP project. It is likely that general construction equipment such as excavators and rollers can be sourced locally. All cargo, whether air or ship, will need to be processed in accordance with SIG quarantine and customs laws which require fumigation (proof of) of materials and equipment and declarations by personnel (specifically regarding communicable diseases).

3.4.3 Aggregate Supply

For this project, it is anticipated that Coronus materials and crushed aggregates required and shall be sourced only from approved quarry sites in Malaita based on the approval by MID based on the specification and MECDM based on the environmental screening and environmental management plan to manage potential impacts associated with the activities. According to WB, no new quarry sites should be opened for this works apart from those that have been used in the past road maintenance works whose specifications have already been approved by MID for both underlay and overlay works on sealed road surfaces. MID will be responsible to share the information of the quarry sites in Malaita and their specification to enable the contractor to decide on the appropriate sites to use based on the standards required by the designs and approved by MID and SIRAP.

The contractor will be responsible for the quarrying, crushing and transporting the aggregates from the quarry to laydown or stockpile site for processing and eventually to the spot for resealing. The extraction works will need a quarry permit, quarry management plan and CESMP to be developed by the Contractor. Accessible sources of suitable aggregate materials will need to be identified in the CESMP and approved by the Supervision Engineer and extracted under a valid Building Materials Permit.

The Building Materials Permit (BMP) purposely for resealing works shall be obtained from the Mines Division of MMERE. MID will be responsible to apply for this extraction permit on behalf of the road project. Application for the building can only happen after a development consent is granted by the Environmental and Conservation Division (ECD) of MECDM based on the acceptance of this ESMP. The Ministry of Infrastructure Development is also responsible to apply for this development consent supported by SIRAP National Safeguard Specialist (NSS) and other permission permits from MECDM. If the contractor chooses to own his own BMP, he is required to perform an environmental screening and develop an environmental management plan based on the guidelines provided in this ESMP to be approved by ECD. This certification shall be used as supporting document when applying for the BMP to MMERE. The Contractor also have the option of buying approved aggregates to current suppliers who are based in Honiara provided that the supplier shows evidence of BMP and relevant ESMP approved by ECD for the extraction of aggregates.

It advisable that aggregates from Malaita Province must be sourced from an area of the island which is not impacted by the invasive Giant African Snails (GAS) and must not be transiting through other parts of the island unless through biosecurity controlled and approved stockpile site.

The Contractor will need to assess the different bridge structures along the haulage routes to ensure that they can withstand loads and caters for the width of aggregate haulage vehicles from quarry to stockpile site and eventually to worksites.

Potential quarry sites in Malaita are mostly under tribal or private land ownership. The Malaita Provincial Government (MPG) revealed on 20 February 2020 that they own a section of land at Gwaigeo area, about 2 kilometres by road downstream of Fiu Bridge which contains a sand bar that

may be relevant for quarrying purpose though relevant geotechnical tests have not been performed on the soil there for suitability for pavement works. MPG indicated in the meeting that SIRAP could utilise the quarry site for its road and bridge works if it is found tobe suitable. Appropriate formalities shall be fulfilled according to the process outlined in Section 5.2.1 of this ESMP and in Section 5.3.5 of the Malaita Projects ESMF.

The provincial secretary (PS) of MPG stated in a meeting in July 2020 that MPG has a current agreement with the landowners of Kwaimanafu Quarry site for any provincial developments. This quarry was formally used by Kitano in previous road works. The PS said that SIRAP can access this quarry through formal agreements with MPG and added that for any projects that operate in Malaita, it is their wish that they would be the one to liaise with and sign a long-term MOU with resource owners (including quarry owners) in Malaita. Projects shall extract aggregates from these quarries though an MOU with MPG. MPG shall manage the resource owners' expectation and requirements. The advantage of this approach is the fact that projects will only have to deal with MPG, a single entity rather than having to deal with separate landowners which can be complex at times. MID will decide on the appropriate whether to go through MPG or directly to the tribal and landowners. The usual process is that when an appropriate quarry site is identified, MID will sign an MOU with the land/tribal owners for accessing the site. The contractor will sign a MOA with the owners that would spell out the agreed cost for extracting the aggregates. But extraction cannot eventuate until appropriate BMP has been issued by MMERE.

The contractor shall have appropriate Management Plans in place including a Quarry Management Plan and Traffic Management Plan. The contractor shall ensure that it performs a screening on the site before agreeing to use any particular quarry site.

A request was forwarded to MID to carry out the following tests on quarry sites previously used by road contractors;

- Atterberg Limits;
- Moisture Content (OMC);
- Compaction (CBR);
- Particle Size Distribution (PSD);
- Water Absorption; and
- Flakiness Test/Crush Face Test.

3.4.4 Construction Camp and Laydown Areas

The laydown site(s) (sometimes referred to as construction camp) generally will consist of the project offices, storage areas, stockpile sites and asphalt/concrete plant. The contractor will be responsible to secure the most appropriate laydown site along the road network.

It is foreseeable that there will only be one contractor working to upgrade the sealed roads and would require a main laydown area to install an aggregate crushing plant, asphalt plant and concrete batching plant for processing materials for the road works. There might be other areas require to establish a contractor camp and storage or parking area for road machines along the route. The main laydown site must be located on a site that is further from residential areas and critical places such as schools because of the asphalt plant that will be set up in the laydown area. WB has advised that the asphalt concrete (AC) plant be 300m away from residences and at least 150m from waterbodies. The asphalt plant is necessary in this project as the resealing of the sealed roads will be with asphalt concrete.

Prior to the establishment of the asphalt concrete plant, consideration should be made on where the plant is to be located as it can produce nuisances such as noise and a mercaptan odour.

With the establishment of laydown site, there is potential for noise and dust and occasional odour which can be managed through proper consultation with communities and to ensure that work is done during times that are acceptable especially between 7 am and 6 pm. In terms of odour issues, wind direction determines which communities are going to be impacted.

The contractor when deciding on the laydown site/s also need to be strategic on the number required and where it places them along the route if more than one to ensure shorter haulage routes, road safety, time and cost effectiveness. The contractor with the support of Community Advisory Committees, MID and SIRAP Community Liaison Officer (CLO) will identify and secure those appropriate sites.

Laydown site(s) size should be kept to a workable minimum, be fenced and materials and equipment kept secure to prevent access and use by non-authorised personnel. Should the laydown site(s) be located outside of the works security perimeter, the hiring of a local security firm to provide security for the area is recommended.

For ready mix concretes, no company in the Malaita Province produces and sells ready mix concrete that can be utilised for the works. Concrete will be needed for drains, footpaths, road shoulders and other uses thus also need the establishment of a concrete batching plant on the contractor laydown site apart from the AC Plant.

Social issues can be minimised by placing the laydown site located away from communities. The confirmed location of the laydown will be fully described in the CESMP and subject to WB clearance. Planning and management of the laydown site(s) will follow all requirements of the ESMP and implementation of these mitigations, along with any additional mitigations identified by the Contractor, will be detailed in the CESMP.

At this stage there are no confirmed suitable locations identified for laydown purposes. MID has not confirmed a suitable location at this stage, though is looking at two proposed sites owned by the Malaita Provincial Government (MPG). The establishment of this area will need to be in accordance with the requirements of this ESMP. The contractor can decide to pursue this site or look for alternative areas.

Kwaibala: In 2007, the Contractors laydown site for the Post-Conflict Emergency Rehabilitation Project was at the Malaita Province Works Department Site at Kwaibala area south of Auki Township. This area according to MID officer has been sold to a private owner by the former Malaita Provincial Government. A meeting with the present MPG in July 2020 revealed that the government is not clear on the current ownership of the land and will not be considered for use by SIRAP.

Police Station: Another potential laydown site that was previously used as a laydown area by Dalgro in 2016 for their resealing works and again by the submarine cables works in early 2019 is located in Auki, immediately south of the police station. This land is owned by RSIPF Auki. During a visit to Auki undertaken by SMEC in July 2020 observed that the lot was still vacant. This area is suitable for site office only and storage of light machines only. The contractor can liaise with RSIPF for possible use of the area.

Gwaigeo: The piece of land that MPG owns at Gwaigeo is about 2km by road west of Fiu Bridge. The Malaita Provincial Government is happy to offer any size of area within that block as required by the project for contractor laydown and possible contractor camp. The site will also host an asphalt plant.

The area is sparsely populated as shown in Figure 3. There is a rural training centre (RTC) and a community high school (CHS) just opposite the area. It is proposed that the asphalt plant be located such (Figure 3) that it has maximum clearance from the schools and the nearest community on the west.

Figure 3: Malaita Provincial Government land at Gwaigeo area propose for SIRAP Laydown

The asphalt plant indicated by the red circle in Figure 3 is placed such that there will be about 270m clearance from the RTC and about 300m from the CHS and 170m from the nearest residences on the western side of the laydown. The Fiu River north of the laydown would have a clearance of more than 400m from the AC plant. The clearance between the AC Plant and the residences will not meet the required allowance however, implementation of appropriate measures will ensure that potential impacts to the communities are minimised during operation of the plant.

The site itself has been formerly used for agricultural purposes and is already disturbed. The site is covered predominately by grasses and shrubs.

If this area is confirmed as a laydown site, the CESMP will be detail the requirements for vegetation clearance and site establishment. The establishment of this area will need to be in accordance with the requirements of this ESMP.

3.4.5 Workers Camp

It is anticipated that there will be a need for a residential workers camp at Malaita for the resealing of sealed road works. However, should a contractor wish to establish a worker's camp, appropriate land lease arrangements should be made and approved by the Supervision Engineer in conjunction with SIRAP PST. The Commissioner of Lands will approve the rate of the lease. The necessary steps required in the International Finance Corporation (IFC)/WB Workers Accommodation: Process and Standards Codes of Practice should be followed. Should a worker's camp be required, then these guidelines must be adhered to and updates made to the ESMP and CESMP as appropriate.

A Workers Camp Management Plan would be required from the Contractor following the guidelines provided in Appendix D. A Workers' Camp Management Plan addresses specific aspects of the establishment and operation of workers' camps.[5]

Particular attention should be paid to visitor management, sanitary water systems, and waste management and measures to avoid instances of gender-based violence (GBV) (see Section 5.2.3). An Influx Management Plan would also be required since there will be potentially an influx of skilled workers who may originate from overseas and other parts of the Solomon's to work on the roads. The focus of this plan is to ensure that non-local workers are inducted on the culture of Malaita and to manage any inappropriate contact between the non-locals and the residents of Malaita that may result in GBV, sexual abuse and other miss conduct.

3.4.6 Haulage Routes

Transport to and from the site and the construction camp, particularly of materials and equipment, must occur on the existing road network and measures undertaken to prevent accidents, dust, spillages, noise and vibration nuisance (e.g. wheel wash, covering of loads, servicing of vehicles). Deviations from the nominated access routes will not be tolerated.

If the transport of material or equipment is likely to impact on normal pedestrian and vehicle traffic or pose an increased safety hazard, consideration should be given to moving these items during off peak times. Measures such as prohibiting the use of engine braking and the use of speed control in and close to settlements can be implemented to reduce noise, speed, and vibration near sensitive receptors (Section 4.4).

The confirmed haulage route is unknown at this stage since the location of the laydown site has not yet been confirmed but the contractor will determine the haulage route and include in the TMP and CESMP. The CESMP should assess any requirements and any necessary measures will be reflected in the Traffic Management Plan. Should off peak transportation of materials be necessary, it is important to communicate this ahead of time to the communities along the route.

3.4.7 Hazardous Substances

Hard stand areas must be available for storage of hazardous substances and other equipment that poses a potential risk to the environment (e.g. leaking lubricant from machinery). Runoff from hardstand areas used to store machinery will need to be collected and treated (e.g. oil-water separator) to prevent contamination of soil or water bodies. Hazardous substances (e.g. fuel, lubricants, oil, paint) must be stored in a self-bunded tank or, with the Supervision Engineers' permission, within a bunded area with a capacity of 110% of the total volume of the tanks. Solid waste and wastewater must be managed in such a way to prevent the spread of vector-borne diseases and contamination of soil and water bodies. The requirements to handle, store, dispose or respond to accidental spillage of hazardous substances must be reflected in the appropriate CESMPs including Hazardous Materials Management Plan, Spill Prevention and Emergency Response Plan, within Occupational Health and Safety (OHS) Plan and Waste Management Plan.

Solid waste in the form of general waste, recyclable and non-recyclable inorganic waste, organic biodegradable waste, hazardous waste and construction waste will be generated by project activities. Solid waste includes:

- General waste (i.e. office type waste, household waste (from any workers camps), lightweight packaging materials);

[5] http://pubdocs.worldbank.org/en/497851495202591233/Managing-Risk-of-Adverse-impact-from-project-labor-influx.pdf

- Recyclable waste (i.e. certain plastics, metals, rubber, etc. that can be recycled);
- Organic biodegradable waste (i.e. waste that will decay/break down in a reasonable amount of time, such as green waste, food waste);
- Inorganic non-recyclable waste (i.e. waste that cannot decompose/break down and which cannot be recycled); and
- Hazardous waste (i.e. asbestos, waste oil, etc.).

Malaita Provincial Government (MPG) through its Environmental Health Department or Works Department should be contacted by the Contractor to assess the possibility of using a licenced landfill for these wastes. In addition to this and with the approval of the Supervision Engineer:

- Organic biodegradable waste may be deposited in designated dumping areas in reasonable quantities; and
- Recyclable waste may be supplied to a local receiver licensed to process such waste. The Contractor needs to find out if there are local buyers of used aluminium cans in Malaita and Honiara.

The Contractor must develop a Solid Waste Management Plan (SWMP) (Appendix D) for all generated waste streams, to be submitted as an Appendix of the CESMP for clearance by the Supervision Engineer. At all times, the Contractor is responsible for the safe and sound disposal of all solid waste generated by the Works.

It is the Contractor's responsibility to obtain all necessary permissions for transport and safe disposal of hazardous waste from the project site in a legally designated hazardous waste management site within the country or in another country, and to ensure compliance with all relevant laws. Evidence will need to be supplied to the Supervision Engineer of proper disposal of waste at the final location (disposal slips). This would be costly, and the cost of this must be catered for in the construction and site rehabilitation budgets.

The export of any hazardous waste must be in compliance with the Basel and Waigani Conventions which Solomon Islands is a signatory to and any relevant laws enacted by the source and the recipient countries. If there are hazardous wastes to be transported overseas, the storage and handling of that locally must be such that it poses no risk to the people and the environment. ECD Chief Environment Officer for Waste Management and Pollution Control when consulted with regarding this issue advised that the Waigani Convention Process for exporting hazardous waste must be facilitated through ECD as they are responsible to manage and facilitate and also provide support in identifying the appropriate importer.

Disused material will be generated from the excavations. Most of the clean fill material can either be used to backfill areas along the roads that need to be raised or can be used as a resource (e.g. base course material) for general use by communities along the road.

All surplus material from excavations shall be removed from the site area and safely disposed of in compliance with any local requirements at the Employer's nominated disposal site(s) and/or disposed of at the Contractor's quarry site(s), before the start of the defects liability period.

Unless otherwise instructed by the Supervision Engineer, other surplus materials not needed during the defect's liability period shall be removed from the site.

3.4.8 Occupational Health and Safety

All occupational health and safety (OHS) requirements as per WB Environmental Health & Safety (EHS) Guidelines and SIG law must be in place and workers trained in necessary procedures (e.g. Spill

Prevention and Response Management Plan). The OHS Management Plan Guidelines in Appendix D have been designed to reinforce existing SIG health and safety law and must be applied to all aspects of the SIRAP project. The Contractor will ensure that OHS Plans are developed as part of its CESMP and presented as an addendum to the CESMP.

For the Project, Resealing of Sealed Roads ESMP Revision B proposes that in addition to the national OHS standards, the Employer is also adopting guidelines for occupational health and safety based on good international industry practice. To qualify, bidding contractors is required to have in place an occupational health and safety management system that is compliant with, or equivalent to, OHSAS 18000 (*http://certificationeurope.com/ohsas-18000-health-safety-managment-standards/*) and is acceptable to the client. The Contractor shall specify which occupational health and safety standards are to apply to the Project and provide evidence of the application of such standards on a project of similar size and complexity during the past 5 years. The standards to be adopted may include those of Australia, Canada, New Zealand, the EU, and the US, which are referred to in the World Bank Group EHS Guidelines.

Civil works shall not commence until the Supervision Engineer has approved the OHS Plan, the Safety Officer is mobilised on-site, and the staffs have undergone induction training. Details of the expected content of the OHS Plan and expected practices of the Contractor with regards to health and safety are stipulated guidelines in Appendix D and summarised in Section 5.2.2.

In light of the COVID-19 world pandemic, the project will ensure to protect its workers, and to comply with the country's regulations requirements for COVID-19 protection measures. The Project should prioritize and look after the well-being of the workers and monitor and follow the local and national health authority guidance on Covid-19. All workers are required to undergo the COVID-19 testing, if a worker has been tested positive or in contact with a positive COVID-19 case, the worker will be required to undergo the 14-day quarantine.

3.4.9 UXO

The UXO clearance for the resealing of sealed roads works is managed by SIRAP PST.

SIRAP PST stated that unlike Honiara and Munda which were the sites of several WW2 conflicts that resulted in numerous UXO's in the vicinity of SIRAP Munda and Honiara works sites, Malaita Province has an absence of WW2 conflict. This is reinforced by the UXO investigations undertaken in December 2019 by SIRAP for the three small bridges (Koa, Bio 1 and Bio 2 and North Road test pits in which no UXO's were found and also the fact that the current sealed roads in Malaita proposed for resealing which have been excavated on numerous occasions before for construction and maintenance purposes and yet have not encountered any UXOs. Additionally, the Protection of Wrecks and War Relics Act (Cap 150) in which Malaita Province is not listed as a restricted area. No further UXO Clearances are warranted for Malaita bridge or road sites.

The Contractor however, for precautionary purposes and in the case of an UXO chance find be equipped with a UXO Response Plan as outlined in Appendix G of this document for all the worksites relating to the resealing works including the roads, laydown site (s) and quarry areas.

3.4.10 Duration and Timing of Construction Activities

The timeframe and duration of the resealing of sealed roads works is expected for 12 months and should commence in the second quarter of 2021.This is subject to change depending on the procurement process for the contractor, the COVID-19 restrictions that are still underway and other factors that is not yet foreseen. Once the contract is awarded to a contractor, a detailed working plan

showing the staging of the works for each working shift is to be submitted to SIRAP PST prior to any commencement of works.

Daytime works are permitted Monday to Saturday 7.00 am to 6.00 pm subject to the facilitation of unobstructed vehicle movements.

Works outside these hours, including public holidays, will only be permitted subject to approval by the Employer.

Work on the site will not be permitted on Sunday. However, the Contractor may carry out work if it is unavoidable or necessary for the saving of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer and SIRAP CLO.

3.5 Consents and Permitting

Based on a review of the legislative requirements, a summary of national consents and permits that may be required is listed in Table 4below.

Table 4: Permitting Requirements for the Resealing of Sealed Road Works

Consents Required	Agency Responsible for Applying	Ministry
Felling Licence (if required)	Contractor/MID	Ministry of Forestry and Research (MoFR)
Development Consent	Contractor/MID	MECDM
License to discharge waste, emit noise, odour or electromagnetic radiation	Contractor/MID	MECDM
License to store fuel and oil	Contractor	MMERE
Permit to mine (quarry) building materials	Contractor/MID	MMERE
Exemption for offshore insurance	Contractor/MID	MoFR
Work Permit for expatriate employees	Contractor/MID	Ministry of Commerce, Industries, Labour and Immigration (MCILI)
Residency permits for expatriate employees	Contractor/MID	MCILI
Biosecurity import clearance	Contractor/MID	Ministry of Agriculture and Livestock (MAL)
Other Business License issued by the Malaita Province (If required)	Contractor/MID	Malaita Provincial Government
Permit to extract materials from the riverbed	Contractor/MID	MMERE
Grant of any ancillary easement over registered land (If required)	Contractor/MID	MMERE
Development Permit	Contractor/MID	Malaita Provincial Office

3.6 Alternatives

Once the scope of works is finalised, any other alternative options will only be included if instructed by MID and this section will be updated prior to the release of any bid documents.

The 'no action' alternative would result in the further degradation of sealed road sections exacerbating the road safety issues. The 'no action' alternative would contribute to the negative impacts to the socio-economic environment of Malaita is not considered an appropriate option under this project.

4 Potential Environmental and Social Impacts

The environmental and social impacts are assessed based on the findings of the ESMF.

4.1 Description of Project Site

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4.2 Impacts on Sensitive Receptors

Sensitive receptors along the 11km of sealed gazetted road along the subproject route have been identified and are marked in Figure 4 to Figure 7. Environmental and social sensitive areas have been identified during field investigations. The reseal works along the gazetted sealed roads will take place in three wards: Buma, Aimela and Auki Wards. Buma and Aimela wards are rural with scattered villages. Auki Ward is the main urban and administrative centre of Malaita and is densely populated with residential and commercial areas. Auki is also home to the main port on Malaita.

Table 5 summarises the key potential environmental and social impacts on those sensitive receptors in relation to the resealing of the gazetted roads, based on the subproject screening and the ESMF. The photographs in Table 5 are mainly used only as examples to represent the different sensitive receptors along the sealed roads and not necessarily the actual location of potential safeguard issues. The designs ensure that roads are only widened in necessary sections to ensure improvement of road and road safety.

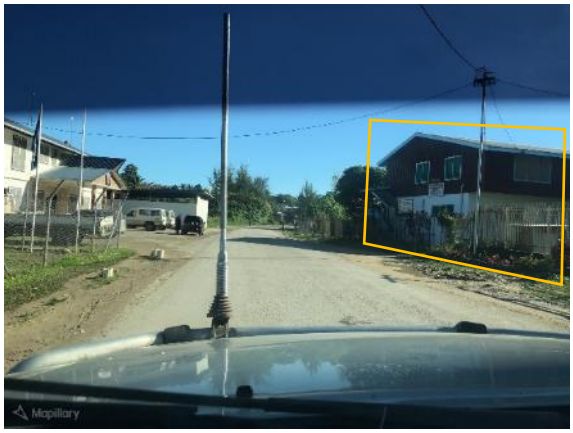
Table 5: Summary of sensitive receptors along gazetted sealed road.

	Sensitive Receptor	Potential Impact
1		Encroachment into the road reserve: ▪ Disruption to activites in encroachment area. ▪ Damage to property from construction machinery. ▪ Temporary loss of access to assets when works in close proximity.
2		School: ▪ Traffic accidents involving school children coming to and from school. ▪ Traffic accidents involving people going to and from sports events. ▪ Noise and dust disturbance during school hours. ▪ Increase in traffic speed after resealing.

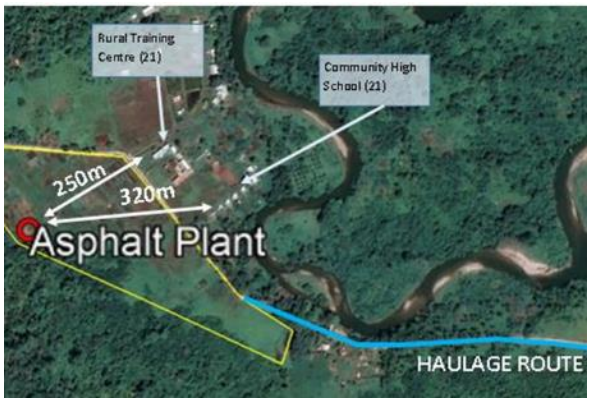
3		Roadside Tree Plantation: ▪ Accidental damage to / loss of assets during construction works.
4		Roadside Workshop: ▪ Noise and dust disturbance during construction works. ▪ Limted access to workshop during construction works. ▪ Accidental damage to roadside property during construction works.
5		Bridge: ▪ Damage to existing infrastrucure from heavy loaded trucks and machinery. ▪ Choke point for traffic during construction works.
6		Narrow bridge with no walkway: ▪ Pedestrian safety risk from construction equipment and truck during crossing. ▪ Pedestrian safety risk after upgrade works from regular traffic competing with pedestrians for space on bridge span.

7		Gravel extraction site: ▪ Reduction in water quality of river from sedimentation. ▪ Temporary reduction in available river gravels to other local proejcts. ▪ Water pollution (oil/fuel spill) from working with extraction machinery in and around river. ▪ Regular altering of habitat from active gravel extraction – not considered a natural habitat under WB OP4.04. ▪ Approximately 6km downstream to coast - no impacts on marine environment.
8		Steep section: ▪ Ongoing climate related degradation of resealed road on completion of works due to runoff on road surface.
9		Church: ▪ Traffic accidents involving pedetrians going to and from church. ▪ Noise and dust disturbance during construction works.

10		School: ▪ Traffic accidents involving school children coming to and from school. ▪ Traffic accidents involving people going to and from sports events. ▪ Noise and dust disturbance during school hours. ▪ Increase in traffic speed after resealing.
11		School: ▪ Traffic accidents involving school children coming to and from school. ▪ Traffic accidents involving people going to and from sports events. ▪ Noise and dust disturbance during school hours. ▪ Increase in traffic speed after resealing.
12		Health Center: ▪ Traffic accidents involving patients and visitors going to and from the health center. ▪ Noise and dust impacts during construction works.
13		Health Center: ▪ Traffic accidents involving patients and visitors going to and from the health center. ▪ Noise and dust impacts during construction works. ▪ Accidental damage to security fence during construction works.

14		Office: ▪ Traffic accidents involving patients and visitors going to and from the health center. ▪ Noise and dust impacts during construction works.
15		School: ▪ Traffic accidents involving school children coming to and from school ▪ Noise and dust disturbance during school hours ▪ Increase in traffic speed after resealing
16		Health Center: ▪ Traffic accidents involving patients and visitors going to and from the health center. ▪ Noise and dust impacts during construction works.
17		School: ▪ Traffic accidents involving school children coming to and from school. ▪ Traffic accidents involving people going to and from sports events. ▪ Noise and dust disturbance during school hours. ▪ Increase in traffic speed after resealing.

18		Shops and Retails Spaces in Auki: ▪ Noise and dust access during construction works. ▪ Traffic impacts from construction vehicles. ▪ Reduced access to shops for community during works.
19		Auki Produce, Handicraft and Fish Market: ▪ Noise and dust access during construction works. ▪ Traffic impacts from construction vehicles. ▪ Reduced access to stalls for community and vendors during works.
20		River: ▪ Not consdiered a natural habitat under WB OP4.04 but still a sensitive receptor given its proximity to coastal environment (500m). ▪ Water pollution from oil or fuel spill. ▪ Alteration of water quality and course from dumped stones or aggregate. ▪ Increased sedimentation from run off during construction works. ▪ Infrastructure vunerable to climate related changes to river.

21		Training Centre and High School: ▪ Approximately 250m and 320m from potential asphalt plan site for road works. ▪ Noise and dust disturbance from production and haulage of asphalt ▪ Damage to existing road due to haulage of heavy loads ▪ Incresed risk of traffic accidents from project traffic ▪ Disruption of important events such as exams, tests or events.
22		Fiu River: ▪ Not consdiered a natural habitat under WB OP4.04 but still a sensitive receptor given its proximity to coastal environment (500m) and the potential contruction camp (400m from proposed asphalt site and alongside haulage route). ▪ Water pollution from oil or fuel spill. ▪ Increased sedimentation from run off during construction works. ▪ Chance of riverbank damage from haulage activities.

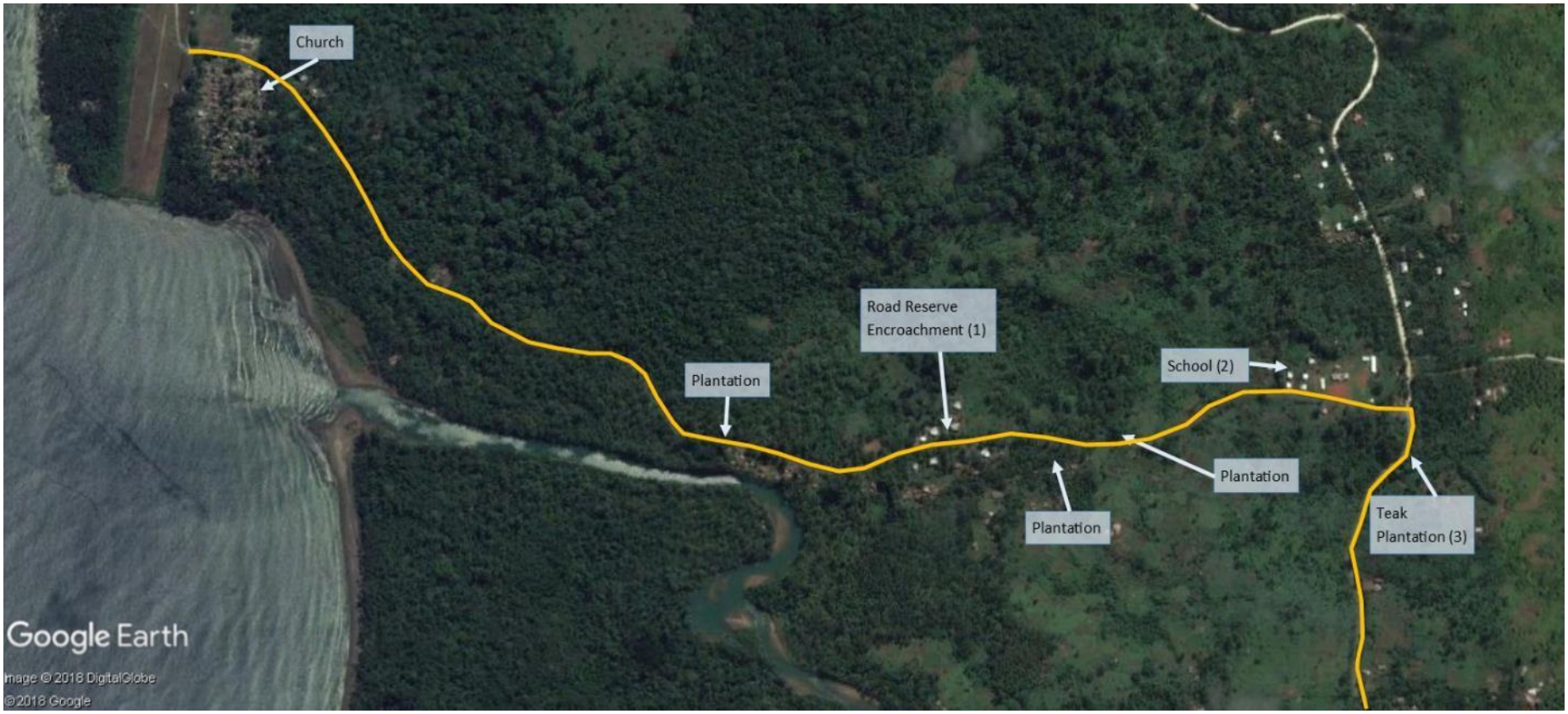


Figure 4: Sensitive receptors along gazetted (yellow) sealed roads (1 of 4)

Figure 5: Sensitive receptors along gazetted (yellow) sealed roads (2 of 4)

Figure 6: Sensitive receptors along gazetted (yellow) sealed roads (3 of 4).

Figure 7: Sensitive receptors at potential construction camp and haulage road (blue) (4 of 4).

4.3 Impacts in Other Areas

Table 6 summarises the key potential environmental and social impacts from general road related activities. These impacts are based on subproject screening and the detailed impacts listed in the ESMF.

Table 6: Summary of key potential impacts associated with resealing works

Activity / Parameter	Potential Impacts
Solid Waste Generation	▪ Waste spill on road network from haulage trucks causing traffic hazard. ▪ Soil and water pollution from waste leachate. ▪ Increased burden on Malaita landfill sites. ▪ Public health impacts from poorly stored waste.
Hazardous Substances and Materials	▪ Water and soil pollution from spilled or improperly stored fuel, oil or bitumen products ▪ Changes to river water and soil pH level from concrete wastewater or slurry ▪ Contamination of ground water from concrete wastewater ▪ Potential for a discharge of hazardous substances from use of fire retardants during emergency response.
Terrestrial Environment	▪ Construction camp will need to be cleared of existing scrub vegetation, no natural habitats will be cleared. ▪ No mature tree specimens will be cleared for these works.
Noise	▪ Increased noise levels along haulage route during transportation of materials ▪ Sustained increased noise levels at work sites ▪ Noise disruption to village life if works occur outside normal working hours ▪ Increased noise levels in area surrounding construction camp and aggregate extraction/processing sites.
Erosion and Sediment Control	▪ Erosion of exposed soil and subbase materials on steep sections during periods of heavy rain during road resurfacing. ▪ Sedimentation run off into river systems from exposed soil and subbase materials during heavy rain events. ▪ Run off from stockpiles into river systems.
Dust and Odours	▪ Dust generation along from heavy trucks hauling aggregate, particularly near communities and other sensitive receptors. ▪ Dust generation in immediate vicinity of aggregate extraction and processing. ▪ Air pollution generated from poorly maintained machinery and equipment. ▪ Odours generated from asphalt plant and road treatment along route. ▪ Dust generation during laying and compacting of subbase materials during resealing works.
Traffic	▪ High traffic volumes along haulage routes, particularly through communities and near sensitive receptors. ▪ Damage to bridge infrastructure from heavy machinery and haulage trucks. ▪ Risk to pedestrians while crossing bridges during times of haulage or resealing works. ▪ Road obstructions to regular traffic from construction waste spillage or poor management of materials and equipment. ▪ Further degradation of road surfaces (sealed and unsealed) during haulage of aggregates. ▪ Increased traffic pressure at Auki Port and in Auki town for any imported aggregates and equipment landed at the Port. ▪ Resealing activities will cause disruption to traffic flow and create safety risks for pedestrian and vehicular traffic.
Wastewater Discharges	▪ Uncontrolled sewage, grey or wash water from may lead to increase of nutrients impacting the quality of the river system.

Activity / Parameter	Potential Impacts
	▪ Accidental release of hazardous substances, solid waste or other waste materials could also pollute the river systems. ▪ Wash water from equipment may contain hydrocarbons which can have detrimental effect on aquatic life and water quality.
Aggregate Supply	▪ Aggregate source and expected total volume of aggregate for the resealing works have not yet been identified. ▪ Noise and dust impacts on local communities at extraction site. ▪ For river gravel extraction there is the risk of riverbank erosion from use of heavy machinery and water quality impacts from any hydrocarbon leaks or spills from use of equipment near or in the river. ▪ Short term depletion of available river gravels from excessive extraction or extraction in conjunction with other infrastructure projects (such as private logging road construction). ▪ Noise, dust and traffic impacts along haulage routes, particularly through villages and past schools. ▪ Delays and impacts of project implementation if correct resource owner is not properly identified and negotiated with for Malaita aggregate sources. ▪ Access to extraction sites may be controlled by several different landowners which may impact of ease of access to quarry or river extraction site. ▪ Riverbeds may contain unexploded ordinance (UXO).
Biosecurity	▪ Item (aggregates, materials, equipment) imported from overseas may harbour species invasive to the Solomon Islands which could threaten biodiversity, food security or the farming/agricultural industry. ▪ Domestic biosecurity threats from Giant African Snails (GAS) being transported from infected areas of Guadalcanal to Malaita from contaminated aggregates or machinery causing food security risks.
Road Safety	▪ Improvement of road surface will lead to increased traffic speeds through villages and past other sensitive receptors. ▪ General road safety awareness is low on Malaita further increasing the risk of accidents on completion of reseal works.
Land and Resource Use	▪ Temporary use of the road reserve for construction purposes might be required. This could lead to loss of access to road reserve land and/or loss of assets within the road reserve for encroaching communities or individuals. Loss of assets could involve partial loss of food bearing plants or temporary relocation of garden market stalls.
Pedestrian Safety	▪ Risk to pedestrians on completion of resealing works due to increased traffic volume and speed. Risk is particularly high for children around schools and women using the road to walk to and from the river to wash clothes. ▪ Pedestrian safety risk exists on bridges where there is no footpath as vehicles take up the full width of the bridge pushing pedestrians to climb onto the bridge rails.
Community Health and Safety	▪ Increased risk of transmission of communicable diseases (HIV/AIDS, STDS, etc) with the introduction of overseas or regional workers. ▪ Increased income within the communities and introduction of new young male construction workers to the island can lead to increases in the instances of Gender Based Violence (GBV) within the family and workplace. It can also lead to an increased risk of Sexual Exploitation and Abuse (SEA) (including Human Trafficking (HT)) of women to the foreign project workers for financial benefit. ▪ Other impacts related to the influx of labour are: risk of social conflict, increased risk of illicit behaviour and local inflation of prices.
Economic Activity	▪ Road side businesses and market vendors may be impacted from the general impacts of construction related activities including road preparation and resealing (limited access

Activity / Parameter	Potential Impacts
	of businesses and potentially temporary relocation or garden market stalls from road reserve) and haulage (noise, dust and traffic).

5 Consultations

5.1 Stakeholder Groups

The project's ESMF details the identified stakeholder groups that are targeted under SIRAP. Specific to the bridge upgrade works, these are listed below in Table 7.

Table 7: Resealing of Sealed Roads Works Stakeholders

No.	Stakeholder Group	Malaita Reseal Works Stakeholders
1	Affected Community	Ebanesa, Kwainaketo, Auki CBD, Gwanaru'u, Kalifornia, Kwalobala, Ambu, Kokomu, Gwailiki, Fiu Bridge, Tatafarade, Kilusakwalo, Aimela, Copsland, Tautaumalefo, Kilu'ufi Hospital, Kilu'ufi Community, Aligegeo, Telekom Housing, Auki Residents, Fasitoro Residents.
2	Donor Agency/ Project Financier	World Bank
3	Donor Agency	Asian Development Bank (ADB)
4	National Government	Ministry of Infrastructure Development (MID)
5	National Government	Ministry of Commerce, Industries Labour and Immigration (MCILI)
6	National Government	Ministry of Agriculture and Livestock (MAL)
7	National Government	Ministry of Finance (MOF)
8	National Government	Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM)
9	National Government	Ministry of Mines, Energy & Rural Electrification (MMERE)
10	National Government	Ministry of Forestry and Research (MoFR)
11	National Government	Ministry of Culture and Tourism Solomon Islands (MCTSI)
12	National Government	Ministry of Women, Youth, Children and Family Affairs (MWYCFA)
13	National Government	Ministry of Education and Human Resource Development (MEHRD)
14	National Government	Ministry of Health and Medical Services (MHMS)
15	National Government	Ministry of Police, National Security and Correctional Services
16	New Contractor	New Contractors
17	NGOs and Organisation	World Vision (WV)
18	NGOs and Organisation	Oxfam
19	NGOs and Organisation	Save The Children
20	NGOs and Organisation	Malaita Province Council of Women
21	NGO and Organisation	Malaita Christian Care Centre

No.	Stakeholder Group	Malaita Reseal Works Stakeholders
22	Other WB funded Projects in Malaita	Community Access and Urban Services Enhancement (CAUSE) Project Community Governance and Grievance Management Project
23	Provincial Government	Malaita Province
24	Resource Owners	Land and Resource Owners (LRO)
25	SIRAP	Solomon Islands Road and Aviation Project (SIRAP) Support Team
26	Utilities	Solomon Telekom
27	Utilities	Solomon Water (SW)
28	Utilities	Solomon Power (SP)

5.2 Stakeholder Engagement and Consultation Plan

Table 8 sets out the implementation plan for stakeholder engagements and community consultations for the resealing subproject. The implementation plan is based on the overall plan set out in the ESMF and has been tailored to meet the specific needs of this ESMP.

The plan is for the lifecycle of the project and constitutes the following components:

Activity: the various operational consultation activities that will be undertaken as part of the SECP

Objective: the target that each activity needs to reach

Stakeholder: the various stakeholders to be targeted during implementation of the SECP activity; and

Medium: the method by which the engagement or consultation will be done

Table 8: Stakeholder and Community Consultation Plan

No	SIRAP Activity	Timetable	Objective	Stakeholders	Medium
A: Physical Investments (Malaita Road Upgrades)					
A1	Feasibility, decision on the sites / technologies, preliminary designs and identification of correct land / resource owners.	From subproject design through to tendering.	Bring stakeholders along with the decision making around the site and type of investments. Discuss potential impacts and mitigation measures. Key messages	All identified	Structured Agenda One-on-One Consultations Public meetings Emails and letters
A2	Disclosure of updates to the ESMP	Prior to tendering	To disclose ESMP	All identified	Newspaper Website

No	SIRAP Activity	Timetable	Objective	Stakeholders	Medium
		Prior to works starting	Advise stakeholders of preliminary designs and updated mitigation and management plan.	Communities Site occupants (State owned enterprises. Government agencies) Site users (if different from above)	One-on-one consultations Executive Summary
A3	Pre-Construction	Once Contractor is on board and prior to works starting	Keep stakeholders involved in any design updates. Public announcements Secure access to resources (materials)	Government agencies, site occupants, site users Communities	Emails, One-on-one consultations Newspaper and websites Community Consultations
A5	Commencement of Works	Week before commencement of works and continuous.	To advise all institutional stakeholders of commencement of civil works.	All identified stakeholders Site occupants (State owned enterprises. Government agencies)	Newspaper Email/Letter
			To reconfirm ongoing consultation, feedback and GRM processes	Community Site occupants (State owned enterprises. Government agencies)	Community Notice Boards Building Notice Boards Website

5.2.1 Resources and Responsibilities

To facilitate meaningful community consultation and in compliance with the MID safeguards requirements, the PST Community Liaison Officer (CLO) assisted by MID/CPIU Safeguards Unit will establish a Community Advisory Committee (CAC) which will follow the guidelines issued by the Ministry.

Implementing the above plan will be the overall responsibility of the PST Community Liaison Officer (CLO) in coordination with the NSS. There are several facets to the works that are covered within this plan with MID being the common denominator across the works as such, it is important that MID are represented at each of the one-one-on consultations by a nominated staff member.

The CLO and NSS will be responsible for arranging and facilitating these meetings as it appropriate with their in-depth knowledge of the natural, social and traditional environments within the Solomon Islands. The CLO will lead the social component of these meetings while the NSS will take the lead on the environmental aspects. The CLO will also be the focal point for all stakeholder queries and contacts in relation to the implementation of the Malaita consultation plan and the GRM.

It is also the responsibility of the SIRAP PST and CLO to ensure that gender balance is achieved throughout the implementation of the SECP and the CLO will make culturally appropriate recommendations on strategies to achieve this such as focus group meetings for males and females or targeting female input through women's groups.

During the construction phase, the Contractor(s) will be required to participate in the public consultations. The costs for participation are considered included in the bid and this requirement will be included in their contract.

5.3 Key Outcomes of Consultations to Date

The Design Engineer carried out Community and stakeholder consultation for the road reseal works in December 2019, and July 2020 for the detailed design phase for the upgrading of those three bridges.

Prior to this, a series of wider public consultations and stakeholder meetings were held during the months of March, August, and October 2018 with the aim of providing meaningful consultation with stakeholder groups and to provide an opportunity for all parties to provide input into the Malaita Roads Improvement and Maintenance Program. The meetings targeting four key groups of stakeholders: (i) provincial government agencies and development partners in Honiara and Malaita; (ii) NGOs and civil society groups; (iii) the Malaita village community members; (iv) and tribal chiefs/village leaders. Full details of these consultations can be found in the Malaita ESMF, key points relevant to these works have been extracted and presented below.

