### **SOLOMON ISLANDS**

Ministry of Provincial Government and Institutional Strengthening

and

Ministry of Environment, Climate Change, Disaster Management and Meteorology



# Solomon Islands Integrated Economic Development and Community Resilience Project

World Bank: P173688

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

VERSION: DRAFT, JANUARY 2022

# **Table of Contents**

Li	st of Fig	gures	4
Li	st of Ta	bles	4
Α	bbrevia	tions and Acronyms	5
1	Bacl	kground	7
2	Proj	ect Description	7
	2.1	Context	7
	2.2	Project Summary	8
	2.3	Project Subcomponents	g
	2.3.	1 Component 1: Performance-based Grants	g
	2.3.	Component 2: Support to Subnational Entities	10
	2.3.	3 Component 3: Project Management	11
	2.4	Anticipated Subproject Types	11
	2.5	Project Area and Beneficiaries	12
3	Poli	cy, Legal and Regulatory Framework	12
	3.1	Country Context	12
	3.1.	1 Environmental Assessment, Review and Permitting	12
	3.1.	Other Potentially Relevant Legislation	15
	3.1.	Potentially Relevant International and Regional Agreements	17
	3.2	World Bank Environmental and Social Standards	17
	3.2.	1 Environment and Social Risk Classification	18
	3.2.	2 Applicable Environmental and Social Standards	19
	3.2.	World Bank Group Environmental, Health and Safety Guidelines	23
	3.3	Gap Analysis	23
4	Envi	ronmental and Social Baseline	28
	4.1	Population	28
	4.2	Economy	28
	4.3	Infrastructure	29
	4.4	Natural Hazards and Climate Change	29
	4.5	Gender Issues	29
	4.6	Indigenous People and Culture	30
	4.7	COVID-19 Pandemic	31
	47	1 Current situation	31

	4.7.	2	Response	31
	4.7.	3	Vaccine roll-out	32
5	Envi	ironm	ent and Social Risks, Potential Impacts and Mitigation	32
	5.1	Sum	mary of Main Environmental Risks	32
	5.2	Sum	mary of Main Social Risks	33
	5.3	Prel	minary Risk Analysis	33
6	Prod	cedur	es to Address Environmental and Social Issues	37
	6.1	Ove	rview of the Screening Process	37
	6.2	Scre	ening of Project Activities	37
	6.3	Rese	ettlement	42
	6.4	Incid	lent Management	42
7	Prop	osec	Consultation and Stakeholder Engagement	43
	7.1	Proj	ect Stakeholders	43
	7.2	Con	sultation and Information Disclosure	45
	7.3	Grie	vance Mechanism	47
8	Imp	leme	ntation Arrangements, Responsibilities and Capacity Building	48
	8.1	Imp	ementing Agency	48
	8.1.	1	Project Management Unit	48
	8.1.	2	Key Roles	49
	8.2	Con	struction Contractors	51
	8.3	Wor	ld Bank Environmental and Social Team	51
	8.4	Capa	acity Building	51
	8.5	E&S	Risk Management Budget	52
	Annex	l.	Code of Environmental and Social Practice (CoESP) for Small Infrastructure	53
	Annex	II.	Chance Finds Procedure	68
	Annex	III. So	reening Form for Potential Environmental and Social Impacts	69
	Annex	IV.	Environmental and Social Management Plan (ESMP) Template	74
	Annex	٧.	Waste Management Plan for Contractors	76

# List of Figures

Figure 1 - EIA Procedural Steps	14
Figure 2 – Key Activity Screening Steps	
0. 1 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	
List of Tables	
Table 1 - Common Subproject Types	12
Table 2 - Other Potentially Applicable Legislation	15
Table 3 - Required Project Environmental and Social Standard Actions	19
Table 4 - Gap Analysis and Filling Measures	24
Table 5 - Provincial Populations	28
Table 6 - Assessment of Key Project Risks/Impacts and Proposed Mitigation Methods	34
Table 7 - Ineligible Activity List	41
Table 8 - Identified Stakeholders	44
Table 9 - Indicative Stakeholder Engagement Plan	45
Table 10 - Indicative Disclosure Plan	47