5.3.1 July 2020

In July 2020 a comprehensive community consultation was held with the relevant stakeholders and communities in Malaita based on the final scope of work for Malaita Roads and detailed designs of the roads and bridges. This consultation was attended by MID's Regional Manager, MID safeguards Officer, MID's Works Officer, SIRAP NSS, SIRAP CLO, SMEC NSS, SMEC Engineer and Admin representative. The consultation meetings were held between 13 to 22 July 2020. The minutes of the meeting is also attached in Appendix H. Thirty-six meetings were held altogether beginning with a courtesy meeting with MPG. Other stakeholders including SIG Ministry Representatives, NGO's, Utilities, other WB funded project (CAUSE) and Business owners were also met with in Auki. The rest of the meetings focussed on communities along the roads within the revised scope from Kwainiketo at South road to Gwaunaru'u Airport being the sealed section and the unsealed section being from the airport junction to Ferakui (north road section in scope) and from Ferakui to Fouo (whole of east road in scope). The bridge affected communities including landowners along the north road sections are Koa, Bio, Maoba and Buma Low. In each of these communities, there were a good turnout of participants covering men, women, youths and even children. There is a total of 11 meetings held at east unsealed road, 11 meetings at north unsealed road and 12 meetings with communities in the sealed section propose for resealing.

These meetings were led by MID and SIRAP supported by SMEC especially on the design component of the project. During this consultation meeting, MID and SIRAP explained to people revised scope of work for SIRAP which is different to what was informed to them in 2019 including some new inclusion in the final scope that initially were absent in the initial scope of work. This information on the changes were received with mixed feelings from people though for the most part was grateful that they would be beneficiaries from the final scope of SIRAP. The PS of MPG had emphasised when learnt of the

revision of the scope of work the importance to managing the people's expectation and to only reveal facts to people.

Consultations, community meetings and other project updates shall be ongoing with communities and stakeholders over the course of the project. The contractor, SIRAP and MID shall liaise together to achieve this. It is vital that the communities are well informed on the status of the project which will also reduce the existence of any misunderstandings and to manage grievances.

The outcomes of the consultation meetings are as follows;

Malaita Provincial Government (MPG)– 13 July 2020

- Fully supports SIRAP and the work it will do to upgrade the roads in Malaita.
- MPG will support SIRAP like any other projects in Malaita to make sure that the implementation of the project is timely and unhindered.
- MPG to work with Malaita resource owners to open up resources such as quarry areas for projects like SIRAP.
- MPG has a set of active community advisory committees (CAC) all around Malaita comprising of community leaders, Chiefs, Landowners, Church leaders, schoolteachers etc and recommends that SIRAP utilise this CAC.
- MPG also stress the importance to communicate facts to Malaita people to not unnecessarily raise expectations and create hostility toward the project.
- MPG offers their land at Gwaigeo as proposed contractor laydown site.

Utilities (Solomon Power, Solomon Water and Telekom) – 13 July 2020

- The utilities pledge their support for the project and will provide staff to be onsite when construction happens.
- Utilities also acknowledge that they will provide their infrastructure location data as require by the project.
- Utilities wants to be involved in the initial stages of project development to help them with preparation.

MECDM-13 July 2020

- The project is required to apply for a development consent and discharge permit from MECDM.
- Advised that a Building Materials Permit from MMERE Mines Division can only be granted after SIRAP receives a development consent from MECDM.
- Suggest that for future projects, consultations with communities should be done after final scope of work is approved to avoid having disappointing people if projects do not follow through as promised.

Save the Children -13 July 2020

- Really happy that SIRAP takes into consideration road safety and especially safety of children on the road and around school zones and for the case of the bridges a designated pedestrian walkway.

MMERE Water Resources Division -11 June 2020

- River permits only applies to conservation and protected areas. The current river act has limited coverage and only covers Guadalcanal Province and not the whole SI. Koa and Bio river

in Malaita is not within a conservation area and no river permits are required for the bridge construction nor extraction of aggregates from rivers in Malaita.

MID Quality Assurance Division – 19 June 2020

- MID laboratory only has equipment that can only do a range of test. If the contractor has other test requirements, they need to arrange other avenues to perform the test as MID does not have the equipment to do so.
- If requiring general aggregate tests done for the different quarry sites in Malaita, need to inform MID and arrange for access into quarry sites.
- Some general tests have been done in the past for quarries in Malaita

Ministry of Culture and Tourism - 13 July 2020

- Fully supports the road project and bridge replacement plan as this would support the development of tourism in Malaita.

Ministry of Health and Medical Services – 13 July 2020

- Emphasises that good roads are important for better access to health services.
- Do not leave roads to reach very bad condition before trying to fix them. This is not a good practise.
- Want contractors that are competent to construct roads and bridges under SIRAP. Prefer international contractors.

CAUSE -13 July 2020

- We must appreciate and utilise well such road project.
- SIRAP to consider also engaging people close to project area as casuals. This would create ownership for these infrastructures.

The following are the summary of outcomes from the consultation held with sealed road communities. The detailed meeting minutes are in Appendix H;

- Grateful that WB is contributing to the development of Malaita through the road project (SIRAP).
- Happy with the asphalt concrete propose under the project to replace the chip seal with.
- Expressed that road is an important infrastructure for Malaita that enable access to the markets in Auki.
- Want the drainage issues within Auki town addressed by the project as these causes the quick deterioration of the road seals.
- Emphasised that they want the work to be done by international contractor to ensure that work done are of high quality and last longer.
- Glad that the project designs considered what the people in Malaita have asked for during consultations.
- Want MID to provide awareness to the communities on the roads act and the terms of the gazetted road for clarity.
- Appreciate the fact that the project also concerns with road safety.
- The community is glad about the proposed foot paths as this would promote safety of school children walking to school. Want the foot path to also be accommodative for people with special needs.
- Wants the project to also consider the locals to fill positions that skills are present locally.
- Understand the gazetted road width is 30m wide and vowed to corporate with the project.

- Understand the terms of the gazetted roads and requested that MID put pegs along the road to identify the road 30m road corridor.
- Communities in Auki especially wants to know if there are different gazetted width for different road types such as main roads, feeder roads, CBD roads etc.

5.3.2 Wider MRIMP 2018 Consultations

A series of public consultations and stakeholder meetings were held during the months of March, August, and October 2018 with the aim of providing meaningful consultation with stakeholder groups and to provide an opportunity for all parties to provide input into the overall Malaita Roads Improvement and Maintenance Project. The meetings targeting four key groups of stakeholders: (i) provincial government agencies and development partners in Honiara and Malaita; (ii) NGOs and civil society groups; (iii) the Malaita village community members; (iv) and tribal chiefs/village leaders.

Within those wide 2018 consultations, there were cluster consultations which focused on the village consultations that were undertaken within village communities that border the sealed roads on Malaita. Village consultations were conducted in clusters or church boundaries/wards that included up to four villages that were in close proximity of each other. Full transcription of consultation minutes can be located in Appendix M of the project ESMF. Table 9 below outlines the villages clusters wherein consultations have been conducted.

Table 9: Consultations and Village Clusters

Date of Consultations	Cluster Name	Villages included in cluster	Number of Participants
18/11/2018	Kilusakwalo	1. - Kilusakwalo 2. - Gwaisusuru 3. - Namobaula	40
22/11/2018	Gwailiki	1. - Tataferade 2. - Gwaliki 3. - Dadaisalu 4. - Feidaedae	26
22/11/2018	Gwaunaru'u/Kwalobala	1. - Gwaunaru'u 2. - Kwalobala 3. - Faiako	36

5.3.2.1 *Consultation Cluster: Kilusakwalo:*

The team met with community members of the 18 November 2018 in the local community hall located in the village of Kilusakwalo. Key messages from the consultations are noted below:

- **Community Elder: stated the following concerns;**
    - They are happy with the project and request the Bank to ensure that the work must be of quality. Thus, meaning there is the need for a qualified and experienced contractor who has proper machinery to do the sealing, because we already experience a lot of donor funded projects, whereby money had been wasted due to poor maintenance carried out by local contractors who do not have the proper machinery with a qualified engineer.
- **Village Elder:**

- The projects intention to improve our roads is right and good; Community wants to know the Banks timing to begin implementation of SIRAP. The Bank must ensure it avoids overlooking awarding contracts to ill-behaved contractors, whom from previous road constructions under the Ministry of Infrastructure have received money for road works which they ended up not properly implementing the sealing works for the whole road sections designated to them under their contracts, which resulted in the bad deteriorated roads within our town and communities,

- **Tribal Chief Clement:**
  - We don't want the contractor's that practice double standards (mix Tar in a kettle), we want qualified contractors.

- **Village Elder:**
  - Fiu Bridge - No safety, the bridge is narrow and is not safe for pedestrian, need a good design which caters for a proper and safe walkway

5.3.2.2 *Consultation Cluster: Gwailiki:*

The team met with community members of the 22 November 2018 in the local community hall located in the village of Gwailiki. Key messages from the consultations are noted below:

- **Chief and former Member of Parliament (Benjamin Una):**
  - Mentioned that leaders of all the tribes were present at the consultation. The community was very disappointed when the Prime Minister uttered his speech two years ago stating to the people of Malaita that there will be no future Development for Malaita. The presence of this team from the World Bank gives us hope for the next generation and how will we as a community and resource owners are going to allocate our resources for use on this project? A committee has been established with standard rates for the use of Resources if there is need for its use in the future.
  - From previous road works engagements. Many community groups have been confused by contractors during engagement in the past which has set some bad precedence on trust of community engagement with road construction works with National and local contractors.
  - Our local contractors have failed to carry out proper upgrading and Maintenance of the road and bridges works awarded to them, as such millions of Dollars have been wasted, MID and SIRAP should be made aware of such contractors which already has a bad reputation.

- **Salote Lake female leader:**
  - The community committee fully agrees with the SIRAP project and rendering our full support, however we also need the government to fulfill and own up to their previous demand for our resources e.g community support in kind which was promised to our community by an individual license local LBES Contractor and has not been fulfilled up to date.

- **Casper Kote,e Tataferade Chief:**
  - As chief, I want to assure SIRAP that I fully support your Program for the people of Malaita, and want to thank World Bank for the wonderful gift.

- **Chief Samuel:**
    - A lesson for SIRAP and MID to carefully consider in future is the bad practice of local contractors whom have not respected the agreements made with resource owners for use of their resources for road works.

- **Chief Sisil:**
    - "Why is our gravel not being used locally and loads of it was transported from Honiara by Boat for road sealing on Malaita"? Chief prefers to use local resources.

5.3.2.3 *Consultation Cluster: Gwaunaru'u:*

The team met with community members of the 22 November 2018 in the local community hall located in the village of Gwaunaru'u. Key messages from the consultations are noted below:

- **Community members message to SIRAP:** Raised the issue of safety reminding SIRAP to consider the following safety measures, seeing many of the community children walk to school:
    - Include in design road humps within crossings for school and large communities settled along both roadsides.
    - Rumble strips to slow speeding vehicles where.
    - Include in road design, sidewalks along roadsides for pedestrians.

- **Resource Owners:**
    - Have concern over incentives if this will be considered for the use of their resources which they will allow for use for the project, but at least a reasonable agreement for these is done for the project and resource owner.

- **Community Leader:**
    - The Airport gave weight for the need of road access which really benefitted our community in the longer term, so we appreciate other works, which we as a community, see will always benefit our communities greatly.

- **Resource Owner:**
    - Road corridor is not the issue. It is us the community dwellers whom should be mindful of how we make claims unnecessarily for the properties we at times plant our crops along the designated road alignment which is not correct and according to the team's presentation, there is the provision of voluntary resettlement which should be our understanding an option we take when the matter arises.

- **Chairwomen Provincial Women's Council:**
    - Elaborated on real cases of GBV within the organisation she is working with within Auki Malaita. GBV, SEA and HT are real issues and already exist within many Malaita communities which on the rise.
    - It is good that through these consultations that the communities are also reminded to look further into ways they should be best managing their families and prepare to face such issues should these arise. Families be reminded to protect and keep your families safe at all times.

5.3.3 Ad Hoc Consultations 2019-2020

Consultations with the sealed roads stakeholders took place on numerous occasions during the course of the site investigation work, development of design phases (concept and detailed) in late 2019 and 2020. The initial consultations held in 2019 were focussed on the following;

- Inform communities and stakeholders on SIRAP and the scope of work on the sealed roads and collect feedback from stakeholders regarding road issues;
- Inform communities on site investigation works that the design engineer was going to perform on the road;
- Request for Information from stakeholders eg utilities, MID, MECDM, MMERE, RSIPF; and
- Future development plans for Malaita.

During the design phases, consultations were held to inform communities on what the proposed designs would be and why. All key stakeholders and potential impacted communities were consulted with. This has provided the opportunity for the project to receive additional insights on areas relevant to the site context that may have been missed during site investigation works to be incorporated in the designs. These consultations also provide platforms for communities to contribute to mitigation measures on potential impacts that have been identified to be linked to the project even if they are only temporary. These consultations also helped to answer questions that communities may have regarding the project especially expected implementation period which helped in burning away unnecessary misconception. Community and stakeholder consultations have contributed significantly to the final designs of the project. The list of participants and minutes of meeting are in Appendix I.

In November 2019 SIRAP NSS, CLO for Malaita together with Malaita based MID Works Officer carried out several community awareness programs along the sealed roads communities in Auki and communities along the 1.8km sealed section north of Bina on south road. The purpose of that consultations was to inform communities on upcoming investigation works that SMEC would be undertaking. The road investigation works include surveys, geotechnical investigations, and road safety audits as part of data collection to inform appropriate concept and designs for this road.

On 7 November 2019, the Malaita Provincial Government (MPG) leaders were consulted with by SIRAP, SMEC and MID representatives informing them on the proposed SIRAP scope of work for Malaita Roads, including an update on the deteriorated road conditions discovered during the site visits. It was revealed that drainage issue is the main cause of the poor roads. MPG expressed their support for the project and the desire to be more involved in the decision-making processes for the following key reasons. The leaders affirm the project team that they want to ensure that road infrastructure developments in the province are not hindered by issues such as land disputes in Malaita. They are adamant that roads are constructed to the standard that is more resilient to the impacts of rain, floods, and other natural hazards.

In another meeting with MPG on 20 February 2020, the leaders shared their development plans for Malaita province and proposed future land use around Malaita which vested on the improved road networks to link these areas to Auki town. The proposed upgrade work will support in the socio-economic growth of the province.

The utility providers (Solomon Water, Solomon Power and Telekom) were consulted with regarding Malaita Roads Upgrade works late in 2020 by MID and SIRAP and in 2020 in which they were asked to supply GIS information on their infrastructure on Malaita sealed roads to ensure that road designs are aware of them. The utilities were also able to provide future development plans for the extension of their services.

A series of consultations conducted by TFSU in 2018 for communities and stakeholders along the sealed roads for the development of the ESMF for Malaita Roads and ESMP for the resealing work found that there is enormous community support for SIRAP. The same support was reiterated by the communities in other consultations conducted by SIRAP in October 2019 and again in the joint SIRAP-MID detailed designs consultation held in July 2020 with MPG, key stakeholders and communities. People have passionately desire good and safer roads and voiced their complete support and eagerness for the project. In these community meetings, the people were pleading that the resealing work be done by an international contractor not local contractor. They hoped that international contractor would do a more thorough, quality and up to standard works that would see the road seals last longer. They alleged that the last resealing work that took place in Malaita in 2016 performed by a local road company deteriorated almost within a span of a few months. Potholes opened almost immediately after heavy rain events. Since then, the quality of the road worsens and MID have been doing patch up works on the road by covering the holes with coronous material from time to time.

Malaita province has far more experience with roads and bridge projects (second to Guadalcanal) than the other provinces in the Solomon Islands. They have also had their fair share of disappointments relating to road infrastructure development. Some issues arose from unresolved land disputes, and others from the choice of road contractors perceived by communities, to perform sub-standard road works which resulted in the roads returning to a very poor condition almost immediately after heavy rains. This sentiment was also shared by MPG in a meeting on 20 February 2020. There were also cases where road infrastructure projects never eventuated after the communities were informed about them, contributing to community disappointment and mistrust in Malaita for road projects.

5.4 Sensitive Receptors

The Design Engineer has identified the following key sensitive receptors for the reseal works.

Receptor	Name
Communities	Ebanesa, Kwainaketo, Auki CBD, Gwanaru'u, Kalifornia, Kwalobala, Ambu, Kokomu, Gwailiki, Fiu Bridge Community, Tatafarade, Kilusakwalo, Aimela, Copsland, Tautaumalefo, Kilu'ufi Hospital, Kilu'ufi Community, Aligegeo, Telekom Housing, Auki Residents, Fasitoro Residents.
Schools	Faiako Community High School, Auki Primary School, Auki Community High School, Aimela Community High School, Ailema Primary School, St. Augustine ECE, Townend Primary School, Kilusakwalo Community High and Primary, St Paul ECE, APSD, Gwaigeo Community High School, Sinasu School
Churches	Jehovah Witness Auki, Roman Catholic Auki, Anglican Church Auki, Assembly of God Church Auki, Bahai Centre Auki, Assembly of God at Kilusakwalo, Jehovah Witness Church at Kwainiketo
Clinics and Health Post	Kilu'ufi Hospital, Auki Clinic, Plan Parenthood Health Centre
Utilities	Solomon Power, Telekom and Solomon Water
Tabu Sites	Grave sites at Kilusakwalo, Kwalobala, Ebanesa

Specific consultation will be undertaken with these communities before and during construction activities to ensure that impacts are minimised, and community safety is ensured. This is particularly important for the transport of materials and equipment. Mitigation measures may include

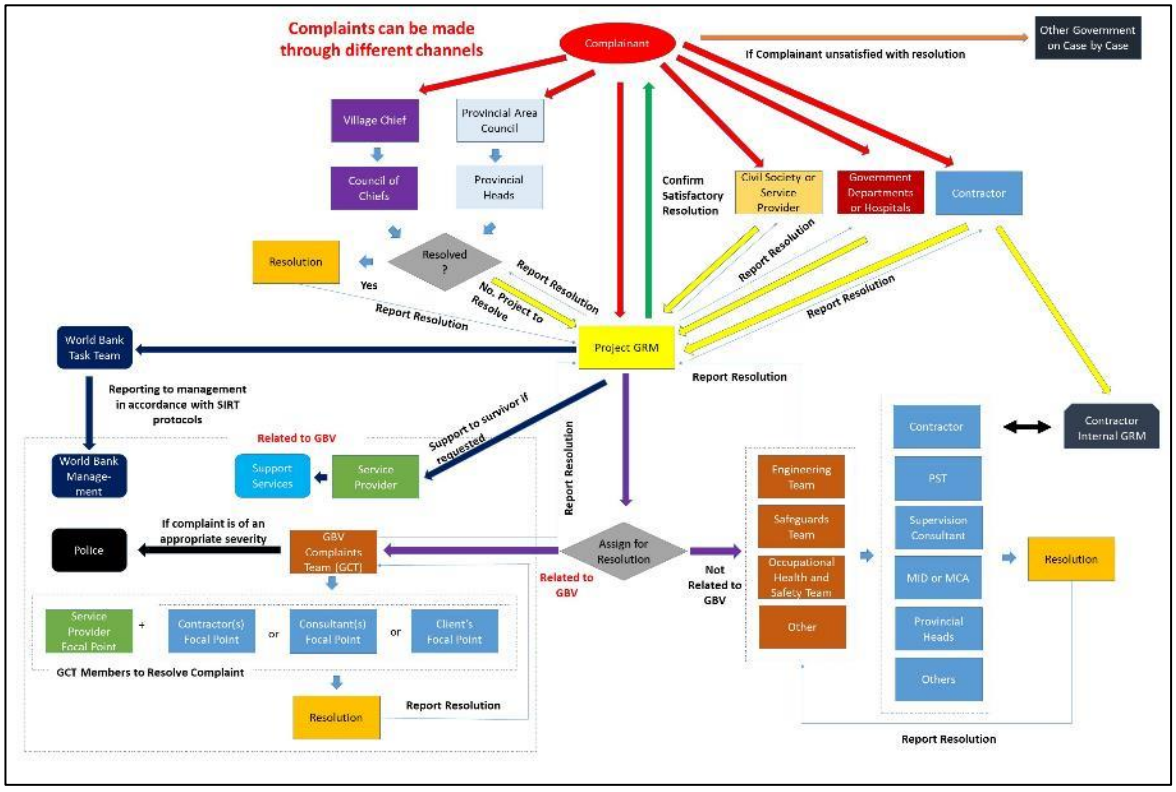
construction works or transport during specific hours, which do not impact school hours or specific traffic (includes pedestrian) safety management like flag controls and route diversions.

5.5 Grievance Redress Mechanism

During the course of these proposed works, it is possible that people may have concerns or grievances with the project's performance which may include any aspect of the implementation or an activity or a component of the project. Issues may occur during project preparation, design, construction and again during operation. Any concerns will need to be addressed quickly and transparently, and without retribution to the affected person (AP) or group of people involved.

Complaints can be made through different channels, such as the traditional local practices (e.g. village chiefs), online, phone, in-person, the local GBV/Human Trafficking/SAE Service Provider, the manager(s), or the Police. Complaints should be able to be made in different ways such as online, via telephone or mail, or in person. Anonymity should be ensured if the complainant so desires it, especially about GBV/Human Trafficking/SAE.

This GRM has been developed to satisfy both SIG legislative and WB GRM requirements as well as being developed in line with the Country Safeguard Systems.



If there were a need to use the GRM then the following process is to be used.

Complaints: Minor concerns or complaints that are given verbally to the Contractor or Supervision Engineer on site, the process would commence with an attempt to sort out the problem directly at the subproject level between the Contractor and the concerned individual or community.

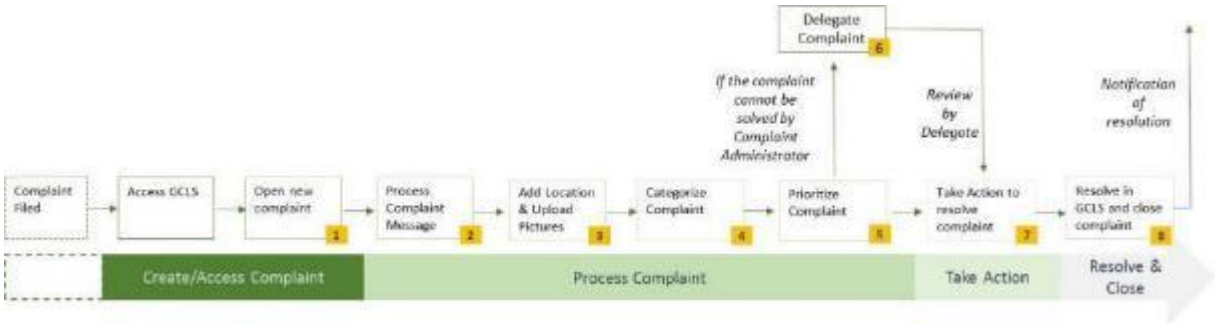
Most complaints arise during construction are expected to be minor complaints concerning traffic, dust or noise that should be able to be resolved quite easily. All complaints arriving at the Contractors

Site Office are to be forwarded to the Contractors Community Liaison Officer (CLO) and entered into the complaints register that is maintained by the Contractor and kept at the site. Details recorded will be: date, name, contact address and reason for the complaint. A duplicate copy is given to the AP for their record at the time of registering the complaint. The register will show when the issue is to be dealt with and who has been directed to deal with the complaint, the date that the AP was informed of the decision and how the decision was conveyed to the AP. The register is then signed off the person who is responsible for the decision and dated.

For most complaints, if immediate resolution is achieved and the complainant is satisfied, the matter will be recorded in the site diary and reported in the regular monthly report submitted and considered closed.

Grievances: If the issue cannot be resolved at the complaint level then it will be considered to be a grievance and will be addressed by being referred by the Contractor or Supervision Engineer toward the National Safeguards Advisor within the PST. The NSA will log it into the 'Grievance and Complaints Logging System' (GCLS) database for tracking and reporting on resolution. In accordance with the World Bank's 'Citizen Engagement' commitments under IDA 17, key indicators from the GRM are published online at the SIRAP project website.

All complaints must be acknowledged within 24hrs. The following procedure is followed to address complaints:



If it is impossible to resolve the complaint, or the complainant is not satisfied with the resolution, the case may be first escalated to Permanent Secretary (PS) of MID who will appoint a third-party arbitrator to form part of a GRM committee. If the AP is dissatisfied with the recommendation of the GRM Committee and subsequent determination from the PS of the MID, the AP may appeal to court. This will be at the APs cost but if the court shows that the PS has been negligent in making their determination the AP will be able to seek costs.

GCT: The SIRAP Code of Conduct and Action Plan for the Prevention of GBV, Human Trafficking, and SEA detail the specific GRM processes and responsibilities. The project shall establish a 'GBV Compliance Team' (GCT). The GCT will include, as appropriate to the project, at least four representatives as follows: the SIRAP PST National Safeguards Advisor, an appropriate Contractors representative, the supervision engineer and, a representative from the GBV/Human Trafficking/SAE service provider.

WB Level Resolution: In addition to the above project level GRM, communities and individuals who believe that they are adversely affected by a WB supported project may submit complaints to the

WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns.

Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the WB's attention, and WB Management has been given an opportunity to respond.

For information on how to submit complaints to the World Bank's corporate GRS, please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

6 Environmental and Social Management Plans

This section contains the detailed mitigation measures that are required for the various phases of the resealing works of the 15.07km as they are described in the design documents.

Also included in Section 5.2 are expected processes for other safeguard management measures and referred to in the mitigation table in Section 5.1.

6.1 Mitigation Tables

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
DETAILED DESIGN/ PRE-CONSTRUCTION MOBILISATION STAGE					
Road traffic safety	Road safety audit conducted before design process commences to inform designers, and then of design prior to tendering. The bid documents will require a Traffic Management Plan (TMP) to be developed by Contractor. For each haul route, the TMP will need to include measure to address: Layout plans; Vehicle traffic; Pedestrian traffic (particularly on bridges that construction traffic will use); Commercial marine traffic; Sensitive receptors (management near and consultation with) such as schools, residential dwellings, markets, churches, etc.); Management of increased heavy load traffic associated with transportation from the port. The TMP will also cover for temporary road disruption during road construction including temporary accessways. The TMP should follow the guidelines set in the Safe Traffic Controls for Road Works Field Guide (w*ww.works.gov.pg/files/roads-bridges/IF003_PNGFieldGuide.pdf*) and adapted for the Malaita works. The TMP will be included as an annex to the CESMP. The TMP shall include the name, address, and telephone number of the person responsible for the safekeeping of the works, or any change thereto, shall also be notified. TMP shall include details of key routes, site entry and exit layout, use of signage and flag operators (including night-time safety), and personnel protective equipment to be worn by workers (e.g. high visibility vests). The TMP should consider that the transport of material or equipment may likely impact normal pedestrian and vehicle traffic or pose an increased safety hazard, consideration should be given to moving these items during off-peak times. The TMP will also detail specific safety and traffic management measures required around sensitive receptors. These measures should be developed in consultation with individual landowners and property managers	Mall Location related to resealing works All haulage routes and along project affected roads	Minimal (requirement of bidding documents)	Contractor	SIRAP PST/MID/ Supervision Engineer

[6] Costs are estimates only and will be calculated during the detailed engineering design.

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	(e.g. school principals, hospital management, and church leaders) as required. Mitigation measures may include restricted construction times (e.g. time of day and or scheduling for school holidays) outside schools or the hospital, reduced speeds and use of cones or barriers to guide traffic and pedestrians through the worksite. Contractor is required to have a speed monitoring system in place to allow all vehicles to be monitored for adherence to speed of travel and only using approved haul routes. Educational outreach program on road safety to be developed by PST for implementation in Malaita schools and within communities on project roads throughout duration of SIRAP implementation. The program will be designed to include the police and a local Malaita drama/theatre group replicating other successful models of road traffic safety education. Program will be designed to target 2 age ranges: primary and high school. Road works will also include the design and installation of traffic safety signage along the road network, particularly targeting busy pedestrian areas. Subproject design will include solutions for pedestrian safety/management on bailey bridges. Solutions to include methods of separating pedestrians and traffic on current narrow spans. Solutions may include provision of separate walkways fixed to existing structures.			SIRAP PST	
Health and Safety	The bid documents will require the Contractor to have in place and comply with an occupational health and safety management system. The Occupational Health and Safety Standards (OHSS) to be adopted to include those of Australia, Canada, New Zealand, the European Union, and the United States of America, which are referred to in the World Bank Group EHS Guidelines. The Contractor shall ensure that all staff, personnel, subcontractors and suppliers are inducted, trained and in compliance with OHSS at all times. The Contractor shall be responsible for implementing all	All Location related to the resealing work	Minimal (requirement of bidding documents and standard construction practices).	Contractor	SIRAP PST

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	training, systems, procedures and monitoring of OHSS management and compliance. The Contractor shall: • Prepare OHS plan as part of CESMP; • Conduct Induction training for Contractor personnel; • Sign Code of Conduct (if instructed) for Contractor, Managers and other personnel; and • Implement relevant pre-construction measures prescribed in the OHS Plan. The Contractor shall incorporate all OHSS within the Site Safety Management Plan and shall provide a report to the Engineer monthly outlining compliance, achievements and training including the number of lost time incidents; the number of near-miss reports; first aid training; completed HIV/AIDS and GBV training; and OHSS training courses completed by staff. Utility clearances will be undertaken by the Contractor, Solomon Power and Telekom prior to work commencing and a representative from Solomon Power will be on site during works.				
Approvals	• Prepare and submit the Development Consent Application with relevant supporting documentation (EIA, ESMP, Consultation Report) to ECD; • Prepare application for emission permits from ECD • Prepare and submit Application for material sources (including quarry, gravel pits, sand sources etc.) – Quarry Development and Operations, Gravel Extraction, Earthworks to MMERE; • Prepare and submit Contractor ESMP.	All Locations	Minimal (part of standard design practices).	Design Consultants (all contracts)	SIRAP PST/ MID
Gender Based Violence (GBV) and Violence Against Children (VAC)	• Establish a GBV and VAC Compliance Team. Refer to Appendix F for guidance; • Prepare GBV and VAC Plans and seek Bank approval prior to project mobilization. Refer to Appendix F; • Sign Codes of Conduct (if instructed) for Contractor, Managers and other personnel. Refer to Appendix F for draft Codes of Conduct; and • Respond to GBV and VAC events as a matter of priority.	All Locations	Minimal (requirement of bidding documents and standard construction practices).	Design Consultants (all contracts) Contractor	SIRAP PST

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
Consultations	• Develop a consultation and communication plan (CCP) to guide stakeholder consultations with the Contractor as required over the course of the Project. Key stakeholders' engagement should be undertaken in accordance with WB requirements • Implement required pre-construction consultation in accordance with the approved CESMP Consultation and Communication Plan.	All Locations	Minimal (requirement of bidding documents and standard construction practices).	Design Consultants (all contracts) Contractor	SIRAP PST
Loss of Access to Assets and Land	For an areas of road reserve which may be temporarily needed during the construction phase of the project and which are subject to encroachment from the surrounding communities, under OP4.12 consultations will be undertaken with the asset owner to facilitate any temporary relocation of the asset (e.g. market stall) for the duration of those works. Appendix G and H outline the process for this. Rights to extract aggregates from quarries will be established following negotiations with the resource owner as detailed in Section 5.2.1	Malaita	Part of project and contract costs	Contractor CLO and PST CLO	PST NSS and TFSU Safeguard Specialist
Laydown and Stockpile Sites	Short term rental of land for lay down or stockpile sites will follow the process in 5.2.1 Sites must be located at least 300m from nearest residences and 150m from waterways. All sites must be securely fenced to prevent unauthorised access. Additional fencing may be required around specific stores (e.g. hazardous substances) to prevent access by unauthorised personnel. Secure, well-constructed areas within the compound must be clearly marked for solid waste collection, machinery maintenance, hazardous substance storage and toilet facilities for workers. The laydown site(s) will include hard stand areas which have protection from wind and (where appropriate) rain, bunding (hazardous substances), clean water diversion drains, and allow for complete containment, collection and	Malaita	Part of contract costs	Contractor	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	treatment of waste water from asphalt and concrete production and machinery maintenance. The ground of the construction lay down area will likely be compacted by the end of its use and so restoration will require scarification of the soil, application of topsoil and re-vegetation.				
Declaration of new public roads or rights of way	Any roads or rights of way declared during the project preparation or implementation will be required to adhere to the requirements of section 5.2.1 as well as OP4.12 and all process related to the declaration will be viewed through the lens of OP4.12. The fee for the public road or right of way easement (either voluntarily or through land acquisition) will be assessed under the parameters of OP4.12 and will take into consideration that the nature and severity of land use impacts will be the same for landowners who voluntarily enter into an easement and those who do not.	Malaita undeclared road or right of way network	Unknown but not part of current project costs	MID PST	PST NSS, TFSU Safeguard Specialist, WB Safeguard Specialist and Commissioner of Lands
Influx of Labour / Worker Management	Contractor will be required to produce a Workers Management Plan (WoMP) for the Malaita works to describe recruitment strategy, worker accommodations, accommodation facilities and management of off duty workers. Worker Management Plan will follow requirements of this ESMP, the plan guidelines in Appendix D and the IFC Workers Accommodation Standards and Guidelines. Workers Management Plan will be required as part of the bid submission and will be further developed and included as an annex in the CESMP for clearance by the Supervision Engineer. The WoMP will include cultural protocols (including appropriate clothing and no work on a Sunday or Saturday for LDS Church members), management and restricting of visitors to the camp, visitor curfews, expected behaviours (noise, alcohol, within community areas), gift giving and receiving, disciplinary actions, etc.) SIRAP has a Code of Conduct and Action Plan for the Prevention of GBV, HT and SEA (Appendix E). All Project workers will be required to undertake GBV and SEA prevention training under this action plan and sign the associated	Malaita	Part of standard contract costs	Contractor	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Code of Conduct prior to commencement of works. The PST will provide the Contractor with details of approved service providers who are able to undertake this training. From the provided list, the Contractor shall enter into agreement with one service provider to undertake the GBV IEC campaign. The cost of the campaign shall be funded by the Contractor from the provisional sum provided in the bill-of-quantity. The contractor shall make staff available for a total of at least 0.5 days per month for formal trainings including GBV. All workers are required to undertake training on the prevention of HIV/AIDS in addition to the GBV related training. The PST will provide the Contractor with details of approved service providers who are able to undertake this training. The cost of the campaign shall be funded by the Contractor from the provisional sum provided in the bill-of-quantity. The Contractor is required to maximise the number of local workers from the Malaita communities. The Malaita Provincial Government will endeavor to provide a list of local workers and skills for the contractor, prior to mobilizing. Preference should be given to a local recruitment process, only relying on workers from other islands or from overseas for vacancies which cannot be filled locally. As part of the WoMP, the Contractor will be required to submit a list of roles along with required qualifications or experience and the planned recruitment strategy for that role (i.e. local or regional/overseas). The Contractor will be required to provide justification for any roles not filled locally. Work permits will only be granted for workers with skills unavailable in the SI. Should international workers be found to be performing jobs that can be done by locals (e.g. driving vehicles), the Supervision Engineer will notify the contractor and the SIG who will cancel the work permits. The contractor will be required to return them home within 48 h of notification by the Supervision Engineer. For recruitment of SI nationals which cannot be fulfilled by the local community, it is preferred that it is undertaken through a formal recruitment process which ensures that only people who are already employed are				

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	travelling to the project site. Ad hoc employment of casual labour is not permitted. Any project staff who are recruited from overseas are subject to visa approval. As part of the visa application process, all workers are required to submit a medical report, an element of which is a HIV test. All overseas workers must complete this test and submit their medical report to the immigration department before appropriate visas can be issued. As part of the visa application process all overseas workers will also be required to provide a police background check from their home country. It is also contractual requirement for all overseas SIRAP project works to provide SIRAP PST with police background clearances prior to arrival in country, regardless of the visa application process. If a worker has been tested positive or have been in contact with a positive COVID-19 case, the worker will be required to undergo the 14-day quarantine isolation period. In addition to the Codes of Conduct for GBV/Human Trafficking/SEA, the Contractor will also prepare a Code of Conduct to describe the expected behaviours of their project worker in relation to the local communities and their social sensitivities.				
Storm Water Management	Design shall ensure that all storm water is captured within the drainage systems and contained within the existing drainage channels. No new outflows onto private land will be permitted	Roadside drainage	Minimal (part of standard design practices)	Design Consultants	SIRAP PST
Soil erosion	All erosion and sediment controls will be Contractors responsibility to maintain an effective working order, including reconfiguring drainage lines as required during the construction process to ensure dirty water is directed into sediment controls at all times. Reuse of the water collected in sediment ponds or basins for dust suppression and roadworks is preferred over release into the environment. Where water is being stored for dust suppression, the required design capacity of the basins shall be available. Sediment basins and other sediment controls shall be operated and maintained in a manner that minimises the risk of environmental harm. The	All project locations	Minimal (part of standard design practices)	Design Consultants Contractor	SIRAP PST

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	design capacity of the upper settling volume shall be made available within 120 hours of the most recent rainfall event which causes runoff. The sediment storage zone shall be maintained at all times with the accumulated sediment removed in a manner that does not allow the sediment to be conveyed into a watercourse or offsite. Where coagulants or flocculants are used to treat stormwater, they must not cause harm to the receiving waters or environment. Before the natural surface is disturbed on a section of the works, the Contractor shall submit an Erosion and Sediment Control Plan (ESCP). Excavations should be kept to a manageable size to reduce the time of exposure. Any stockpiles will need to be on an impermeable geotextile or hardstand and runoff directed to permeable land. Stockpiles of any fine grain materials (e.g. sand and topsoil) must be covered to prevent dust and sediment laden runoff during rain events. Discharges from any activity at this location are prohibited from discharging directly to the marine and coastal environment. Clean runoff should be diverted inland for percolation to underlying groundwater, and potentially contaminated runoff should be collected and treated. Treatment will be dependent on the type of potential contamination (e.g. oil water separator for runoff contaminated with hydrocarbons or settling pond or tank for sediment laden runoff). The work shall: ▪ Minimize erosion and design erosion protection measures according to international good practice standards, including incorporation of effective drainage systems (soakage pits) and consideration of surface flow paths. ▪ Wherever feasible, schedule excavation works for the dry season months (May to October). ▪ Develop a Contingency Plan for works to allow for anticipated construction start date during the wet season.				

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	▪ Contingency Plan must detail soil erosion prevention measures in event of storm or heavy rain event.				
Dust /Odour Air Pollution	Dust/Odour/Air pollution may occur through the transportation of raw materials during the pre-construction/construction phase. These can be minimised through: • Identify and locate waste disposal sites, stockpile sites and equipment (e.g. asphalt/concrete plant) at least 300 m away from any residential settlements, and 150m from water bodies, streams or rivers, to minimize impacts on the environment and nearby population. • Within the asphalt plant, the dust/odours can be minimised through using water sprinklers in the crushing plant. • Minimise dust from open area sources, including stockpiles, by using control measures such as using enclosures of covers and increasing moisture content. • The CESMP should include a provision for quarry dust control; all equipment including crushers, aggregate processors, generators etc. should / if possible, be located in the quarry pit to minimize dust emissions. • Ensure all equipment is serviced and issued with warrant of fitness (as required). Any machinery deemed to be polluting the air must be replaced (or fixed) on instruction by the Supervision Engineer and/or the ECD. • During transportation, the trucks need to have covers to minimise dust and dust suppression techniques will be implemented, such as applying water to minimise dust from vehicles movements.	All components	Minimal standard practices (part of the design	Contractor	Supervision Engineer / PST NSS
Water and soil pollution	Soakage pits should not be installed directly into a shallow aquifer. Minimise risk to groundwater and surrounding soil by developing a Spill Prevention and Response Management Plan (SPRMP) and provide training to all contract workers on how to implement the plan. Precautions should be in place to prevent wastewater and hazardous substances or materials entering	All components	Minimal (part of standard design and construction practices)	Contractor	SIRAP PST & Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	the environment (e.g. fuel spillage, wastewater containing fire retardant during firefighting), The SPRMP should include factors associated with both the construction and operational phases and should be available at all SIRAP locations. No stockpiles within 100m of any surface water bodies Ensure bunded areas and hard stands are allocated at construction lay down area for the storage of fuel, lubricants and other potential substances required for the project. Watertight bunds to be able to contain 110% of volumes being stored or 25% if total volume greater than 1,000 L. Ensure wash down areas with respective collection and treatment systems are designated within the construction camp (e.g. settling pond or tank and concrete slurry treatment) prior to works commencing. Contractor to undertake groundwater monitoring prior to any site establishment or construction laydown areas to determine baseline conditions. Measure depth to groundwater and analyse samples for concentrations of pH, electrical conductivity, total petroleum hydrocarbons (for potential petroleum contamination), and total nitrogen (for potential sewage contamination), or as agreed with SIWA. Any asphalt plant will be located at least 150m away from any body of water and 300m from communities. Sanitation treatment system (e.g. removal of waste to landfill, compost or proprietary treatment system) is approved by the Supervision Engineer prior to implementation. It is the contractors responsibility that relevant Water permits are in place No runoff from laydown sites, construction works or other project activities will enter any waterway. The Contractors will need to ensure an adequate supply of water for construction and personnel, which does not adversely affect the local community's water supply.				

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Water supply	Contractors should include maximum rainwater reclamation and water conservation/ efficiency in all components. The Contractors will need to ensure adequate supply of water for construction and personnel which does not adversely affect local community's water supply.	All components	Minimal (part of standard design practices)	Contractor	Supervision Engineer & SIWA
Sourcing aggregate material	MID have provided a list of available quarries on Malaita. Not all identified quarries have been graded (Appendix B). Ensure locally sourced aggregate is sourced under appropriate permit from approved quarry sources and are operating in accordance with SIG law. Prior to any quarries being selected for the SIRAP project, public consultation will be completed with any affected parties relating to re-opened quarry sites. Consultations will also be completed with the correct land owners to secure access to site and resource extraction. Consultations and negotiations will be done under the direction of the CLO. If the Contractor applies for their own Building Materials License, they will be required to follow national consenting requirements and to produce a Quarry Management Plan as per the requirements of ESMF & ESMP and included as an annex in the CESMP for clearance. The following conditions apply to site selection for new river extraction sites: i. All sites will be subject to approval and permitting under both the Mines and Minerals Act (Building Materials Permit) and the Environment Act (Development Consent); ii. Limits to volume of material extracted from any one source will be set in light of the ability of the source to regenerate and likely environmental impact as a result of the extraction. As with any extraction, there are limits after which localized or more extensive environmental impacts may occur. This might be due to facilitation of erosion or sedimentation which could alter the immediate environment or impact directly upon flora and fauna;	All components	Minimal (part of standard design and construction practices)	Contractor	Supervision Engineer, SIRAP CLO, SIRAP National Safeguards Specialist & ECD

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	iii. Access to gravel extraction sites will be negotiated with land owners and users, in the event that an access is purpose built, should the owner not want to keep the access, the contractor will be responsible for reinstating the land to its pre-project condition; iv. Any rivers or streams identified as being a natural habitat[7] under OP4.04 Natural Habitats or forming part of a protected area (including the buffer zone of a protected area), a proposed protected area, or having conservation value, being habitat for rare or endangered aquatic species or birds, comprising part of the intertidal zone, comprising swamp or wetland, or including mangroves, will not be permitted to be used as sources of gravel; v. Any rivers or streams that are used as a fresh water source for villages should not be used as a materials source as gravel extraction will cause increased sedimentation and turbidity. In cases where such rivers or streams must be used, alternative water sources, such as drilled or dug wells, upstream of extraction sites and works, must be provided for the villages; vi. Use of approved machinery for gravel extraction from rivers such as excavator or backhoe. Dredging or similar operations for the winning of construction material will not be permitted; vii. A number of sites for extraction are preferred over a large volume being taken from one location; viii. In respect of maximum volumes to be removed from any one source, any river gravel removal for the subproject will be managed in accordance with the aggregate extraction guidelines and conditions of approval for the extraction plan; ix. Gravel or material should not be extracted from river bends, and if required, river training be undertaken;				

[7] Natural habitats are land and water areas where (i) the ecosystems' bio-logical communities are formed largely by native plant and animal species, and (ii) human activity has not essentially modified the area's primary ecological functions.