# Abbreviations and Acronyms

CoESP C	Climate Change Adaptation and Risk Reduction Officer  Code of Environmental and Social Practice  Coronavirus Disease 2019
	Coronavirus Disease 2019
COVID-19	
	Avertualis/s Departure and of Fernism Affairs and Trade
DFAT A	Australia's Department of Foreign Affairs and Trade
E&S E	Environmental and Social
ECD E	Environment Conservation Division
EHS E	Environmental, Health and Safety
EIA E	Environmental Impact Assessment
EIS E	Environmental Impact Statement
ESCP E	Environmental and Social Commitment Plan
ESF E	Environmental and Social Framework
ESHS E	Environmental, Social, Health and Safety
ESMF E	Environmental and Social Management Framework
ESMP E	Environmental and Social Management Plan
ESRS E	Environmental and Social Review Summary
ESS E	Environmental and Social Standard
GBV G	Gender Based Violence
GM G	Grievance Mechanism
H&S F	Health and Safety
IDA I	International Development Association
IEDCR I	Integrated Economic Development and Community Resilience
JOC 1	Joint Oversight Committee
LMP L	Labour Management Procedure
MECDM N	Ministry of Environment, Climate Change, Disaster Management and Meteorology
MFAT N	Ministry of Foreign Affairs and Trade
MHMS N	Ministry of Health and Medical Services
MoFT N	Ministry of Finance
MPGIS N	Ministry of Provincial Government and Institutional Strengthening
OHS C	Occupational Health and Safety
PCDF F	Provincial Capacity Development Fund
PDO F	Project Development Objective
PER F	Public Environment Report
PFGCC F	Provincial Fiscal Grant Coordination Committee

# Solomon Islands Integrated Economic Development and Community Resilience Project (P173688) – Environmental and Social Management Framework | January 2021

PG	Provincial Government
PMU	Project Management Unit
POM	PCDF Project Operations Manual
PPE	Personal Protective Equipment
SEP	Stakeholder Engagement Plan
SIG	Solomon Islands Government
UNICEF	United Nations Children's Fund
WB	World Bank
WB WDC	World Bank Ward Development Committee
WDC	Ward Development Committee

## 1 Background

The Solomon Islands Government (SIG) is proposing the Integrated Economic Development and Community Resilience (IEDCR) Project ('the Project'). The objective of the Project is to increase access to resilient economic and social infrastructure in rural wards and to enhance provincial governments' accountability to citizens. This will largely be achieved through funding an existing grant system, the Provincial Capacity Development Fund (PCDF).

The Ministry of Financing and Treasury (MoFT) will serve as the Executing Agency and the Project will be implemented by the Ministry of Provincial Government and Institutional Strengthening (MPGIS) and the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM). The Project is expected to commence in late 2022, and to run for a period of five years.

The SIG is seeking finance for the Project from the World Bank's (WB) International Development Association (IDA) in the amount of US\$19 million. As part of project financing, the Project is required to comply with the requirements outlined in WB's Environmental and Social Framework (ESF) and this Environmental and Social Management Framework (ESMF) has been prepared to satisfy a project financing requirement. The EMSF is supported by an Environmental and Social Commitment Plan (ESCP), Labour Management Procedure (LMP), Stakeholder Engagement Plan (SEP), PCDF Project Operational Manual (POM) and other specific plans that have been or will be prepared for the Project.

The purpose of this ESMF is to provide a system for managing the environment and social (E&S) risks and impacts associated with the Project in alignment with:

- The WB ESF, including the ten Environmental and Social Standards (ESSs).
- Relevant Solomon Islands regulatory requirements.

Although the PCDF receives funding from sources other than the WB, this ESMF will apply to all grants issued under the PCDF. The POM and other existing PCDF grant processes will be updated to ensure alignment the WB ESF requirements<sup>1</sup>.

This ESMF will be finalized and disclosed within 30 days of the effective date of the Financing Agreement for the Project. Disclosure will include publication on the IA and MPGIS and/or MECDM websites.

## 2 Project Description

#### 2.1 Context

Solomon Islands is a small, fragile, remote archipelago of 997 islands in the South Pacific with a dispersed population of less than one million<sup>2</sup>. Following civil conflict, which ended in 2003, the population has continued to expand relatively rapidly (2.5% per annum). The per capita real Gross

<sup>&</sup>lt;sup>1</sup> This update being undertaken as part of a scope funded by UNCDF-LDFPA-LoCAL and includes an update to the investment menu and negative list to comply with the ESF, and to review and update the grants manual to comply with environmental and social screening processes and assessment requirements under the ESF (including but not limited to the Environmental and Social Management Framework, Labour Management Procedures, and Environmental and Social Commitment Plan).

<sup>&</sup>lt;sup>2</sup> Solomon Islands is categorized as both a "fragile" and "small" state because it: (a) currently has a harmonized average Country Policy and Institutional Assessment rating of 3.2 or less; and (b) is an IDA eligible country with development challenges related to both its small size and geography.

Domestic Product remains below its pre-conflict peak and logging, which had been the main driver of growth, continues to decline.

Approximately 13 percent of the population live below the national basic-needs poverty line, with the incidence of poverty higher in rural areas where more than 75 percent of the population resides<sup>3</sup>. Providing access to basic services is extraordinarily challenging given the small, dispersed nature of the population. The island geography and 'tyranny of distance' presents formidable and immutable challenges to service delivery, infrastructure and economic integration.

Solomon Islands is also one of the most exposed and vulnerable countries affected by natural hazards, ranked sixth out of 171 countries based on the World Risk Index.

#### 2.2 Project Summary

The Project will be designed as an Investment Project Financing (IPF) operation in the amount of approximately US\$19 million with an additional grant of approximately US\$1.8 million from the State and Peacebuilding Fund<sup>4</sup> and US\$4.56 million from the Global Environment Facility Least Developing Countries Fund. It will be implemented over a five-year period, from 2022 to 2027, and provide additional resources to the PCDF in four cycles (FY 2023/24, 2024/25, 2025/26, 2026/27). Given the recent violent unrest, State and Peacebuilding Fund resources will complement the IDA investment by helping to build the social cohesion, violence prevention and recovery of Solomon Islands communities. Likewise, Least Developing Countries Fund resources will help to strengthen the climate resilience and adaptation of communities. The IEDCR will have three components:

- Component 1. Performance-based Grants
- Component 2. Support to Subnational Entities, comprising of two subcomponents:
  - o 2(a): Improving Frontline Services
  - o 2(b): Building Resilient Communities.
- Component 3. Project Management.

The Project Development Objective (PDO) for the Project is to increase access to resilient economic and social infrastructure in rural wards and to enhance provincial governments' accountability to citizens. Achievement of the PDO will be monitored through the tracking of the following indicators:

- Number of individuals in Project areas benefiting from climate resilient infrastructure or services.
- Percentage of beneficiaries reporting improved access to climate resilient infrastructure or services (of which are female, of which are youth).
- Percentage of PCDF investments focused on climate change adaptation or disaster resilience.
- Percentage of beneficiaries that report that project investments reflected their needs (of which are female, of which are youth).
- Number of Provincial Governments achieving improved Accountability Score.

<sup>&</sup>lt;sup>3</sup> UN-CDP (2018). Vulnerability Profile of Solomon Islands.

<sup>&</sup>lt;sup>4</sup> SPF funding is subject to confirmation and approval. SPF provides financing for conflict prevention, rapid crises response and building resilience in situations of fragility conflict and violence.

#### 2.3 Project Subcomponents

The Project's three components are described in the following sections.