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	x. Any extraction sites and borrow areas close to roads will be located at least 15 m outside the right-of-way of roads, extraction from the sides of roads in a way that could undermine the roads will not be permitted; xi. Any extraction sites within rivers will have a 200m buffer zone between the site and the coastline. xii. Site and pit restoration will follow the completion of works in full compliance with all applicable standards and specifications; xiii. Any topsoil excavated from the top of sites and borrow pit areas will be saved and reused in re-vegetating the sites and pits to the satisfaction of the National Safeguard Specialist; xiv. Additional extraction sites and/or borrow pits will not be opened without the restoration of those areas no longer in use; and xv. The excavation and restoration of sites and borrow areas, as well as their immediate surroundings, will be undertaken in an environmentally sound manner to the satisfaction of the National Safeguard Specialist. Sign-off to this effect by PST will be required before final acceptance and payment under the terms of the contract. For quarries on Malaita, the Contractor will recruit a CLO experienced in road maintenance projects and they will be responsible for engaging with the SIRAP Community Liaison Officer to develop relationships with quarry owners and their communities. During this process, the Contractor CLO and the PST CLO will identify the required traditional exchange of services which would enable the project to extract aggregate. This traditional exchange of services will be acceptable within the context of the WB Safeguards Polices and may be in addition to the usual fee paid for the aggregates. Prior to any commitment being given to the communities, the agreement will be approved by the Supervision who will take advice from the SIRAP National Safeguard Specialist and SIRAP Project Manager. For rivers on Malaita, the extraction limit will be set based on ability of the resource to regenerate and the potential environmental impacts. Contractor is required adhere to these limits and change the quarry source as the project work site move. This will also ensure that the communities nearest to the work are given the opportunity to benefit from this economic activity. This				

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	will also provide more community support to the project rather than sourcing aggregates from a remote location compared to the work site. Imported aggregates will be from an existing permitted quarry in an approved country of origin. The source quarry must be operating in compliance with the conditions of their own national permit and good international standards. Supervision Engineer to approve source quarries prior to purchases agreements being signed. To prevent inter-island spread of GAS, stockpile sites for imported and local aggregates which are transhipped through Honiara will be decontaminated and a biosecurity perimeter will be maintained at the Honiara stockpile site in conjunction with the SIG Biosecurity department, following the system developed by MID for their road aggregate stockpile site. The contractor will be required to present specific management plans for the sea and land transportation of these materials from the origin to the project site, especially the landing facility. These plans will be approved by the Supervision Engineer				
Solid waste generation	Solid Waste Management Plan to be completed following requirements of ESMP (based on the content of this ESMF). SWMP will be included as an appendix to the CESMP for clearance by the Supervision Engineer. At all times, the Contractor is responsible for the safe and sound disposal of all solid waste generated by the Works. Solid waste includes: • General waste (i.e. office type waste, household waste (from any workers camps), lightweight packaging materials). • Recyclable waste (i.e. certain plastics, metals, rubber etc. that can be recycled). • Organic biodegradable waste (i.e. waste that will decay / break down in a reasonable amount of time, such as green waste, food waste). • Inorganic non-recyclable waste (i.e. waste that cannot decompose / break down and which cannot be recycled). • Hazardous waste (i.e. asbestos, waste oil etc.)	All locations	Minimal (part of standard design and construction practices)	Contractor	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	No solid waste will be disposed of on Malaita and will instead be exported to a permitted landfill site which can accommodate the project waste. The Honiara City Council should be consulted on their willingness and ability to receive the Malaita waste. The Ranadi Landfill operated by Honiara City Council (HCC) Environmental Health Division. The landfill has a drainage system along with settling and digestion ponds to capture leachate. • General waste (including only small quantities of lightweight packaging waste) can be disposed of at Honiara, subject to HCC approval. In addition to this and with the approval of the Supervision Engineer: • Organic biodegradable waste may be deposited in designated dumping areas in reasonable quantities. • Recyclable waste may be supplied to a local receiver licensed to process such waste. The SWMP shall describe solid waste streams generated by the works and detail the approved disposal methods along with permissions. At all times, the Contractor is responsible for solid waste generated by the Works in accordance with the Environmental Health Act and in accordance with the Solomon Islands Waste Management and Pollution Control Strategy 2017-2026. The Contractor will develop a Solid Waste Management Plan (SWMP) following the guidelines provided in Appendix D of this ESMP which also adheres to the SIG Environmental Health Act. As a minimum the SWMP will make provisions for the following: • Describe the solid waste streams generated by the works along with estimated quantities. • Develop a plan for safe storage and handling of waste stored on the project site as per the stipulations in this ESMP. • Identify approved service providers for collection and disposal of waste and stipulate conditions of carriage.				

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	• Detail the approved disposal methods along with appropriate permissions. • Confirm with HCC the process and permissions for using Ranadi Landfill for handling general project waste and septic waste. • Contractor shall contact HCC to determine whether any quantities of the projects hazardous waste materials generated by the project are suitable to be handled at the Ranadi Landfill and obtain any permissions necessary. • Contractor shall seek permission from HCC to disposal of organic biodegradable waste in their designated managed area. • Recyclable waste may be supplied to a local receiver licensed to process such waste. • Contractor to identify shipping route and licensed disposal facilities for all exported waste. • Contractor to identify any export permits or conditions for export of waste. • Identify those persons responsible for implementing and monitoring the SWMP. Any waste which cannot be safely and correctly disposed of in the SI is to be disposed of OFFSHORE in permitted or licensed facilities. It is the Contractor's responsibility to obtain all necessary permissions for transport and safe disposal of hazardous waste from the project site in a legally designated hazardous waste management site within the country or in another country, and to ensure compliance with all relevant laws. Evidence will need to be supplied to the Supervision Engineer of proper disposal of waste at the final location. The export of any hazardous waste must be in compliance with the Basel and Waigani Conventions and any relevant laws enacted by source and the recipient countries. Disused material may be generated in the form of surplus aggregates or surplus materials from excavations. Most of the clean fill material can either be used to backfill areas where old equipment or infrastructure has been removed or as a resource for general use by MID and the community. Clean				

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	fill materials which are not able to be reused within the timeframe of the project implementation shall be transported to a location approved by the MID to be stored for future use by the Ministry. This location shall also be subject to approval by the Supervision Engineer. Unless otherwise instructed by the Supervision Engineer, other surplus materials not needed during the defects liability period shall be removed from the site and the country.				
Hazardous substances	Where possible fuel shall be obtained from local commercially available sources. Prior arrangement regarding quantity and type will need to be organised by the contractor. All fuel to be stored in self-bunded containers In all project locations, fuel should only be stored in self bunded containers within designated areas that are designed to store and facilitate operations associated with it (e.g. re-fueling). Bunded areas (secondary containment) must contain the larger of 110% of the largest tank or 25% of the combined volumes in areas with a total storage volume equal or greater than 1,000 L. Bunded areas are to be impervious (water tight), constructed from chemically resistant material, and be sheltered from the rain as rain water allowed to collect within the bund could be contaminated if there is any hazardous substance residue on storage containers or spilt product within the bund. Spill Prevention and Response Management Plan to be developed by Contractor and workers trained. The response plan should include details on the use of spill kits and absorbent items to prevent spills entering the receiving sensitive environment (ground, surface water). This SPRMP should be applicable to all SIRAP project works areas. A SPRMP should be in place for both the construction phase and operational phase. Bitumen will be stored at the construction laydown area. Identify suitable area for hardstand and bunded storage areas. These areas will be at least 100m inland from the coast.	All locations	Minimal (part of mobilisation and construction planning)	Contractors	SIRAP PST

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Any empty asphalt or bitumen drums will be removed offshore and either returned to supplier or disposed of in a legally approved facility outside Solomon Islands. It is the Contractor's responsibility to ensure that these are stored in accordance with the ESMP and applicable rules and regulations and that all persons who may come in contact with such hazardous substances and materials are adequately protected from unnecessary exposure. The export of any hazardous waste must be in compliance with the Basel and Waigani Conventions and any relevant laws enacted by source and the recipient countries. For any clean fill material generated, it either be used to backfill areas where old equipment or infrastructure has been removed or as a resource (e.g. crushed asphalt and base course material (only small quantity will be sourced from Honiara)) for general by MID and the community. Clean fill materials which are not able to be reused within the timeframe of the project implementation shall be transported to a location approved by the Public Works Department to be stored for future use by the Ministry. This location shall also be subject to approval by the Supervision Engineer. These materials shall be removed from the site area and safely disposed of in compliance with any local requirements at the Employer's nominated disposal site(s) and/or disposed of at the Contractor's quarry site(s), before the start of the defects liability period. Unless otherwise instructed by the Supervision Engineer, other surplus materials not needed during the defects liability period shall be removed from the site and the country. Where possible fuel shall be obtained from local commercially available sources. Prior arrangement regarding quantity and type will need to be organised by the contractor. All fuel to be stored in self-bunded containers.				
Importation of equipment and materials	All imported vehicles, equipment, materials and machinery will be inspected by Biosecurity Solomon Islands on arrival.	All components	Minimal (part of mobilisation and	Contractor	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	The Contractor is to arrange for their vehicles and machinery to be thoroughly cleaned of all contamination prior to shipping (e.g. soil, rocks, plant material, seeds, etc). Items shipped inside containers must also have the inside of the container thoroughly cleaned of all previous cargo residues, including dunnage. Obtain import permits and quarantine certification prior to export from country of origin. Certificate of fumigation and verification of source (as per national requirements) to be submitted to Quarantine Inspectors and approved by the Supervision Engineer prior to delivery to site. For imported aggregates and import permit will be required and the conditions of this permit may include the following fumigation requirements as a minimum: *Fumigation with methyl bromide at normal atmospheric pressure at a rate of 48g/m3 for 24 hours at 21˚C or above, within 21 days of shipment;* *OR* *Fumigation with sulphuryl fluoride (Vikane) at normal atmospheric pressure at a rate of 64 g/m3 for 16 hours at 21˚C or above, within 21 days of shipment.* Prior to imported items being delivered to site the Supervision Engineer shall confirm that all necessary biosecurity documentation and clearances have been provided. The contractor will be required to present specific management plans for the sea and land transportation of these materials from the origin to the project site, especially the landing facility. These plans will be approved by the Supervision Engineer Any locally supplied aggregates for this project will need to be sourced from an area which is known to be free of GAS.		construction planning)		

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
Community grievances	Ensure that public consultation and disclosure communication is completed at regular intervals with full involvement of SIRAP CLO to ensure that the public are fully aware of the SIRAP works. Consultation should include all aspects of the project including the road works site, quarries and transport routes. Consultation shall include raising awareness of the project GRM, how to complain and how complaints will be managed. In all instances, consultations will be designed to ensure free, prior and informed consent of the affected communities with the aim to maintain the broad community support for the project which has been demonstrated to date. Advertise, maintain and operate a grievance response mechanism, including publishing statistics on resolutions.	All components	Minimal (part of mobilisation and construction planning)	Supervision Engineer SIRAP PST	SIRAP PST CLO & TFSU TFSU
Local business grievances	Ensure that local businesses/roadside vendors and are included in the public consultation and disclosure communication process. Regular communication should be made with affected parties to ensure that they are fully aware of the proposed program of works and how to complain and how complaints will be managed.	Malaita locality	Minimal (part of mobilisation and construction planning)	Contractor	Supervision Engineer
CONSTRUCTION STAGE					
Traffic (vehicle and pedestrian) and construction safety	The Contractor will prepare and issue a site-specific Traffic Management Plan prior to commencing physical works on site to address traffic-related issues related to the project. This TMP should be in accordance with Traffic Control during construction and should form an annex to the Contractors ESMP. The Contractor shall: • Implement the traffic management plan (TMP) to ensure smooth traffic flow and safety for workers, passing vehicles and pedestrian traffic. • Where appropriate, employ flag operators on the road to prevent traffic accidents. The workers shall have relevant safety equipment and training. The TMP should prohibit the use of engine breaking close to and through communities and inhabited areas, it should also regulate the working hours for the haul trucks. The TMP should include traffic control measures for nighttime works.	Route from quarries and ports to laydown sites	Safety equipment included in construction cost	Construction Contractors	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Special care must be taken when construction works reach any school nearby. Coordination with school representatives must occur for safe passage of students and parents through a construction area. May include restricted work hours, reduced speeds and detours. Contractor to report on adherence to speed limits and use of haulage routes in monthly reports.				
Site Safety	Restrict access to the construction zone through warning signs, temporary gates, fencing or other construction zone demarcation at all entry points, including Contractor Laydown site. Demarcate all excavations of 2.0m depth or greater and side slopes in excess of 2:1 (horizontal to vertical) through construction fence, rope or other means that clearly defines the hazard. Maintain and demarcate a 5.0m setback from the top of the bank using signs, construction flags, or other visual warning to prevent machinery, vehicles and people from accidentally falling into the river channel. Ensure use of PPE and consider providing for on-site storage of workers allocated PPE.	All components	Included as the provisional sum in the bill of quantity	Contractor	Supervision Engineer SIRAP PST
Human Trafficking	During the implementation phase of the SIRAP works on Malaita, it will be critical for the SIRAP PMU (through the National Safeguards Specialist and Community Liaison Officer) to work with local NGOs, CSOs and Government departments to undertake a gap assessment of the current social safety net framework that is in place on Malaita. This framework should be assessed in comparison to the Honiara framework where capacity, funding and connectivity is stronger than in Malaita. The results of the gap assessment will be shared with all relevant stakeholders. In addition to the gap assessment, the SIRAP PMU will work with the MID and other relevant ministries and NGOs to provide stakeholders and communities on Malaita with the SIRAP prevention of GBV, HT and SEA training to help raise awareness within communities and within enforcement organisations.	Malaita	Additional to National Safeguard Specialist TOR and therefore not currently included in project costs	SIRAP PST	WB

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
Soil erosion	All erosion and sediment controls will be Contractors responsibility to maintain an effective working order, including reconfiguring drainage lines as required during the construction process to ensure dirty water is directed into sediment controls at all times. Reuse of the water collected in sediment ponds or basins for dust suppression and roadworks is preferred over release into the environment. Where water is being stored for dust suppression, the required design capacity of the basins shall be available. Sediment basins and other sediment controls shall be operated and maintained in a manner that minimises the risk of environmental harm. The design capacity of the upper settling volume shall be made available within 120 hours of the most recent rainfall event which causes runoff. The sediment storage zone shall be maintained at all times with the accumulated sediment removed in a manner that does not allow the sediment to be conveyed into a watercourse or offsite. Where coagulants or flocculants are used to treat stormwater, they must not cause harm to the receiving waters or environment. Before the natural surface is disturbed on a section of the works, the Contractor shall submit an Erosion and Sediment Control Plan (ESCP). Excavations should be kept to a manageable size to reduce the time of exposure. Any stockpiles will need to be on an impermeable geotextile or hardstand and runoff directed to permeable land. Stockpiles of any fine grain materials (e.g. sand and topsoil) must be covered to prevent dust and sediment laden runoff during rain events. Discharges from any activity at any location are prohibited from discharging directly to the marine and coastal environment. Clean runoff should be diverted inland for percolation to underlying groundwater, and potentially contaminated runoff should be collected and treated. Treatment will be dependent on the type of potential contamination (e.g. oil water separator for runoff contaminated with hydrocarbons or settling pond or tank for sediment laden runoff). River water quality monitoring (including suspended sediments) will be undertaken upstream and downstream of the construction site and will be	All locations	Minimal (part of standard construction practice)	Construction Contractors	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	the Contractors responsibility. The Supervision Engineer ensures that the Contractor monitors river quality monitoring before, mid and end of the project. The Contractor shall maintain all erosion and sediment controls in effective working order using the ESCP including: • Minimise time and size of ground disturbing activities to workable size at any one time. Ensure sediment traps are in place prior to works commencing. Vegetation to be removed manually, strictly no use of herbicides/ pesticides. • Division bunding or other similar methods to be used for large areas of vegetation clearance and around excavations. • Keep construction vehicles on defined tracks. • Re-vegetate disturbed areas that are not being paved as soon as practicable (loosen ground; apply topsoil; seed or plant as necessary). • All earthworks must be undertaken with the intent to reduce/prevent soil erosion of any exposed surface and be constructed according to a phasing plan which requires re-vegetation before moving on to the next stage. • Minimize the number of stockpiles area, and a number of time stockpiles are exposed, place all minimum 30m from areas prone to flooding, and construct a swale (minimum 450 x 450 mm) between stockpiles and adjacent properties to retain sediment in the construction zone. • Slopes greater than 2:1 (stockpiles, excavation pits, temporary cut/fill, and final landscape form) must be fitted with appropriate erosion control measures as soon as possible. • All earthworks to be undertaken during the dry season or when the weather conditions are favourable. • Install silt traps in all temporary and permanent drains where work is occurring in or within 30m of such drain.				

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	• All run-off from the project shall be collected and diverted to facilities for removal of sediments, i.e. silt ponds. • Runoff from project area shall not be discharged into an adjacent water bodies, including the sea without effective means to prevent sedimentation.				
Natural Disasters Cyclones Earthquakes Landslips	If a cyclone strikes, within 24 hours, construction must cease, any loose boulders, construction materials secured or removed from near rivers and other water courses, all stockpiles of loose aggregate or soil, and any potential contaminant must be covered and or removed, and any temporary fencing or safety equipment likely to be in the flooding zone must be removed. Compact and protect all stockpiles and excavation pits throughout the construction period. Stabilize any steep slope (greater than 2:1 horizontal to vertical) with erosion control measures.	All locations	Minimal (part of standard construction practice)	Contractor	Supervision Engineer
Vegetation Clearance	For any vegetation clearance: The Contractor will limit any areas to be cleared to the minimum workable area. Any significant vegetation (crop trees, important shade trees, boundary marker species, etc) will be identified prior to any clearance and appropriate compensation or avoidance measures will be secured (consultations facilitated by the National Safeguards Specialists and CLO) prior to establishment of laydown and storage sites. 100m buffer zone established around water courses and coastline. Contractors machinery operators to understand boundaries. Cleared vegetative material to be disposed of by communities for fuel wood. All topsoil (minimum 150mm depth) must be stripped and stockpiled and re-applied to revegetated areas.	All location (Laydown and storage sites and roads)	Minimal (part of standard construction practice)	Contractor	Supervision Engineer and National Safeguard Specialist

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Final grading must re-construct the original landscape shape and grade at edges of the construction zone. Trees and vegetation stockpiled for decomposition must be in appropriate locations that will not disrupt drainage patterns of the surrounding landscape, and or removed and disposed of at an approved site. Where logs and firewood are desired by villagers, contractors must remove branches and assist villages in transporting logs to appropriate locations. The contractor to informed communities ahead of time on the actual vegetations that need to be removed.				
Waste disposal	No solid waste is to be disposed of on Malaita. The Ranadi Landfill operated by Honiara City Council (HCC) Environmental Health Division. The landfill has a drainage system along with settling and digestion ponds to capture leachate. • General waste (including only small quantities of lightweight packaging waste) can be disposed of at Honiara, subject to HCC approval. In addition to this and with the approval of the Supervision Engineer: • Organic biodegradable waste may be deposited in designated dumping areas in reasonable quantities. • Recyclable waste may be supplied to a local receiver licensed to process such waste. The Contractor shall prepare and Implement approved Solid Waste Management Plan (SWMP). The plan: • Ensure all construction waste material is re-used, recycled, returned to the supplier, or packed up for transport to an approved disposal site or out of country depending on accepted waste streams at each facility. • Ensure areas for waste collection, recycling and off-site disposal are clearly marked/sign posted. Segregate waste to avoid cross contamination, such as with contaminated material (hazardous substance).	All locations (laydown site, stockpile site, work location and workers facilities)	Minimal (part of standard construction practice)	Contractors	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	• Require the contractor to install waste collection facilities at construction lay down area to allow for collection and packing of waste. Strictly no dumping of rubbish. Include awareness training in general environmental training. • Prohibit the disposal of solid wastes into drainage ditches and public areas. • Prohibit the burning of construction and domestica wastes. • Ensure that workers are provided with a sanitary system to prevent fouling of surrounding soils. Sanitary system must be of sufficient size for the number of workers and must take into account the disposal situation at the local landfill. If access to existing facilities is not available, workers must be provided with a sanitary system to prevent fouling of surrounding soils. • All hazardous waste is to be disposed of offshore in permitted or licensed facilities. It is the Contractor's responsibility to obtain all necessary permissions for transport and safe disposal of hazardous waste from the project site in a legally designated hazardous waste management site within the country or another country, and to ensure compliance with all relevant laws. Evidence will need to be supplied to the Supervision Engineer of proper disposal of waste at the final location. • With the approval of the Supervision Engineer, organic biodegradable waste may be deposited in designated dumping areas in reasonable quantities, other suitable facilities which do not lead to FOD generation or allow for leachate to reach soils or groundwater. • Organic biodegradable waste may be deposited in designated dumping areas in reasonable quantities at the Ranadi landfill. Any waste which cannot be safely and correctly disposed of in the SI is to be disposed of OFFSHORE in permitted or licensed facilities. It is the Contractor's responsibility to obtain all necessary permissions for transport and safe disposal of hazardous waste from the project site in a legally designated hazardous waste management site within the country or in another country, and to ensure compliance with all relevant laws. Evidence will need to be				

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	supplied to the Supervision Engineer of proper disposal of waste at the final location. The export of any hazardous waste must be in compliance with the Basel and Waigani Conventions and any relevant laws enacted by source and the recipient countries. Disused material may be generated in the form of surplus aggregates or surplus materials from excavations. Most of the clean fill material can either be used to backfill areas where old equipment or infrastructure has been removed or as a resource for general use by MID and the community. Clean fill materials which are not able to be reused within the timeframe of the project implementation shall be transported to a location approved by the MID to be stored for future use by the Ministry. This location shall also be subject to approval by the Supervision Engineer. Unless otherwise instructed by the Supervision Engineer, other surplus materials not needed during the defects liability period shall be removed from the site and the country. The Contractor is responsible for the collection and treatment of the septic waste. Temporary toilets and disposal or treatment of wastewater will need to be in accordance with the ECD and MID advice (for example construction and training in use of compositing toilet facilities).				
Water and soil pollution	Treatment and disposal of all Contractor generated sanitation wastewater is in accordance with ECD and approved by Supervision Engineer. Hydrocarbons (lubricants/fuel) shall be collected and recycled or disposed of according to SIG regulations (incinerated or removed from). All areas intended for the storage of hazardous materials will be quarantined and provided with adequate facilities to combat emergency situations. Spill response kits available at all locations where fuel is stored. SPRMP training completed for all construction workers.	All locations	Minimal (part of standard construction practice)	Contractors	Supervision Engineer & ECD

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Ensure availability of spill clean-up materials (e.g. absorbent pads, etc.) specially designed for petroleum products and other hazardous substances where such materials are being stored. Spillage, if any, will be immediately cleared with utmost caution to leave no traces. Precautions should be in place to prevent wastewater and hazardous substances / materials entering the environment (e.g. fuel spillage, wastewater containing fire retardant during firefighting), however should an incident occur, the Contractor must have a SPRMP must be in place. The plan should include details on the use of spill kits and absorbent items to prevent spills entering the receiving sensitive environment (ground, surface water). This plan should be applicable to all SIRAP project works areas (quarries, and transport routes). A SPRMP should be in place for both the construction phase and operational phase. Zones for preliminary accumulation of waste should be designated in areas that will cause no damage to the vegetation cover or leach into groundwater or surface water (e.g. within construction lay down area on hard surface). Machinery refuelling to be undertaken at least 20m from any watercourse. Heavy machinery shall not be used during a period of heavy rain or when the ground is waterlogged Excavations are bunded to prevent ingress of water runoff and clean water diversion (e.g. sand bags, clay bund, or shallow trenches) are used to direct overland flow away from active work and storage areas. Soakage pits should not be installed directly into a shallow aquifer. Control overland drainage to prevent channelling and sediment transport by diverting flows away from exposed areas. Sediment laden runoff from excavations or stockpiles must be directed to a settling area or collected for dust suppression provided the runoff is not contaminated with any chemicals (e.g. fuel). Wastewater from wash down areas is to be collected either in a settlement pond or tank to allow sediment and particulate matter to drop out (or				

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	processed through a filtration system) before the water can be reused as wash water, dust suppression or in other processes. Regular cleaning of access points to prevent dirt build-up on roads. Discharge of oil contaminated water shall be prohibited. Discharges of treated wash water are to occur to land only, at least 500m from any bore used for potable water at a rate not exceeding 20mm/day or the infiltration rate of the ground (i.e. no ponding or runoff). A separate washdown area is required for machinery or material with oil or fuel residue and treated through an oil water separator. Concrete production should only take place when there is no rain forecast. Sand bags or diversion drains must be used to divert runoff from concrete cutting or setting areas. Concrete production is to be equipped with settlement tanks/ponds for treatment of slurry and process water. Treatment shall include settling of suspended solids and decreasing the pH of the water. Waste concrete should be allowed to harden before reuse as clean fill. Set any concrete waste and then dispose of as clean fill or crush for reuse. All equipment used in concrete production must be cleaned in designated wash down areas in the construction laydown area, away from surface water, in a bunded impermeable area and shall not be allowed to permeate to ground. Wastewater from concrete cutting, washing equipment or production must be collected and treated (settling and neutralisation through pH adjustment). In sections along the river or coastal area, earth and stone should be properly disposed of so as not to block rivers as this could result in adverse impact on water quality.				
Groundwater and surface water	Aquifers discovered during excavation must be suitably protected from contamination using erosion control and stormwater management techniques in the National Building Code.	All locations	Minimal (part of standard construction practice)	Contractors	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Depth of soil over bedrock must be adequate to eliminate negative impacts on groundwater for road, bridge and slope stabilization construction. Minimise risk to groundwater and surrounding soil by developing a Spill Prevention and Response Management Plan and provide training to all contract workers on how to implement the Spill Prevention and Response Management Plan. Precautions should be in place to prevent wastewater and hazardous substances or materials entering the environment (e.g. fuel spillage, wastewater containing fire retardant during firefighting), The Spill Prevention and Response Management Plan should include factors associated with both the construction and operational phases and should be available at all SIRAP locations. Mitigation measures will be implemented to divert stormwater from the construction site away.				
Generation of dust	Use closed/covered trucks for transportation of construction materials. Any vehicle which is overloaded (exceed designed load limit) or is not covered properly shall be refused entry to the construction lay down area or material shall be refused delivery (if not to the construction lay down area). Cover or wet down stockpiles containing fine material (e.g. sand and topsoil) when not actively being used. Wetting of stockpiles is allowed but due to freshwater constraints should be kept to a minimum. All machinery and equipment shall be well maintained and in good working order All surfaces should be constructed to their final design solution as quickly as practicable. Keep work areas clean with regular sweeping. Asphalt crushing shall only be undertaken with a west crushing plant. Only small areas should be cleared of vegetation at any one time and re-vegetation should occur as soon as practicable.	All locations (particular focus on identified sensitive social receptors – schools, churches, health centres, market stalls)	Minimal (part of standard construction practice)	Construction Contractors	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Dust masks and personnel protective equipment must be available for workers during dust generating activities (e.g. pavement milling). Manage speed of transportation trucks on unsealed roads, particularly when passing through settlements. All construction areas and access roads will be sprinkled with water, on a regular basis, particularly during dry, windy conditions. Sources of water will be detailed in the CESMP. Ensure watering of access road adjacent to residential areas during dry periods. Water soil stockpiles or otherwise cover them to limit the spread of air-borne dust particles. Minimize heavy machinery usage and idling. Ensure vehicles and machinery are fitted with appropriate emission control equipment to avoid air pollution and release of toxic substances.				
Noise and vibration disturbances	Minimise nuisance from noise, especially closer to residential areas and sensitive receptors, through establishment and communication to affected parties of working hours and avoid increase of noise and number of work equipment at outside of advertised hours. Advertise working hours at the site entrance. Crushing plant to be located away from residences and communities. The crushing plant will be located so that it is screened by natural vegetation and/or landforms to act as a noise barrier. If possible, use noise barriers / screens or mounds to shield sensitive receptors from aggregate processing. No works to be undertaken at night or on a Sunday. Regularly check and maintain machinery, equipment and vehicle conditions to ensure appropriate use of mufflers, etc. Workers in the vicinity of sources of high noise shall wear necessary protection gear rated for the situation they are being used.	All locations (particularly close to identified sensitive receptors)	Minimal (part of standard construction practice)	Construction Contractors	Supervision Engineer, SIRAP PST & ECD

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Consultation with Communities should be undertaken to inform them of any change in works and process for loading complaints. Signage to outline complaints procedure (GRM) and contact details of recipient of complaints (e.g. phone number, physical address and email). The WB/IFC EHS Guidelines[8] Section 1.7 – Noise Management at the aggregate processing plant shall be applied. Noise impacts should not exceed the levels at the closest residential or other sensitive social receptors for one hour LAeq of 55 dBA between the hours of 0700-2200 or 45 dBA outside of these hours for night works, or result in a maximum increase in background noise levels of 3dB at the nearest receptor location off site. The Contractor shall prepare a Noise Management Plan in accordance with WB/IFC EHS Guidelines as a key element of and Annex to its CESMP. Project activities must be conducted during normal workings and working days. If activities must be conducted in the evening and/or weekend, the local Community Council of Chiefs must be given at least one week notice of start and completion times. Maintain as much tree cover as possible between the construction zone and residential buildings. Operators of noisy equipment or other workers in the vicinity of excessively noisy equipment to be provided with ear protection equipment. Any construction equipment deemed too noisy by MID shall be replaced.				
Accident risks/Impacts on traffic safety	In compliance with national regulations, the Contractor will implement the Traffic Management Plan (TMP) and ensure that the construction site is properly secured, and construction related traffic regulated. This includes but is not limited to: Signposting, warning signs, barriers and traffic diversions: the site will be clearly visible, and the public warned of all potential hazards.	All locations	Safety equipment included in construction cost Minimal (part of standard construction practice)	Construction Contractors	Supervision Engineer

[8] International Finance Corporation, Environmental Health and Safety Guidelines, General Guidelines: Noise Management

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. Communication to the public through a public consultation and notice boards regarding the scope and schedule of construction as well as certain construction activities causing disruptions and access restrictions. Arrange necessary measures for pedestrian and passer-by safety and all means of transportation safety (e.g. establish protection zones, by-pass these areas during transportation of materials, etc.) Relevant safety elements such as guardrails, road signs and delineators, pavement markings, barricades and beams, warning lights shall be installed. In some cases, a flag operator or traffic control supervisor could be engaged around the specific work site. Contractor to report on adherence to speed limits and use of haulage routes in monthly reports. Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public. Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during peak hours (e.g. school pick up/drop off times, etc.). Conduct road safety audit prior to completion of construction to ensure road safety designs properly implemented.				
Chance find of objects and loss of archaeological artefacts or sites	In the event of the discovery of an item as defined above, the finding must be registered and the information shall be handed over to The Museum of Solomon Islands (under the Ministry of Culture and Tourism) who will advise on how they shall monitor the construction works. Work to stop in specific location of unearthed artefacts or site. Fence the area to limit access and notify SIRAP PST and Supervision Engineer immediately for instruction to proceed.	All locations	No marginal cost	Contractors	MCA/ Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Chance Find procedure for discovery of UXO to be followed as per ESMP Appendix I. Contractor must immediately stop work and clear the work site of all personnel. The discovery must immediately be reported to the Supervision Engineer, MID and the Royal Solomon Islands Police Force (RSIPF).				
Landscape degradation	The contractor is required to submit a Site Decommissioning and Restoration Plan in the CESMP. The plan will describe all activities with regard to site restoration and landscaping in areas such as borrow pits, quarries, camps, crushing plants, etc. to ensure that the activities are done to an appropriate and acceptable standard. The sites must be restored to at least the same condition and standard that existed prior to commencement of works. The plan will be approved by the Supervision Engineer. Restoration of quarry sites to be completed in accordance with ESMP and QMP. Construction materials will be sourced commercially and use of wood from natural forests will not be permitted. Contractor to include provision for construction lay down area rehabilitation following the completion of the construction phase. Restoration of quarries to be completed in accordance with ESMP. Restoration of landscape after completion of rehabilitation works; restore the vegetation cover in accordance with the surrounding landscape and any required design (e.g. grass land or shrubs). Use plant species characteristic for the landscape in the course of restoration of the vegetation cover. Should the removal of mature trees be necessary for operational safety, determine whether OP4.12 would be triggered and ensure all appropriate measures and permissions are in place before removal of trees. Photographs will be taken of any laydown and stockpiling sites prior to establishment and provided to Supervision Engineer. Photos will be used as	All locations	Minimal (part of standard construction practice)	Contractors	SIRAP PST/ Supervision Engineer / ECD

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	a guide during restoration and post-restoration photographs are required to be submitted to the Supervision Engineer. Land disturbed during construction must be revegetated and graded/constructed as quickly as possible to prevent soil erosion. Any final steep slopes should be finished using bioengineering techniques. Drainage patterns before construction must be restored – if modified, there must be no increase or decrease in drainage patterns that could negatively impact adjacent forested / farmed areas.				
Hazardous substances and safety and pollution	Hazardous substances and materials may be specified and used in construction. It is the Contractor's responsibility to ensure that these are stored in accordance with the ESMP and applicable rules and regulations and that all persons who may come in contact with such hazardous substances and materials are adequately protected from unnecessary exposure. Store and handle hazardous substances self-bunded tanks or drums. With the Supervision Engineer's permission may alternatively be store in bunded, hard stand or designated areas only. Bunded areas to drain to an oil water separator which will need to be constructed or a mobile proprietary unit imported specifically for use on the SIRAP. Bunds to contain 110% of total volume required to be stored or 25% of total volume if total volume is over 1,000 L. Provide hazard specific personnel protective equipment to workers directly involved in handling hazardous substances (e.g. chemical or heat resistant clothing, gloves). Complete list, including safety data sheets (SDS) for each hazardous substances stored or used shall be accessible at all times. Signage to be posted in storage areas identifying all chemicals present. Precautions should be in place to prevent wastewater and hazardous substances / materials entering the environment (e.g. fuel spillage, wastewater containing fire retardant during firefighting), however should an incident occur, the Contractors SPRMP must be in place. The plan should include details on the use of spill kits and absorbent items to prevent spills	All locations (particularly near the identified environmental receptors: rivers)	Safety equipment included in construction cost Minimal (part of standard construction practice)	Contractors	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	entering the receiving sensitive environment (ground, surface water). This plan should be applicable to all SIRAP project works areas. A spill response plan should be in place for both the construction phase and operational phase. The response plan should include details on the use of spill kits and absorbent items to prevent spills from entering the receiving sensitive environment (ground, surface water). This Spill Prevention and Response Management Plan should be applicable to all SIRAP project works areas (sealed roads for resealing, laydown, quarries, and transport routes). A Spill Prevention and Response Management Plan should be in place for both the construction phase and the operational phase. Spill kits and training of use to be provided to all workers during toolbox meetings. Spill kits to contain PPE for the spill clean-up (e.g. appropriate gloves [nitrile] and overalls), material to contain the spill and absorbent pads, and a heavy duty rubbish bag to collect absorbent pads or material. Waste oil to be collected and removed abroad to an approved facility (for disposal or cleaning) at completion of works. Minimize fuels and chemicals stored on-site and Contractor to have a spill management plan that ensures the protection of groundwater and the river channel. Sites where pollutants or hazardous materials are stored or used must be confined to a designated area or protected according to the National Building Code of Solomon Islands. Adopt effective stormwater management techniques to ensure there is no possibility of groundwater or river channel contamination.				
Loss of biodiversity	If during the course of construction work, particularly vegetation clearance and excavations any bird, reptile or mammal species is identified as being potentially impacted (e.g. nesting bird in area of proposed vegetation clearance) work are to stop in the specific location of the find and the ECD based in Auki and SIRAP PST be notified immediately for instruction to proceed.	All locations	No marginal cost	Contractor	Supervision Engineer / SIRAP PST / ECD

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	The contractor must liaise with the Environment and Conservation Division based in Auki should any fauna (reptile, avian, or mammal) are encountered that affects construction activities for the road works. All recognized natural habitats and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities. For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect the root system and avoid any damage to the trees. Marine environment and any open water drain discharging to the marine environment will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to bunds, silt fences etc. There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas. Ensure the full payment of compensation for lost crops and assets to rightful owners.				
Health and safety	Fully implement OHS requirements in Section 5.2.2 and approved Contractor OHS Plan following the guidelines in Appendix D. Have safety officer with suitable qualifications available at all times during construction. Ensure all workers have undergone suitable induction training on OHS with regular training over course of project. Prepare site specific safety plans specifying responsibilities and authorities. Health and safety documentation to include all areas of the project (e.g. quarries and transport routes). Ensure all occupational health and safety requirements are in place on construction sites and in work camps. Construction lay down area to be fenced to prevent access by unauthorised personnel.	All locations	Included as provisional sum in the bill of quantity	Contractor	Supervision Engineer / SIRAP PST

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	First aid training to be provided as required to site workers with basic first aid services to be provided by Contractor e.g. stretcher, vehicle transport to hospital. First aid kits to be located in communal areas or marked areas in the unlikely event of an incident occurring. Provide education on basic hygiene practices to minimize spread of diseases. Increase workers' HIV/AIDS and sexually transmitted disease (STD) awareness, including information on methods of transmission and protection measures. Prohibit usage of drugs and alcohol on construction sites and undertake regular alcohol testing. Install lights and cautionary signs in hazardous areas. Enhance safety and inspection procedures. Ensure use of PPE and consider providing for on-site storage of workers allocated PPE. All workers are required to undergo the COVID-19 screening before the recruitment process. If a worker has been tested positive or have been in contact with a positive COVID-19 case, the worker will be required to undergo the 14 day quarantine isolation period.				
Construction Camps/Contractor Laydown Area/Workers Camp – Design	The Contractor is required to provide its own camp facilities to accommodate the personnel and in accordance with WB's Managing the Risks of Adverse Impacts on Communities from Temporary Project Induced Labour Influx. The Contractor shall prepare a Workers' Camp Management Sub-Plan (WCMS) which prescribes minimum environmental requirements in order to ensure that the operational of workers' camp will not cause any harmful effect to the environment and community. Throughout the construction and operation of workers camp, the Contractor will be fully responsible for carrying out the job in an environmentally and	Construction Camp/office site locations	Minimal (part of standard construction practice)	Contractors	Supervision Engineer MID

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	socially appropriate manner. Furthermore, the Contractor shall comply with the requirements outlined in ESMP. The Construction Camp (Contractor Laydown Areas): • Must be constructed on a solid surface and located to not cause disturbance to adjacent land and landowners. • Must not be located with floodplains, coastal hazard, and landslip prone areas, and shall have a minimal adverse environmental effect. Must have the minimum requirements regarding facilities and maintenance.				
Damage to assets and infrastructure	Maintain high standard of site supervision and vehicle and plant operation to reduce risks of damage to water, power and telecommunication lines. Prepare procedures for rapid notification to the responsible authority (MID and service providers). As a result of SIRAP construction activities any damage to assets or infrastructure (including public roads) must be reported to the MID and rectified at the expense of the Contractors. Provide assistance with reinstatement, in the event of any disruption. Accidental damage to community assets including crop trees or agricultural will be compensated (facilitated by CLO) by the Contractor under the national valuation guidelines.	All locations (particularly identified sensitive receptors for road side tree plantations, coconut and cocoa plantations and encroachment areas)	Dependent on asset/ infrastructure and level of damage	Contractors	Supervision Engineer / SIRAP PST
Community engagement and grievances	Implement the community Stakeholder Engagement Plan (SEP) from this ESMP. In all instances, consultations will be designed to ensure free, prior and informed consent of the affected communities with the aim to maintain the broad community support for the project which has been demonstrated to date. Maintain a grievance response mechanism at the SIRAP project website.	All components	Minimal (part of standard construction practice)	SIRAP National Safeguards Specialist Supervision Engineer	SIRAP PST

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
	Ensure that public consultation and disclosure communication is completed at regular intervals to ensure that the public are fully aware of the SIRAP project program of activities and the GRM process. Consultation should include all aspects of the project including the road works, quarries and transport routes. Contractor will recruit a Community Liaison Officer from Malaita to assist in developing relationships with quarry owners. SIRAP CLO will be the Contractors key facilitator for all consultations. Signage should be used in public areas around the SIRAP project sites advising the complaints procedure and contact details of key project individuals responsible for responding to issues raised. MID's CACs (Community Advisory Committee) that comprises of key community members including chiefs, pastors/ priest, teachers, youth leaders, resource owners etc) that work on a voluntary basis to inform communities on certain issues but also help in resolving complaints and grievances where applicable. CAC can work with Contractors.			Contractor	Supervision Engineer & SIRAP National Safeguard Specialists
Local business grievances	Ensure that local businesses are included in the public consultation and disclosure communication process throughout the construction phase. Regular communication should be made with affected parties to ensure that they are fully aware of the proposed program of works and the GRM. Signage should be used in public areas around the vicinity of works advising the complaints procedure and contact details of key project individuals responsible for responding to issues raised.	Roadside	Minimal (part of standard construction practice)	Supervision Engineer Contractor	SIRAP PST Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
OPERATION STAGE					
Road Safety and Integrity	Ongoing program by MID to raise awareness of road and pedestrian safety through encouraging safe driving and safe use of roads by pedestrians. Ongoing awareness of meaning of road signages and penalties for breaking them. Monitor roads to ensure that illegal road humps or trenching across roadways as illegal means to slow down traffic are constructed. Ensure highway markings, lanes, pedestrian-only, and any other pavement markings continue to be visible. Ensure pedestrian separation from vehicles is clearly indicated along the road. Ensure ongoing awareness with utilities on their development plans or works along the roads. Ongoing communication with communities on the terms of the roads act 1967 to avoid road encroachments,	Malaita	Additional to Project Costs/MID	MID Malaita Office and MID Safeguards	MID HQ
Human Trafficking	The SIRAP Project should also consider additional funding to develop institutional capacity within the safety net organisations. This capacity building will follow on from the work carried out on the Pacific Aviation Investment Program, specifically within the Solomon Islands Aviation Investment Project.	Malaita	Additional to Project Costs	SIG	MID HQ
Soil Erosion	Inspect steep slopes (horizontal to vertical) or greater to ensure erosion control techniques set out in the National Building Code are performing as expected.	All locations	No marginal cost (standard operating procedure)	MID Malaita Office	MID HQ
Construction Camp/Contractor Laydown Areas	Construction camps must be removed when construction is complete, and the land restored to its pre-construction condition.	Construction Camp/Contractor Laydown Areas/office site locations	No marginal cost (standard operating procedure)	Contractor	Supervision Engineer

POTENTIAL NEGATIVE IMPACT	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	IMPLEMENTING LOCATION	ESTIMATED MITIGATION COSTS[6]	EXECUTING AGENCY	SUPERVISING AGENCY
Drainage Maintenance	Ensure drains are cleared of sediment and detritus build up on a regular basis and after significant rain events Ensure that vegetation are cleared from drains	Drainage along resealed section	Additional to Project Costs	MID Malaita Office	MID HQ

6.2 Supplementary Management Processes

6.2.1 Land Tenure, Access and Acquisition

Most land (86%) in Solomon Islands is still held under customary tenure, where every member of landholding entity, such as tribal, clan or family is vested with the rights to use and access it. Non-owners usually have limited rights such as right of use, easement or right of way. There is no system which allows for customary land to be surveyed and registered, it is often very difficult for outsiders to identify land boundaries and to identify who 'owns' the customary land.