#### 2.3.1 Component 1: Performance-based Grants

Component 1 (Performance-based Grants) will finance four annual grant cycles through the existing PCDF system. This component will be implemented by MPGIS in coordination with MECDM and the Provincial Governments (PGs). The funding will enable approximately 200 additional PCDF projects to be implemented over the four annual grant cycles. The areas of reform to the existing PCDF targeted by this component are:

**Increased emphasis placed on infrastructure that supports economic activity at provincial and Ward levels.** This is to accord with SIG's objective of stimulating a greater level of economic activity in rural areas, supporting rural economies to recover from the impacts of COVID-19. This will include economic infrastructure like feeder roads, bridges and culverts, pedestrian bridges and footpaths, jetties, storage facilities for markets for fisheries and agricultural produce, agro-processing infrastructure, and infrastructure to support tourism. Other critical infrastructure such as health and education facilities that contributes to human capital development and inclusive growth (which have made a significant portion of PCDF spending historically) are also expected to remain an important focus area under PCDF.

Improved participatory planning, inclusion and related social accountability measures. Following the introduction of SIG's *Policy Blueprint*, MPGIS has worked with PGs to support the formation of Ward Development Committees (WDCs) in all Wards. The establishment and basic operation of this participatory planning process is now a minimum condition of access to PCDF. In 2021, WDCs engaged in a participatory planning process to establish their priorities for PCDF projects, as well as for microprojects that PGs will fund and support WDCs to execute. Over the coming years, MPGIS and PGs will work through PCDF to progressively strengthen this participatory planning process, social inclusion of disadvantaged groups, in particular, women and youth, and introduce related social accountability measures to increase the responsiveness of PGs to citizen priorities.

Strengthened climate and disaster resilience of all PCDF investments and increased focus on specific climate adaptation infrastructure at provincial and Ward level. Rural communities are vulnerable to an array of climate and disaster risks, including sea level rise, coastal erosion, flooding, landslides, tsunamis, drought, severe heat, cyclones, earthquakes and volcanos. Climate change impacts affect the operations and performance of infrastructure, and lead to a demand for climate proof designs and adaptation in management strategies. The Project's approach to risk informed planning, consolidating vulnerability assessments, screening tools and standard designs together with other core strengthening activities will encourage the prioritization of climate adaptation investments and ensure that all PCDF investments meet appropriate climate and disaster resilience standards and the mainstreaming of these activities that will support the longevity of all PCDF investments. Examples include climate and disaster risk-informed location of infrastructure, and resilient construction standards for school buildings, health clinics, markets and other facilities to withstand strong winds, heavy rainfall and severe heat. Vulnerability assessments together with revised planning tools and a revised investment menu will inform and encourage a greater focus on specific climate adaptation infrastructure at provincial and Ward level, such as, tanks as integral components of facilities to provide water security, and the installation of solar panels to increase use of sustainable energy. Specific climate adaptation investments water supply, drainage systems, seawalls, bridges and solar energy have made up a small portion of PCDF spending historically.

#### 2.3.2 Component 2: Support to Subnational Entities

Component 2 (Support to Subnational Entities) will be implemented by MPGIS and MECDM in coordination with the PGs. Apart from funding, a lack of qualified and capable personnel to support implementation is a major constraint to effective citizen engagement, service delivery and reducing community vulnerability to climate change and disaster impacts. Increased attention to these activities is only made possible through financing from IDA, State and Peacebuilding Fund and Global Environment Facility Least Developing Countries Fund. The Component will build the capacity that is needed at the local level for the PGs to effectively execute the grants; give the Implementing Agencies the opportunity to incubate additional positions within their respective mandates to support the delivery of the Project; and support other non-investment activities required for implementation at the provincial and Ward level. It will: (i) improve opportunities for community participation in the PCDF decision-making process; (ii) improve gender and social inclusion (women, youth and other vulnerable groups); (iii) improve the PG's and WDCs' capacity to make informed decisions on social and economic infrastructure investment and manage climate and disaster risks; and (iv) improve PG and WDC accountability and reporting to citizens on its investments.