The Commissioner of Lands has the power to administer public lands and allocate interests to others. Once land is registered, the estate title owner has indefeasibility, except for overriding public interests or when the High Court issues an order to set aside the registration because of fraud or mistake. Under the Land and Titles Act 2014, the Commissioner of Lands discretionary power can only be exercised subject to directions of the Land Board.

Under the MID CPIU Safeguards Procedures Manual for National Transport Plan (NTP)[9] projects in the Solomon Islands, approved procedures for land access, easement and acquisition have already been established following consultation with stakeholders and communities. While these procedures are directly applicable to the SIRAP Malaita road works, for any permanent land acquisition the WB OP4.12 would also apply. This process viewed through the OP4.12 lens should be implemented for the Project as they are already approved by and familiar to the communities:

Laydown sites and stockpile sites: for these activities, there is no land acquisition; the project requires only temporary access into lands. This land is used to park equipment and to position construction materials such as gravel. The procedure for these lands is as follows:

1. The National Safeguard Specialist (NSS) and Community Liaison Officer (CLO) identifies the landowners, the boundaries of their properties, and non-land assets which can be affected by the project. The NSS and CLO produce a scoping report which lists the owners, marks out the boundaries of the land in a sketch map and lists down non-land assets which may be removed during civil works.
2. The communities are consulted (by the CLO) to seek agreement on the scoping report and to verify that correct landowners and boundaries have been identified.
3. MID PST and customary landowners sign a MID approved Memorandum of Understanding (MOU) for voluntary land access with no cash compensation. This is usually done before mobilization of the Contractor.

Construction Material: for this activity, there is no land acquisition; the project requires only temporary access into lands. The procedure for these lands is as follows:

1. The NSS and CLO identifies the landowners, the boundaries of their properties, and non-land assets which can be affected by the project. The NSS and CLO produce a scoping report which lists the owners, marks out the boundaries of the land in a sketch map and lists down non-land assets which may be removed during civil works.
2. The communities are consulted (by the CLO) to seek agreement on the scoping report and to verify that correct landowners and boundaries have been identified.
3. Contractor (with support from CLO) enters negotiations with the landowners for access to materials.

[9] Ministry of Infrastructure Development Safeguards Procedures Manual

4. Contractor and customary landowners sign a MID approved Memorandum of Understanding (MOU).

Land Acquisition: Project activities may require permanent land access and in these cases a Land Acquisition and Resettlement Plan (LARP) is required. For land acquisition, the following procedures apply:

1. The NSS and CLO undertake scoping to gather information on the land subject to acquisition: its physical attributes (boundary areas and use), the fixed assets on it, its ownership, and any issues or disputes which may make land acquisition difficult. The information gathered is the same as for the laydown sites, however they also identify potential risks which can make land acquisition difficult.
2. The Project safeguards team discloses the project information during a community consultation/meeting.
3. The Project safeguards team commences the establishment of a Community Advisory Committee (CAC) with a broad selection of community representatives.
4. The NSS and CLO produce a scoping report which identifies impacts and the needed studies and instruments to address these impacts. The outputs of the scoping exercise are a scoping report and the outline for the preparation of a LARP.
5. An assessment of the Lands Acquisition Resettlement (LAR) impacts is undertaken in line with OP4.12 and seeks to identify the positive and negative social impacts of the project, including resettlement. The results of the LAR impact assessment are incorporated into the LARP. Besides impact identification and analysis, the assessment of LAR impacts elaborates on measures to: (i) enhance positive impacts such as measures to promote equitable access to project by different affected people; and (ii) mitigate negative impacts. An assessment of LAR impacts consists of the following:
    a. Demographic and socio-economic study of affected persons
    b. Ethnic and inter-generational relations (where applicable)
    c. Poverty and vulnerability analysis of Aps
    d. LAR and other social impacts
    e. Gender analysis of Aps
    f. Accessibility analysis (where applicable)
    g. Institutional analysis of organisations which are involved in implementing mitigation and enhancement measures on LAR.

    LAR planning identifies measures to avoid, minimize, offset or compensate the negative impacts of LAR and to improve, or at least restore, standard of living and livelihood of affected persons to pre-project levels. Assessment of LAR impacts and the LAR planning use quantitative and qualitative methods of research. Examples of the first are surveys and census. Qualitative studies include community meetings, focus group discussions, key informant interviews, and participant observation. The output of the NSS and CLO LAR studies is the LARP (see Appendix H) which incorporates the results of LAR impacts.

6. The draft LARP is submitted by the NSS and CLO to the PST for review by TFSU Social Safeguards Specialist and WB Social Safeguard Specialists for endorsement. The LARP is revised, finalized and approved.
7. The draft and final LARP is disclosed in a timely manner, in an accessible place and a form and language understandable to the affected persons and other stakeholders. The CLO facilitates the disclosure of the LARP in the project location.

8. With the CAC, the NSS and CLO consults with the landowners on accessing or acquiring the land. The option of granting an easement on the land through a Memorandum of Agreement (MOA) is presented to and discussed with the landowners. In the case of customary landowners, the tribal representatives or leaders are asked to discuss with their members, document the proceedings, and decide. They are also advised to seek legal counsel. Unlike the MOU, the MOA is legally binding as it will go through the review and approval of the Attorney General's Office (AGO) before taking effect.
9. If the landowners do not agree with the grant of easement through MOA, the PST coordinates with the Commissioner of Lands (COL) to initiate land acquisition through the modified land acquisition process developed by the MID (Appendix H) under Division B, Part V of the Lands and Titles Act (LTA).
10. During the detailed design phase, the land to be acquired is surveyed, physical markers are installed, geotagged and marked on the cadastral map or the detailed design drawings.
11. After the physical survey of the land, the CLO tags and photographs the affected assets and identifies their owners. An inventory of losses (IOL) report is generated. Annual crops are allowed to be grown and harvested prior to the start of civil works.
12. Valuation of the non-land assets are undertaken by a private appraiser engaged by the PST. If the non-land assets are small in number, the PST may undertake valuation using the latest schedules of the Valuer-General and the Ministry of Agriculture and Livestock Development.
13. A census is conducted among the APs. For customary land, which can have hundreds or even thousands of families as members, a survey is done instead. The census also identifies who have principal and secondary rights to the affected land. The census results are incorporated into the updated LARP. The census is done to identify those who are eligible for entitlements and the vulnerable among them. Vulnerable groups consist of poor and female headed households, widows, the elderly, persons with disabilities, and children.
14. The end of the census is the cut-off date. The safeguards team, the CAC, and the detailed design consultant publicize the cut-off date in the project site. Any person who sets up a structure for whatever purpose or introduces improvements with the exception of annual crops after the cut-off date is ineligible for compensation.
15. The LAR budget is updated to reflect the current prices of the affected non-land assets and the land purchase or rental price agreed upon by the COL and the customary landowners.
16. The updated LARP goes through another round of review and approval. With the assistance of the TFSU safeguards expert, the WB Social Safeguard Specialist reviews these documents. When the updated LARP is found satisfactory, MID accepts and discloses the LARP.

Negotiations continue during this stage, and if successfully concluded, the MID enters into a MOA with the different landowners. The MOA is signed by the landowners, the MPU manager, and a third party. The MID submits the MOA to the AGO for review and concurrence. The MOA is brought to a notary who will enter into the legal record, thereby making it legally binding on the parties in agreement.

6.2.2 OHS

During construction and operation health and safety is to be managed through a Site Specific OHS Plan (to be developed by the contractors using the guidelines attached to this ESMP in Appendix D) and application of international environmental and health and safety (EHS) standards (WB/IFC EHS Guidelines). The Contractors health and safety documentation should incorporate all aspects of the project including the airport site, quarries and transport routes.

Civil works shall not commence until the Supervision Engineer has approved the OHS plan, the Safety Officer is mobilized and on site, and staff have undergone induction training.

The following are the contractual requirements for OHS as stipulated in the bidding documents:

Health and Safety: Funding for Occupational Health and Safety (OHS) training and activities is provided in the bill-of-quantity as a provisional sum. The Contractor's costs shall be financed from this on proof of record (e.g. time sheets, material invoices etc.) for the following:

- Recruitment of provider for delivery of HIV/AIDS education training.
- Recruitment of provider for delivery of Sexual Exploitation and Abuse (SEA) training to encompass gender-based violence (GBV) and human trafficking and sexual abuse and exploitation.
- Expenses related to HIV/AIDS, GBV, human trafficking and SEA training
- Provision of Safety Officer when acting in the role of Safety Officer
- Personal Protective Equipment (PPE) for all workers on the site, and visitors as appropriate
- Safety signage, safety literature, HIV/AIDS literature, condoms, voluntary counselling and testing, GBV literature, SEA, literature etc.
- Alcohol testing of staff to enforce a zero-alcohol tolerance policy
- Labor costs for attending: (i) dedicated safety training such as working at heights, confined space training, first aid training etc.; (ii) HIV/AIDS education training; (iii) gender based violence (GBV) training; and, (iv) SEA training. The contractor shall make staff available for initial training of 1.5 days, and a total of at least 0.5 days per month for other such formal trainings.

For the purposes of the project, in addition to the national OHS standards the employer is adopting guidelines for occupational health and safety based on good international industry practice. To be qualified for bidding contractors will be required to have in place an occupational health and safety management system which is compliant with, or equivalent to, OHSAS 18000 (http://certificationeurope.com/ohsas-18000-health-safety-managment-standards/) and is acceptable to the client. The contractor shall specify which occupational health and safety standards are to be applicable to the project, and provide evidence of application of such standards on a project of similar size and complexity during the past 5 years. The standards to be adopted may include those of Australia, Canada, New Zealand, the EU and the US, which are referred to in the World Bank Group EHS Guidelines.'

Civil works shall not commence until the Supervision Engineer has approved the OHS plan, the Safety Officer is mobilized and on site, and staff have undergone induction training which includes signing of GBV Codes of Conduct.

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that first aid facilities and sick bays are available at all times at the Site, including having a site vehicle available at all times that can be used to transport Contractor's and Employer's Personnel to medical facilities. The Contractor shall ensure that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

The Contractor shall appoint a certified Safety Officer at the Site, with qualifications acceptable to the Supervision Engineer, responsible for maintaining safety and protection against accidents. This person shall have the authority to issue instructions and take protective measures to prevent accidents.

Throughout the execution of the Works, the Contractor shall provide whatever is required by the Safety Officer to exercise this responsibility and authority.

The Contractor shall post in clearly accessible places information on how to transport injured Contractor's and Employer's Personnel to medical facilities, including the precise location and contact details of such medical facilities, name and contract details of the site designated Safety Officer. No injured personnel shall be transported without the Contractor first seeking medical assistance and advise, or unless the injured person is already being assisted by a certified first aid trainer.

The Contractor shall ensure that all workers on the site have appropriate PPE of an appropriate standard including: (i) impact resistant safety eyewear; (ii) safety footwear with steel toe, sole and heel; (iii) high visibility clothing; (iv) long sleeves and long pants suitable for operating environment; (v) safety helmet with provision of sun protection as necessary; (vi) gloves (carried and worn when manual handling); (vii) hearing protection when working in close proximity to noisy equipment and in all underground environments. For site visitors, the above equipment will be supplied as appropriate based on assessed risks and depending on number of visitors and where they will be on site. See http://tinyurl.com/nzta-ppe-requirements for additional information.

The Contractor shall send, to the Supervision Engineer, details of any accident as soon as practicable after its occurrence.

Within 5 working days of the end of the calendar month the Contractor will be required to report to the Supervision Engineer on their performance with the following OHS indicators:

- Number of fatal injuries (resulting in loss of life of someone associated with the project or the public)
- Number of notifiable injuries (an incident which requires notification of a statutory authority under health and safety legislation or the contractor's health and safety management system)
- Number of lost time injuries (an injury or illness certified by a medical practitioner that results in absence of work for at least one scheduled day or shift, following the day or shift when the accident occurred)
- Number of medical treatment injuries (the management and care of a patient to effect medical treatment or combat disease and disorder excluding: (i) visits solely for the purposes of observation or counselling; (ii) diagnostic procedures (e.g. x-rays, blood tests); or, (iii) first aid treatments as described below)
- Number of first aid injuries (minor treatments administered by a nurse or a trained first aid attendant)
- Number of recordable strikes of services (contact with an above ground or below ground service resulting in damage or potential damage to the service)
- Lost Time Injury Frequency Rate (the number of allowed lost time injury and illness claims per 100 full-time equivalent workers for the injury year specified)
- Total Recorded Frequency Rate (the number of recordable injuries [recordable/lost time/fatal] per 100 full-time equivalent workers for the injury year specified)

The monthly reports shall also include:

- Number of alcohol tests
- Proportion of positive alcohol tests

- Number of site health and safety audits conducted by contractor
- Number of safety briefings and GBV briefings
- Number of near misses
- Number of traffic management inspections
- Number of sub-contractor reviews
- Number of stop work actions
- Number of positive reinforcements
- For each fatality, injury or near miss incident, the Contractor shall provide a corrective action report within the monthly report detailing steps taken to ensure risks of a repeat incident are minimized.

6.2.3 Gender Based Violence, Human Trafficking, Sexual Exploitation and Abuse

Table 5 shows the activities that will be undertaken on the SIRAP project to address GBV. This is based on the World Bank's August 2018 Draft 'Good Practice Note: Recommendations for Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works'.

As required in the bid documents, the Contractor will implement the SIRAP Codes of Conduct and Action Plan to Prevent Gender Based Violence, Human Trafficking, as Well as Sexual Exploitation and Abuse (Appendix E). The Codes of Conduct aim to prevent and/or mitigate the risks of GBV, Human Trafficking, and SEA within the context of SIRAP. These Codes of Conduct are to be adopted by the civil works contractors, as well as supervision consultants.

The Supervision Engineer shall provide to the Contractor a list of approved service providers which shall include recognized NGOs and others for conducting training on GBV. From the provided list, the Contractor shall enter into agreement with one service provider to undertake the GBV IEC campaign. The cost of the campaign shall be funded by the Contractor from the provisional sum provided in the bill-of-quantity. The contractor shall make staff available for a total of at least 0.5 days per month for formal trainings including GBV.

Table 10: Actions to Address GBV Risks

When	Action to Address GBV Risks	Timing for Action	Who is Responsible for Action	Ongoing Risk Management
Identification/ Appraisal	**Sensitize the IA** as to the importance of addressing GBV on the project, and the mechanisms that will be implemented.	• Preparation. • Implementation.	• Task Team.	• Task team to monitor and provide additional guidance as necessary.
	The **project's social assessment** to include assessment of the underlying GBV risks and social situation, using the GBV risk assessment tool to provide guidance and keeping to safety and ethical considerations related to GBV data collection. No prevalence data or baseline data should be collected as part of risk assessments.	• Preparation. • Implementation (before civil works commence). • PCN and QER/Decision Review (GBV Risk Assessment Tool).	IA for social assessment and ESMP. Contractor for C-ESMP. • Task Team for GBV Risk Assessment Tool.	• Ongoing review during implementation support missions. • Update project ESMP and Contractor's ESMP (C-ESMP) if risk situation changes.
	Map out GBV prevention and response actors in project adjoining communities.[10] This should incorporate an assessment of the capabilities of the service providers to provide quality survivor centered services including GBV case management, acting as a victim advocate, providing referral services to link to other services not provided by the organization itself.	• Preparation • Implementation	• IA	• Update mapping as appropriate
	Have GBV risks adequately reflected in all **safeguards instruments** (i.e., Project ESMP, C-ESMP)—particularly as part of the assessment in the ESA. Include the GBV mapping in these instruments.	• Preparation • Implementation (before civil works commence).	• IA for social assessment and ESMP. • Contractor for C-ESMP.	• Ongoing review during implementation support missions. Update project ESMP and Contractor's ESMP (C-ESMP) if risk situation changes.
	Develop a **GBV Action plan** including the **Accountability and Response Framework** as part of the ESMP. The contractor/consultant's response to these requirements will be required to be reflected in their C-ESMP.	• Preparation • Implementation (before civil works commence)	• IA	• Ongoing review during implementation

[10] A mapping exercise of GBV prevention and response actors should ideally be undertaken at a country level and shared with all project teams.

When	Action to Address GBV Risks	Timing for Action	Who is Responsible for Action	Ongoing Risk Management
	Review the **IA's capacity** to prevent and respond to GBV as part of **Safeguard Preparation**.	• Preparation. • Implementation.	• Task Team	• Ongoing review during implementation support missions. Update project ESMP if risk situation changes.
	As part of the **project's stakeholder consultations, those affected by the project should be properly informed of GBV risks** and project activities to get their feedback on project design and safeguard issues. Consultations need to engage with a variety of stakeholders (political, cultural or religious leaders, health teams, local councils, social workers, women's organizations and groups working with children) and should occur at the start and continuously throughout the implementation of the project.	• Consultations need to be continuous throughout the project cycle, not just during preparation.	• IA.	• Monitoring of implementation of Stakeholder Engagement Plan. • Ongoing consultations, particularly when C-ESMP is updated.
	The **Stakeholder Engagement Plan** of the project, which will be implemented over the life of the project to keep the local communities and other stakeholders informed about the project's activities, to specifically address GBV related issues**.**	• Consultations need to be continuous throughout the project cycle, not just during preparation.	• IA.	• Monitoring of implementation of Stakeholder Engagement Plan. • Ongoing consultations, particularly when C-ESMP is updated.
	Make certain the availability of an **effective grievance redress mechanism (GRM)** with multiple channels to initiate a complaint. It should have specific procedures for GBV including confidential reporting with safe and ethical documenting of GBV cases. Parallel GRM outside of the project GRM may be warranted for substantial to high risk situations.	Prior to contractor mobilizing.	IA, but discussed and agreed upon with the Task Team.	Ongoing monitoring and reporting on GRM to verify it is working as intended.
	Projects which do not use loan/credit/grant proceeds to hire GBV service providers at the start of project implementation encourage Borrowers include an escalation clause in the Environmental & Social Commitment Plan (ESCP) should GBV risks become apparent over the course of the project implementation.	Preparation.	Task Team.	Task Team.

When	Action to Address GBV Risks	Timing for Action	Who is Responsible for Action	Ongoing Risk Management
Procurement	Clearly define the GBV requirements and expectations in the **bid documents.**	Procurement.	IA.	Review by Task Team.
	Based on the project's needs, the Bank's Standard Procurement Documents (SPDs), and the IA's policies and goals, define the requirements to be included in the bidding documents for a **CoC which addresses GBV**.	Procurement.	IA.	Review by Task Team.
	For **National Competitive Bidding (NCB) procurement,** consider integrating the ICB SPD requirements for addressing GBV risks.	Procurement.	IA.	IA with review by Task Team.
	The procurement documents should set out clearly how adequate GBV costs will be paid for in the contract. This could be, for example, by including: (i) line items in bill of quantities for clearly defined GBV activities (such as preparation of relevant plans) or (ii) specified provisional sums for activities that cannot be defined in advance (such as for implementation of relevant plan/s, engaging GBV service providers, if necessary)	Procurement.	IA.	Review by Task Team.
	Clearly explain and define the requirements of the bidders **CoC** to bidders before submission of the bids.	Procurement.	IA.	Review by Task Team.
	Evaluate the contractor's GBV response proposal in the C-ESMP and confirm prior to finalizing the contract the contractor's ability to meet the project's GBV requirements.	Procurement.	IA.	Review by Task Team.
Implementation	**Review C-ESMP** to verify that appropriate mitigation actions are included.	• Implementation.	• IA.	• Review by IA. • Review by Task Team.
	Review that the GRM receives and processes complaints to ensure that the protocols are being followed in a timely manner, referring complaints to an established mechanism to review and address GBV complaints.	• Implementation.	• Task Team. • IA	• Ongoing reporting. • Monitoring of complaints and their resolution.

When	Action to Address GBV Risks	Timing for Action	Who is Responsible for Action	Ongoing Risk Management
	Codes of Conduct signed and understood • Ensure requirements in CoCs are clearly understood by those signing. • Have CoCs signed by all those with a physical presence at the project site. • Train project-related staff on the behavior obligations under the CoCs. • Disseminate CoCs (including visual illustrations) and discuss with employees and surrounding communities.	• Initiated prior to contractor mobilization and continued during implementation.	Contractor, Consultant, IA.	• Review of GBV risks during project supervision (e.g., Mid-term Review) to assess any changes in risk. • Supervision consultant reporting that CoCs are signed and that workers have been trained and understand their obligations.[11] • Monitoring of GRM for GBV complaints. • Discussion at public consultations.
	Have project workers and local community undergo **training** on SEA and SH.	• Implementation.	• IA, Contractors, Consultants	• Ongoing reporting.
	Undertake regular **M&E** of progress on GBV activities, including reassessment of risks as appropriate.	• Implementation.	• IA, Contractors, Consultants.	• Monitoring of GRM. • Ongoing reporting.
	Implement appropriate **project-level activities** to reduce GBV risks prior to civil works commencing such as: • **Have separate, safe and easily accessible facilities for women and men working on the site**. Locker rooms and/or latrines should be located in separate areas, well-lit and include the ability to be locked from the inside. • **Visibly display signs around the project site** (if applicable) that signal to workers and the community that the project site is an area where GBV is prohibited. • As appropriate, public spaces around the project grounds should be **well-lit.**	• Prior to works commencing.	Contractor/ Supervision Consultant • Task Team.	• Ongoing reporting. • Reviews during implementation support missions.

[11] Civil works supervision consultant's monthly reports should confirm all persons with physical presence at the project site have signed a CoC and been trained.

6.2.4 Covid-19

A guidance for World Bank Projects for Covid-19 states that to prioritize and look after the well-being of their employees and to monitor and follow local and national health authority guidance. All SIRAP works will consider the Covid-19 global pandemic protection measures and will follow the WBG guidance note on Covid-19[12] in conjunction with national health authority guidelines for all parties involved during the project phase. The Guideline provides information on COVID-19 symptoms, use of face coverings, COVID-19 testing, social distancing etc. The WBG guideline should be utilised in conjunction with the national health guidelines on COVID-19.

6.3 Contractors ESMP

The Contractor is required to prepare a Contractor's Environmental and Social Management Plan (CESMP) for the Works, which shall be in line with this ESMP and the technical specifications of the bid documents. The Contractor shall not commence any Permanent Works under the Contract prior to receipt in writing from the Engineer that the CESMP has been reviewed and approved by the Client and the World Bank. The approved CESMP shall become an integral part of the Contract Document.

The CESMP will be the Contractors guiding document for the implementation of this ESMP. During works the CESMP will be reviewed and approved based on the requirements of the ESMP and will be their management plan for the practical implementation of these requirements. The CESMP will contain the contractor's methodology and plan for adhering to their safeguard requirements. Additionally, the CESMP will detail how the Contractor plans to resource their team with personnel and financial resources as per the Contract. The Contractor will include sufficient provision in their Bill of Quantities (BOQ) to ensure that the CESMP can be developed, implemented, and monitored by their Safeguard Specialist. As this role will be key personnel within the bid document, the Contractor is obliged to ensure that their BOQ item is sufficient for this person to carry out their duties as required in this ESMP and the contract.

The CESMP and associated sub management plans will be developed, approved, and disclosed before the commencement of civil works. The bid documents will require that the CESMP be developed by the Contractors Safeguard Specialist and after internal review and approval, it will be subject to approval from the Supervision Engineer who will coordinate a review with the PST Safeguard Specialists. Once the CESMP has been approved, it will be disclosed by the Contractor and the PST using the same methods as required for the ESMP disclosure.

The CESMP must use the below listed items to be consistent with, and respond to, the ESMP and bid document; the conditions of permits and approvals from the relevant ministry departments. The document should reflect contemporary good practice; be balanced, objective and concise; and be written in a way that is easily understood by other parties. All commitments must be specific and auditable with measurable outcomes and clear timeframes. The CESMP must cover all activities within the project's area of influence. The area of influence includes the active worksites, laydown areas, construction camps, haul routes, production facilities (concrete, asphalt etc.) and materials sources.

DECLARATION AND DOCUMENT VERSION CONTROL: person accepting responsibility for the environmental management plan – signed declaration; the document version control should be a simple system that ensures that details of all key changes to the document over time are properly recorded.

[12] http://pubdocs.worldbank.org/en/324831581700447537/COVID-19-Guidance-for-Contractors-CO-Final.pdf

PROJECT DESCRIPTION: The CESMP should provide a summary of the project as this provides context for the plan. The location of all works should be summarized with a clear definition of the works' area of influence. Basic and relevant information on the environment at these locations should be summarised from the ESMF included as this helps provide the environmental context to which the CESMP applies. A schedule of intended commencement and completion dates should be provided. Projects undertaken in stages should identify each stage in the schedule.

OBJECTIVES: The environmental outcomes of the plan should be defined. These should be tailored to the environmental issues outlined in the CESMP.

ENVIRONMENTAL MANAGEMENT ROLES AND RESPONSIBILITIES: The CESMP should define the roles and responsibilities of personnel in charge of the environmental management of the project to reflect the requirements in the ESMP. The roles and responsibilities of each relevant position should be documented, including the responsibilities of subcontractors. The names of the responsible personnel do not need to be included. Identification of the position titles, roles and responsibilities is sufficient. If the roles and responsibilities are expected to change over time the long-term variations should also be documented.

REPORTING: The description of reporting requirements should include: a list of required reports including where appropriate monitoring, environmental incidents, non-compliance, corrective action and auditing; a description of the standard report content; the schedule or triggers for preparing a report; who the report is provided to; and document control procedures.

ENVIRONMENTAL SAFEGUARDS TRAINING: All people involved with the project should receive relevant environmental training to ensure they understand their responsibilities when implementing the CESMP. People to be trained include those at the site/s of all project activities and operations, including contractors, subcontractors and visitors. The training should be tailored to the role of the individual in the project. The CESMP will include a list of the training needed and the plan for undertaking this training. The CESMP will also identify the resources to conduct this training (internal/external).

EMERGENCY CONTACTS AND PROCEDURES: The CESMP should identify the key emergency contacts responsible for managing environmental emergencies associated with the project and their contact details. These personnel should have the power to stop and direct works so that they can manage emergencies effectively. In addition, the plan should establish procedures for managing environmental emergencies and ensure that those procedures are implemented and maintained.

POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS: The potential impacts section of the CESMP should include a tabulated summary of any relevant information previously provided the ESMP, it should also identify the km marker/chainage of the identified (an any additional) sensitive receptors. Impacts from relevant stages of the contractor works should be defined in this section and should reflect the relevant conditions of approval.

MANAGEMENT MEASURES: The CESMP should clearly state how the potential impacts of the works will be specifically managed based on the content of the ESMP and the measures that the contractor will undertake to implement these mitigations. The CESMP will propose management measures on the issues identified and will identify the cost involved and the party responsible for the management measures.

MONITORING PLAN: The CESMP must detail how the CESMP will be monitored and shall include a weekly monitoring checklist. An example monitoring checklist is provided in Appendix C as a guide. The monitoring plan will include: what is to be monitored, how it will be monitored, the parameters (standards) that it will be monitored against, who will monitor, where will be monitored and the cost of the monitoring plan.

AUDIT AND REVIEW: *Environmental auditing:* The environmental management plan should include the schedule or triggers for auditing the implementation and effectiveness of the plan. It should address both internal and external audit requirements including who is responsible for undertaking the audits and reporting the results. *CESMP review:* The CESMP should specify the schedule or triggers for reviews of the plan.

CESMP PREPARATION AND IMPLEMENTATION: The CESMP must ensure that the person taking the action takes full responsibility for the content and commitments contained in the plan. The CESMP must be prepared and implemented by a qualified environmental practitioner (Environmental Representative) with at least 10 years-experience. Field audits of CESMP implementation must be undertaken on at least a monthly basis by the Environmental Representative with associated audit reports certified and submitted to the Engineer.

CESMP COMPLIANCE: Identify the internal procedure that the Contractor will follow when a non-compliance has been identified during the daily monitoring. Procedure will include notification responsibilities, rectification timeframe and reporting obligations. Procedure will also cover the process the Contractor will follow when non-compliances are reported by the Supervision Engineer. Procedure will also identify how the Contractor will action any disciplinary or training requirements following the non-compliance.

CESMP REVIEW AND AMENDMENT: The CESMP must be reviewed, updated and resubmitted to the Engineer for approval in response to an anticipated change of circumstances before any changes are permitted at the work sites. These circumstances include substantial design changes with environmental or social implications, changes to specific approved plans, new activities not contemplated in the Project ESMP, or additions to the Project's area of influence. No changes will be made to the Project or the project areas until it has either been confirmed by the Supervision Engineer that an update to the CESMP is not needed, or the update has been made and approved by the Supervision Engineer. The CESMP must also be updated where it is deemed that the mitigation measures are not adequate to mitigate the environmental and social risks.

CESMP MANAGEMENT SUB-PLANS: The Contractor must provide all sub-plans required in the ESMP as annexes to the CESMP.

6.3.1 CESMP required Sub Plans

The Contractor is required to produce the following management plans as part of their CESMP. These management plans are referred to throughout the ESMP. In addition to these management plans being a requirement for the CESMP, they will also be required as part of the tendering process to demonstrate that the Contractor has started to consider these environmental and social impacts and has the capacity within their team to plan their safeguard management strategies.

List of Management Plans required for the Resealing of Sealed Roads works in Malaita is in Table 6-11.

Table 6-11 Management Plans, timeframes and approvals

No	Name	Completion Date	Prepared by	Implemented by	Reviewed and approved by	Monitored by
Preparation Phase Plans						
P1	Construction ESMP	Before Mobilisation	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P2	OHS Management Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P3	Workers Camp Management Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P4	Worker's Influx Management Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P5	Workers Code of Conduct	Before Contractor Mobilisation in Country	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P6	Traffic Management Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P7	Solid Waste Management's Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P8	Spill Prevention and Response Management Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P9	Emergency and Contingency Management Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P10	Air Quality and Dust Management Plan (included in OHS);	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P11	Hazardous Material Management Plan	Before Contractor Mobilisation to Site	Contractor	Contractor	MID/WB/SIRAP/SE	SE
Construction Phase Plan						
P12	Erosion and Sediment Control Plan;	Before any vegetation clearance	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P13	Quarry Management Plan (Aggregate extraction Plan);	Before Construction Starts	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P14	Noise and Vibration Management Plan	Before Construction Starts	Contractor	Contractor	MID/WB/SIRAP/SE	SE
P15	Cultural Heritage Management (For chance find);	Before any vegetation clearance	Contractor	Contractor	MID/WB/SIRAP/SE	SE

Decommissioning Phase Plan						
P16	Site Decommissioning and Restoration Plan.	Before any vegetation clearance	Contractor	Contractor	MID/WB/SIRAP/SE	SE

SOLID WASTE MANAGEMENT PLAN: The SWMP guidelines in Appendix D provide the governing principles for solid waste management and disposal for the MLT bridges upgrades Project. It provides the minimum standards for each waste stream and gives the Contractor guidance on how to implement waste separation, storage, and disposal. The guidelines also set the content for the SWMP, and it is a requirement of the Contractor to provide all the required content as a minimum.

HAZARDOUS MATERIALS MANAGEMENT PLAN: The Contractor will be required to provide a Hazardous Materials Management Plan. Hazardous materials are any materials that represent a risk to human health, property or the environment due to their physical or chemical characteristics. When a hazardous material is no longer usable for its intended purpose and is intended for disposal, it is considered hazardous waste. The purpose of this Plan will be to ensure adequate management of hazardous materials throughout the construction phase of the project to prevent any negative impacts on the people's health, property and the environment.

WORKER MANAGEMENT PLAN: The contractors will be required to provide a Worker Management Plan as part of their bids, explicitly detailing how the labour influx impacts will be minimized. This will not only cover the physical elements, but also interactions with locals, impacts on island resources (e.g. water, waste), and potential price inflation effects. These requirements will be addressed more fully in the final ESMP for tender.

TRAFFIC MANAGEMENT PLAN: A traffic management plan is required to detail how the safety of the pedestrians and vehicles will be maintained throughout the duration of works. Particular attention will need to be paid to the separation of the public and heavy machinery at all times. The TMP will demonstrate how this will be achieved and will detail how the public will be informed of these measurements. Additionally, the TMP will include management of traffic including international and domestic transport of equipment and machinery.

SPILL PREVENTION AND RESPONSE PLAN: The Contractor will have a Spill Prevention and Response Management Plan in place to account for all potential instances. A Spill Prevention and Response Management Plan will be developed to ensure that all fuels and lubricants used during the construction phase in machinery, equipment, generators are contained, collected, treated, and disposed of. The plan will (i) identify areas that are sensitive to spills and releases of hazardous materials; (ii) outline responsibilities for managing spills, releases, and other pollution incidents, including reporting and alerting mechanisms to ensure any spillage is reported promptly to the relevant parties; (iii) Include provision of specialized oil spill response equipment, and; (iv) include regular training schedules and simulated spill incident and response exercise for response personnel in spill alert and reporting procedures, the deployment of spill control equipment, and the emergency care/treatment of people or wildlife impacted by the spill.

EROSION AND SEDIMENT CONTROL PLAN (ESCP): An ESCP is required to be prepared for all areas prior to use or disturbance including auxiliary areas under the control of the contractor such as stockpile and storage areas, access and haulage tracks, temporary waterway crossing, borrow areas, compound areas, and material processing areas. Clearing and grubbing (or the use of the area for stockpiles) for that section shall not start until the ESCP for that section is assessed as suitable by the Engineer. Each

ESCP shall clearly detail the Erosion and Sediment Control Plan, and shall be prepared and, update the area and work that it is valid for. It is acceptable to have a primary 'over-arching' ESCP supplemented by numerous progressive ESCP on a project.

The Contractor shall be responsible for the design, installation, and maintenance of Erosion and Sediment Control for the temporary works of the project with the following principles:

- Erosion and sediment controls are integrated with construction planning;
- Effective and flexible erosion and sediment control plans are developed based on soil, weather;
- Construction conditions and the receiving environment;
- The extent and duration of soil exposure is minimised;
- Water movement through the Site is controlled - in particular, clean water is diverted around the site;
- Soil erosion is minimised;
- Disturbed areas are promptly stabilised;
- Sediment retention on Site is maximised;
- Controls are maintained in proper working order at all times, and
- The Site is monitored, and erosion and sediment control practices adjusted to maintain the required performance standard.

SITE SPECIFIC OHS PLAN: This plan will adhere to the supplementary management process described in Section 5.2.2 and will be written following the guidelines in Appendix D of this ESMP. The OHS Plan will form part of the CESMP but will also be considered a standalone document that will be implemented and monitored by the Contractors OHS key personnel.

EMERGENCY CONTINGENCY PLAN: This plan will detail the Contractors processes for dealing with emergencies including but not limited to medical, injury, social conflict, extreme rain events, storm events, severe earthquake, or tsunami. The plan will cover measures to protect and manage staff as well as measures to protect and manage the project and environment. Training on this plan will be described along with communication methods (posters, etc.) and the roles and responsibilities of the Contractor team.

INFLUX MANAGEMENT PLAN (IMP): Construction projects, especially those comprising large civil works, require labour force and associated goods and services that cannot always be fully supplied locally. A partial component of the labour force may need 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 purpose of the IMP is to set out the objectives in relation to the management of project-induced in-migration and its impacts and to successfully implement measures to manage the in-migration and avoid, prevent, and mitigate the direct and indirect adverse impacts associated with project-induced in-migration. All stakeholders have a role to play in managing in-migration.

AIR QUALITY MANAGEMENT AND DUST CONTROL PLAN: The purpose of the air quality management and dust control plan (AQMDCP) is to minimize: air quality issues including odour from construction activities; impacts of dust generated due to the construction works; impacts of dust generated during transport of materials and other traffic; and, complaints from the community concerning dust generated from construction activities.

The AQMDCP will cover:

- National laws and regulations and international best practice requirements;
- Air quality baseline and existing environment;
- Location and type of sensitive receptors;
- Criteria and performance standards;
- Management, mitigation and control measures; and
- Water spraying schedule if required.

CULTURAL HERITAGE MANAGEMENT PLAN (CHMP): This will be prepared by the Contractor to safeguard the integrity of the graveyards during construction but also for any chance find of other important sites and artefacts. The objective of the plan is to identify cultural heritage sites that may be impacted by project construction, to protect sites, and to provide culturally appropriate training to its workers on these sensitive areas. This plan will also indicate that in the case that any cultural significant items are found that the contractor must immediately contact to the CLO and Supervision Engineer and contact the Ministry of Culture, and the National Museum who will attend to the scene and provide advice on proper actions to safeguard the items. The Contractor will develop a Chance Find Procedures that identify what measures will be taken to protect these cultural resources. The Plan will also address measures to monitor any physical cultural sites that may be affected by the construction.

7 ESMP Implementation

7.1 ESMP Monitoring and Reporting

A monitoring plan has been provided in Section 6.2.

OBJECTIVES: The main objectives of the construction phase monitoring will be to:

- Monitor the actual project impact on physical, biological and socio-economic receptors. This will indicate the adequacy of the ESMP.
- Recommend mitigation measures for any unexpected impact or where the impact level exceeds that anticipated in the ESMP.
- Ensure compliance with legal and community obligations including safety on construction sites.
- Monitor the rehabilitation of quarrying or extractions sites and the restoration of laydown and/or stockpile sites as described in the ESMP.
- Ensure the safe disposal of excess construction materials.

MONITORING ORGANISATION: The Contractor will be required to monitor their safeguard implementation on a daily and weekly basis, the Supervision Engineer will be required to undertake at least weekly monitoring and the PST will be required to undertake quarterly inspection audit of works.

MONITORING PROGRAM: A monitoring plan for the project has been provided in Section 6.2. The monitoring process will be carried out using best industry practice and should be undertaken jointly between the Supervision Engineer and Contractor. Both parties will keep copies of all site records, reports, approvals, statutory documents and permits in relation to environmental matters for recording purposes.

There are monitoring requirements associated with this ESMP that are applicable once the project has concluded and operations have resumed. At this stage, there is no defined process for continuing with safeguard monitoring during operations and it is recommended that this be incorporated into existing or new MID processes.

ESMP REPORTING: Throughout the construction period, the Supervision Engineer will include results of their weekly ESMP monitoring, along with the details of any incidents report by the Contractor, in a monthly report for submission to the SIRAP PST who is responsible for submitting these monthly progress reports to the World Bank. The format of the monthly report shall be agreed with all agencies but is recommended to include the following aspects:

- Description and results of environmental monitoring activities undertaken during the month;
- Status of implementation of relevant environmental mitigation measures pertaining to the works;
- Key environmental problems encountered and actions taken to rectify problems;
- Summary of non-compliance notifications issued to the Contractor during the month, actions taken and non-compliances closed out;
- Summary of complaints received, actions taken and complaints closed out;
- Key environmental and social issues to be addressed in the coming month;
- Training records;
- Health and Safety Indicators;
- Summary of consultation / stakeholder engagement undertaken;

- Copies of environmental inspection reports;
- Summary of reported incidents, actions taken and recommendations for follow up; and
- Before project implementation photos, midway of project implementation photos, and completion photos of works.

A day to day contract diary is to be maintained pertaining to administration of the contract, request forms and orders given to the Contractors, and any other information which may at a later date be of assistance in resolving queries which may arise concerning execution of works. This day to day contract diary is to include any environmental events that may arise in the course of the day, including incidents and response, complaints and inspections completed.

SIRAP PST are responsible for quarterly progress reports to the WB. This quarterly progress report will include a section on safeguard compliance and issues. This section will cover (as a minimum):

- The overall compliance with implementation of the ESMP.
- Any environmental issues arising as a result of project works and how these issues will be remedied or mitigated;
- OHS performance;
- Community consultation updates;
- Public notification and communications;
- Schedule for completion of project works; and
- Summary of any complaints received, actions taken, and complaints closed out. Particular sensitive reporting to be recorded for any GBV incidents report.

7.2 Monitoring Plan

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
DETAILED DESIGN/ PRE-CONSTRUCTION PHASE				
Traffic safety	CESMP documents	Ensure approved TMP established for project. TMP includes all requirements of ESMF and ESMP	Prior to commencing civil works	Supervision Engineer
Development Consents & Permits	CESMP Document	Development Consent, permits and consent conditions are included in the CESMP	Prior to approval of CESMP	Supervision Engineer
CESMP approved	CESMP Documents	Ensure Contractor has produced a CESMP to the appropriate standard and this has been reviewed and cleared by WB and SIRAP PST	Prior to commencing civil works	Supervision Engineer
OHS Plan	Design documents	Ensure safety plan established for project as per requirements of ESMP	Prior to commencing civil works	Supervision Engineer
Soil erosion	CESMP documents	Ensure Contingency Plan is completed and approved. Storm event management and soil erosion prevention measures to be included.	Prior to sign off of final designs	Design Consultant
Solid and hazardous waste	CESMP documents	Approved Solid Waste Management Plan in place. Waste segregation and collection at workers camp and laydown areas are established and well signed. Waste segregation and collection storage arrangements in place and compliant with approved SWMP.	Prior to commencing civil works	Supervision Engineer
Community Health and Safety	CESMP documents	HIV/GBV/Code of Conduct training and acknowledgements have been completed as per contractual requirements. Medical clearance certificates provided for all foreign workers. GRM process was available for public inspection. Worker Management Plan contains all elements and has been approved by the Supervision Engineer and SIRAP PST.	Prior to commencing civil works	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
Soil and Water pollution	CESMP documents	Appropriate spill control and response plan in place. Staffs are trained on spill control and response plan. Overland drainage diverts water flow away from exposed areas. Sediment laden runoff from excavations or stockpiles directed to a settling area. Discharges of treated wash water are to occur to land.	Prior to commencing civil works	Supervision Engineer
Water supply	CESMP documents	Suggested water source and supply network to be included in designs	Prior to commencing civil works	Supervision Engineer
Ground water quality	Laydown sites	Ground water quality monitoring for project baseline. The parameters include pH, electrical conductivity, total petroleum hydrocarbons (for potential petroleum contamination), and total nitrogen (for potential sewage contamination), or as agreed with ECD and the SIRAP NSS	Prior to establishment of laydown site and asphalt plan	Supervision Engineer
Storm water management	CESMP documents	Proposed storm water management / drainage design (e.g. use of oil-water separator) to consider impacts on hydrology, receiving environments and also contamination risk	Prior to commencing civil works	Supervision Engineer
Quarry operations	Quarry	Upon confirmation of which quarries are to supply aggregate verify quarry operations to ensure any required permits or approvals are in place. Ensure correct resource and land owners have signed acceptable agreement for extraction and/or land access. .	Prior to commencing civil works	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
Laydown Sites, Crushing Plant and Stockpile Area	CESMP documents	Approved and signed rental agreements should be submitted to SIRAP PST (if relevant) Laydown and stockpile sites are at least 150m from waterways and 300m from any residential settlements. Laydown areas established on pre-approved sites as per CESMP. Water runoff management systems in place to approved standard as per CESMP. Washdown areas have collection and treatments systems. The sanitation treatment system is in place as per CESMP. No runoff from laydown or stockpile sites are directed to waterways, CCAs or coastline. Bunded secure storage area for the hazardous substance is established as per CESMP. Bitumen is stored on the hardstand at laydown sites. Hardstand areas are at least 150 from any CCA and any waterway. Crushing plant is wet crusher. Crushing plant is screened either by the quarry or by screening vegetation to minimise noise disturbance. Water for crushing plant is sourced under permit.	Prior to commencing civil works	Supervision Engineer
Concrete Production	CESMP documents	Settlement tanks/ponds and diversion drains are in place as per CESMP. Designated washdown are established in the bunded impermeable area with no permeation to ground permitted.	Prior to commencing civil works	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
Importation of equipment and materials	Importation permits	Approval to import material and equipment is given prior to material and equipment leaving country of origin. Ensure bio-secure stockpile site it established with SIG Biosecurity Department	Contractor to organize prior to export from country of origin.	Supervision Engineer
CONSTRUCTION PHASE				
General	CESMP documents	The contractor is undertaking weekly monitoring and reporting using a monitoring form approved by Supervision Engineer in CESMP. Community consultation is ongoing as per the ESMP. Supervision Engineer is undertaking weekly monitoring and reporting.	Prior to commencing civil works Weekly	Supervision Engineer SIRAP PST Project Manager
Solid and hazardous waste and Agreement for waste disposal	Construction Contractor's records	Approved Solid Waste Management Plan effectively implemented. Waste collection at laydown area is secure, well signed and clean. Hazardous waste is stored according to SWMP. Good housekeeping around project sites and workers accommodation. All waste is disposed of offshore Contaminants of Concern (COC) documentation in place and reviewed. Permits and/or agreements with local waste disposal providers and licensed recycling operators. Inspection of disposal sites.	Documentation viewed prior to construction works starting Weekly as applicable to schedule of works.	Supervision Engineer
Community infrastructure, health, and safety	At construction sites	Approved Traffic Management Plan is under effective implementation. Public signage of complaints procedure. Signs and fences restrict or direct pedestrians and public where appropriate. No damage to public or community infrastructure. Dust suppression is effective. Noise is within permitted limits.	Prior to commencing civil works Weekly	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
		Required signage is in place. No works taking place at night or on Sunday within 500m of communities unless a prior agreement has been sought from the community.		
Agreement for waste disposal	Contractor's records	Permits and/or agreements with local waste disposal providers and licensed recycling operators. Inspection of disposal sites.	Documentation viewed prior to construction works starting Weekly as applicable to schedule of works.	Supervision Engineer
Soil erosion	Areas of exposed soil and earth moving	Inspections at sites to ensure silt fences, diversion drains etc. are constructed as needed. Inspection to ensure replanting and restoration work completed.	Weekly inspection as applicable to schedule of works and after site restoration.	Supervision Engineer
Waste disposal	At construction and quarry sites	Inspection to ensure waste is not accumulating and evidence waste has been stockpiled for removal to licensed landfill, removal from Solomon Islands if required, recycling or returning to supplier. Inspections to ensure waste streams are sorted for re-use, recycling or waste to landfill.	Weekly inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer
Water/Groundwater and soil pollution	At construction sites	Appropriate Spill Prevention and Response Management Plan/kit in place for the waste area. No visible spills on soil or uncovered ground. All drainage, water treatment and soakage systems clear and fit for purpose. Division bunding around large areas of vegetation clearance. Revegetation occurring once works have finished at sites. Vehicles are working in defined areas. Workers sanitation facilities in good order and maintained as per design requirements. Heavy machinery not used in times of heavy rain or when the ground is waterlogged.	Weekly inspection as applicable to schedule of works and on receipt of any complaints	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
		Ensure all storage tanks are self-bunded. Inspection of sites to ensure waste collection in defined area; SPRMP in place and workers trained at all SIRAP HIR locations. Complete spill kits available where hazardous substances sorted and handled. Any encounters with potentially or confirmed contaminated soil are reported to MID and ECD. Inspect soakage pits siting directly above any underlying aquifer (if present).		
		Ground water monitoring as per parameters in ESMP. The parameters include pH, electrical conductivity, total petroleum hydrocarbons (for potential petroleum contamination), and total nitrogen (for potential sewage contamination), or as agreed with ECD and the SIRAP NSS.	Once midway through implementation and once prior to demobilisation	Supervision Engineer
Dust	At construction sites, quarries and adjacent sensitive receptors	Site inspections. Regular visual inspections to ensure stockpiles are covered when not in use and trucks transporting material are covered and not overloaded.	Weekly inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer
Noise	At work sites	Site inspections to ensure workers wearing appropriate PPE when required. Measurement of noise level (one hour LAeg) at closest social receptors (residences) to active work sites, construction camps and lay down areas not	Weekly inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
		to exceed 45dB between 2200-0700 or 3dBA above background. Public signage detailing complaints procedure and contact people/person on display. Noisy machinery is replaced or fixed as soon as problem arises or on instruction by Supervision Engineer.		
Air pollution	At work sites	Site inspections to ensure equipment and machinery operating without excessive emissions. If an issue is reported the contractor is responsible for replacing or fixing the equipment to the satisfaction of Supervision Engineer. Bitumen and asphalt processes plants to be located away from closest communities	Weekly inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer
Occupational Health and Safety	At work sites	Workers have access to and are using appropriate, PPE for the task. All workers have undergone appropriate OHS training. Proper briefing of staff before undertaking work activities.	Weekly inspection as applicable to the schedule of works and on receipt of any complaints.	Supervision Engineer
Storage of fuel, oil, hazardous substances etc.	At work sites and construction camp. Contractors training log.	Regular site inspections to ensure material is stored within bunded area and spill response training for workers completed. Visual inspection of spill kit for completeness and accessibility. Checking that staff are trained on use of spill kits. No evidence of spills on the ground. Material Safety Data Sheets (MSDS) available at storage locations.	Weekly as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer
Vehicle and pedestrian safety	At and near work sites	Regular inspections to check that TMP is implemented correctly (e.g. flags and diversions in place) and workers wearing appropriate PPE.	Weekly inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
Construction workers and staff safety (personal protective equipment)	At work sites	Inspections to ensure workers have access to and are wearing (when required) appropriate personnel protective equipment (e.g. for handling hazardous materials). Guidelines in ESMF implemented.	Weekly inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer
Construction workers and staff safety briefings (GBV any other community health and safety awareness)	At work sites	Community, Health and safety awareness briefs including GBV, good hygiene…	Weekly team meetings as applicable to schedule of works an on receipt of any complaints	Supervision Engineer
Community / local business safety	At work sites	Inspections to ensure signs and fences restricting access are in place and pedestrian diversion routes clearly marked (whether for access to a building or home or particular route).	Weekly inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer
Community grievances	At all locations	Monitor the GRM database for the number and type of grievances and the average number of days to resolve a grievance.	Weekly	MID PST
Local business grievances	At and near work sites	Monitor the GRM database for the number and type of grievances and the average number of days to resolve a grievance.	Weekly	At and near work sites
Laydown Areas and Stockpile Sites	CESMP documents	Laydown areas established on pre-approved sites. Laydown areas dust levels managed efficiently. Traffic management plan correctly implemented at laydown site. Water runoff management systems are operating correctly. Dust management effectively implemented. PPE present and correctly used. Refuelling occurring over drip trays in dedicated areas. No stockpiling within 150m of waterways. Bunding is functional at stockpile site.	Prior to commencing civil works Weekly	Supervision Engineer

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
Asphalt Plants	Malaita	The asphalt plant in the laydown area measured 150m to the waterways and 300m from the resident settlements	Prior to commencing civil works Weekly	Supervision Engineer
Extraction of Aggregates	CESMP documents	QMP being effectively implemented. Daily records of extracted volumes available for inspection. No gravel being extracted from running water channels. Gravel only being extracted from a predetermined area. Machinery only working in defined areas approved in CESMP.	Prior to commencing civil works Weekly	Supervision Engineer
Workers Accommodation (if applicable)	CESMP documents	The camp is clean and tidy. Waste management is as per the Solid Waste Management Plan. Food supplies are sufficient. Workers Management Plan is effectively implemented. First Aid kit is fully stocked and readily available.	Prior to commencing civil works Weekly	Supervision Engineer
Community grievances	At all locations	Monitor the GRM database for the number and type of grievances and the average number of days to resolve a grievance.	Weekly	MID CPIU
Materials supply	Quarry and work sites	Evidence that trucks are not overloaded and loads are covered e.g. complaints register, evidence of debris on the road.	Weekly visual inspection as applicable to schedule of works and on receipt of any complaints.	Supervision Engineer
OPERATION (Recommended for Consideration by MID)				
Drainage system operational	Roadside	Inspection and clean out of open channel drainage.	After significant rain events and 6 monthly to remove sediment.	MID

PARAMETER TO MONITOR	LOCATION	MONITORING	FREQUENCY	MONITORING RESPONSIBILITY
Decommission and Rehabilitation of laydown site	Laydown	All stockpiles have been removed from the laydown area and site rehabilitated and revegetated	After completion of construction	MID
Road infrastructure functional	Roads	Inspect all newly installed road infrastructure for functionality.	After completion of construction	MID

7.3 Roles and Responsibilities

Ministry of Infrastructure Development (MID) will serve as the Implementing Agency (IA) for the MRIMP and have delegated the day to day implementation and management of the Project to a dedicated SIRAP Project Management Unit (PST) based in Honiara with an MRIMP office on Malaita.

The safeguards roles and responsibilities for subproject implementation are as follows:

SIRAP PST: The PST is responsible for the ESMP implementation and day-to-day project implementation on behalf of the SIG. The PST will have a project office based on Malaita housed within the MID. The PST will:

1. Have a National Safeguards Specialist based in Honiara with site visits to Malaita. The National Safeguards Specialist:
    - With the support of the PST CLO, undertakes environmental and social screening of Malaita works (subprojects) to identify specific areas of risk.
    - Ensures the SIG's safeguard instruments (PER, EIS, etc) prescribed by the MECDM/ECD for project sites are well prepared, submitted and approved;
    - Coordinate the review and approval process for ESMPs with the International Safeguard Specialist and World Bank Safeguard Specialists.
    - Identify total cost for development consent submissions;
    - Provide support and collaboration with the ECD in ensuring a smooth and effective process of approval;
    - Provide technical support to the Project's Task Team in monitoring the implementation of safeguard instruments (World Bank and SIG's) on a day to day basis;
    - Provide safeguards reports on a regular basis.
    - Oversee the full implementation of the CESMP and SIG's safeguard instruments on a day to day basis.
    - Will conduct at least quarterly safeguard audits with the Supervision Engineer's safeguard specialist and other staff.
    - Monitors and manages of complaints/incidents logged via the GRM mechanism on the SIRAP website.
2. Sources suitably qualified consultants to develop the safeguard instruments based on the requirements of the ESMF and the ToR.
3. Acts on behalf of the client and works closely with MID and all contracted parties to ensure that SIRAP objectives are delivered in a compliant manner consistent with client, MID and ECD requirements.
4. House an engineer, assistant engineer and a Community Liaison Officer (CLO) in the Malaita project office. The CLO will:
    - Establish a CAC in compliance with the MID CAC Guidelines
    - Work in the field in Malaita to support the Contractor and PST proactively identify project issues and worker/employee conflicts;
    - Facilitate community and other consultations to ensure that all parties involved and affected by the works are properly informed and consulted;
    - Maintain the Malaita GRM;

- Provide detailed forward planning and coordination for the road upgrade works related to community sensitization, pre-employment training and other project activities;
- Help identify land owners for any project land needs.
- Responsible for working with MID and Supervision Engineer (and contractors where appropriate for CESMP) to implement consultation plans for the SIRAP upgrade works.

5. During the construction phase, PST receives reporting from the Supervision Engineer and shares these reports with the MID and ECD (to comply with permit monitoring requirements).
6. PST is responsible for managing recurring instances of non-compliance by the contractor as they are reported by the Supervision Engineer and all instances of non-compliance by the Supervision Engineer. PST will conduct their own quarterly on-site audit of construction works, to supervise CESMP and ESMP implementation.

Supervision Engineer: is responsible for the day to day oversight of the construction works for the project, including safeguard compliance. The Supervision Engineer is the only party who is contractually able to provide instruction to the Contractor. The Supervision Engineer will work closely with the Contractor, and the project safeguards team, on a daily basis to ensure that Malaita works are implemented in a compliant manner consistent with the detailed designs provided and the ESMP. They are responsible for:

1. Weekly monitoring the Contractors work for compliance with the CESMP and ESMP and providing safeguard monitoring results in their monthly reporting to PST. As part of their CESMP monitoring responsibilities, the Supervision Engineer will ensure that a suitably qualified and experienced safeguard specialist is financially resourced to provide at least quarterly site inspections to Malaita and available for support at other times to respond to incidents, non-compliances, review of CESMP, update of the ESMP and other tasks.
2. Managing the review process of CESMPs for approval. The Supervision Engineer must ensure that all current safeguard instruments have been reviewed internally as well as by PST, TFSU, WB and final approval from WB has been secured before disclosure.
3. Updating the ESMP as necessary to reflect changes in the designs.
4. Working with PST CLO to provide meaningful input and direction into community consultations on the draft updated versions of the ESMP.
5. Managing instances of non-compliance by the Contractor and reporting all instances to PST. They are also responsible for escalating recurring instances of non-compliance by the Contractor to PST for action.
6. Managing and responding to all direct complaints/incidents received by their representatives as per the GRM process in Section 4.5 and reporting all instances to PST for inclusion into statistical database.

Contractor: It is the contractors responsibility to:

1. Resource their team with an experienced and qualified full-time national safeguard specialist and an experienced and qualified international safeguards key personnel who is resourced to make regular and ad hoc (as needed) site visits. Appendix F provide the minimum requirements for the international specialist who will form part of the Contractors key personnel in the bid document.

2. Resource their Malaita based team with a Malaitan Community Liaison Officer to be based on Malaita full time and with experience of working within the road maintenance sector.
3. Budget for and convene monthly meetings of the Community Advisory Committee established by the PST CLO. The Contractor CLO will lead the convening of these meetings, in consultation with the PST CLO. CAC meetings and reporting will follow the requirements of the MID CAC Guidelines.
4. Allocate budget lines to have the necessary tools and equipment for implementing all mitigation and monitoring requirements of the ESMP through their CESMP and employment of appropriate safeguard specialists.
5. Prepare and have cleared by the Supervision Engineer the CESMP in accordance with the ESMP.
6. Implement the Code of Conduct relating to GBV.
7. Carry out the Malaita upgrade works in accordance with the CESMP.
8. Conduct daily and weekly safeguard inspections of the works to ensure compliance and reporting the results of these inspections to the Supervision Engineer.
9. Proactively update the CESMP as construction methodology or other features change.
10. Provide meaningful input and direction into community consultations on the draft CESMP.
11. Advise the Supervision Engineer of any changes to works or methods that are outside the scope of the ESMP for updating.
12. Post all notifications specified in this ESMP at the site entrance.
13. Report all environmental and OHS incidents to the Supervision Engineer for any action.

8 Capacity Development and Training

8.1 Capacity Development

The SIG has delegated the delivery and management of SIRAP to a dedicated PST which has been resourced with personnel specifically tasked to manage project implementation. As such, the PST carries much of the institutional capacity required by the SIG to implement the project and to monitor the works for compliance. The PST is resourced with an experienced National Safeguards Specialist who will be responsible for monitoring for compliance with the ESMP, World Bank policies and Solomon Island legislation. The PST project office in Malaita is resourced with an experienced Community Liaison Officer who will support the PST and Contractor to manage community relations, identify and facilitate negotiations for land access and provide a focal point for community contact with the PST. For any additional support in areas of expertise that may be required by PST, the International Safeguards Specialist is tasked with either providing that support directly or assisting with any procurement of additional expertise or capacity that may be required.

8.2 Training

The SIRAP PST has undertaken training for key stakeholders on Malatia to ensure effective implementation and technical understanding of the ESMP requirements. Key stakeholders will include MID staff on Malaita, Malaita Provincial Women's Council, SIRAP CLO (Malaita), SIRAP MRIMP Engineer and Assistant Engineer (based on Malaita), ECD representatives on Malaita.

The workshop/meeting was conducted on the 31st October 2019. The purpose of the Workshop meeting was as follow:

- To have a clear understanding of the tasks that will be undertaken by SIRAP in terms of Safeguards,
- The clarify the process of consultation that SIRAP has undertaken and that will be taking in the future,
- Information sharing,
- To create a working space (Networking)
- Need to work together to face the challenges (current and future) and work as a team.
- Training in the above areas is recommended to be held within three (3) months of project effectiveness.

8.3 Civil Works

Other parties who have implementation or monitoring responsibilities (Supervision Engineer, Contractor) are required to be resourced with suitably experienced and qualified safeguards specialists.

It is the responsibility of the Contractor and Supervision Engineer to ensure that they allocate budget lines to have the necessary tools and equipment for the mitigation and monitoring measures as stipulated in the resulting ESMPs. The Contractor is to ensure that they have the budget provision to conduct identified training for their workers and that sufficiently skilled resources are made available to deliver the relevant training.

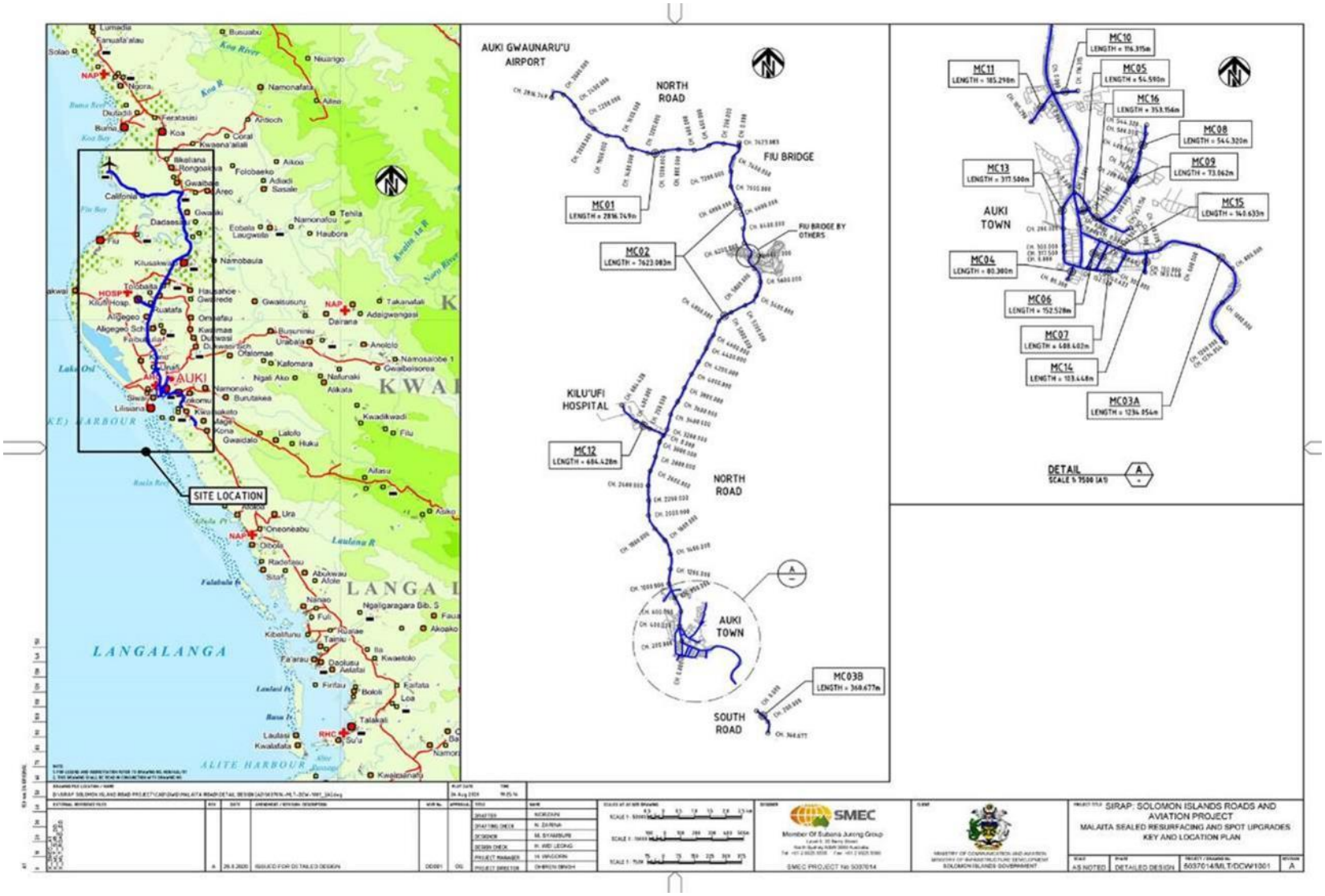
The Contractor and Supervision Engineer will undergo technical training in the form of a Kick Start Safeguards Workshop to ensure that the national and World Bank safeguard requirements and the PST expectations for safeguard implementations are well understood prior to commencement of works.

9 ESMP Implementation Budget

The costs of implementing the ESMP listed here are related to PST costs in addition to the dedicated safeguards PST personnel budget line item. The main costs of implementing this ESMP relate to institutional capacity and stakeholder capacity building, ongoing consultation facilitation costs between the CLO and the Malaita communities, PST on site monitoring and outreach road safety programs.

Item	Details	Cost (USD)
ESMP Technical Training	MID & PST Malaita Field Staff. Training to be given by NSS in Malaita.	3,000
ESMP awareness raising and sensitisation	With key Malaita stakeholders and communities (one session for subproject).	3,000
Consultation facilitation	Fuel, MID vehicle maintenance contribution, administrative support, refreshments (for subproject – one year)	15,000
CLO Travel	Project meetings, workshop or training attendance in Honiara for CLO: flights, accommodation, per diem (US$2,000 per trip, estimate 1 trip for subproject)	2,000
Project monitoring	Associated costs are for quarterly audits by NSS: flight, per diem, fuel for MID vehicle (US$2,000 per quarter)	8,000
Community outreach along sealed road sections	School road safety program (using local NGOs & CLO), travel cost, printed materials	5,000
	Total	**36,000**

Appendix A: Project Site



Appendix B: Malaita Quarry Maps

NAME OF SOURCE	LOCATION	COORDINATES	AVAILABLE MATERIAL	SUITABLE FOR	ESTIMATED QUANTITY	OWNER/ CONCESSIONAIRE
Bitakaula Mountain	Auki, Malaita	Lat- S 09°27'10.601" Lon-E 159°58'52.599"	Rock mountain	Concrete and asphalt aggregates	Unlimited	Auki Motel
Fiu River	Fiu, Auki	Lat- S 08°43'33.246" Lon-E 160°42'18.830"	Silty sand and gravel	Base, subbase, gravel surface	Unlimited	Tribal community
Sililo River	Sililo, North Malaita	Lat- S 08°22'08.395" Lon-E 160°40'18.585"	Clean sand and gravel	Concrete and asphalt aggregates	Unlimited	Tribal community
Tabaa River	Tabaa, North Malaita	Lat- S 08°22'56.625" Lon-E 160°41'54.386"	Predominantly boulders, with gravel-silt-sand mixture	Riprap, gabion, base, subbase, gravel surface	Unlimited	Tribal community
Kwai River	Lolu, North Malaita	Lat- S 08°23'03.834" Lon-E 160°43'12.773"	Boulders with clean sand and gravel	Riprap, gabion, concrete and asphalt aggregates	Unlimited	Tribal community
Rameai'i Mountain	Rameai'i, North Malaita	Lat- S 08°24'38.386" Lon-E 160°47'55.287"	Fine gravel-sand-silt corunous material	Base, subbase, gravel surface	Unlimited	Tribal community
Oftabu Mountain	Oftatabu, North Malaita	Lat- S 08°25'43.267" Lon-E 160°48'56.920"	Rock mountain	Concrete and asphalt aggregates	Unlimited	Tribal community
Sasafa River	Sasafa, North Malaita	Lat- S 08°26'41.096" Lon-E 160°49'53.115"	Clean sand and gravel	Concrete and asphalt aggregates	Unlimited	Tribal community
Keukwao Mountain	Keukwao, North Malaita	Lat- S 08°20'29.233" Lon-E 160°44'09.628"	Fine gravel-sand-silt corunous material	Base, subbase, gravel surface	Unlimited	Tribal community
Matakwalao Mountain	Matakwalao, North Malaita	Lat- S 08°20'15.623" Lon-E 160°36'13.920"	Fine gravel-sand-silt corunous material	Base, subbase, gravel surface	Unlimited	Tribal community
Kadabina Mountain	Kadabina, North Malaita	Lat- S 08°19'52.659" Lon-E 160°34'10.598"	Fine gravel-sand-silt corunous material	Base, subbase, gravel surface	Unlimited	Tribal community
Uluga Mountain	Uluga, North Malaita	Lat- S 08°28'42.255" Lon-E 160°40'14.191"	Fine gravel-sand-silt corunous material	Base, subbase, gravel surface	Unlimited	Tribal community
Madalua River	Madalua, North Malaita	Lat- S 08°29'57.854" Lon-E 160°41'16.263"	Predominantly boulders, with gravel-silt-sand mixture	Riprap, gabion, base, subbase, gravel surface	Unlimited	Tribal community
Siubongi Hill	Siubungi, North Malaita	Lat- S 08°32'02.607" Lon-E 160°42'40.583"	Coral Rock: top 1.20 m. Fine gravel-sand-silt corunous material: 1.20m down	Coral rock: riprap, gabions Corunous material: Base, subbase, gravel surface	Large	Tribal community
Kwareri River	Kwareri, North Malaita	Lat- S 08°34'08.967" Lon-E 160°44'01.443"	Clean sand and gravel	Gravel for concreting	Large	Tribal community
Fauabu Hill	Fauabu, North Malaita	Lat- S 08°34'25.722" Lon-E 160°42'58.569"	Sand-silt corunous material	Fill	Large	Tribal community
Kwaisuliniu Mountain	Kwaisuliniu, North Malaita	Lat- S 08°37'20.013" Lon-E 160°39'50.735"	Coral Rock: top 1.00 m. Sand-silt corunous material: 1.00m down	Coral rock: riprap, gabions Corunous material: Fill	Large	Tribal community
Buma Mountain	Buma, North Malaita	Lat- S 08°40'53.285" Lon-E 160°41'47.300"	Sand-silt corunous material	Fill	Large	Tribal community
Areo Mountain	Areo, North Malaita	Lat- S 08°42'19.442" Lon-E 160°42'47.505"	Sand-silt corunous material	Fill	Large	Tribal community

Appendix C: Example CESMP Monitoring Checklist

Malaita Road Improvement Project Weekly CESMP INSPECTION

SUBPROJECT:	Solomon Island Road and Aviation Project Road Resealing Subproject	**IMPLEMENTING AGENCY:**	MID
DATE:		**CONTRACTOR:**	
PREPARED BY:		**SUPERVISION CONSULTANT**	
DISTRIBUTION LIST:			

Inspection Participants: (insert names and positions)

CESMP Items (edit as necessary based on approved CESMP for relevant subproject)	**Applicable**		**Compliance**	**Issues**	**Status (R)/(O)**	**Action Required/Taken**	**Target/ Actual Date**
	Yes	**No**					
1. Mitigation & Management Measures: Construction Phase							
Soil Erosion: - Silt fences and diversion drains in place - Replanting and restoration work completed							

CESMP Items (edit as necessary based on approved CESMP for relevant subproject)	Applicable		Compliance	Issues	Status (R)/(O)	Action Required/Taken	Target/ Actual Date
	Yes	No					
Water Accumulation and Disposal Agreements: - Good housekeeping around the work sites - Waste collected in defined area on impermeable ground or containers - Separation of waste into (i) Recyclable waste (i.e. certain plastics, metals, rubber etc. that can be recycled); (ii) Organic biodegradable waste (i.e. waste that will decay / break down in a reasonable amount of time, such as green waste, food waste; (iii) Inorganic non-recyclable waste (i.e. waste that cannot decompose / break down and which cannot be recycled) and, (iv) Hazardous waste (i.e. asbestos, waste oil etc.) - Hazardous waste stored in safe and appropriate manner. - Waste management plan in place and operating for proper disposal							
Soil and Water Pollution: - Appropriate spill response plan/kit in place for waste area - No visible spills on soil or uncovered ground - Drainage and soakage systems clear and fit for purpose - Surface water monitoring on a quarterly basis							

CESMP Items (edit as necessary based on approved CESMP for relevant subproject)	Applicable		Compliance	Issues	Status (R)/(O)	Action Required/Taken	Target/ Actual Date
	Yes	No					
Dust and Materials Transport: - Stockpiles covered or kept wet when not in use - Visual inspection of ambient dust conditions on site and at nearby sensitive locations - Truck transports are covered - No evidence of aggregate spills on haulage route							
Noise: - Workers wearing ear protection as required - Noise level maximum of 45dB between 2200-0700 - No complaints received relating to noise							
Air Pollution: - Equipment operating without excessive emissions - Bitumen and asphalt plant emissions move away from nearby communities							
Fuel and Oil Storage: - Substances stored in self-bunded vessels or within bund on impermeable surface - Spill kit complete and accessible - Spill training completed - No evidence of spills on the ground							

CESMP Items (edit as necessary based on approved CESMP for relevant subproject)	Applicable		Compliance	Issues	Status (R)/(O)	Action Required/Taken	Target/ Actual Date
	Yes	No					
TMP Implementation: - Traffic Management Plan (TMP) under effective implementation							
Community and Local Business Consultation: - Public signage of complaints procedure - Signs and fences restrict or direct pedestrians and public where appropriate.							
Materials Supply: - Quarry establishment and operations in fully compliance with ESMP - All quarries licensed to supply materials - All imported materials with appropriate biosecurity clearances							
Laydown Area: - Laydown areas established on pre-approved sites - Laydown areas dust levels managed efficiently - Traffic management plan correctly implemented at laydown site - Water run off management systems operating correctly - Dust management effectively implemented							

CESMP Items (edit as necessary based on approved CESMP for relevant subproject)	Applicable		Compliance	Issues	Status (R)/(O)	Action Required/Taken	Target/ Actual Date
	Yes	No					
Workers Camp (if applicable): - Camp established in accordance with Code of Practice in ESMP Appendix D. - Septic system cleaned and fully operational. - Waste stored in an appropriate location in a clean and tidy manner, segregated by waste type. - Workers living and recreational areas clean and properly equipped. - OHS, HIV/AIDS, GBV, Human Trafficking, SEA and other information available							
Monitoring - Weekly safeguards compliance report completed							

Compliant, Minor Non-Compliance, Significant Non-Compliance Status: (R) Resolved Issues, (O) Ongoing Issues

Notes:

Required Actions:

Environmental Specialist: **Signed:** **Date:**

Appendix D: Implementation Plan Guidelines

- Solid Waste Management
- OHS Management Plan
- Workers Camp Management Plan
- Quarry Management Plan

Solid Waste Management Plan Guidelines

The key objectives of this solid waste management plan (SWMP) guidelines is to assist the Contractor to develop a SWMP that:

1. Maximise the amount of material which is sent for reuse, recycling or reprocessing
2. Minimise the amount of material sent to the landfill
3. Satisfies the national waste management legislations
4. Statisfies the EHS requirements of the World Bank

When developing, and implementing a SWMP the following key elements should be considered:

1. Waste streams: identify which waste streams are likely to be generated and estimate the approximate amounts of materials

Undertake inventory of materials that can be reused, recycled or recovered from the construction site:

- Specific types of materials: a full list of options is provided in the assessment table below
- Amount of material expected
- Possible contamination by hazardous materials like asbestos or lead: these materials will limit reuse/recycling options and require special disposal.

Waste and/or Recyclable Materials		Destination		
		Reuse and recycling		Disposal
Possible Materials Generated	Estimated Volume (m3) or Area (m2) or weight (t)	On-site (How will materials be reused and/or recycled on site)	Off-site (Specify the proposed destination and/or recycling facility)	Specify the disposal site and permit if required.
Timber (specify type)				
Wood waste (e.g. MDF, plywood)				
Cardboard				
Ferrous materials (e.g. iron, steel)				
Nonferrous materials (e.g. copper wiring)				
Concrete				
Roofing tiles				
Ceramic tiles				
Gravel				
Gypsum board (e.g. drywall)				
Plaster				
Plumbing fixtures and fittings				
Carpet and underlay				
Stone				
Asphalt				

Glass				
Sand/fill				
Topsoil				
Green waste				
Asbestos				
Fluorescent light bulbs				
Hazardous materials (e.g. oils, paints, solvents)				
Plastics				
PVC				
Co-mingled recyclables (e.g. paper, cans, glass and plastic bottles, carboard, etc)				
General waste (e.g. food waste, contaminated food packaging, non-recyclable plastics)				
Mixed waste				

2. Services: identify an appropriately equipped waste management contractor who will provide compliant services for disposal of the waste streams generated.

3. On-site: understand how the waste management system (sorting and storage) will work on-site, including bin placement and access.

Determine storage requirements (separate bins or co-mingled), things to consider include:

- Ease of use: ensure that containers are easily accessible by workers and that storage areas are clearly sign posted
- Safety: ensure that the containers and storage can be managed safely, including limiting public access to the site and protecting against FOD
- Hazardous waste materials storage
- Aesthetics: ensure that the site appears orderly and will not raise concern from local residents or businesses – for example screening for dust and litter containment and daily collection of windblown material
- Establish a collection/delivery plan in collaboration with waste contractors for waste and recyclable materials generated on-site.

4. Clearly assign and communicate responsibilities: ensure those involved in the project are aware of their responsibilities in relation to the construction waste management plan.

5. Training: be clear about how the various elements of the WMP will be implemented.

6. Monitor: to ensure the plan is being implemented, monitor on-site as per the PESMP monitoring plan.

OHS MANAGEMENT PLAN GUIDELINES

1. Objective

The objective of this S guideline is to provide guidance on the:

- key principles involved in ensuring the health and safety of workers is protected;
- preparation of Health and Safety Sub-plans and associated Job Safety Analyses (JSA); and
- implementation of Health and Safety Sub-plans during project implementation.

The key reference document for this Guideline is the World Bank Group's *Environmental, Health, and Safety (EHS) Guidelines* (April 2007) together with the relevant Industry Sector EHS Guidelines available at www.ifc.org/ehsguidelines.

2. Principles

Employers must take all reasonable practicable steps to protect the health and safety of workers and provide and maintain a safe and healthy working environment. The following key principles are relevant to maintaining worker health and safety:

2.1 Identification and assessment of hazards

Each employer must establish and maintain effective methods for:

- Systematically identifying existing and potential hazards to employees;
- Systematically identifying, at the earliest practicable time, new hazards to employees;
- Regularly assessing the extent to which a hazard poses a risk to employees.

2.2 Management of identified hazards

Each employer must apply prevention and control measures to control hazards which are identified and assessed as posing a threat to the safety, health or welfare of employees, and where practicable, the hazard shall he eliminated. The following preventive and protective measures must be implemented order of priority:

- Eliminating the hazard by removing the activity from the work process;
- Controlling the hazard at its source through engineering controls;
- Minimizing the hazard through design of safe work systems;
- Providing appropriate personal protective equipment (PPE).

The application of prevention and control measures to occupational hazards should be based on comprehensive job safety analyses (JSA). The results of these analyses should be prioritized as part of an action plan based on the likelihood and severity of the consequence of exposure to the identified hazards.

2.3 Training and supervision

Each employer must take all reasonable practicable steps to provide to employees (in appropriate languages) the necessary information, instruction, training and supervision to protect each employee's health and to manage emergencies that might reasonably be expected to arise in the course of work. Training and supervision extends to the correct use of PPE and providing employees with appropriate incentives to use PPE.

2.4 General duty of employees

Each employee shall:

- take all reasonable care to protect their own and fellow workers health and safety at the workplace and, as appropriate, other persons in the vicinity of the workplace;
- use PPE and other safety equipment supplied as required; and
- not use PPE or other safety equipment for any purpose not directly related to the work for which it is provided.

2.5 Protective clothing and equipment

Each employer shall:

- provide, maintain and make accessible to employees the PPE necessary to avoid injury and damage to their health;
- take all reasonably practicable steps to ensure that employees use that PPE in the circumstances for which it is provided; and
- make provision at the workplace for PPE to be cleaned and securely stored without risk of damage when not required.

The application of prevention and control measures to occupational hazards should be based on comprehensive job safety analyses (JSA). The results of these analyses should be prioritized as part of an action plan based on the likelihood and severity of the consequence of exposure to the identified hazards.

3. Design

Effective management of health and safety issues requires the inclusion of health and safety considerations during design processes in an organized, hierarchical manner that includes the following steps:

- identifying project health and safety hazards and associated risks as early as possible in the project cycle including the incorporation of health and safety considerations into the worksite selection process and construction methodologies;
- involving health and safety professionals who have the experience, competence, and training necessary to assess and manage health and safety risks;
- understanding the likelihood and magnitude of health and safety risks, based on:
    - the nature of the project activities, such as whether the project will involve hazardous materials or processes;
    - The potential consequences to workers if hazards are not adequately managed;
- designing and implementing risk management strategies with the objective of reducing the risk to human health;
- prioritising strategies that eliminate the cause of the hazard at its source by selecting less hazardous materials or processes that avoid the need for health and safety controls;
- when impact avoidance is not feasible, incorporating engineering and management controls to reduce or minimize the possibility and magnitude of undesired consequences;
- preparing workers and nearby communities to respond to accidents, including providing technical resources to effectively and safely control such events;
- Improving health and safety performance through a combination of ongoing monitoring of facility performance and effective accountability.

4. Job Safety Analysis

Job safety analysis (JSA) is a process involving the identification of potential health and safety hazards from a particular work activity and designing risk control measures to eliminate the hazards or reduce the risk to an acceptable level. JSAs must be undertaken for discrete project activities such that the risks can be readily identified and appropriate risk management measures designed.

This Guideline includes a template for a JSA that must be completed and included as an attachment to the Health and Safety Sub-plan.

5. Implementation

5.1 Documentation

A Health and Safety Plan must be prepared and approved prior to any works commencing on site. The H&S Plan must demonstrate the Contractor's understanding of how to manage safety and a commitment to providing a workplace that enables all work activities to be carried out safely. The H&S Plan must detail reasonably practicable measures to eliminate or minimise risks to the health, safety and welfare of workers, contractors, visitors, and anyone else who may be affected by the operations. The H&S Plan must be prepared in accordance with the World Bank's EH&S Guidelines and the relevant country health and safety legislation.

5.2 Training and Awareness

Provisions should be made to provide health and safety orientation training to all new employees to ensure they are apprised of the basic site rules of work at / on the site and of personal protection and preventing injury to fellow employees. Training should consist of basic hazard awareness, site-specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate.

Visitors to worksites must be provided with a site induction prior to entering and must be escorted at all times while on site. This induction must include details of site hazards, provision of necessary PPE and emergency procedures. Visitors are not permitted to access to areas where hazardous conditions or substances may be present, unless appropriately inducted.

5.3 Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) provides additional protection to workers exposed to workplace hazards in conjunction with other facility controls and safety systems.

PPE is considered to be a last resort that is above and beyond the other facility controls and provides the worker with an extra level of personal protection. The table below presents general examples of occupational hazards and types of PPE available for different purposes. Recommended measures for use of PPE in the workplace include:·

- active use of PPE if alternative technologies, work plans or procedures cannot eliminate, or sufficiently reduce, a hazard or exposure;
- identification and provision of appropriate PPE that offers adequate protection to the worker, co-workers, and occasional visitors, without incurring unnecessary inconvenience to the individual;

- proper maintenance of PPE, including cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for Employees
- selection of PPE should be based on the hazard and risk ranking described earlier in this section, and selected according to criteria on performance and testing established

Objective	Workplace Hazards	Suggested PPE
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.
	Oxygen deficiency	Portable or supplied air (fixed lines). On-site rescue equipment.
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration.	Insulating clothing, body suits aprons etc. of appropriate materials.

6. Monitoring

Occupational health and safety monitoring programs should verify the effectiveness of prevention and control strategies. The selected indicators should be representative of the most significant occupational, health, and safety hazards, and the implementation of prevention and control strategies. The occupational health and safety monitoring program should include:

- **Safety inspection, testing and calibration**: This should include regular inspection and testing of all safety features and hazard control measures focusing on engineering and personal protective features, work procedures, places of work, installations, equipment, and tools used. The inspection should verify that issued PPE continues to provide adequate protection and is being worn as required.
- **Surveillance of the working environment**: Employers should document compliance using an appropriate combination of portable and stationary sampling and monitoring instruments. Monitoring and analyses should be conducted according to internationally recognized methods and standards.

- **Surveillance of workers health**: When extraordinary protective measures are required (for example, against hazardous compounds), workers should be provided appropriate and relevant health surveillance prior to first exposure, and at regular intervals thereafter.
- **Training**: Training activities for employees and visitors should be adequately monitored and documented (curriculum, duration, and participants). Emergency exercises, including fire drills, should be documented adequately.
- **Accidents and Diseases monitoring**. The employer should establish procedures and systems for reporting and recording:
    - Occupational accidents and diseases
    - Dangerous occurrences and incidents

These systems should enable workers to report immediately to their immediate supervisor any situation they believe presents a serious danger to life or health.

Each month, the contractor shall supply the following data to the Client's Consulting Engineer for reporting to the client. These data are to also include incidents related to any sub-contractors working directly, or indirectly, for the Contractor.