Component 2 can be broken down into two subcomponents:

Subcomponent 2a: Improving Frontline Services will be implemented by MPGIS in coordination with MECDM and the PGs. It will support the implementation of key provisions in the Policy Blueprint focusing on improving community participation, inclusion and social accountability in the PCDF. It will finance the appointment of Provincial Program Coordinators (PPCs); a National Engineer; Ward Development Committee Support Officers (WSOs); goods; technical assistance (e.g., drafting and design technicians) and incremental operating costs to support the coordination, planning and implementation of investments under Component 1. The PPCs (and existing Provincial Planning Specialists) will socialize the Policy Blueprint and Project activities with PG officials, the PCDF Coordinator,<sup>5</sup> Provincial Planning Officers, Provincial Engineers, frontline staff from other sector ministries and WDC representatives. The National Engineer will develop training materials and work with the existing Provincial Engineers to harmonize approaches and standards for construction and infrastructure works. The WSOs will work with the Provincial Engineers and PPCs to supervise the works; identify operations and maintenance needs; implement a range of communications and awareness raising activities concerning the PCDF program and on disaster and climate risks; training for the WDCs on a range of local-level governance and social accountability initiatives, including improving opportunities for communities and WDCs to review the three year rolling Ward Development Plans that have been developed and to make informed decisions on social and economic infrastructure investments and manage climate and disaster risks; prepare and response to disasters; resolve Project and/or community-related grievances; and monitor and report on PCDF activities so that the communities, WDCs and PGs can be better informed and plan accordingly. Among several expected intermediate outcomes include the percentage of WDCs meeting the minimum representation requirements for women and youth as well as in WDC planning meetings.

**Subcomponent 2b: Building Resilient Communities** will be implemented by MECDM in coordination with MPGIS and the PGs.<sup>6</sup> It will support the implementation of key provisions in the CCP by mainstreaming climate and disaster risk into awareness and planning at the subnational level and enhance the capacity of the PGs and Wards to prepare and respond to disasters and manage the

<sup>&</sup>lt;sup>5</sup> The PCDF Coordinator is expected to work closely with PPCs, WSOs and WDCs to coordinate all the training activities.

<sup>&</sup>lt;sup>6</sup> Scaled up by the LDCF.

negative impacts of climate change. The subcomponent will finance: (i) the appointment of a Climate Change Resilience Expert who will be responsible for: (a) consolidating risk and vulnerability data and ongoing vulnerability risk assessments used to inform Ward development planning and the preparation of resilient construction designs financed by the PCDF; and (b) compiling and delivering training<sup>7</sup> to: raise awareness of climate and disaster risks at the National and Provincial levels; enhance capacities of Wards and stakeholder groups (including private sector) to adapt and mainstream climate resilience in their various activities; and inform the planning and selection of investments so that they are climate and risk informed; (ii) the appointment of Climate Change Adaptation and Risk Reduction (CCARR) Officers to travel and train PG (and sector) officers, PPCs and WSOs to improve their understanding and capacities to better manage climate and disaster risks and prepare for natural disasters; (iii) the development of Ward level risk profiles for planning activities; and (iii) the development of climate 'smart' and resilient standards for the selection, siting, design and construction of infrastructure investments to increase their sustainability and resilience against extreme weather conditions and natural hazards. These investments upon completion will be certified by the Provincial Engineers. Subject to available financing, a technical audit assessing the quality of infrastructure and maintenance arrangements will be conducted. Among several expected intermediate outcomes include improved awareness of Project supported investments by citizens and training of local government officials on climate change adaptation and disaster resilience measures.

#### 2.3.3 Component 3: Project Management

Component 3 (Project Management) will be jointly implemented by MPGIS and MECDM. It will finance project management support to monitor and report on the Project, including the establishment of a joint Project Management Unit (PMU), with a Project Manager reporting to the Permanent Secretaries MPGIS and MECDM, located at MPGIS' headquarters in Honiara. The PMU will support the Implementing Agencies to implement and monitor the Project, including financial management, procurement, work planning, consolidated reporting, Monitoring and Evaluation (M&E), and oversee the Grievance Redress Mechanism (GRM). Staffing for each of these core functions will be appointed. It will also finance the preparation of a POM9, satisfactory to IDA, for the implementation of the IDA and trust fund resources and this will form a disbursement condition for the release of subgrant funds under Category 1. This component also includes the activities under a Preparation Advance. In addition, the PMU will support project media and communications activities, oversee the Project's compliance with IDA's ESF standards, the commission of beneficiary and stakeholder surveys, and build, operate, and maintain a Project Management Information System. The Implementing Agencies will prepare joint and consolidated annual work plans and budgets in addition to quarterly progress and Interim Unaudited Financial Reports. The PMU will comprise of a Project Manager, Senior Finance Officer, Accounting Clerk, Procurement Officer, E&S Specialist, M&E/MIS Specialist and Media & Communications Officer.