Lead Indicators	Lag Indicators
Number of drug and alcohol tests	Number of Fatal injuries
Proportion of positive drug and alcohol tests	Number of Notifiable Injuries
Number of site health and safety audits	Number of Lost Time Injuries (LTI)
Number of safety briefings	Number of Medical Treatment Injuries (MTI)
Number of near misses	Number of First Aid Injuries (FAI)
Number of traffic management inspections	Total Recordable Injuries
Number of Safety in Design workshops (Designers only)	Number of serious environmental incidents
Number of Safety in Design issues eliminated (Designers only)	Number of service strikes
Number of sub–contractor reviews	Number of property damage incidents
Number of stop work actions	Number of staff on reduced/alternate duties
Number of positive reinforcements	Lost Time Injury Frequency Rate (LTIFR)
	Total Recordable Frequency Rate (TRFR)

Definitions of the above are to be in accordance with those used by the New Zealand Transport Agency (http://tinyurl.com/nzta-ohs-reporting).

The Client's Consulting Engineer shall be notified of any incident in accordance with the standards below:

Incident Severity Class	Incident Classification	Notification timeframe
Class 1	Fatality	As soon as possible
	Notifiable Injury, Illness or Incident	As soon as possible
Class 2	Lost Time Injury	As soon as practicable but within 48 hours
	Medical Treatment	Within 72 hours

All Class 1 and Class 2 health and safety incidents must be formally investigated and reported to the Client's Consulting Engineer through an investigation report. This report shall be based on a sufficient level of investigation by the Contractor so that all the essential factors are recorded. Lessons learnt must be identified and communicated promptly. All findings must have substantive documentation. As a minimum the investigation report must include:

- Date and location of incident
- Summary of events
- Immediate cause of incident
- Underlying cause of incident
- Root cause of incident
- Immediate action taken
- Human factors
- Outcome of incident, e.g. severity of harm caused, injury, damage
- Corrective actions with clearly defined timelines and people responsible for implementation
- Recommendations for further improvement

Job Safety Analysis (JSA)

Add Organisation Name:

Ref: Version:

Business details			
Business name:			
ABN:		Contact person:	
Address:		Contact position:	
Contact phone number		Contact email address:	
Job Safety Analysis details			
Work activity:		Location:	
Who are involved in the activity:		This job analysis has been authorised by: Name:..... Position: ..... Signature:..... Date:.....	
Plant and equipment used:			
Maintenance checks required:			
Tools used:			
Materials used:			
Personal protective equipment:			
Certificates, permits and/approvals required			
Relevant legislation, codes, standard MSDSs etc applicable to this activity			

Risk assessment

**Use the risk rating table to assess the level of risk for each job step.

		Likelihood				
		1	2	3	4	5
Consequence		**Rare** The event may occur in exceptional circumstances	**Unlikely** The event could occur sometimes	**Moderate** The event should occur sometimes	**Likely** The event will probably occur in most circumstances	**Almost Certain** The event is expected to occur in most circumstances
1	**Insignificant** No injuries or health issues	LOW	LOW	LOW	LOW	MODERATE
2	**Minor** First aid treatment	LOW	LOW	MODERATE	MODERATE	HIGH
3	**Moderate** Medical treatment, potential LTI	LOW	MODERATE	HIGH	HIGH	CRITICAL
4	**Major** Permanent disability or disease	LOW	MODERATE	HIGH	CRITICAL	CATASTROPHIC
5	**Extreme** Death	MODERATE	HIGH	CRITICAL	CATASTROPHIC	CATASTROPHIC

Risk rating:

Low risk: Acceptable risk and no further action required as long as risk has been minimised as possible. Risk needs to be reviewed periodically.

Moderate risk: Tolerable with further action required to minimise risk. Risk needs to be reviewed periodically.

High risk: Tolerable with further action required to minimise risk. Risk needs to be reviewed continuously.

Critical risk: Unacceptable risk and further action required immediately to minimise risk.

Catastrophic: Unacceptable risk and urgent action required to minimise risk.

Risk controls

The hierarchy of control can be used as an effective tool to deal with health and safety issues at work. Use the type of control suggested as measures to deal with the hazard. Aim to use control measures from as high on the hierarchy of control list as possible. If that is not possible the next option down the list or a combination of the measures should be implemented. The least effective control measure is the use of personal protective equipment (PPE) and it should be used as a last resort or a support to other control measures. Information and training should be integrated with all levels of control to explain how controls work.

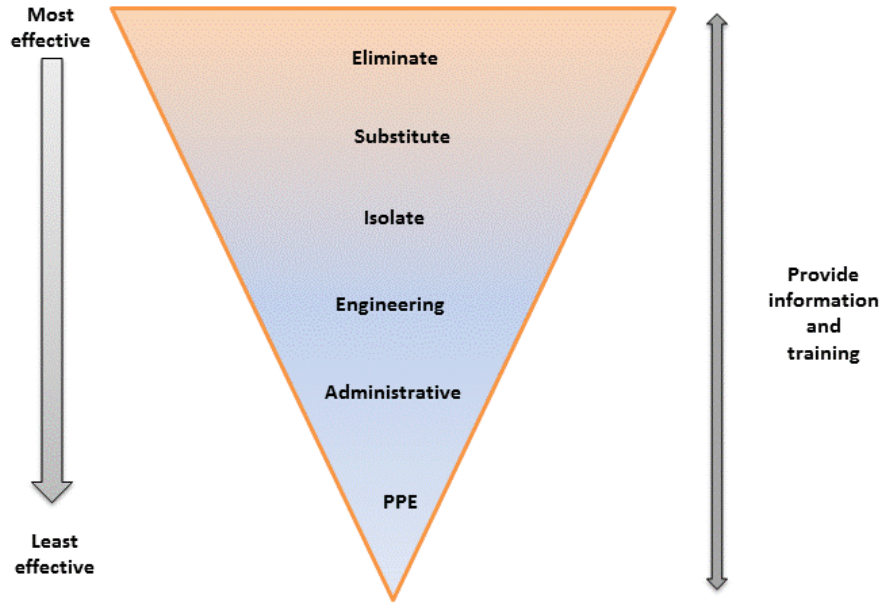
1. **Eliminate** – if it is possible, the hazard should be removed completely. For example, get rid of dangerous machines.

2. **Substitute** – replace something that produces the hazard with something that does not produce a hazard. For example, replacing solvent based paint with water based paint. Risk assessment on the substitution must be conducted to ensure that it will not pose another hazard.

3. **Engineering control** – isolate a person from the hazard by creating physical barrier or making changes to process, equipment or plant to reduce the hazard. For example, install ventilation systems.

4. **Administrative control** – change the way a person works by establishing policies and procedures to minimise the risks. For example, job scheduling to limit exposure and posting hazard signs.

5. Use **personal protective equipment** (PPE) – protect a person from the hazard by wearing PPE. For example, wearing gloves, safety glasses, hard hats and high-visibility clothing. PPE must be correctly fitted, used and maintained to provide protection.



Hierarchy of control

JSA – Action steps

Step No	Job step details	Potential hazards	Risk rating**	How to control risks***	Name of persons responsible for work

Review number: Version:
Review number: Version:

This job safety analysis has been developed through consultation with our employees and has been read, understood and signed by all employees undertaking the works:		
Print Names:	**Signatures:**	**Dates:**

Review No	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**
Initial:								
Date:								

Worker Planning and Management Guidelines

GENERAL

The Workers Camp Management Plan will be compliant with the specific prescriptions of the ESMP.

OBJECTIVES

To provide guidelines on the recruitment of workers and the selection, development, management, maintenance and restoration of workers accommodation camp sites in order to avoid or mitigate against significant adverse environmental and social effects, both transient and permanent.

WORKER RECRUITMENT

The Contractor is required to minimise the number of skilled workers that are recruited from overseas. No unskilled labour will be sourced from overseas. The Contractor will maximise the number of skilled and unskilled workers that are recruited from the Nanumaga community from the labour force inventory that is being undertaken by the Kaupule.

The Contractor will be required to provide justification for any skilled workers that the wish to recruit from overseas and explain why this position cannot be filled locally on Nanumaga or Funafuti.

WORKERS CAMP FACILITIES

All facilities in the Workers Camp must be complaint with the stipulations of the ESMP and the IFC Workers Accommodations and Standards. The camp shall be provided with the following minimum facilities:

- Canteen, dining hall and dormitories as required shall be constructed of suitable materials to provide a safe healthy environment for the workforce and which facilitate regular cleaning and the provision of ventilation and illumination.
- Ablution block with a minimum of one water closet toilet, one urinal and one shower per 10 personnel engaged either permanently or temporarily on the project. Separate toilet and wash facilities shall be provided for male and female employees.
- A sick bay and first aid station.
- Sewage collection facilities to allow for the treatment of black and grey wastewater discharge from toilets, wash rooms, showers, kitchens, laundry and the like. The management of all camp wastewater water shall be as prescribed in the PESMP.
- All camp facilities shall be maintained in a safe clean and or appropriate condition throughout the construction period.
- The contractor shall provide, equip, and maintain adequate first aid stations and erect conspicuous notice boards directing where these are situated and provide all required transport. The contractor shall comply with the government medical or labour requirements at all times and provide, equip and maintain dressing stations where directed and at all times have experienced first aid personnel available throughout the works for attending injuries.
- Throughout the period of the contract the employer, the engineer, or their representatives shall have uninterrupted access to and from the camp for the purpose of carrying out routine inspections of all buildings, facilities or installations of whatever nature to ensure compliance with this specification.

WORKERS CAMP OPERATIONS

- The Contractor will be required to provide calculations of the amount of freshwater needed for the number of workers accommodated at the camp and is to demonstrate how they will provide this water. No currently existing freshwater resources on Nanumaga island will be used for the workers or for worker camp operations.
- The Contractor will be required to provide adequate provisions for the workers for the duration of the project so as not to deplete the available food sources of the community.
- All wastewater, solid waste, fresh water usage, noise levels, handling and storage of hazardous materials shall be as prescribed in the PESMP.

MANAGEMENT OF OFF DUTY WORKERS

- The Contractor will prepare a specific Code of Conduct to describe the expected behaviours of their project worker in relation to the local communities and their social sensitivities.
- The Contractor is to ensure that all overseas project staff undergo a cultural familiarisation session as part of their induction training. The purpose of this induction will be to introduce the project staff to the cultural sensitivities of the local communities and the expected behaviours of the staff in their interactions with these communities. The MICRO PST shall provide to the Contractor a list of approved service providers which shall include recognized NGOs and others for conducting this training.
- The Contractor is to stipulate the conditions under which visitors may attend the workers camp. Strict visiting hours should be enforced and all visitors will be required to sign in and out of the workers camp.
- The Contractor shall ensure that basic social/collective rest spaces are provided equipped with seating within the Workers Camp to help minimise the impact that the workers would have on the leisure and recreational facilities of the nearby communities. Provisions should also be made to provide the workers with an active recreation space within the camp.

WORKERS CAMP MANAGEMENT PLAN

A Workers Camp Management Plan shall be submitted as an annex to the CEMSP. The Workers Camp Management Plan shall describe how this document, the ESMP and the IFC Guidelines shall be implemented in the following:

- Recruitment strategy
- Accommodation
- Canteen and dining areas
- Ablutions
- Water supply
- Wastewater management system
- Proposed power supply
- Full Code of Conduct for Workers

- Recreational/leisure facilities for workers
- Visitors to the Workers Camp
- Interactions with the local communities

QUARRY MANAGEMENT SUB-PLAN GUIDELINE

1. Objective

The objective of this Sub-plan is to prescribe the safety requirements for the development and operation of quarries as well as to define procedures and works that shall be used to mitigate against adverse environmental effects.

2. Planning and Design

2.1 Quarry Sites

During the planning of a development project which will involve earthworks, potential quarry sites shall be identified. The potential sites shall be discussed during public consultations in regard to the project.

2.2 Land Acquisition

The Contractor will make lease arrangements with the titled land owner prior to any quarrying. The lease agreement must be approved by the Supervision Engineer and included in the CESMP. The government issued land lease rates shall be applied and all lease agreements will be entered into knowingly and voluntarily.

The consultant shall define potential quarry sites that may be used for the construction of the project. Such potential sites shall be identified on plans drawn to an appropriate scale and the plans shall be displayed and discussed during public consultations.

2.3 Site Plans

Site plans for quarry development shall be included in drawings issued for tender and the specification shall define the requirements of the contract in relation to quarry development and operation. The following design directives shall apply:

It is desirable that no quarry boundary is located within 500 metres of a public area or town or village nor within 300 metres of any isolated dwelling. The designer shall provide site plans of potential quarry sites in the tender documents. Such plans shall show existing level contours, access road, natural watercourses and other relevant topographical features.

The area defined for quarry operation shall be based on the volume of aggregate to be quarried and hence the extent of quarry operation. It shall also provide the area necessary for stockpiling stripped overburden, the establishment of a crusher and screening plant, the stockpiling of crushed aggregate and the installation of stormwater cut off drains, silt retention ponds and staff amenities.

3. Construction

3.1 Quarry Management Plan

Prior to commencing any physical works on site, a quarry development plan shall be prepared and approved by the Engineer and ECD. The quarry management plan shall have due regard for the following:

- All operations shall comply with the laws of the Solomon Islands.
- Show the extent of overburden stripping and the stockpiling of same for later site restoration.

- Show the details and location of surface water drainage from the quarry site and the silt retention pond that will be constructed to settle silt and soil contaminated water prior to its discharge to a natural water course.
- Show details of catch drains installed to intercept overland flow of surface water to prevent its discharge into the quarry area.
- State safety precautions to be implemented.
- Show facilities such as guardhouse, amenities block and other facilities to be constructed.
- Show location of aggregate stockpiles.
- List plant and equipment to be used in the development and operation of the quarry.
- Show the site of the proposed magazine for the storage of explosives.

On no account shall physical works be commenced for development of the quarry until an agreed Quarry Management Plan has been submitted to the Engineer. Thereafter all quarry operation shall be the entire responsibility of the contractor and shall be carried out in terms of the agreed management plan.

3.2 Safety Provisions

The following provisions shall be made in the operation of any quarry for the safety of all employees or persons on site:

- A daily register is to be maintained identifying all personnel who are engaged in or about the quarry.
- All persons engaged in the operation of the quarry shall be trained and have sufficient knowledge of and experience in the type of operation in which they are engaged.
- All persons engaged in the operation of the quarry shall be adequately supervised.
- Approved lighting shall be provided in inside working places where natural lighting is inadequate to provide safe working conditions.
- All personnel engaged in quarry operations shall wear a protective helmet of approved type at all times when on the quarry site.
- All personnel shall wear protective footwear while engaged in quarry operations.
- All employees engaged in operations on a quarry face at a height greater than 1.5 metres above the level of the quarry floor or bench floor shall be attached at all times to a properly secured safety rope by means of a safety belt.
- All persons whose duty it is to attend to moving machinery in or about any quarry shall wear close fitting and close fastened garments. Their hair shall be cut short or securely fixed and confined close to their head.
- All boilers, compressors, engines, gears, crushing and screening equipment and all moving parts of machinery shall be kept in a safe condition. Every flywheel and exposed moving parts of machinery shall be fitted with safety screens or safety fenced as appropriate.
- All elevated platforms, walkways and ladders shall be provided with adequate hand or safety rails or cages.
- Machinery shall not be cleaned manually while it is in motion nor oiled or greased while in motion.

Should any of the above safety measures be ignored or inoperative at any time then the engineer shall direct that quarry operations cease until all safety measures are provided and are in operating order.

3.3 Provision of First Aid

At every quarry there shall be provided the following first aid equipment:

- A suitably constructed stretcher with a warm, dry blanket.
- A first-aid box equipped to a standard acceptable to the Ministry of Health.

The quarry manager shall at least once every working week personally inspect the first-aid equipment to ensure that it complies with the requirements of this specification. Any supplies used from the first-aid box shall be replaced forthwith.

A person trained in first aid to the injured shall be available at the quarry during all operational periods of whatever nature.

3.4 Health Provisions

At every quarry a sufficient number of toilets and urinals shall be provided for the use of employees and shall be properly maintained and kept in a clean condition.

At every quarry a supply of potable water, sufficient for the needs of the persons employed, shall be provided. If persons are employed in places remote from the source of water supply, suitable clean containers of potable water shall be provided for their use.

Suitable facilities for washing shall be provided and maintained in a clean and tidy condition to the satisfaction of the employer, and those facilities shall be conveniently accessible for the use of persons employed in or about the quarry.

3.5 Quarry Manager

A manager who is experienced in all aspects of quarry operation and in particular safety procedures shall control every quarry. The manager shall be personally responsible for ensuring that all safety facilities are available and that safety procedures are followed.

The contractor shall nominate an experienced quarry manager in the submission of the tender for the works. The quarry manager shall have a recognised current “A” grade quarry manager’s surface certificate and a recognised current quarry shot firer’s certificate.

In the submission of the quarry manager’s credentials with the tender documents, the contractor shall ensure that the credentials include certified true copies of the following documents:

- Grade quarry manager’s surface certificate
- Quarry shot firer’s certificate
- References from previous clients or employers demonstrating experience in:
    - The design and layout of quarries including the layout of benches, faces, access roads, drainage and crushing plant.
    - The methods of working quarry faces with particular reference to face stability and the safety of persons employed in or about the quarry
    - The safety of the public at large
    - The provision for and application of first aid.

The quarry manager’s duties shall include:

- daily, within two hours immediately before the commencement of the first working shift of the day in any part of the quarry, inspect every working place and travelling road, and all adjacent places from which danger might arise, and shall forthwith make a true report of the

inspection in a record book kept for the purpose at the quarry. The record book shall be accessible to the engineer and the persons employed in or about the quarry.

- at least once in every 24 hours examine the state of the safety appliances or gear connected with quarrying operations in the quarry, and shall record the examination in the record book.
- once in each week carefully examine the buildings, machinery, faces, benches, and all working places used in the quarrying operations, and shall forthwith after every such examination record in writing in the record book his opinion as to their condition and safety and as to any alterations or repairs required to ensure greater safety of the persons employed in the working of the quarry. The manager shall then ensure that any such alterations or repairs are carried out.

3.6 Vegetation

Vegetation shall be stripped from the proposed quarry development area. Before stripping any vegetation a survey shall be undertaken to determine the presence of any rare plant species. All necessary steps shall be taken to save plants classified as important. Care shall be taken to avoid damage to any vegetation outside the defined quarry area. On no account shall burning of vegetation be permitted.

3.7 Overburden Stripping

Overburden stripped from any proposed quarry area shall be stockpiled clear of the quarry operation to be used for site restoration at the completion of operations. Stockpiles shall be shaped and smoothed to minimise ingress of rainwater.

Surface water run off from stockpiles shall be intercepted by perimeter drains which shall be discharged to silt retention ponds.

Batters in overburden excavation shall be sloped to ensure they are safe and stable against failure.

The maximum height of any batter in overburden shall be 3 metres. Any higher batter in overburden shall have an intermediate bench at least 3.5 metres in width. Such benches shall be shaped and drained.

3.8 Blasting Operations

Blasting operations shall be conducted in a manner that will not cause danger to life or property.

All explosives shall be stored in purpose built locked magazines on a site within the quarry boundary but remote from blasting operations. Detonators shall be stored in a separate locked magazine but similarly sited.

A blasting operations manual shall be prepared for any quarry and such manual, which shall be maintained by the quarry manager, shall stipulate procedures for at least the following:

- Operation of magazines for the storage of explosives and for the storage of detonators.
- The quantity of explosive that may be removed from a magazine at any one time.
- The procedure for quarry explosive cases.
- Persons allowed to fire shots.
- Explosives to be carried in securely covered containers.
- Tamping of explosives.
- Diameter of drill holes.

- Time when charges are to be fired.
- Detonation delay.
- Firing warnings.
- Blasting shelters.
- Treatment of misfired charges
- Inspection of work site after each detonation by the quarry manager or an approved person appointed in writing by the quarry manager.

A person specially appointed in writing by the quarry manager for the purpose shall be in charge of every magazine, and shall have keys to one of the locks. That person shall be responsible for the safe storage of explosives contained therein, for the distribution of explosives therefrom, and for the keeping of accurate records of stocks and issues in a book provided for the purpose. A second person, appointed by the employer shall have keys to the second lock. Both persons shall be present to unlock the magazine, and note the removal of stock and ensure both locks are subsequently secured.

- Explosives shall be used in the same order as that in which they were received into the magazine.
- Naked lights shall not be introduced into a magazine or into any working place in a quarry where explosives are temporarily stored.
- Explosives shall not be taken from a magazine in quantities exceeding that required for use during one shift, and any surplus explosives shall be returned to the magazine at the end of that shift.
- No case or carton containing explosives shall be opened in the storage area of any magazine.
- Instruments made solely of wood, brass, or copper shall be used in opening cases or cartons of explosives, and the contractor shall provide and keep suitable instruments for that purpose.
- The preparation of charges and the charging, tamping, and firing of all explosive charges in or about a quarry shall be carried out under the personal supervision of the quarry manager.

3.9 Dust Suppression

Operation of any quarry shall incorporate dust suppression measures. Dust generation during blasting operations shall be minimised. All haul roads shall be regularly dampened by spray bars fitted to water tankers or similar systems in order to minimise dust generation by traffic movements. Crushers, screens and stockpiles shall be dampened by appropriate water sprays to minimise dust generation.

4. Rehabilitation

A realistic Rehabilitation Plan will be developed and rehabilitation planning shall begin as early as possible in the quarry life cycle in order to be fully effective. Once objectives are set, rehabilitation activities should be defined and performed in order to achieve these goals.

The objectives of a rehabilitation plan should be based upon the specific characteristics of the extraction site and should reflect:

- Legislative requirements
- Health and safety considerations
- Environmental and social characteristics of the quarry and surrounding area
- Biodiversity of area

- Ecosystem services provided within the sites ecological boundaries
- Operating plan for the quarry – technical feasibility of the rehabilitation objectives will be affected by the manner in which the quarry operates
- Status of the quarrying area of existing operating site
- Characteristics of the deposit (geology and hydrology)
- Impacts arising from operation of the site
- Post closure land use plan

Rehabilitation plans should adopt the following structure:

a. Context
b. Objectives
c. Action plans
d. Prioritised actions and schedule
e. Monitoring and evaluation
f. Rehabilitation and post-closure costs
g. Roles and responsibilities
h. Compatibility with biodiversity

5. Consent

5.1 Consent Required

In accordance with the Mines and Minerals Act 1996) and any other relevant legislation, any person who engages in quarry development or operations shall first obtain Building Materials Permit for the proposed activity.

5.2 Application for Consent

Permit applications shall be on an approved form and shall be submitted by to the Commissioner. Applications shall be accompanied by such other documents as ECD may require. The Commissioner must not issue or renew any permit unless a copy of the application has been exhibited for a period of not less than 30 days at the headquarters of the area council of the local government council responsible for the land which is the subject of the application.

5.3 Special Conditions

The Commissioner may, by notice served on the applicant, require further information in respect of the application as the Commissioner considers relevant or necessary. The applicant must comply with the notice.

Appendix E: SIRAP GBV Code of Conduct and Action Plan

CODES OF CONDUCT AND ACTION PLAN FOR IMPLEMENTING ESHS AND OHS STANDARDS, AND PREVENTING GENDER BASED VIOLENCE ON PACIFIC ISLAND COUNTRY TRANSPORT PROJECTS

Background

The purpose of these *Codes of Conduct and Action Plan for Implementing ESHS and OHS Standards, and Preventing Gender Based Violence* is to introduce a set of key definitions, core Codes of Conduct, and guidelines for application on World Bank financed transport projects in Pacific Island Countries (PICs) that:

i. clearly define obligations on all project staff (including sub-contractors and day workers) with regard to implementing the project's environmental, social, health and safety (ESHS) and occupational health and safety (OHS) requirements, and;
ii. help prevent, report and address Gender Based Violence (GBV) within the work site and in its immediate surrounding communities.

The application of these Codes of Conduct will help ensure the project meets its ESHS and OHS objectives, as well as preventing and/or mitigating the risks of GBV on the project and in the local communities.

These Codes of Conduct are to be adopted by all those working on the project—including subcontractors—and are meant to:

i. create awareness of the ESHS and OHS expectations on the project;
ii. create common awareness about GBV and:
    (a) ensure a shared understanding that GBV has no place on the project; and,
    (b) create a clear system for identifying, responding to, and sanctioning GBV incidents.

Ensuring that all project staff understand the values of the project, understanding expectations for all employees, and acknowledging the consequences for violations of these values, will help to create smoother, more respectful and productive project implementation thereby helping ensure that the project's development objectives will be achieved.

Definitions

The following definitions apply:

ESHS and General Project

- **Environmental, Social, Health and Safety (ESHS):** an umbrella term covering issues related to the impact of the project on the environment, communities and workers.
- **Occupational Health and Safety (OHS):** Occupational health and safety is concerned with protecting the safety, health and welfare of people engaged in work or employment, and the surrounding communities. The enjoyment of these standards at the highest levels is a basic human right that should be accessible by each worker.
- **Key Documents:**
    - **Project Environmental and Social Management Plan (ESMP):** The safeguards document prepared prior to project approval by the World Bank identifying the activities to be undertaken, key risks (based on ESIA if available), and their mitigation measures.
    - **Contractors Environmental and Social Management Plan (C-ESMP):** the plan prepared by the contractor outlining how they will implement the works activities in accordance with the project's environmental and social management plan (ESMP). As shown in Figure 2, the C-ESMP also contains a number of management plans, in particular, the OHS Management Plan.
    - **Codes of Conduct:** the Codes of Conduct adopted for the project (or individual companies) covering the commitment of the company, and the responsibilities of managers and individuals with regards to ESHS, OHS and GBV.
- **Key Project Actors:**
    - **Consultant:** is as any firm, company, organization or other institution that has been awarded a contract to provide consulting services to the project, and has hired managers and/or employees to conduct this work.
    - **Contractor:** is any firm, company, organization or other institution that has been awarded a contract to conduct infrastructure development works for the project and has hired managers and/or employees to conduct this work. This also includes sub-contractors hired to undertake activities on behalf of the contractor.
    - **Manager:** is any individual offering labour to the contractor or consultant, on or off the work site, under a formal or informal employment contract and in exchange for a salary, with responsibility to control or direct the activities of a contractor's or consultant's team, unit, division or similar, and to supervise and manage a pre-defined number of employees.
    - **Employee:** is any individual offering labour to the contractor or consultant within country on or off the work site, under a formal or informal employment contract or arrangement, typically, but not necessarily (e.g. including unpaid interns and volunteers), in exchange for a salary, with no responsibility to manage or supervise other employees.
- **Grievance Redress Mechanism (GRM):** is the process established by a project to receive and address complaints related to the project—not just GBV but related to any aspect of the project. The GRM needs to: (i) allow for multiple channels to receive complaints; (ii) be readily accessible, allowing complaints to be made in different ways; and, (iii) have appropriate protocols to handle GBV complaints including empathetic listening and assurance of confidentiality.
- **Work Site:** is the area in which infrastructure development works are being conducted, as part of the project. Consulting assignments are considered to have the areas in which they are active as their work sites.

- **Work Site Surroundings:** is the 'Project Area of Influence' which are any area, urban or rural, directly affected by the project, including all human settlements found in it.

GBV

Key definitions: With reference to the focus areas for in Figure 1, there are a number of key definitions for understanding GBV:

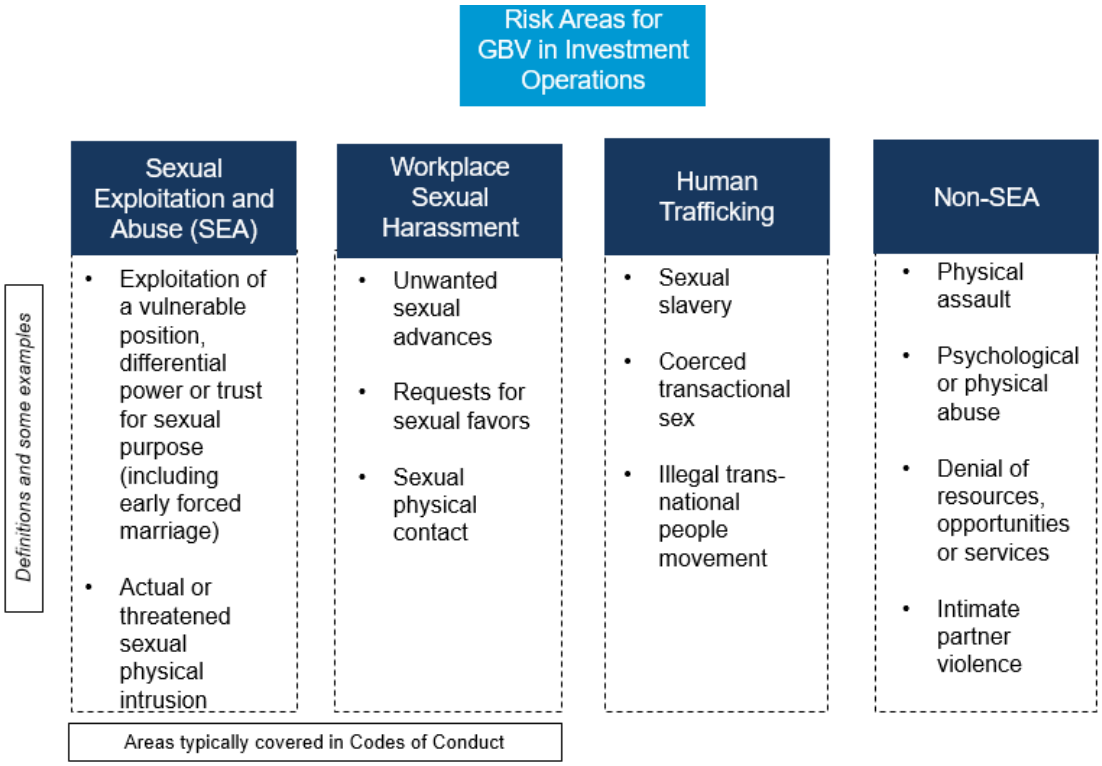


Figure 1: Types of GBV that may be Exacerbated by Investment Operations

Codes of Conduct Focus

These Codes of Conduct specifically focus on the following forms of GBV - Sexual Exploitation and Abuse (SEA) and Sexual Harassment as they represent high risk areas in the context of investment operations.

- **Gender Based Violence (GBV):** is an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed (that is, gender) differences between male and female individuals. GBV includes acts that inflict physical, mental, or sexual harm or suffering; threats of such acts; and coercion and other deprivations of liberty, whether occurring in public or in private life.
- **Sexual Exploitation and Abuse (SEA):** Sexual exploitation is a facet of GBV that is defined as any actual or attempted abuse of a position of vulnerability, differential power, or trust for sexual purposes, including but not limited to, profiting monetarily, socially or politically from

the sexual exploitation of another. In the context of World Bank supported projects, SEA occurs against a beneficiary or member of the community.

  - **Sexual abuse** is further defined as the actual or threatened physical intrusion of a sexual nature whether by force or under unequal or coercive conditions.
  - **Child sexual abuse:** is defined by the age of the survivor. It includes different forms of sexual violence, involves either explicit force or coercion or cases in which the survivor cannot consent because of his or her age. Sexual activity with anyone below the age of 18, except in cases of pre-existing marriage, constitutes child sexual abuse. Mistaken belief regarding the age of the child and/or receipt of consent from the child is not a defense.

- **Sexual harassment:** occurs between personnel and staff on the project, and involves any unwelcome sexual advance or unwanted verbal or physical conduct of a sexual nature. (e.g. looking somebody up and down; kissing; whistling and catcalls; in some instances, giving personal gifts). The distinction between the SEA and sexual harassment is important so that agency policies and staff trainings can include specific instruction on the procedures to report each.
  - **Sexual favors:** is a form of sexual harassment and includes making promises of favorable treatment (e.g. promotion) or threats of unfavorable treatment (e.g. loss of job) dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
- **Child protection (CP):** Is an activity or initiative designed to protect children from any form of harm, particularly arising from child abuse and exploitation.
  - **Child:** is used interchangeably with the term 'minor' and refers to a person under the age of 18. This is in accordance with Article 1 of the United Nations Convention on the Rights of the Child.
  - **Child Abuse and Exploitation (CAE):** the physical, sexual or psychological harm of children including using for profit, labour, sexual gratification, or some other personal or financial advantage. This also includes other activities such as using computers, mobile phones, or video and digital cameras appropriately, and never to exploit or harass children or to access child pornography through any mediums
  - **Grooming:** are behaviors that make it easier for a perpetrator to procure a child for sexual activity. For example, an offender might build a relationship of trust with the child, and then seek to sexualize that relationship (for example by encouraging romantic feelings or exposing the child to sexual concepts through pornography).
  - **Online Grooming:** is the act of sending an electronic message to a recipient who the sender believes to be a minor, with the intention of developing a relationship of trust that can be abused by procuring the recipient to engage in or submit to sexual activity with another person, including but not necessarily limited to the sender. This includes engaging in online sexual activities, such as messages, videos and photos with sexual content either sent to or procured from a child.

Other definitions: In addressing the issues raised above related to GBV there are a number of considerations which need to be clearly defined:

- **Rape:** non-consensual penetration (however slight) of the vagina, anus or mouth with a penis, other body part, or an object.
- **Consent:** refers to when an adult makes an informed choice to agree freely and voluntarily to do something. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even if national legislation of the country into which the CoC is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense. There is **no** consent when agreement is obtained through:

  - The use of threats, force or other forms of coercion, abduction, fraud, manipulation, deception, or misrepresentation,
  - The use of a threat to withhold a benefit to which the person is already entitled, or,
  - A promise made to the person to provide a benefit.
- **Perpetrator:** the person(s) who commit(s) or threaten(s) to commit an act or acts of GBV.
- **Survivor/Survivors:** the person(s) adversely affected by GBV. Women, men and children can be survivors of GBV.
- **GBV Service Provider:** is an independent organization trusted by the local communities with the skills and resources to provide support to survivors of GBV, as well as training to reduce the risks of GBV.
- **Third-Party Monitor (TPM) or Independent Verification Agent (IVA):** an organization commissioned to independently monitor and report on the effectiveness of the implementation of the GBV activities on the project. TPMs are financed independent of the project; IVAs are financed by the project.
- **Investigation and resolution of GBV allegations:**
  - **GBV Allegation Procedure:** is the prescribed procedure to be followed when reporting incidents of GBV.
  - **Accountability Measures:** are the measures put in place to ensure the confidentiality of survivors and to hold contractors, consultants and the client responsible for instituting a fair system of addressing cases of GBV.
  - **Response Protocol:** are the mechanisms set in place to respond to cases of GBV.
  - **GBV Complaints Team (GCT):** a team established by the project to address GBV issues.

Codes of Conduct

This chapter presents three Codes of Conduct for use:

i. **Company Code of Conduct:** Commits the company to addressing EHSH, OHS and GBV issues;
ii. **Manager's Code of Conduct:** Commits managers to implementing the Company Code of Conduct, as well as those signed by individuals; and,
iii. **Individual Code of Conduct:** Code of Conduct for everyone working on the project, including managers.

Company Code of Conduct

Implementing ESHS and OHS Standards

Preventing Gender Based Violence

The company is committed to ensuring that the project is implemented in such a way which minimizes any negative impacts on the local environment, communities, and its workers. This will be done by respecting the environmental, social, health and safety (ESHS) standards, and ensuring appropriate occupational health and safety (OHS) standards are met. The company is also committed to creating and maintaining an environment where children under the age of 18 will be protected, and where Sexual Exploitation and Abuse (SEA) and sexual harassment have no place. Improper actions towards children, SEA and sexual harassment are acts of Gender Based Violence (GBV) and as such will not be tolerated by any employee, sub-contractors, supplier, associate, or representative of the company.

Therefore, to ensure that all those engaged in the project are aware of this commitment, the company commits to the following core principles and minimum standards of behavior that will apply to all company employees, associates, and representatives, including sub-contractors and suppliers, without exception:

General

1. The company—and therefore all employees, associates, representatives, sub-contractors and suppliers—commits to complying with all relevant national laws, rules and regulations.
2. The company commits to full implementing its 'Contractors Environmental and Social Management Plan' (C-ESMP) as approved by the client.
3. The company commits to treating women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. Acts of GBV are in violation of this commitment.
4. The company shall ensure that interactions with local community members are done with respect and non-discrimination.
5. Demeaning, threatening, harassing, abusive, culturally inappropriate, or sexually provocative language and behavior are prohibited among all company employees, associates, and its representatives, including sub-contractors and suppliers.
6. The company will follow all reasonable work instructions (including regarding environmental and social norms).
7. The company will protect and ensure proper use of property (for example, to prohibit theft, carelessness or waste).

Health and Safety

8. The company will ensure that the project's OHS Management Plan is effectively implemented by company's staff, as well as sub-contractors and suppliers.
9. The company will ensure that all persons on-site wear prescribed and appropriate personal protective equipment, preventing avoidable accidents, and reporting conditions or practices that pose a safety hazard or threaten the environment.
10. The company will:
    i. prohibit the use of alcohol during work activities.
    ii. prohibit the use of narcotics or other substances which can impair faculties at all times.

11. The company will ensure that adequate sanitation facilities are available on site and at any worker accommodations provided to those working on the project.
12. The company will not hire children under the age of 18 for construction work, or allow them on the work site, due to the hazardous nature of construction sites.

Gender Based Violence

13. Acts of GBV constitute gross misconduct and are therefore grounds for sanctions, which may include penalties and/or termination of employment and, if appropriate, referral to the Police for further action.
14. All forms of GBV, are unacceptable, regardless of whether they take place on the work site, the work site surroundings, at worker's camps or within the local community.
15. Sexual harassment of work personnel and staff (e.g. making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature) are acts of GBV and are prohibited.
16. Sexual favors (e.g. making promises of favorable treatment such as promotions, threats of unfavorable treatment such as losing a job, payments in kind or in cash dependent on sexual acts) and any form of humiliating, degrading or exploitative behavior are prohibited.
17. The use of prostitution in any form at any time is strictly prohibited.
18. Sexual contact or activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
19. Unless there is full consent[13] by all parties involved in the sexual act, sexual interactions between the company's employees (at any level) and members of the communities surrounding the work place are prohibited. This includes relationships involving the withholding/promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex (including prostitution). Such sexual activity is considered "non-consensual" within the scope of this Code.
20. In addition to company sanctions, legal prosecution of those who commit acts of GBV will be pursued if appropriate.
21. All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of GBV by a fellow worker, whether in the same company or not. Reports must be made in accordance with project's GBV Allegation Procedures.
22. Managers are required to report and act to address suspected or actual acts of GBV as they have a responsibility to uphold company commitments and hold their direct reports responsible.

Implementation

To ensure that the above principles are implemented effectively the company commits to:

23. Ensuring that all managers sign the project's 'Manager's Code of Conduct' detailing their responsibilities for implementing the company's commitments and enforcing the responsibilities in the 'Individual Code of Conduct'.

[13] **Consent:** refers to when an adult makes an informed choice to agree freely and voluntarily to do something. There is **no** consent when agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, manipulation, deception, or misrepresentation; the use of a threat to withhold a benefit to which the person is already entitled, or; a promise made to the person to provide a benefit. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even if national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

24. Ensuring that all employees sign the project's 'Individual Code of Conduct' confirming their agreement to comply with ESHS and OHS standards, and not to engage in activities resulting in GBV, child endangerment or abuse, or sexual harassment.
25. Displaying the Company and Individual Codes of Conduct prominently and in clear view at workers' camps, offices, and in in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas and health clinics.
26. Ensuring that posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
27. Ensuring that an appropriate person is nominated as the company's 'Focal Point' for addressing GBV issues, including representing the company on the GBV Complaints Team (GCT) which is comprised of representatives from the client, contractor(s), the supervision consultant, and local GBV Service Provider.
28. Ensuring that an effective GBV Action Plan is developed in consultation with the GCT which includes as a minimum:
    i. **GBV Allegation Procedure** to report GBV issues through the project Grievance Redress Mechanism (Section 4.3 Action Plan);
    ii. **Accountability Measures** to protect confidentiality of all involved (Section 4.4 Action Plan); and,
    iii. **Response Protocol** applicable to GBV survivors and perpetrators (Section 4.7 Action Plan).
29. Ensuring that the company effectively implements the agreed final GBV Action Plan, providing feedback to the GCT for improvements and updates as appropriate.
30. Ensuring that all employees attend an induction training course prior to commencing work on site to ensure they are familiar with the company's commitments to ESHS and OHS standards, and the project's GBV Codes of Conduct.
31. Ensuring that all employees attend a mandatory training course once a month for the duration of the contract starting from the first induction training prior to commencement of work to reinforce the understanding of the project's ESHS and OHS standards and the GBV Code of Conduct.

I do hereby acknowledge that I have read the foregoing Company Code of Conduct, and on behalf of the company agree to comply with the standards contained therein. I understand my role and responsibilities to support the project's OHS and ESHS standards, and to prevent and respond to GBV. I understand that any action inconsistent with this Company Code of Conduct or failure to act mandated by this Company Code of Conduct may result in disciplinary action.

Company name: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Manager's Code of Conduct

Implementing ESHS and OHS Standards

Preventing Gender Based Violence

The company is committed to ensuring that the project is implemented in such a way which minimizes any negative impacts on the local environment, communities, and its workers. This will be done by respecting the environmental, social, health and safety (ESHS) standards, and ensuring appropriate occupational health and safety (OHS) standards are met. The company is also committed to creating and maintaining an environment where children under the age of 18 will be protected, and where Sexual Exploitation and Abuse (SEA) and sexual harassment have no place. Improper actions towards children,

SEA and sexual harassment are acts of Gender Based Violence (GBV) and as such will not be tolerated by any employee, sub-contractors, supplier, associate, or representative of the company.

Managers at all levels have a responsibility to uphold the company's commitment. Managers need to support and promote the implementation of the Company Code of Conduct. To that end, managers must adhere to this Manager's Code of Conduct and also to sign the Individual Code of Conduct. This commits them to supporting the implementation of the Contractor's Environmental and Social Management Plan (C-ESMP), the OHS Management Plan, and developing systems that facilitate the implementation of the GBV Action Plan.

Managers need to maintain a safe workplace, as well as a GBV-free environment at the workplace and in the local community. Their responsibilities to achieve this include but are not limited to:

Implementation

1. To ensure maximum effectiveness of the Company and Individual Codes of Conduct:
    i. Prominently displaying the Company and Individual Codes of Conduct in clear view at workers' camps, offices, and in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas and health clinics.
    ii. Ensuring all posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
2. Verbally and in writing explain the Company and Individual Codes of Conduct to all staff.
3. Ensure that:
    i. All direct reports sign the 'Individual Code of Conduct', including acknowledgment that they have read and agree with the Code of Conduct.
    ii. Staff lists and signed copies of the Individual Code of Conduct are provided to the OHS Manager, the GBV Complaints Team (GCT), and the client.
    iii. Participate in training and ensure that staff also participate as outlined below.
    iv. Put in place a mechanism for staff to:
        (a) report concerns on ESHS or OHS compliance; and,
        (b) confidentially report GBV incidents through the Grievance Redress Mechanism (GRM)
    v. Staff are encouraged to report suspected or actual ESHS, OHS, GBV issues, emphasizing the staff's responsibility to the Company and the country hosting their employment, and emphasizing the respect for confidentiality.
4. In compliance with applicable laws and to the best of your abilities, prevent perpetrators of sexual exploitation and abuse from being hired, re-hired or deployed. Use background and criminal reference checks for all employees nor ordinarily resident in the country where the works are taking place.
5. Ensure that when engaging in partnership, sub-contractor, supplier or similar agreements, these agreements:
    i. Incorporate the ESHS, OHS, GBV Codes of Conduct as an attachment.
    ii. Include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers, to comply with the Individual Codes of Conduct.
    iii. Expressly state that the failure of those entities or individuals, as appropriate, to ensure compliance with the ESHS and OHS standards, take preventive measures against GBV, to investigate allegations thereof, or to take corrective actions when GBV has occurred, shall not only constitute grounds for sanctions and penalties in accordance with the Individual Codes of Conduct but also termination of agreements to work on or supply the project.

6. Provide support and resources to the GCT to create and disseminate internal sensitization initiatives through the awareness-raising strategy under the GBV Action Plan.
7. Ensure that any GBV complaint warranting Police action is reported to the Police, the client and the World Bank immediately.
8. Report and act in accordance with the agreed response protocol any suspected or actual acts of GBV.
9. Ensure that any major ESHS or OHS incidents are reported to the client and the supervision engineer immediately, non-major issues in accordance with the agreed reporting protocol.
10. Ensure that children under the age of 18 are not present at the construction site, or engaged in any hazardous activities.

Training

11. The managers are responsible to:
    i. Ensure that the OHS Management Plan is implemented, with suitable training required for all staff, including sub-contractors and suppliers; and,
    ii. Ensure that staff have a suitable understanding of the C-ESMP and are trained as appropriate to implement the C-ESMP requirements.
12. All managers are required to attend an induction manager training course prior to commencing work on site to ensure that they are familiar with their roles and responsibilities in upholding the GBV elements of these Codes of Conduct. This training will be separate from the induction training course required of all employees and will provide managers with the necessary understanding and technical support needed to begin to develop the GBV Action Plan for addressing GBV issues.
13. Managers are required to attend and assist with the project facilitated monthly training courses for all employees. Managers will be required to introduce the trainings and announce the self-evaluations, including collecting satisfaction surveys to evaluate training experiences and provide advice on improving the effectiveness of training.
14. Ensure that time is provided during work hours and that staff prior to commencing work on site attend the mandatory project facilitated induction training on:
    i. OHS and ESHS; and,
    ii. GBV required of all employees.
15. During civil works, ensure that staff attend ongoing OHS and ESHS training, as well as the monthly mandatory refresher training course required of all employees to on GBV.

Response

16. Managers will be required to take appropriate actions to address any ESHS or OHS incidents.
17. Regarding GBV:
    i. Provide input to the GBV Allegation Procedures and Response Protocol developed by the GCT as part of the final cleared GBV Action Plan.
    ii. Once adopted by the Company, managers will uphold the Accountability Measures set forth in the GBV Action Plan to maintain the confidentiality of all employees who report or (allegedly) perpetrate incidences of GBV (unless a breach of confidentiality is required to protect persons or property from serious harm or where required by law).
    iii. If a manager develops concerns or suspicions regarding any form of GBV by one of his/her direct reports, or by an employee working for another contractor on the same work site, s/he is required to report the case using the GRM.
    iv. Once a sanction has been determined, the relevant manager(s) is/are expected to be personally responsible for ensuring that the measure is effectively enforced, within a maximum timeframe of 14 days from the date on which the decision to sanction was made by the GCT.

v. If a Manager has a conflict of interest due to personal or familial relationships with the survivor and/or perpetrator, he/she must notify the Company and the GCT. The Company will be required to appoint another manager without a conflict of interest to respond to complaints.
vi. Ensure that any GBV issue warranting Police action is reported to the Police, the client and the World Bank immediately

18. Managers failing address ESHS or OHS incidents, or failing to report or comply with the GBV provisions may be subject to disciplinary measures, to be determined and enacted by the cCmpany's CEO, Managing Director or equivalent highest-ranking manager. Those measures may include:
    i. Informal warning.
    ii. Formal warning.
    iii. Additional Training.
    iv. Loss of up to one week's salary.
    v. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
    vi. Termination of employment.
19. Ultimately, failure to effectively respond to ESHS, OHS, and GBV cases on the work site by the company's managers or CEO may provide grounds for legal actions by authorities.

I do hereby acknowledge that I have read the foregoing Manager's Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, and GBV requirements. I understand that any action inconsistent with this Manager's Code of Conduct or failure to act mandated by this Manager's Code of Conduct may result in disciplinary action.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Individual Code of Conduct

Implementing ESHS and OHS Standards

Preventing Gender Based Violence

I, _____, acknowledge that adhering to environmental, social, health and safety (ESHS) standards, following the project's occupational health and safety (OHS) requirements, and preventing Gender Based Violence (GBV) is important.

The Company considers that failure to follow ESHS and OHS standards, or to partake in activities constituting GBV—be it on the work site, the work site surroundings, at workers' camps, or the surrounding communities—constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. Prosecution by the Police of those who commit GBV may be pursued if appropriate.

I agree that while working on the project I will:

- Consent to Police background check.
- Attend and actively partake in training courses related to ESHS, OHS, and GBV as requested by my employer.
- Will wear my personal protective equipment (PPE) at all times when at the work site or engaged in project related activities.
- Take all practical steps to implement the contractor's environmental and social management plan (C-ESMP).
- Implement the OHS Management Plan.
- Adhere to a zero-alcohol policy during work activities, and refrain from the use of narcotics or other substances which can impair faculties at all times.
- Treat women, children (persons under the age of 18), and men with respect regardless of 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 women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Not sexually exploit or abuse project beneficiaries and members of the surrounding communities.
- Not engage in sexual harassment of work personnel and staff —for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature is prohibited. E.g. looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; in some instances, giving personal gifts.
- Not engage in sexual favors —for instance, making promises of favorable treatment (e.g. promotion), threats of unfavorable treatment (e.g. loss of job) or payments in kind or in cash, dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
- Not use prostitution in any form at any time.
- Not participate in sexual contact or activity with children under the age of 18—including grooming, or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.

- Unless there is the full consent[14] by all parties involved, I will not have sexual interactions with members of the surrounding communities. This includes relationships involving the withholding or promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex (including prostitution). Such sexual activity is considered "non-consensual" within the scope of this Code.
- Consider reporting through the GRM or to my manager any suspected or actual GBV by a fellow worker, whether employed by my company or not, or any breaches of this Code of Conduct.

With regard to children under the age of 18:

- Bring to the attention of my manager the presence of any children on the construction site or engaged in hazardous activities.
- Wherever possible, ensure that another adult is present when working in the proximity of children.
- Not invite unaccompanied children unrelated to my family into my home, unless they are at immediate risk of injury or in physical danger.
- Not use any computers, mobile phones, video and digital cameras or any other medium to exploit or harass children or to access child pornography (see also "Use of children's images for work related purposes" below).
- Refrain from physical punishment or discipline of children.
- Refrain from hiring children for domestic or other labour below the minimum age of 14 unless national law specifies a higher age, or which places them at significant risk of injury.
- Comply with all relevant local legislation, including labour laws in relation to child labour and World Bank's safeguard policies on child labour and minimum age.
- Take appropriate caution when photographing or filming children (See Annex 2 for details).

Use of children's images for work related purposes

When photographing or filming a child for work related purposes, I must:

- Before photographing or filming a child, assess and endeavor to comply with local traditions or restrictions for reproducing personal images.
- Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this I must explain how the photograph or film will be used.
- Ensure photographs, films, videos and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
- Ensure images are honest representations of the context and the facts.
- Ensure file labels do not reveal identifying information about a child when sending images electronically.

Sanctions

[14] **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained using threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even if national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

I understand that if I breach this Individual Code of Conduct, my employer will take disciplinary action which could include:

1. Informal warning.
2. Formal warning.
3. Additional Training.
4. Loss of up to one week's salary.
5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
6. Termination of employment.
7. Report to the Police if warranted.

I understand that it is my responsibility to ensure that the environmental, social, health and safety standards are met. That I will adhere to the occupational health and safety management plan. That I will avoid actions or behaviors that could be construed as GBV. Any such actions will be a breach this Individual Code of Conduct. I do hereby acknowledge that I have read the foregoing Individual Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV issues. I understand that any action inconsistent with this Individual Code of Conduct or failure to act mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

GBV Action Plan

This GBV Action Plan outlines how the project will put in place the necessary protocols and mechanisms to minimize or eliminate GBV on the project, as well as to address any GBV issues that may arise. The following framework needs to be adapted to reflect the specific situation and implementation arrangements for each project.

The GBV Complaints Team

The project shall establish a 'GBV Complaints Team' (GCT). The GCT will include, as appropriate to the project, at least four representatives ('Focal Points') as follows:

a. A safeguards specialist from the client;
b. The occupational health and safety manager from the contractor[15], or someone else tasked with the responsibility for addressing GBV with the time and seniority to devote to the position;
c. The supervision consultant;
d. A representative from a client approved service provider with experience in GBV—the 'GBV Service Provider' (GSP); and optionally,
e. Members representing the local community, government, etc.

It will be the duty of the GCT with support from the management of the contractor(s) and consultant(s) to inform workers about the activities and responsibilities of the GCT. To effectively serve on the GCT, members must undergo training by the GBV Service Provider prior to the commencement of their assignment to ensure that they are sensitized on GBV.

The GCT will be required to:

a. Approve any changes to the **GBV** elements of the **Codes of Conduct** contained in this document, with clearances from the client and the World Bank for any such changes.
b. Prepare the **GBV Action Plan** reflecting the Codes of Conduct which includes:
   i. **GBV Allegation Procedures** (See 4.2)
   ii. **Addressing GBV Complaints** (See 4.3)
   iii. **Accountability Measures** (See 4.4)
   iv. An **Awareness raising Strategy** (See 4.6)
   v. A **Response Protocol** (See 4.7)
c. Obtain approval of the GBV Action Plan by the Contractor's management;
d. Obtain client and World Bank clearances for the GBV Action Plan prior to full mobilization;
e. Receive and monitor resolutions and sanctions regarding complaints received related to GBV associated with the project; and,
f. Ensure that GBV statistics in the GRM are up to date and included in the regular project reports.

The GCT shall hold quarterly update meetings to discuss ways to strengthen resources and GBV support for employees and community members.

Making Complaints: GBV Allegation Procedures

[15] Where there are multiple contractors working on the project, each shall nominate a representative as appropriate.

All staff, volunteers, consultants and sub-contractors are encouraged to report suspected or actual GBV cases. Managers are required to report suspected or actual GBV cases as they have responsibilities to uphold company commitments and they hold their direct reports accountable for complying with the Individual Code of Conduct.

The project will provide information to employees and the community on how to report cases of GBV Code of Conduct breaches through the Grievance Redress Mechanism (GRM). The GCT will follow up on cases of GBV and Code of Conduct breaches reported through the GRM.

Addressing Complaints about GBV

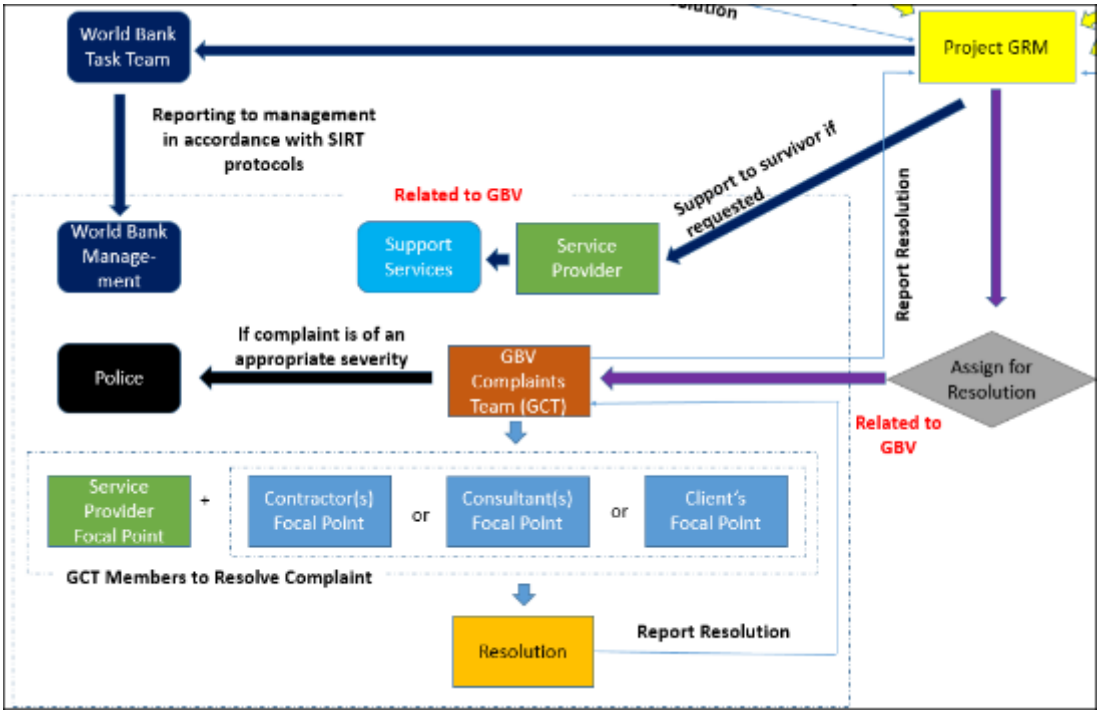
Each project needs to put in place appropriate protocols for addressing GBV complaints. The protocols will vary between projects based on local circumstances, but there are key principles which are required in all projects.

GRM

The project operates a GRM which is managed by a designated GRM operator with the project management unit or, ideally, an entity independent of the project implementation. The GRM must be designed to ensure that:

i. Complaints can be made through different channels, such as the traditional local practices (e.g. village chiefs), online, phone, in-person, the local GBV Service Provider, the manager(s), or the Police.
ii. Complaints should be able to be made in different ways such as online, via telephone or mail, or in person;
iii. Anonymity should be ensured if the complainant so desires it, especially about GBV;

There needs to be a specific workflow for handling GBV complaints. The figure below illustrates the work flow adopted in 2017 for the Vanuatu Aviation Investment Project (VAIP).



If the complaint to the GRM is made by an GBV survivor, or on behalf of a survivor, the complainant will be directly referred to the GBV Service Provider to receive support services (if so desired) while the GCT investigates the complaint in parallel.

The World Bank requires that all complaints regarding GBV must immediately be reported to the World Bank task team by the GRM operator. These complaints may be referred to the World Bank management in accordance with the World Bank's reporting protocols.

The GRM shall only collect two items of data related to GBV—to be inferred from discussions with the complainant:

i. The nature of the GBV; and,
ii. To the best of the knowledge was the perpetrator associated with the project.

Additional information shall be gathered by the GBV Service Provider using their existing survivor support protocols. This information shall be confidential and not part of the GRM process.

The GRM operator will refer complaints related to GBV to the GCT to resolve them. In accordance with the GBV Action Plan, the GCT through the GBV Service Provider and Focal Point(s) will investigate the complaint and ultimately provide the GRM operator with a resolution to the complaint, or the Police if appropriate. The victim's confidentiality should also be kept in mind when reporting any incidences to the Police.

The GRM operator will, upon resolution, advise the complainant of the outcome, unless it was made anonymously.

GBV Service Provider

The GBV Service Provider is a local organization which has the trust of the local community, experience and ability to support survivors of GBV. They will be identified by the client during project preparation, if necessary with the support of the World Bank.

The client, the contractor(s) and consultant(s) must establish a working relationship with the GBV Service Provider, so that GBV cases can safely be referred to them. The GBV Service Provider will also provide support and guidance to the GBV Focal Points as necessary. The GBV Service Provider will have a representative on the GCT and be involved in resolving complaints related to GBV.

The contract for the GBV Service Provider shall include provision for financing costs around providing the necessary support to survivors.

GBV Complaints Team

The GCT is responsible for ensuring that GBV complaints are properly investigated and that appropriate sanctions are applied for any cases where sanctions are considered to be justified. The GCT is comprised of: (i) the GBV Service Provider; and, (ii) 'Focal Points' from the contractor(s), consultant(s) and client; and optionally, (iii) members of the local community, government, etc.

All the Focal Points on the GCT must be trained and empowered to resolve GBV issues. It is essential that all staff of the GRM and GCT understand the guiding principles and ethical requirement of dealing with survivors of GBV. All reports should be kept confidential and referred immediately to the GBV Service Provider represented on the GCT[16].

The GCT shall confirm that all complaints related to GBV have been: (i) referred to the client and the World Bank by the GRM operator; and, (ii) are referred to Police (or other authorities) for investigation if of appropriate severity. In GBV cases warranting Police action; and, (iii) management for further action.

The GCT shall consider all GBV complaints and agree on a plan for resolution. The appropriate Focal Point will be tasked with implementing the plan (i.e. issues with contractor's staff will be for the contractor to resolve; consultant's staff the consultant; and client's staff the client). The Focal Point will advise the GCT on resolution, including referral to the Police if necessary. They will be assisted by the GBV Service Provider as appropriate.

Accountability Measures

All reports of GBV shall be handled in a confidential manner to protect the rights of all involved. The client, contractor and consultant must maintain the confidentiality of employees who notify any acts or threats of violence, and of any employees accused of engaging in any acts or threats of violence (unless a breach of confidentiality is required to protect persons or property from serious harm or where required by law). The contractor and consultant must prohibit discrimination or adverse action against

[16] Survivors of GBV may need access to Police, justice, health, psychosocial, safe shelter and livelihood services to begin on a path of healing from their experience of violence.

an employee because of survivor's disclosure, experience or perceived experience of GBV (see Annex 1 for examples of actions to maintain accountability).

To ensure that survivors feel confident to disclose their experience of GBV, they can report cases of GBV through multiple channels such as: (i) online, (ii) phone, (iii) in-person, (iv) the local GBV Service Provider, (v) the manager(s), (vi) village councils; or, (vii) the Police. To ensure confidentiality, only the GBV Service Provider will be privy to information regarding the survivor. The GCT will be the primary point of contact for information and follow up regarding the perpetrator.

Monitoring and Evaluation

The GRM is to notify the client and the World Bank immediately of any complaints related to GBV.

The GCT must monitor the follow up of cases that have been reported and maintain all reported cases in a confidential and secure location. Monitoring must collect the number of cases that have been reported and the share of them that are being managed by Police, NGOs etc.

These statistics shall be reported to the GRM and the Supervision Engineer for inclusion in their reporting.

Awareness-raising Strategy

It is important to create an Awareness-raising Strategy with activities aimed to sensitize employees on GBV on the work site and its related risks, provisions of the GBV Codes of Conduct, and GBV Allegation Procedures, Accountability Measures and Response Protocol. The strategy will be accompanied by a timeline, indicating the various sensitization activities through which the strategy will be implemented and the related (expected) delivery dates. Awareness-raising activities should be linked with trainings provided by the GBV Service Provider.

Response Protocol

The GCT will be responsible for developing a written response[17] protocol to meet the project requirements, in accordance to national laws and protocols. The response protocol must include:

i. Mechanisms to notify and respond to perpetrators in the workplace;
ii. The GRM process to ensure competent and confidential response to disclosures of GBV, and;
iii. A referral pathway to refer survivors to appropriate services (See 4.8 Survivor Support Measures below).

The contractor(s), consultant(s) and client shall encourage notification through the GRM channels from employees and community members about perpetrators in the workplace through awareness raising activities. An employee who discloses a case of sexual harassment in the workplace shall be referred to the GRM for reporting to seek services.

Through the GCT, the companies and client shall oversee the investigation of these grievances, ensuring procedural fairness for the accused, and within the local laws. If an employee has breached the Code of

[17] Develop appropriate protocol for written recording of GBV issues raised in case the notes are subpoenaed. Develop processes for record keeping including activities undertaken by the GCT.

Conduct, the employer will take appropriate action which could include:

i. Undertake disciplinary action up in accordance with sanctions in the GBV Codes of Conduct (see Section 4.9);
ii. Report the perpetrator to the Police as per local legal paradigms; and/or
iii. If feasible, provide or facilitate counselling for the perpetrator.

Survivor Support Measures

It is essential to appropriately respond to the survivor's complaint by respecting the survivor's choices to minimize the potential for re-traumatization and further violence against the survivor.

Any survivor will receive care regardless of whether the perpetrator is associated with the project will receive support/ The support will be provided by the GBV Service Provider—including medical and psychosocial support, emergency accommodation, transport fees necessary to receive services, security including Police protection and livelihood support—by facilitating contact and coordination with these services. See Annex 1 for examples of the types of support which could be considered under the project.

The contract with the GBV Service Provider shall explicitly detail the services to be provided, and how the associated costs shall be financed by the project.

If the survivor is an employee of the contractor(s), consultant(s) or client, to ensure the safety of the survivor, and the workplace in general, the client, contractor or consultant, in consultation with the survivor, will assess the risk of ongoing abuse to the survivor and in the workplace. Reasonable adjustments will be made to the survivor's work schedule and work environment as deemed necessary (see Annex 1 for examples of safety measures). The employer will provide adequate leave to survivors seeking services after experiencing violence (see Annex 1 for details).

Sanctions

In accordance with the Code of Conduct, any employee confirmed as a GBV perpetrator shall be considered for disciplinary measures in line with sanctions and practices as agreed in the Individual Code of Conduct. Potential Sanctions to employees who are perpetrators of GBV include:

i. Informal warning
ii. Formal warning
iii. Additional Training
iv. Loss of up to one week's salary.
v. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
vi. Termination of employment.
vii. Referral to the Police or other authorities as warranted.

It is important to note that, for each case, disciplinary sanctions are intended to be part of a process that is entirely internal to the employer, is placed under the full control and responsibility of its managers, and is conducted in accordance with the applicable national labour legislation.

Such process is expected to be fully independent from any official investigation that competent authorities (e.g. Police) may decide to conduct in relationship to the same case, and in accordance with the applicable national law. Similarly, internal disciplinary measures that the employer's managers may decide to enact are meant to be separate from any charges or sanctions that the official investigation may result into (e.g. monetary fines, detention etc.).

Annex 1 - Potential Procedures for Addressing GBV

Accountability Measures to maintain confidentiality can be achieved through the following actions:

1. Inform all employees that confidentiality of GBV survivors' personal information is of utmost importance.
2. Provide the GCT with training on empathetic and non-judgmental listening.
3. Take disciplinary action, including and up to dismissal, against those who breach survivor's confidentiality (this is unless a breach of confidentiality is necessary to protect the survivor or another person from serious harm, or where required by law).

GBV Allegation Procedures should specify:

1. Who survivors can seek information and assistance from.
2. The process for community members and employees to lodge a complaint through the GRM should there be alleged GBV.
3. The mechanism for how community members and employees can escalate a request for support or notification of violence if the process for reporting is ineffective due to unavailability or non-responsiveness, or if the employee's concern in not resolved.

Financial and Other Supports to survivors can include:

1. No/low interest loans.
2. Salary advances.
3. Direct payment of medical costs.
4. Coverage of legal costs specifically related to the incident
5. Coverage of all medical costs related specifically to the incident.
6. Upfront payments for medical costs to later be recouped from the employee's health insurance.
7. Providing or facilitating access to childcare.
8. Providing security upgrades to the employee's home.
9. Providing safe transportation to access support services or to and from accommodation.

Based on the rights, needs and wishes of the survivor, survivor support measures to ensure the safety of the survivor who is an employee can include[18]:

1. Changing the perpetrator or survivor's span of hours or pattern of hours and/or shift patterns.
2. Redesigning or changing the perpetrator or survivor's duties.
3. Changing the survivor's telephone number or email address to avoid harassing contact.
4. Relocating the survivor or perpetrator to another work site/ alternative premises.
5. Providing safe transportation to and from work for a specified period.
6. Supporting the survivor to apply for an Interim Protection Order or referring them to appropriate support.
7. Taking any other appropriate measures including those available under existing provisions for family friendly and flexible work arrangements.

Leave options for survivors that are employees can include:

1. An employee experiencing sexual harassment should be able to request paid special leave to attend

[18] It is critical that a survivor centered approach be adopted. The survivor should be fully involved in the decision making. Except for exceptional circumstances the perpetrator should be required to take appropriate actions to accommodate the survivor (e.g. move, change hours, etc.), rather than the survivor changing.

medical or psychosocial appointments, legal proceedings, and relocation to safe accommodation among other services that may be needed.
2. An employee who supports a person experiencing sexual harassment may take care givers leave, including but not limited to accompanying them to court or hospital, or to take care of children.
3. Employees who are employed in a casual capacity may request unpaid special leave or unpaid care givers leave to undertake the activities described above.
4. The amount of leave provided will be determine by the individual's situation through consultations with the employee, the management and the GCT where appropriate.

Potential Sanctions to employees who are perpetrators of GBV include:

1. Informal warning
2. Formal warning
3. Additional Training
4. Loss of up to one week's salary.
5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
6. Termination of employment.

Referral to the Police or other authorities as warranted.

Appendix F: Safeguard Supervision for the SIRAP Malaita road works

General

In order to prevent harm and nuisances on local communities, and to minimize the impacts on the environment during the construction and operation of the SIRAP Project on Malaita, the following plan has been prepared which should be adhered to by all Contractors and his employees:

- The Environmental and Social Management Framework (ESMF) for Malaita including site specific measures in Appendix D;
- The mitigation measures included in tender and contract documents;
- The specifications, procedures, and best practices included in the subproject ESMPs. These specifications will complement any technical specifications included in the work quantities and the requirements of any SIG regulations and standards.

Objective of the Assignment

The Consultant is to provide professional technical services ("the Services") to help ensure effective implementation of the Environmental and Social Management Plan (ESMP) during the SIRAP works.

In order to achieve the goal of minimizing the negative environmental and social impacts of the project, the ESMP will be integrated in the design documents for SIRAP HIR, and in the technical specifications and contract documents. It will need to be closely followed and implemented by the contractors. The implementation of the ESMP will therefore involve four parties:

- The ***National Safeguards Specialist (NSS)*** is the person responsible for overall coordination of ESMP implementation. This person will be appointed directly by PST.
- The ***Contractor's Safeguard Specialist (CSS)*** responsible for implementing the ESMP and other construction related environmental and safety issues.
- The ***Construction Supervision Engineers (CSE)*** who are responsible for supervising and monitoring all construction activities and for ensuring that contractors comply with the requirements of the contracts and the EMP. The CSE will include a ***Supervision Safeguard Specialist (SSS)*;** and,
- A Client's International Safeguard Specialist, who provide support to the NSS for oversight of ESMP implementation throughout the works.

This Terms of Reference is for the **Supervision Safeguard Specialist (SSS)** to be part of the Construction Supervision Engineers (CSE).

Scope of Services:

The general services to be provided by the SSS are to inspect, monitor and audit the construction activities to ensure that mitigation measures adopted in the ESMP are properly implemented, and that the negative environmental and social impacts of the project are minimized.

The Contractor has the responsibility for ensuring compliance with the project ESMP and contract conditions while undertaking the works. This is overseen by the SSS. The SSS is therefore to be an independent monitor to ensure compliance with the ESMP and to ensure adequate performance of the Contractors on environmental issues.

The SSS will inspect, monitor and carry out environmental review of all road and bridge contracts packages and lots. The SSS shall have extensive knowledge and experience in environmental supervision, monitoring and auditing to provide independent, objective and professional advice to the client on the environmental performance of the project. The SSS team leader shall be familiar with the project works through review of the relevant reports, including the EMP and any development consents as well as project technical specifications and contract documents.

As part of the CSE, the SSS is expected to perform the following duties:

Phase I: Preparation

The objective of Phase I is to lay the groundwork for the successful execution of the project. In this phase, the SSS shall: (i) review the ESMP, project designs and technical specifications and confirm that there have been no major omissions of mitigation measures; (ii) prepare a supervision work plan for ESMP monitoring including identification of key project milestones which will require intensive monitoring and in-country presence of SSS; and, (iv) develop and execute a training program for all involved in construction activities.

The main tasks in this phase are:

Review of Project Documents: The SSS shall review the ESMP, project designs and technical specifications and confirm in writing that there have been no major omissions of mitigation measures. If any issues are identified, the SSS shall propose to the NSS updates to the ESMP and the design and technical specifications to address these issues. Once approved by NSS, the SSS shall update the ESMP.

Environmental Supervision Checklist: The SSS shall establish a comprehensive checklist which will be used during the construction of the project to monitor the contractor's performance. This shall cover major aspects of the project, required mitigation/control measures and their implementation schedule.

Log-Book*:* The SSS shall keep a log-book of each and every circumstance or change of circumstances which may affect the environmental impact assessment and non-compliance with the recommendations made by the SSS to remediate the non-compliance. The log-book shall be kept readily available for inspection by all persons assisting in the supervision of the implementation of the recommendations of the ESMP and Contract. The NSS shall verify the log-book as part of his environmental audit.

Environmental Training: The SSS shall design and execute a comprehensive training program for all actors: Supervision Engineers , NSS, Contractor's CSSs (and workers as part of the trainings given to the CSS), on the environmental requirements of the project, and how they will be supervised, monitored and audited, giving particular attention to:

- **ESMP:** The requirements of the ESMP, the agreed environmental monitoring checklist, the environmental monitoring form, how non-compliance with the ESMP will be handled, and all other key issues shall be covered. Particular attention will be paid to the specific provisions in each contract's technical specifications indicating how the ESMP is to be complied with;

- **Health and Safety:** The health and safety requirements of the project shall be clearly identified and communicated with the Contractors and NSS (included in environmental specifications for contractors).

At the conclusion of the training Contractors will also sign a statement acknowledging their awareness of the environmental regulations, the ESMP, the compliance framework, and health and safety obligations. The CSS shall sign a similar statement confirming their understanding of the supervision responsibilities. This shall be provided to PST and the World Bank

Phase II: Supervision of Construction Activities

On behalf of the NSS and the Chief Supervision Engineer, the SSS will:

- Review, and inspect in an independent, objective and professional manner in all aspects of the implementation of the ESMP;
- Carry out random monitoring checks, and review on records prepared by the Contractor's CSS;
- Conduct regular site inspections;
- Review the status of implementation of environmental protection measures against the ESMP and contract documents;
- Review the effectiveness of environmental mitigation measures and project environmental performance;
- As needed, review the environmental acceptability of the construction methodology (both temporary and permanent works), relevant design plans and submissions. Where necessary, the SSS shall seek and recommend the least environmental impact alternative in consultation with the designer, the Contractor(s), and PST;
- Verify the investigation results of any non-compliance of the environmental quality performance and the effectiveness of corrective measures; and
- Provide regular feedback audit results to NSS and CSS according to the procedures of non-compliance in the ESMP;
- Provide training programs at minimum six monthly intervals and every time there are new workers or new Contractors coming into the site, including CSS and PST staff, to appraise them of issues identified and how to improve environmental compliance;
- Instruct the Contractor(s) to take remedial actions within a specified timeframe, and carry out additional monitoring, if required, according to the contractual requirements and procedures in the event of non-compliances or complaints;
- Instruct the Contractor(s) to take actions to reduce impacts and follow the required ESMP procedures in case of non-compliance / discrepancies identified;
- Instruct the Contractor(s) to stop activities which generate adverse impacts, and/or when the Contractor(s) fails to implement the EMP requirements / remedial actions instructed by the SES or the EMC.

Review of Site CESMP: To ensure consistency across the project, the SSS shall provide the final review and recommend clearance (following approval from World Bank) of the CESMP including all sub plans. Where these plans are found not to comply with the ESMP the SSS shall work with the CSS and Contractor to establish a suitable solution.

Site Inspections: The SSS shall closely audit the construction activities through regular site inspections accomplished through daily site visits, walks and visual inspections to identify areas of potential

environmental problems and concerns. As noted in footnote 1 of this TOR, the area of inspection should cover both the construction areas and the environment outside the site area that could be affected, directly or indirectly, by the contractor's activities.

Inspections should be done independently from the Contractor's staff. It is expected that the SSS shall have their own hand held and portable monitoring equipment such as cameras, transport and other resources. Where definitive monitoring is necessary to resolve contentious issues or to impose penalties, the SSS may contract third parties to carry out specific monitoring at the locations under review.

Where there is infringement of technical specifications, or condition of contracts, or non compliance with the ESMP, the SSS shall be immediately inform Contractor's Chief Engineer, Supervision Chief Engineer and NSS. The SSS shall also report all infringements to the PST as part of the monthly reporting.

Regular joint environmental site inspections (e.g. weekly) should be organized by the SSS and CSS, with participation from the Contractor's Environmental Officer (DEO). These should be used as an opportunity for the SSS to further train the CSS and Contractor's staff.

SSS field engineer's log-book shall be kept readily available for inspection by all persons assisting in project management, including the Independent Monitoring consultant

The SSS shall also regularly review the records of the contractors to ensure that they are up to date, factual and meet the EMP reporting requirements (*e.g.* environmental complaint monitoring records).

Complaints: Complaints will be received by the Contractor's Site Office from local residents with regard to environmental infractions such as noise, dust, traffic safety, etc. The Contractor's Chief Engineer or his deputy, and the DEO shall be responsible for processing, addressing or reaching solutions for complaints brought to them. The SSS shall be provided with a copy of these complaints and shall confirm that they are properly addressed by the Contractors in the same manner as incidents identified during site inspections. The SSS shall ensure that these complaints are logged into the SIRAP GRM

Unforeseen Impacts: In the event that an incident arises which was not foreseen in the ESMP, the SSS shall work closely with the CSS, the Contractors, and the NSS to confirm satisfactory resolution to the incident. The SSS shall then update the ESMP and the implementation guidelines, training the Contractors' staff accordingly.

Monthly Payments: The SSS shall confirm the monthly payments for environmentally related activities as recommended by the SSS to the client.

Site Restoration and Landscaping: The SSS shall closely monitor all activities with regard to site restoration and landscaping in areas such as borrow pits, quarries, camps, crushing plants, etc. to ensure that the activities are done to an appropriate and acceptable standard. The SSS will agree with the Contractor on a Site Decommissioning and Restoration plan to be implemented before the completion of the construction of the access road and bridges.

Project Initiation and Staffing: It is anticipated that the CSS and the SSS, will be mobilized one month before the start of the construction activities. The one month start up time will be utilized by the SSS to review and familiarize itself with the project, the project design, the technical specifications, contract documents, the ESMP and other project relevant documents and reports. Following the

review, the SSS will prepare a brief report on the potential issues and challenges arising from the implementation of the ESMP and the condition of contracts and make recommendations to the PST about how best to improve the implementation of the ESMP.

The SSS is expected to be mobilized at the beginning of the contract, to prepare the necessary guidelines, documentation, training, *etc*.

Reporting: As a minimum the SSS shall prepare the following written reports:

- Weekly report of non-compliance issues
- Summary monthly report covering key issues and findings from reviewing and supervision activities
- Consolidated summary report from contractor's monthly report
- The SSS shall also collect and report on data as requested by the PST.

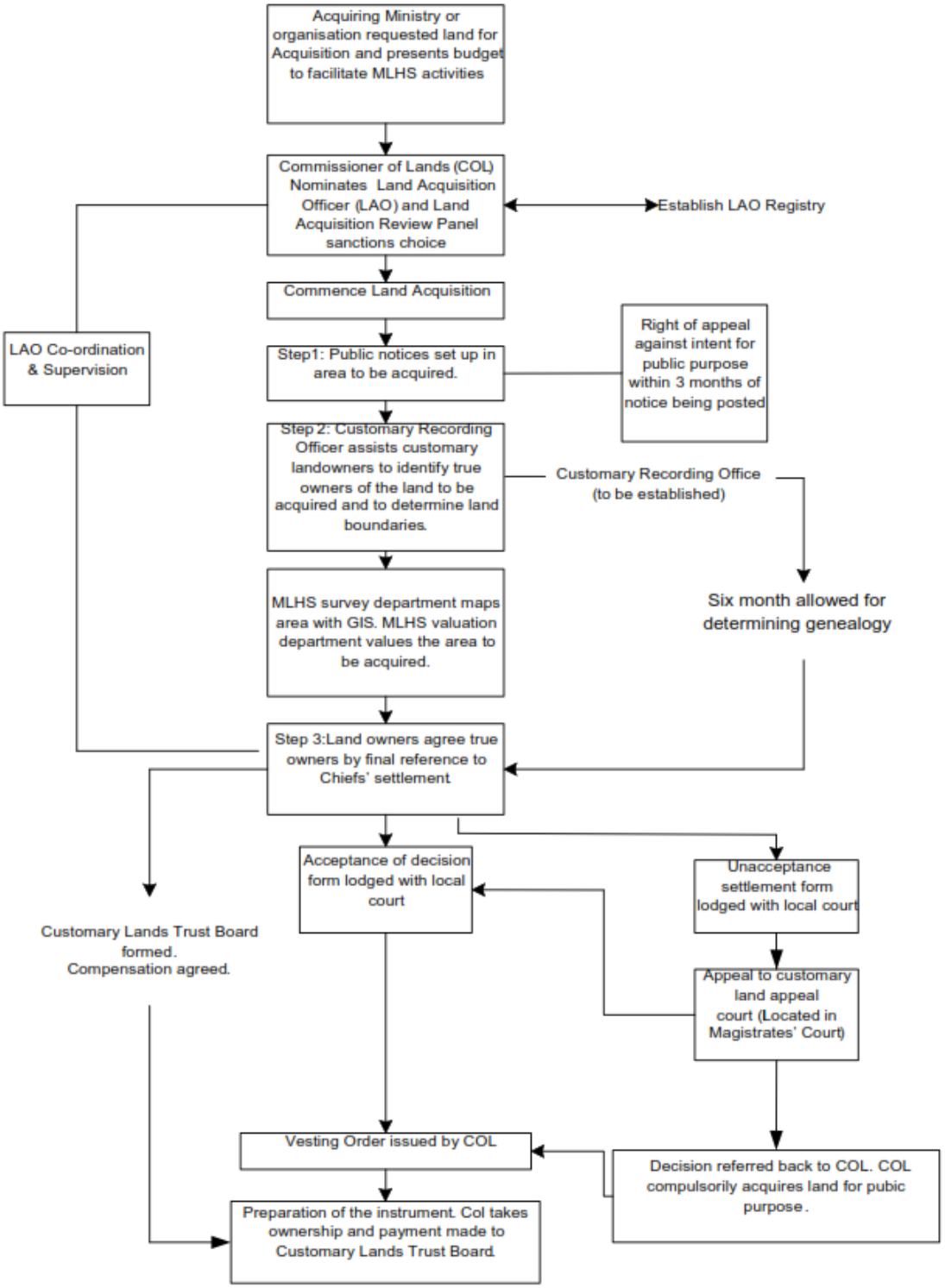
At the end of the project the SSS shall prepare a final report summarizing the key findings from their work, the number of infringements, resolutions, *etc*. as well as advice and guidance for how such assignments should be conducted in the future.

During the course of the project the SSS shall provide briefings as requested by the PST, environmental agencies, the World Bank and MID on the project progress, incidents, and other issues associated with environmental management and supervision. As a minimum these are expected to be at six-monthly intervals.

Appendix G: Outline of Land Acquisition and Resettlement Framework (LARF)

A. Executive Summary
B. Project Description
C. Scope of Land Acquisition and Resettlement
D. Socio-economic Information and Profile
E. Information Disclosure, Consultation, and Participation
F. Grievance Redress Mechanisms
G. Legal Framework
H. Entitlements, Assistance and Benefits
I. Relocation of Housing and Settlements
J. Income Restoration and Rehabilitation
K. Resettlement Budget and Financing Plan
L. Institutional Arrangements
M. Implementation Schedule
N. Monitoring and Reporting

Appendix H: MID Proposed Modified Land Acquisition Process



Appendix I: UXO Response Plan

UNEXPLODED ORDNANCE CLEARANCE

Description

This work shall consist of the detection and disposal of unexploded ordnance (UXO) that exist within the confines of the site and the certification that the entire site is free from contamination and is safe for all construction operations. The work shall include the following activities:

(i) Detailed Contamination Survey
(ii) Detection and Disposal of UXO

The Contractor shall carry out all necessary UXO detection and disposal and shall carry out such checks as shall be necessary to enable him to take full responsibility for safety from the risk of UXO over the whole area of the Site and for all construction operations.

General Requirements

Standards

The Sub-Clauses of this plan relating to the detection and disposal of UXO are derived from standard peace time range area clearance procedures typically in use by NATO military forces with modifications drawn from experience in the Indochina region. The procedures and methodology recommended by the United States Army Corps of Engineers for remediation of formerly used military sites were also taken into account and the resultant procedures closely follow best international practice for commercial activity in this field.

Limits of Work

Searching to remove UXO is required to provide a safe working environment for road construction. Clearance is required along the route alignment that is to be cleared of UXO to an overall width of 5m outside the limit of physical works on each side of the project roads and/or water main, the depth of any construction work is anticipated to be a maximum of 2m. This comprises a civil works area where the road/watermain will be constructed, plus a safe working zone added to the outer peripheries of the civil works area to provide reasonable safe turning and working room for plant and construction vehicles.

The complete width as defined in these specifications including any existing trafficked road formation, with the exception of intact pavement sections, is to be searched by metal detector using UXO area clearance techniques.

The complete width of 10m outside the limits of physical works on each side of the project roads, including any existing trafficked road formation together with all paved sections, is to be swept by magnetometer.

Additional searching for UXO may be required outside of the right-of-way to allow access to resource areas, camp sites, construction lay downs, bridge abutments and approaches, etc.

The limits of clearance required along the route will be determined from the results of the detailed contamination survey carried out in accordance with the provisions of sub-section 1.2.2 of this plan and as approved by the Engineer.

Areas of Non-Original Soil

Areas of non-original soil may exist containing UXO of indeterminate size at indeterminate depth. The maximum cut depth will be limited by the capability of the search equipment in geologically reactive soil. Where earthworks are to occur below 30 cm in such areas, (detection performance depth for BLU 26/36 or equivalent) then complete UXO removal can only be achieved by successive search then-cut techniques. During initial searches the Contractor will be required to record and report on such areas to ensure that the required search-then-cut process is applied later in conjunction with construction.

Clearance Performance Requirements

Searches are to comprise a 100% area sweep by metal detector to remove shallow items, followed by a magnetometer search. Magnetometer searching is to be conducted at no greater than 1 metre lane separation.

Searches are to achieve the removal of all UXO within the specified size/depth capacity of the search equipment. All areas completed are to be certified free of UXO to within these limitations.

Contractor's Nominated Ordnance Expert

The Contractor shall nominate and provide an Ordnance Expert, who shall have appropriate internationally recognised qualifications or appropriate verifiable experience in its own or other countries, acceptable to the Engineer. It will be the sole responsibility of the Contractor's Ordnance Expert to declare each area of the site safe for construction operations and no construction activities shall be carried out in any area until this has been done. The Ordnance Expert will advise separately on works required ‘within' and ‘outside' the areas with UXO.

Staffing

Personnel involved in UXO clearance must satisfy the following criteria:

(i) staff supervising UXO searching must have qualifications and experience commensurate with the United Nations Standards; and
(ii) staff supervising magnetometer survey or conducting Quality Control must have received formal recognised training on and have field experience in magnetometer use; and
(iii) staff must have received a formal course providing them as a minimum, with instruction on UXO recognition, metal detector use, UXO excavation and first aid.

UXO Disposal

The Contractor will be responsible for the safe disposal of all UXO recovered. Where collateral property damage is likely to occur as a result of disposal activity, the Contractor will be required to first advise the Engineer before proceeding.