#### 2.4 Anticipated Subproject Types

The subprojects relate to Component 1 of the Project, as this is the component that will fund physical works (i.e., infrastructure construction). For the purposes of preparing this ESMF, the most common

<sup>&</sup>lt;sup>7</sup> Training materials will be tailored towards climate adaptation needs of all the sectors, e.g., information on livestock management practices to protect animals against heat, irrigation, and crop planting techniques etc.

<sup>&</sup>lt;sup>8</sup> Procurement handled by the PMU will be limited to goods and services required for MPGIS's and MEDCM's direct inputs into the projects, including personnel and other resources under Component 2. Goods and works procurement under Component 1 will be managed directly by the provinces funded by the subgrants that pass through the PCDF in the normal way.

<sup>&</sup>lt;sup>9</sup> The POM is expected to be completed two months after effectiveness as it will be financed under a Project Preparation Advance.

priority PCDF infrastructure projects identified for 2022/23 to 27 were used as a guide for the likely types of subprojects the Project will fund (Table 1). Other types of subprojects may include jetties, foot bridges, tourism infrastructure, community halls and storage tanks for water. To date, the average value of a subproject has been around US\$25,000.

Table 1 - Common Subproject Types

Subproject types	Subproject category
Staff house	Buildings
Feeder roads (e.g., resurfacing and drainage	Roads
improvements for existing small roads)	
Piped water supply system	Water supply
Market	Buildings
Storage shed	Buildings
Classrooms	Buildings
Rural Health Unit/Clinic (excludes fit out)	Buildings
Borehole	Water supply

#### 2.5 Project Area and Beneficiaries

The Project will include all 156 Wards, which constitutes the geographic scope of potential beneficiaries, equating to approximately 246,000 people or one third of the total population. For the first subproject in each Ward, it is assumed that on average, 40 percent of the population benefit. For any second subproject in a Ward, (subject to financing), the additional beneficiaries would be 40 percent of the 60 percent that did not benefit from the first subprojects. Therefore, a further 24 percent of the Ward is estimated to benefit from a second subproject. The Project will also benefit the capabilities of national and PGs and local government authorities such as the WDCs, with the objective of expanding on and improving their infrastructure and service delivery capacity, which increases confidence to consolidate development expenditure through local government systems.

## 3 Policy, Legal and Regulatory Framework

#### 3.1 Country Context

#### 3.1.1 Environmental Assessment, Review and Permitting

The SIG has a well-established regulatory framework that provides measures to protect and preserve the environment. The *Environment Act 1998* and Environment Regulations 2008 make provision for the conservation and protection of the environment. This Act and the respective regulations are administered by the Environment and Conservation Division (ECD) of the MECDM and an overview of these is provided in the sections below.

#### 3.1.1.1 Environment Act 1998

The Environment Act 1998 (the Act) provides for the protection and conservation of the environment. The core objectives of the Act are to provide for and establish integrated systems of development control, Environmental Impact Assessment (EIA), and pollution control, including:

- Prevention, control and monitor pollution;
- Reducing risks to human health and prevent degradation of the environment by all practical means, including the following;

- Regulating the discharge of pollution to the air, water and land;
- Regulating the transport, collection, treatment, storage and disposal of wastes;
- Promoting recycling, re-use and recovery of materials in an economically viable manner; and
- To comply with and give effect to regional and international conventions and obligations relating to the environment.

The Act is divided into four sections. Part I provide the Act with considerable power and states that in the event of conflict between the Act and other legislation, the Environment Act shall prevail. Part II establishes and defines the powers and role of the ECD. Part III establishes the requirements for environmental assessment, review and monitoring. This provides for an environmental assessment to consist of either a public environment report or if the development is shown to be of such a nature as to cause more serious impacts then the developer is required to prepare and submit an environmental impact statement EIS. Part IV details requirements for pollution control and emissions (noise, odour and electromagnetic radiation) and requirements to permits for the discharge of waste. Noise (restrictions on emitting unreasonable noise) is covered in Article 51(1).

Part III Article 17 requires any developer who proposes to carry out any prescribed development to make an application to the Director of ECD. Article 19 specifies that a developer shall not commence or continue to carry out any prescribed development unless the developer has been issued with a development consent (defined in the Act as a consent to carry out any development under Part III). Activities that require assessment are described as 'prescribed developments' and are included in the Second Schedule of the Act. There are two levels of environmental assessment; public environment report (PER), as described in Article 20, or if the development is shown to be such a nature as to cause more serious impacts then the proponent is required to prepare and submit an Environmental Impact Statement (EIS), as described in Article 23.

#### 3.1.1.2 Environment Regulations (2008)

The Environment Regulations 2008 (the Regulations) establish the procedures for undertaking the environmental assessment of any projects categorized as a prescribed development.

The developer is required to first submit a "development application" which is reviewed by the ECD to determine the likely significance of impact and required level of environmental assessment. The decision resulting from the review may include that:

- No further assessment is required, as such the development application is accepted, and development consent is issued;
- A Public Environmental Report (PER) is required; or
- Where major projects are considered such as logging, large agricultural developments, mining and large-scale tourism developments and infrastructure projects, an EIS is required which includes technical, economic, environmental and social investigations.

The Regulations establishes the procedures for undertaking the environmental assessment of 'prescribed developments' and the process of issuing development consent. The Regulations detail the process prescribed in the Act and set out the contents of PER and EIS.

Both the PER and EIS require public consultation. Following review and approval by the ECD, the development consent is issued either with or without conditions.

The regulation also details requirements for pollution control and emissions (noise, odour and electromagnetic radiation) and the requirements for a license to discharge waste, emit noise, odour or electromagnetic radiation from a prescribed premise as described in Article 39. The application for a license shall include any information, plans, specifications and other documents as may be required.

#### 3.1.1.3 Environmental Impact Assessment Guidelines (2010)

The ECD developed the Environmental Impact Assessment Guidelines (2010) to provide basic advice and guidance to government officers, planners, developers, resource owners and those involved in processing development proposals, on the EIA process. The guidelines aim to clearly explain the procedures of EIA outlined in the Act and the Regulations. The guidelines describe the procedures needed to be undertaken (Figure 1), forms, and fees required before obtaining the development consent approval.

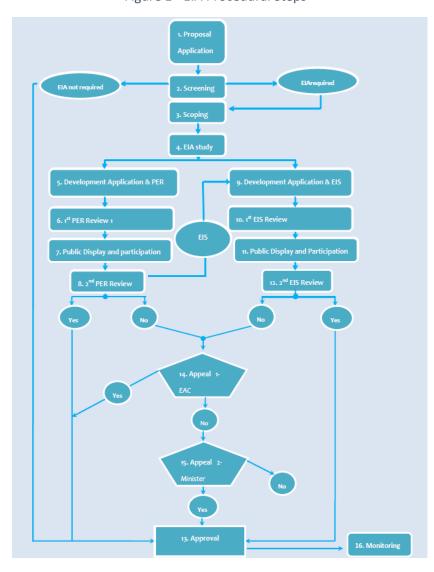


Figure 1 - EIA Procedural Steps<sup>10</sup>

Page 14 of 82

<sup>&</sup>lt;sup>10</sup> ECD, 2010. EIA Guidelines 2010

#### 3.1.1.4 Relevance to Project Activities

It is unlikely that subprojects financed by the project will meet the definition of a 'prescribed development' as per the Environmental Regulation Schedule 1<sup>11</sup> and require an approval through ECD. However, the IAs will consult with the ECD to confirm this on a case-by-case basis as required (i.e., when subprojects that may meet the definition of a prescribed premises are proposed) and the ECD environmental approval process will be followed if required. This step is further described in Section 6.2.