Explosives

The Contractor will be responsible for the supply, storage and security of all explosives required for UXO disposal and their use will conform to the requirements of internationally recognised Specifications.

Compensation

In the course of clearance operations it may be necessary to damage crops, remove fences etc. The Contractor will be required to notify the Engineer in writing with a copy to the Employer prior to taking any action that may cause damage resulting in demands for compensation being presented.

Medical and Emergency Evacuation

The Contractor is required to provide the facilities and arrangements as defined in sub-clause 3.1 b) of these Specifications.

Government Registration and Liaison

The Contractor will be required to demonstrate that it possesses formal registration by the relevant regulatory authorities in the country prior to commencing any site works.

In addition the Contractor will be required to secure the necessary approvals and clearances from the appropriate Government Department enabling it to carry out UXO works in the country.

The Contractor shall maintain close liaison at all times with the appropriate authorities in the country, particularly those engaged in the ordnance clearance operations, and shall cooperate with them, particularly in the disposal of unexploded ordnance.

Equipment Requirements

UXO Detection

The Contractor is required to nominate the search instruments to be used for the UXO clearance task. Search instruments must be capable of operating in the conditions prevalent in the country.

The proposed metal detectors must be capable of confidently detecting the following when operating under the expected conditions:

(i) projectiles 20 mm HE or items of equivalent detectability to a depth of 25 cm; and
(ii) BLU 26/36 or items of equivalent detectability to a depth of 30 cm.

The proposed magnetometers must be capable of confidently detecting 81mm HE Mortar Bombs or items of equivalent detectability, to a depth of 1.25 metres in low magnetic noise conditions and to 0.75 metres in areas of high magnetic background noise.

The Contractor is required to provide evidence constituting an independent and objective verification of proposed instrument capability. Instrument capability will be tested and approved by the Engineer prior to its use on site. Further performance audits will be conducted during contract execution.

Provision of Equipment to the Engineer

The provision of equipment, manpower and assistance to the Engineer for Audit checking of the Contractor's work, prior to endorsement of any certificate shall be the responsibility of the Contractor, and the quantities of equipment, manpower and assistance shall be such as to be compatible with planned rates of construction progress.

Operation Requirements

Method Statement and Programme

Within 28 days from the issue of the Notice to Proceed the Contractor shall submit to the Engineer a detailed method statement for the de-mining and UXO clearance works. The method statement

incorporating a detailed, resourced programme to ensure that all areas within the project site are safe, to internationally accepted standards, for construction operations shall include:

(i) intended procedures for the clearance;
(ii) work plans showing estimated time schedules;
(iii) clearance team structure;
(iv) type of equipment proposed;
(v) quality control programme.

The Programme shall be revised and submitted to the Engineer at monthly intervals throughout the contract period and shall be adhered to whenever possible.

Detailed Contamination Survey

Prior to any mine and UXO clearance operations being conducted the Contractor will be required to carry out a detailed contamination survey of the Site to determine the extent of the mine and UXO clearance operations required. Survey and delineation of UXO contaminated zones will be carried out in accordance with the provisions of this plan and shall consist of 100% metal detector searches on 2 metre wide cross sections over the full width as defined in the Special Provisions at 100 metre intervals along the centreline of the alignment. Magnetometer searches are not required.

Positioning

To enable accurate positioning and recording of search areas within the defined limits, the Contractor will be required to geodetically survey and mark the new road centre line. The outer boundary limits of clearance work, measured from the surveyed centre line, may then be located and marked.

The limits of the construction support areas requiring clearance will be defined by the Contractor. The boundaries of all areas cleared of UXO must be recorded and marked by semi-permanent means to facilitate subsequent identification during construction.

Contractor's Quality Control and Certification

The Contractor is required to include in its Method Statement as required under sub-clause 3.1 d) of these Specifications a formal Quality Control Programme. Quality Control surveys constituting a minimum 10% of the searched area are required.

The control areas are to be searched initially by metal detector followed by a magnetometer search.

Control areas and results are to be recorded and reported by formal log. Log sheets are to be personally signed off by the Contractor's Ordnance Expert and are to be available for examination by the Engineer.

At least seven days before the Contractor intends to enter any area of the site to commence construction works, the Ordnance Expert shall submit, to the Engineer, his certificate declaring the area concerned to be safe for all intended construction operations. The certificate shall clearly define the area concerned and shall be supported by the log sheets that will give details of the types of survey carried out and the classes and methods of disposal of the various UXO encountered.

Audit of Cleared Areas

The Engineer may perform a formal 10% check of UXO cleared areas. These percentages may be increased at his discretion.

If UXO are located during these checks, then a re-search at the Contractor's cost will be required. Finds triggering re-searching are either:

(i) one BLU 26/36 or metallic item of equivalent detectability per 10% of grid will require re-searching for UXO in that grid; or
(ii) three 20mm rounds or metallic items of equivalent detectability per 10% of grid will require a re-search of that grid.

When satisfied, the Engineer shall endorse the Contractor's Ordnance Expert's certificate. The Contractor shall not enter the area of the site concerned until such endorsement has been obtained. Such endorsement shall not relieve the Contractor of any of his responsibilities under the Contract.

Before providing such endorsement, the Engineer shall be entitled to consult the nationally recognised authority for UXO clearance in respect of the thoroughness of the ordnance search, and shall be entitled to withhold endorsement if so advised.

Measurement and Payment

Detailed Contamination Survey for minefields shall be measured by square metre of area surveyed and recorded in accordance with these Specifications.

Detailed Contamination Survey for UXO shall be measured by kilometre of alignment surveyed and recorded in accordance with these Specifications.

Mine Detection shall be measured by square metre of site approved for clearance as determined by the results of the Detailed Contamination Survey and certified and endorsed as cleared in accordance with these Specifications.

UXO Detection shall be measured by Hectare of site approved for clearance as determined by the results of the Detailed Contamination.

Appendix J: Minutes of Consultations

Meeting Minutes: Detailed Design Consultations in July 2020

Meeting 1		Meeting Venue: Malaita Provincial Government Office	Date/Time: 13/07/2020, 11-12pm
Stakeholder:	**SIRAP Key Issues/Agenda**	**Presentation**	**Question, concerns, comments**
Malaita Provincial Government	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	Meeting with Provincial Secretary of Malaita Province PS expressed Premier's apologies to who were currently attending the Assembly meeting. PS welcome the team Presentation by Lawrence Wawane ○ Introduced the visiting team. ○ Informed PS on the purpose of the current visit to Malaita ○ Introduced the Scope of work of SIRAP ○ Specified that the Initial scope of work for SIRAP was wider, from south road at Hauhui to the end of north road at Fouia. ○ Informed Malaita Provincial Government that there has been a change in the scope. ○ Fiu bridge no longer in the scope ○ For resealing: - 2km sealed section north of Bina at south road is excluded - 7km north road purposely for new sealing excluded ○ Unsealed section: - Ferakui to Fouia at North road excluded - Kwainaketo to Hauhui at south roads excluded	PS: SIRAP and SMEC must handle people's expectation with regards to the reduction in scope. PS went on to say that when work delays clashes with people expectation, they need to be informed as to the reasons why. LW – MID understands that people have expectation which need to be managed. PS – Politics is at play here as well. The majority of the people are with the provincial government. IT – MID will take responsibility to inform people about reduced scope. PS- Vehicle owners in Auki complained about road condition in Auki. The province has received many submissions

		- Maintenance from 4 years to only 6 months o Revised scope. - Resealing – Kwainaketo to Gwaunaru'u, road, road to Kilu'ufi hospital and other feeder roads in Auki a total of 15km. - Routine & Maintenance – Unsealed section from Airport Junction to Ferakui and to Fouo at east road. - Bridge Replacement (Koa, Bio 1 and Bio 2) - Spots upgrades - Drainage improvement. - Climate Change resilience work - Road safety work targeting schools and large communities etc o For Fiu Bridge- SIRAP will carry out geotechnical and hydrological investigation first before appropriate designs can take place. Construction of the bridge may come under the stimulus package. o Reason for reduced - Limited budget - The expectation by MPG and Malaita people for good and safe roads for vehicles and pedestrians thus incur more cost to do. - After SMEC initial survey and site visit to Malaita roads,it revealed that based on the current road condition there is a lot of work that needs to be done on the roads but with the limited budget available, MID and WB had to decide on what to do. For example, after surveys by SMEC and sawflooding issues on road section to the airport, it was recommended that some lengths of the road need to be raised to avoid flooding. Thus, cost more.	of complaints from taxi owners and those in transportation business. MPG is glad that MID stepped in to fix the road thus people are happy. SP – MID to make people aware of the reduced scope. She also added that the sealing will be with Asphalt Concrete no chip seal as currently used. SIRAP needs assistance from province for the laydown for SIRAP contractor and possible quarry sites. SP –Explained the schedule for the community consultation. It starts today with stakeholders in Auki and resealing affected communities. Followed by communities at east road and then the north road and bridge communities, a total of about 10 days. SP – The suitable laydown site for the sealing work is proposed to host the asphalt plant and must be at a location that is far from people's houses by 300m and water bodies by 150m. MK asked PS about the site next to the police station as to how we can get in touch with the Police to request for us as contractor's site office and storage area.

		- The idea behind the revised is to construct something that would last longer in shorter sections that can build on in the future. - Work outcomes shall be more sustainable. o Drainage (Initial scope does not include drainage) o Road safety & footpath o Currently Fiu Bridge needs work. It is in adeteriorated state.MID had to brace the underneath of the bridge to hold it in placeuntil future work.	PS – Province will communicate with police. PS also went further as to say that Gwaigeo is available also as a contractor's laydown area. PS - Province can take on the responsibility to deal with resource owners and secure temporary access to quarry sites and also laydown areas. The Project can only deal with MPG which should be more convenient. PS - Kwaimanafu (at south road) quarry landowners has already signed an agreement with the province to use the quarry. PS - Province with sign MOU with resource owners for long term, say 5 years etc and the project can sign an MOU with MPG for use. PS asked if sand is needed. Yes, answered LW Fiu landowners down streams approach PS on available sand

		 	PS said that Province (premier & Deputy) has worked hard to work with people and resource owners to make available their resources for such project. TI – The project will also need to establish Community Adversary Committees (CAC) at the different locations. As long as road works will take from 6 months and upwards, CAC is needed. CACs are instrumental for resolving grievances and assist contractor to acquire resources. PS- MPG has already established CACs and proposes that the province use existing provincial CAC Will inform contractors to use provincial CAC PS – Thanked everyone for the meeting stating that he will update the premier and deputy on the outcome of the meeting.
Meeting 2		**Meeting Venue: SIRAP Office**	**Date/Time: 13/07/2020, 2-4pm**

Stakeholder:	SIRAP Key Issues/Agenda	Presentation	Question, concerns, comments
MOH, MoFT, MECDM, MAL, Solomon Power, Ministry of CAUSE, RSIPF, Christian Care Centre, Malaita Council of Women	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	SP welcome the participants LW introduced the team and present the contents of the project - Introduce the different key players of the project - Introduced the initial scope of the project that was initially informed to people in 2019. - Informed the meeting that there has been a reduction in the scope. - The new scope of work for SIRAP excludes the road section from Kwainaketo to Hauhui (South road), Ferakui to Fouia (North road) and Fiu Bridge. LW emphasised that though these areas have been left out under SIRAP, MID will still maintain these roads. - New scope includes o 15km of sealed roads from Kwainaketo to the airport, Kilu'ufi road and feeders' roads in Auki that have been sealed and gazetted. o It also includes routine maintenance work at the unsealed section from the junction to the airport to Ferakui (north section) and from Ferakui to Fouo (East section) o Bridge Replacement (Koa, Bio 1 and Bio 2) o Spots upgrades o Drainage improvement. o Climate Change resilience work o Road safety work targeting schools and large communities etc - Sealing will be with Asphalt concrete (AC) not chip seal as currently in use. AC is more durable and last longer if kept well than chip seal. - For Fiu Bridge- SIRAP will carry out geotechnical and hydrological investigation first before appropriate designs can take place. Construction of the bridge may come under the stimulus package.	Question. 1. Labour Based Equipment Support (LBES) still continuing? Response LW: - • Malaita province refused this arrangement • Funding issue with government has affected this program. When it was funded under ADB, the program was a success. 2. LW Comments: - • We have not re-tendered maintenance of the road since WB said that they would take over. But with the revised scope and the delays due to Covid-19, we have extended the current maintenance contract until SIRAP takes over. 3. Doctor Commented: - • MID and responsible authorities should look at service delivery of health to people or accessibility to health services when making decisions regarding roads and funding priorities. • Roads should be about access to services for people and planner

		- Reason for reduced o Limited budget o The expectation by MPG and Malaita people for good and safe roads for vehicles and pedestrians thus incur more cost to do. o After SMEC initial survey and site visit to Malaita roads, it revealed that based on the current road condition there is a lot of work that needs to be done on the roads but with the limited budget available, MID and WB had to decide on what to do. For example, after surveys by SMEC and saw flooding issues on road section to the airport recommended that some lengths of the road need to be raised to avoid flooding. Thus, cost more. o The idea behind the revised is to construct something that would last longer in shorter sections that can build on in the future. o Work outcomes shall be more sustainable. - Drainage (Initial scope does not include drainage) - Road safety & footpath - Currently Fiu Bridge needs work. It is in a deteriorated state. MID had to brace the underneath of the bridge to hold it in place until future work.	should factor this when developing budgets for road maintenance. • If responsible authorities for roads do not maintain the roads, the Ministry of Health will bear the cost of providing its services to people and that would eat up budget that would have been better spent. LW: - • Acknowledged the comments & concerns raised by the doctor • Local planners tend to agree to whatever the donor said. 4. Auki Attendee: - • What about the small bridge culverts? Will SIRAP also addressed them? Response: Yes, undersized culvert will be improved. 5. Austin Ata (Attendee): Women's centre is currently flooded due to drainage issues which happen every time it rains. It would be good if this issue can be resolved. 6. Solomon Power Representative comments: -

		 	• Infrastructure is not the problem human beings are the problem • It's time we think outside the box • Meeting expensive • What is the purpose of these meetings? LW: - • Utilities to consult MID if want to erect new infrastructure 7. Doctor Commented: - • With regards to road conditions, we often leave it until the condition becomes very bad before the roads are patched up which is not a good practice. • Don't leave it too long before repairing the roads. The roads should not be projectized. LW response: - • The government reformed has changed from forced account to outsourcing of contractors for roads maintenance. • Initially the government through its public works department performs all the road maintenance work on regular basis. However, the government decided that this practise is too expensive to sustain thus opt for our sourcing to private contractors.

			8. Allan (ECD): - • Do avoiding changing scope of the work midway and disappointing people, I suggest that the scoping of work must be done well and preliminary designs completed and approved by MID and donor before informing people about it. 9. Attendee:- • We should be grateful that we have something than don't have anything at all based on the reduction in SIRAP scope. 10. Lady:- • Fiu Bridge will collapse anytime soon. The state of it is very bad. Why not focus on Fiu and leave the other bridges? LW response:- • The stimulus package from the government will take onboard works on Fiu Bridge. Proper investigations have to be carried out first before appropriate designs can be done followed by construction of it. 11. Doctor commented-

			• Contractors to do the work for SIRAP must be from overseas. 12. Ministry of Tourism Rep:- • Really glad that SIRAP will upgrade the roads and bridges in Malaita • In my consultation with people in Malaita, I told them that if we want the tourism industry to operate effectively in this province, we must open up our lands for roads to go through. 13. Attendee: • Look at the bright side of things. Start small and good things will come. 14. Save the Children commented: - • We are satisfied that the project has taken into consideration safety of children into the roads and bridge designs. • We ask that you train people on the importance of the road safety signs so that people would know what they mean and abide to the rules for their safety. 15. Community Access and Urban Services Enhancement (CAUSE) Project Rep: -

			• I believe we should make the most out of this project for our good and development of our province. • I suggest to SIRAP if the contractor can also engage people from the different locations on the road that the project will work on, on casual basis to provide unskilled labour.
Meeting 3		**Meeting Venue: Kwainaketo(Sealed Road Community)**	**Date/Time: 14/07/2020, 4pm**
Stakeholder:	**SIRAP Key Issues/Agenda**	**Presentation**	**Question, concerns, comments**
Ebanesa, Kwainaketo	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	JF Welcome all participant and introduced the purpose of the meeting LW presented the scope of work under SIRAP making mention of the initial scope of work and the revised scope. He also informed the participant on the reason why the scope had to be revised as due to budget limitation to cater for all the aspects of the initial scope and also to ensure that work that will be done ensures that the roads are constructed to standard. There are also other works that were not included in the first scope that were included in the second scope such as resealing of Kilu'ufi road, pedestrian walkways at certain busy areas and drainage works. LW explained that the new scope of work for SIRAP excludes the road section from Kwainaketo to Hauhui (South road), Ferakui to Fouia (North road) and Fiu	1. When will the program be implemented? SP: - We are at the detailed designs phased and this consultation is part of this phase. This is also an opportunity to pick up any concerns raised by the communities that would influence the outcome of the designs. Once the designs have been finalised, it will be submitted to SIRAP, MID and WB for comments and eventually approval. Then we

		Bridge. LW emphasised that though these areas have been left out under SIRAP, MID will still maintain these roads. The revised scope includes; - 15km of sealed roads from Kwainaketo to the airport, Kilu'ufi road and feeders' roads in Auki that have been sealed and gazetted. - It also includes routine maintenance work at the unsealed section from the junction to the airport to Ferakui (north section) and from Ferakui to Fouo (East section) - Bridge Replacement (Koa, Bio 1 and Bio 2) - Spots upgrades - Drainage improvement. - Climate Change resilience work - Road safety work targeting schools and large communities etc - For Fiu Bridge- SIRAP will carry out geotechnical and hydrological investigation first before appropriate designs can take place. Construction of the bridge may come under the stimulus package. TI added that those roads that have been left out of SIRAP's scope will still be looked after by MID. JF added that SIRAP is just one of the funding agents that supports development of infrastructure in Malaita so don't think that other areas are completely forgotten. SP added that sealing work will be with Asphalt concrete (AC) not chip seal as currently in use. AC is more durable and last longer if kept well than chip seal. At the conclusion of the meeting, Joy Faulkner thanked everyone for their attendance and participation.	shall come to the procurement of the contractor that we foresee to happen around October or toward the end of the year. Construction may start in first half of 2021. 2. What about the gravels I own, will the project pay for them? SP: That is not something that we can discuss now. The roads will need certain quality of aggregates adequate for the work not just any aggregate. So, it is best that we wait until the contractor comes onboard and then we can ask him that. 3. This is the 3rd meeting that we have with SIRAP. We must be thankful for the improved roads that we are going to benefit from. 4. The road section between Aligegeo to where the Police housings are at Aimela has no foot path and if I can remember there are about 5 accidents that happened within this section before. So I am happy with the plan to install footpaths as well as part of the project.

			5. We also want road humps because vehicles are always speeding, and they will never adhere to speed limit signs. LW- Speed humps area not always encouraged because it will set the wrong precedence to construct illegal speed humps. 6. Will the overseas contractor create job opportunities for communities here such as unskilled labour? SP – That can be brought up with the contractor once it comes on board. We cannot promise anything at this stage. 7. With regards to the footpaths, will it also cater for those with special needs? LW- That is a very good question. The donors always want designs that can cater for all (inclusive) and promotes safety at school zones and public areas.

			8. Being a woman in the community, we desire good roads that ensure safety for our children when they walk to school.
Meeting 4		**Meeting Venue: Auki Market (Sealed Road Community)**	**Date/Time: 14/07/2020, 9am-11am**
Stakeholder:	**SIRAP Key Issues/Agenda**	**Presentation**	**Question, concerns, comments**
1. Auki Town 2. Public	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe SIRAP Revised Scope of Work	JF opened up by thanking the public to gather to hear the presentation on SIRAP and went on to introduce the intension of the awareness. LW led the meeting. He introduced team, explaining the roles which team present played including MID, SIRAP PST and SMEC. He then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. He then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. LW then goes on talking about Fiu Bridge, how it's a huge concern in Malaita and that it will be replaced but it would come under another project which is the "Stimulus Package" but not SIRAP. He mentioned that SMEC is also the team that will design the bridge, but yet to get data from the river's conditions and existing environment information of Fiu River which will help in the design. SP then adds on to introduce the team again and explained in detail the roles of the team including MID, SIRAP PST and SIRAP.	1. Anderson (Northern Villager) In the many year's past contractors have come and carried out site investigation works in Malaita yet, why do you state that there is no data available? Response: LW explains that the data that was mentioned in the presentation refers specifically to the geotechnical and hydrological investigations that are required for Fiu Bridge. 2. Anderson (Northern Villager) I acknowledge that the process of work presented today including the design works has been good to know. The

		 	question is how long the condition of the unsealed roads will last be based on the designs and considering the weather condition here in Malaita. What can you say to assure the public about the longevity of the unsealed roads after SIRAP construction work? Response: MK responds to the second question stating that this road is expected to last longer when drainage issues are all sorted. She added that road's biggest enemy is water and the challenge is to ensure those surface runoffs are directed away from the roads but also drainages must be improved or continuously maintained to avoid flooding issues on the roads. She also added that communities have a part to play by ensuring that they do not use drains to dump rubbish in. These drains are meant to intercept water to not flood the roads and assets. 3. John Kivi For bridge and roads, when will MID make these permanent or to last?

			Regarding bridges, who is responsible to maintain them? Response: LW mentions that MID has different divisions in it including planning and operations division. He admits that planning of infrastructure development has already been based on the availability of finances. MID can only do so much when there is money available. He also added that MID is only an implementing agency. Most of the decisions are made at a higher level of government. 4. Eastern Villager How long will this Asphalt plant Concrete pavement last? Response: LW explained that there are different types of pavements. AC pavements depending on the layers, how well they are constructed and cared for can last up to 50 years. Chip seal pavements as currently in use are very thin. 5. George Faatamauri (commented)

			Firstly, commended the team for coming and proving to the public information about SIRAP and its status. He said that the road network in Malaita needs to be improved. He also added that roads must be gazetted to avoid people developing within the roads right of way as currently the practise around. The law that governs the roads prohibits this practise. Malaita Provincial Government is also working to gazette the roads that have not yet been gazetted. Roads are very expensive and the question for us to answer is how they can be maintained. The current process that MID is adopting to hire contractors is very expensive and cannot be afforded to regularly repair the roads. There are 2 options that MID can do. Option 1 – Centralise the program with the base in Honiara. Option 2 – Decentralise the program by empowering the provinces with the skills and equipment maintaining the roads themselves. 6. Community Member

			Why South Road and North Road were cancelled out from the roads works? This is because of politics and is very clear that they are making decisions for us. Response: LW states that politics is not involved in this project thus need to leave it out of this discussion. Rather than looking at the government and blaming them, let us work together and forget about politics. Also, it is the quality that we want to achieve, not quantity. LW also mentions the 30m clearing distance from road edge that should be followed. Response: SP added that information is powerful. MID and MPG did the decisions on this project and tried to work with the money available. The scope has been reduced as it was to address more issues that the MPG sought is priorities. 7. Community Member Airports were mentioned to be in the SIRAP project. This must

			be the reason why the scope has been reduced because some of the funding has been taken elsewhere. Also, the MPG is only concerned about the town centre, not the outer regions. Response: SIRAP is mainly for airports, not roads. Just recently was the road component of this project been included and Malaita being the lucky one to first be under the road component of this project. LW adds in mentioning to people not to listen to unofficial news or stories, especially if it is not from any official person. This isn't the last time WB will be making projects, but if we look after this project, make it successful; WB might make more projects in the future. 8. Community Member Despite the issues with the government, we should be thankful the WB is willing to help us with funding in developing our town. Thanked the team for coming and giving awareness to the public about this project and

			grateful that this project will be happening.
Meeting 5		**Meeting Venue: Gwaunaru'u Meeting Hut(Sealed Road Community)**	**Date/Time: 14/07/2020, 12pm**
Stakeholder:	**SIRAP Key Issues/Agenda**	**Presentation**	**Question, concerns, comments**
Gwaunaruu Community	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	JF thank the people for attending and welcomes them. Village Chief – welcomes team and opens meeting with a word of prayer. SP lead the meeting. She introduced team, explaining the roles which team present played including MID, SIRAP PST and SMEC. She then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. She then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. SP continues explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year.	1. Community Member Comments on about the importance of signages. Advices the people to leave the signages alone and try not to destroy them by shooting them down. Regarding the reduction of scope, is sad about the cancelation of South and North road from the scope, better to start small and work together. 2. Village Chief People's properties have already been along the road, what does the government plan on doing with these properties that have already been built along the road?

		TI adds on advising the people regarding properties and plantations that are within the 30m boundary of the road. The properties within this 30m boundary will not be compensated as it has already been stated by the Road Act that gazetted roads or legalised roads have a boundary line that stretches out 15m from the centre line on both sides on the road. TI then talks about the importance of roads signages and advices the people to look after these signages once put in place under this project. LW talks on behalf of MID and govt. There have been many short comings from the government's end. Mostly local contractors are blamed for bad performance but a reason for this is the government's short coming of money/ payment methods. WB is willing to donate their money towards Malaita and Malaita is very privileged to be included under the road component of this project. The changes in the scope of works have occurred due to the little components that were added into the design such as proper drainages, rising of low spots and footpaths. These items are very important and SMEC has advised that proper drainages be installed to cater for the new sealed sections. Another point he stressed on was signages as well. For the people to look after these facilities. They are used as silent warnings to drivers and also pedestrians on what is expected ahead of them. The people are very lucky to have this project and should work together. MK closes the meeting with a word of prayer.	Response: TI mentioned that the road section to Gwaunaru'u airport was been gazetted back in the 90's enforcing the 30m road corridor. This also means that anything that is found within the road's 30m boundary will not be compensated. Property owners can be asked way in advance to have their property removed if road works require the additional space. SP added that drainage and improvement of culverts will be required in this section to reduce flooding on the roads thus additional space will be required to enable this to happen. 3. Village Chief Comments and advices people that anything within the 30m boundary of the road will not be compensated. 4. JF explains that roads become weaker if water enters the structure. The AC pavement is very expensive, and the people need to take responsibility in looking after it. Do not ruin the paved roads.

		 	5. Community Member Has the Contractor been identified for the works? Do not accept local companies. Response: SP explains the process that the project is undertaking now. SIRAP is currently in its design phase. After designs have been finalised, it will be submitted to SIRAP/ MID and WB for review and agree on. The current consultation is part of the design phase. After this phase is the procurement phase for the contractor which may take place at the end of this year or beginning of the new year. So at the moment, we still do not know who the contractor will be. LW added that the sealing that has been put in the design cannot be done by any company within SI since companies here do not have the machines and equipment to carry out this pavement work. Therefore, the tender will be made internationally. 6. Community Member Comment on the roadside boundary.

			The reason most property owners remain within this boundary is due to lack of knowledge about this information. He requests if this information can be done in written form so that they can put up as a notice to community so that all as informed and aware of this. 7. Community Member Comment that everything that has been presented and stated is very clear. Thanked, the team for coming and wishes to work together pre, during and post construction.
Meeting 6		**Meeting Venue: Kalifornia Village area(Sealed Road Community)**	**Date/Time: 14/07/2020, 1.30pm**
Stakeholder:	**SIRAP Key Issues/Agenda**	**Presentation**	**Question, concerns, comments**

1. Kalifornia Community 2. Kwalobala Community	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	Chairman welcomes and greats team. SP lead meeting. She introduced team, explaining the roles which team present played including MID, SIRAP PST and SMEC. She then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. She then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. SP continues explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year. TI adds on advising the people regarding properties and plantations that are within the 30m boundary of the road. The properties within this 30m boundary will not be compensated as it has already been stated by the Road Act that gazetted roads or legalised roads have a boundary line that stretches out 15m from the centre line on both sides on the road. TI then talks about the importance of roads signages and advices the people to look after these signages once put in place under this project. Also, to not dig out the roads, making own speedbumps as this will ruin and weaken the pavement. Asks the people to work together and look after the road. LW adds on in relation to the government side of things. Government appreciate the effort in these consultations. These consultations create the community and project team into working together so that the SIRAP project becomes a success and carried out without any issues/problems.	1. Community Member Comment stating for the community to take note of this 15m boundary of the road edges, on both sides. For people who have assets within this boundary to remove them before construction commences if the space is required. 2. Community Member Why didn't MID aware the communities about the road boundary law? Especially for the existing people who have already built huts or planted crops within the road's boundary. Response: LW explains that the government has agencies that carry out specific roles and one is also to inform the people about this kind of information. Unfortunately, they did not and apologises for that. LW mentions how the gazetted roads work under the Road Act and that no compensation will be given. Compensation only occurs when a new road is being proposed.

		LW explains that the sealing that has been put in the design cannot be done by any company within SI since companies here do not have the machines and equipment to carry out this pavement work. Therefore, the tender will be made international which means the Contractor will be an overseas company. SP thanks the community for the time and closes the meeting.	

Meeting 8		Meeting Venue: Ambu Church Area (Sealed Road Community)	Date/Time: 14/07/2020, 6pm
Stakeholder:	SIRAP Key Issues/Agenda	Presentation	Question, concerns, comments
1. Ambu Community 2. Kokomu Community	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	Pastor welcomes team and opens meeting with a word of prayer. LW lead presentation. He introduced the team, explaining the roles which team present played including MID, SIRAP PST and SMEC. He then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. She then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. SP adds on explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year. LW mentions the Road Act law and the 30 boundaries. He then explains the situation for those that have properties along the road edges. He goes on explain how signages along the road are very important and provides information and warnings to drivers and pedestrians using the road. He encourages the community to look after these assets and look at them as very important items. MK adds on that under the SIRAP project, at school zones, crossings will be provided, speed limit signs, school zones signs and village signs as well are in the design.	1. Community Member Drainage is an issue in Auki town, has this been taken into account? LW responds that assessments have been carried out and have identified drainage issues around Auki town and this has been considered for the design. 2. Community elder appreciates the project and the fact that they have been regularly informed about the project status.

		Safety is the aim of this project. JF talks regarding the AC pavement. Communities should take note that man-made road humps are illegal and whoever is found doing this can be fined or arrested. Also, by destructing the pavement, this can weaken its durability and strength which is not wanted. For any more concerns or questions, community members can seek Kelly (MID) and JF (SIRAP PST) at their office located near the MID works area. Kelly adds on giving an example on how he can assist the communities, stakeholder and utility suppliers. He can give advice on how low to go for pipes and connections that will be placed across or along the road. Because once the road is sealed, trenching is not allowed. SP thanks the community for their time and closes the meeting. Pastor thanks the team and closes with a word of prayer.	

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Meeting 9		**Meeting Venue: Gwailiki Community Hall(Sealed Road Community)**	**Date/Time: 15/07/2020, 9am**
Stakeholder:	**SIRAP Key Issues/Agenda**	**Presentation**	**Question, concerns, comments**
1. Gwailiki Community 2. Fiu Bridge Communities 3. Tatafarade Community	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	Community Mama opens meeting with a word of prayer. Thanked the team for coming and welcomes team. LW lead presentation. He introduced the team, explaining the roles which team present played including MID, SIRAP PST and SMEC. he then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been	1. Salten Luck For tender, will locals be allowed to apply for this or just internationals? SP responds explaining that Solomon Islands do not have any machines or resources for the AC pavement works. This

		cancelled out as well. She then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. SP adds on explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year. SP thanks community for attending and closes meeting. Mama thanks team on behalf of community.	means that locals will not be able to apply for tender. JF added that people of Malaita Province and their provincial government have made it clear to the project that they want good roads and international contractor to build the roads. 2. Salten Luck How many meters from road edge is the roads property? TI responds explaining the Road Act and states the road corridor boundary is 15m from centreline on both sides of the road. He added that the road from Auki to Fouia has been gazetted in 1966. SP adds on explaining the importance of this road boundary for future developments on the road. 3. Salten Luck For communities that have gravel, will they use our resources or not? LW responds explaining that if contractors need resources for the works, they will deal with the owners themselves.

		 	MK adds on stating that specific works need specific materials for it. The rocks will be assessed first to determine which rock and quarry is best suitable to be used. The contractor will have more say in that. 4. Community Member In terms of work force, will they use locals or overseas for this? SP responds stating that some works will need skilled personnel, and some will need locals. But this will be clearer and more identified once contractor has been chosen and introduced in Malaita.

Meeting 10		Meeting Venue: Kilusakwalo Church Area(Sealed Road Community)	Date/Time: 15/07/2020, 11am
Stakeholder:	SIRAP Key Issues/Agenda	Presentation	Question, concerns, comments
Kilusakwalo Community	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	Pastor opens meeting with a word of prayer. Community Elder welcomes the team and states that they look forward to listen to the developments that will be happening. SP lead presentation. She introduced the team, explaining the roles which team present played including MID, SIRAP PST and SMEC. She then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. She then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. SP adds on explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year. LW adds stating the reason for this consultation is to update the communities about the project and where it is currently up to. TI adds on advising the people regarding properties and plantations that are within the 30m boundary of the road. The properties within this 30m boundary will not be compensated as it has already been stated by the Road Act that	1. Pastor Concerned regarding North and South Road. Feels saddened that North and South Roads have been left out though they are the areas that provide income for the economy as that is where most farmers live. These roads should be looked at than just the town centre. LW responds explaining that the funding can only cover the areas that were mentioned and that it is more important to have quality than quantity in terms of the infrastructure. It's better to start small with good quality of roads then slowly expand with any future funding and developments. 2. Community Member What time will North and South Road be developed? LW responds stating that currently there are ongoing contractors that are assigned to these roads.

		gazetted roads or legalised roads have a boundary line that stretches out 15m from the centre line on both sides on the road. TI then talks about the importance of roads signages and advices the people to look after these signages once put in place under this project. Also, to not dig out the roads, making own speedbumps as this will ruin and weaken the pavement. Asks the people to work together and look after the road. SP thanks community for attending and closes meeting. 	3. Community Member Commented that he wants the engineers to know and collect sufficient data of the existing conditions and environment for the sections the project will cover. 4. Community Member Commented that he realises the designs are according to what people have requested during other consultations. He is happy with what has been stated for the project and road upgrade. 5. Community Elder Commented, talking to the community that they should leave politics aside and focus on developments like this as this an opportunity since WB is willing to donate for the development of their province. Also, to take care of these infrastructures and take responsibility as well. He asks the community to work together and cooperate with the team and also with future developments. 6. Community Member For communities that have gravel, will they use our resources or not? Also is it

			because our gravel is dirty, so they don't choose or use it? SP responds explaining that if contractors need resources for the works, they will deal with the owners themselves. Also, that specific works need specific materials for it. The rocks will be assessed first to determine which rock and quarry is best suitable to be used.
Meeting 11		**Meeting Venue: Aimela Roadside (Sealed Road Community)**	**Date/Time: 15/07/2020, 2.35pm**
Stakeholder:	**SIRAP Key Issues/Agenda**	**Presentation**	**Question, concerns, comments**
1. Aimela Community 2. Police Housing 3. Tautaumalefo Community	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	LW led meeting. He introduced team, explaining the roles which team present played including MID, SIRAP PST and SMEC. He then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. He then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed.	1. Community Member Commented to the community stating that we as a country we rely on funding most of the time, so let's be grateful for this project. Regarding footpaths and drainage that will be on the roadsides, he asks the community to work together and to not cause any issues or

		SP adds on explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year. SP then goes on further explaining the usage of signages along the road their importance. SP closes meeting.	problems for this project. He wants to thank WB for this project and is very much grateful. 2. Community Member Regarding unskilled labour work, what will happen if we want work? SP responds that this will be discussed, and more specific once contractor is identified and is on site. 3. Community Member Regarding the road boundary, what's its distance? SP responded stating that it is 15m from centreline on each side of the road. What about the properties that is within the boundary? TI responds explaining the Road Act and those things that are within the road boundary will not be compensated if removed for works. 4. Community Member What about electric posts that are within the road boundary?

		 	TI explains that utilities are also responsible to consult with MID before constructing anything within the road right of way to ensure things are properly done.

Meeting 12		Meeting Venue: Kilu'ufi Market Area (Sealed Road Community)	Date/Time: 15/07/2020, 4pm
Stakeholder:	SIRAP Key Issues/Agenda	Presentation	Question, concerns, comments
1. Kilu'ufi Hospital 2. Kilu'ufi Community	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	SP lead presentation. She introduced the team, explaining the roles which team present played including MID, SIRAP PST and SMEC. She then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. She then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. SP adds on explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year. TI adds on advising the people regarding properties and plantations that are within the 30m boundary of the road. The properties within this 30m boundary will not be compensated as it has already been stated by the Road Act that gazetted roads or legalised roads have a boundary line that stretches out 15m from the centre line on both sides on the road.	Elder thanked the team for the awareness and express their happiness that Kilu'ufi road which was not in the initial scope of work is part of the revised scope of work for SIRAP. The elder pledges complete support for the project.

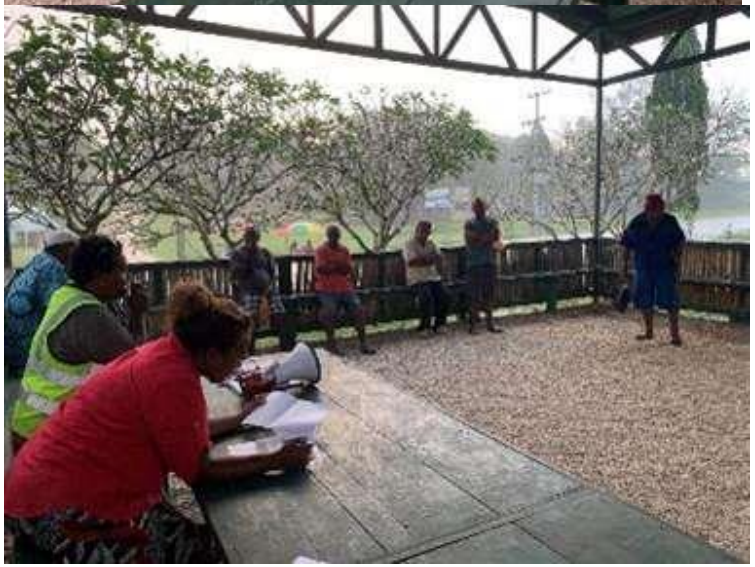
		 	

Meeting 13		Meeting Venue: Aligegeo (Sealed Road Community)	Date/Time: 16/07/2020, 10:30am
Stakeholder:	SIRAP Key Issues/Agenda	Presentation	Question, concerns, comments
1. Aligegeo 2. Telekom Housing	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	Pastor welcome the teamed LW led meeting. He introduced team, explaining the roles which team present played including MID, SIRAP PST and SMEC. He then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. He then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. LW then explains the importance of road signages and that the community should look after them and not remove them from where they were placed. TI adds on advising the people regarding properties and plantations that are within the 30m boundary of the road. The properties within this 30m boundary will not be compensated as it has already been stated by the Road Act that gazetted roads or legalised roads have a boundary line that stretches out 15m from the centre line on both sides on the road.	1. Pastor Understand that trees within the right of way will not be compensated for if the they are removed for road works. What about people's houses? LW responded that road from Auki to Fouia has been gazetted since 1966. Most of the houses that were constructed within the road right of way came after that year which breaches the roads act. LW added that this is WB first road project of this scale in the Solomon Islands. If it went successfully, there is for sure more funding oprtunities of this kind in the future. 2. What about the case where the Ministry of Lands offered land parcel that encroach into the 30m road corridor? LW responded that he was not aware of this issue and said that this is not legal. It shows that a

		 	lot of people including government ministries fo not know the roads act and the gazetted road with. 3. What about the road humps that people put on the road to slow down speeding car? LW responded that humps put on the road without authorisation from MID's PS is illegal and dangerous. SP added that, that is why road signs are very important. They are there to indicate to people what is ahead on the roads so that vehicles can slow down. 4. The culvert that cross across the road from the side in front of Aligegeo school discharges water on to the AOG church area. This happens frequently. We propose if the culver can either be extended past the church or do other measures to resolve the issue. LW responded that SMEC will take note of this issue and factor into the designs.

Meeting 28		Meeting Venue: Catholic Church Area (Sealed Road Community)	Date/Time: 19/07/2020
Stakeholder:	SIRAP Key Issues/Agenda	Presentation	Question, concerns, comments
1. Auki Residents 2. Catholic Church 3. SDA Church 4. Fasitoro Residents	1. SIRAP Revised Scope of Work 2. Detailed Designs of Roads and Bridges 3. Safeguards Issues 4. Project timeframe	Community Elder opens meeting with a word of prayer. SP lead presentation. She introduced the team, explaining the roles which team present played including MID, SIRAP PST and SMEC. She then explained the SIRAP project with the change in scope for the road works in Malaita. Stating that sealing of North road from the Airport junction onwards has been cancelled out. Also, the South road from Kwainaketo and onwards has been cancelled out as well. She then mentions the roads within Auki town will be resealed with AC pavement including proper drainages and footpaths installed. SP adds on explaining the timeline of the project works and when it might start, stating that the process takes time, tender might go out by October and Contractor might be selected and mobilised by early next year. LW adds on explaining the reason why the scope of works has been reduced to fit the budget that had been funded by WB. He then explains gazetted roads and that sealing will only happen on gazetted roads and existing sealed roads. SP explained the Road Act and the 30m boundary that belongs to the road corridor, and that people should be made aware of. FK added, talking about manmade road humps and that it is illegal according to the Road Act.	1. Community Elder Why are other minor roads not in the project to be sealed? SP responded explaining that sealing will only happen to roads that have been gazetted and owned by the government. LW added on stating that WB will only work on gazetted road which is why minor road sections are not in the scope. 2. Community Member For issues like Kwarea bridge that has been scoured and in a very bad state, will this be addressed? SP responded explaining that for this project, the bridges that will be addressed are Koa, Bio 1 and 2 only. LW added that MID's problem is the shortfall of money and funding to cater these other issues that they should be looking after.

		SP thanks the community for attending and closes meeting.	3. Community Member Concerned about South Road and issues like bridges collapsing or broken. Also, are bus stops included in the design? MK responded that bus stops were included when designing, but due to lack of data for bus stop locations, not enough information could be used. SMEC will go with MID and locate them again after the consultation. 4. Community Member Why was the 30m boundary for gazetted roads not been implemented throughout the years? SP responded explaining that this is due to MID not giving awareness talks to people about these things. LW also added that due to lack of money and funding to carry out these awareness's. 5. Community Member Commented, talking to the people that gazetted roads and the Road Act is a law, and no one

		 	is above the law. This should be implemented, and we should start implementing it as of now. 6. Community Member What about the business reps and houses in Auki town? They are not 30m out of the road's boundary. SP responded explaining that for this project, it will only work within the existing road's boundary. But it is best that people are aware of this 30m boundary for future developments. Business owners will be consulted as well accordingly. . 7. Community Elder Commented stating that before, the roads were wider and now can be seen to be very narrow with houses right beside them. Also, before, when gravel was used to path the pothole, it lasted longer than it does now. Why are these things today not like they were back in the olden days? SP responded explain that this is due to the change in process. Previously MID used their own machines and plants to carry out

			regular maintenance, but now the process enables the work to be given to contractors for them to carry out the work on behalf of MID.