#### 3.1.1.5 Capacity of ECD

The ECD have overall accountability for environmental management in Solomon Islands. The ECD have some existing World Bank safeguard experience and capacity gained from working on previous World Bank funded projects. However, ECD advise in their EIA Guidelines 2010 that the environment approval process can take several months (2-3 months at the minimum). Therefore, it is advisable that a proposal application to the ECD be lodged as early as possible to avoid delays. ECD also advise that prior to submission of the proposal application by the developer, it is advisable that the Developer should first seek written advice from the ECD<sup>12</sup>. This process has potential to delay specific subprojects that require approvals through ECD and would need to be considered when determining the feasibility of subprojects as described in Section 6.2.

#### 3.1.2 Other Potentially Relevant Legislation

Other legislation that is potentially applicable to the Project is summarized in Table 2.

Table 2 - Other Potentially Applicable Legislation

Legislation	Description
Wildlife Protection and Management Act 1998	This Act provides for the protection, conservation, and management of wildlife through regulation of the export and import of certain animals and plants. This Act enables Solomon Islands to comply with the obligations under the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES). It also provides the opportunity for the development of species management plans which can include the protection of a species habitat.
Wildlife Protection and Management Regulation 2008	This regulation implements the provisions of <i>Wildlife Protection and Management Act 1998</i> . It provides details on the process for approval and registration of a management programme; the approvals process to take or hold listed species or specimens; and other aspects of the Act.
Provincial Government Act 1997	This Act gives power to the provinces to make their own legislation and pass ordinances including for protection and conservation of environment, culture, wildlife and coastal and lagoon shipping.
Protected Areas Act 2010	This Act is for the declaration and management of protected areas or areas where special measures need to be taken to conserve biological diversity and the regulation of biological diversity and prospecting research and for related matters.
Protected Areas Regulation 2012	This regulation implements the provisions of <i>Protected Areas Act 2010</i> and concerns the management principles of protected areas. It classifies the types of

<sup>&</sup>lt;sup>11</sup> Prescribed premises (i.e., developments that would be considered a prescribed development) listed in Schedule 1 of the Environment Regulations are: Nightclubs; Processing and manufacturing of food, including canneries; Chemical industries; Major waste disposal plants and premises; Waste management and disposal system; Leather, paper, textile and wood industries; Iron, steel and other metal industries; Installations for manufacture of cement; Extractions of minerals and mining; Petroleum product storage and processing works; Intensive fish and aqua-farming; Industrial installations for production of electricity; Brewing and malting; Harbours and port installations; and Shipyards.

Page 15 of 82

<sup>&</sup>lt;sup>12</sup> ECD, 2010. EIA Guidelines 2010

s, namely, nature reserves, national parks, natural monuments, gement areas and closed areas. The regulation also details how s are managed under <i>Kustomary</i> tenure.  To prevent the entry of animal and plant pests and diseases into
s are managed under <i>Kustomary</i> tenure.  p prevent the entry of animal and plant pests and diseases into
prevent the entry of animal and plant pests and diseases into
s; to control their establishment and spread in Solomon Islands; to
ovement of animal and plant pests and diseases and of animals and
r products; to facilitate international co-operation in respect of
nt diseases and related matters.
implements the provisions of <i>Biosecurity Act 2013</i> and details
mporting goods and clearances for vessels.
es for the management and control of community health and
ions for preventing the occurrence or for checking the spread of any
ases, provision and protection of water supplies and management
sanitation practices. The Act empowers the relevant authority on
n, operation, and management of sewerage systems, including the
al works. It also provides penalties for the willful pollution of a water
to the tenure of land, the acquisition of land and the registration of
d. The main categories of land are recognized under the Act are:
mary Land
Term Leases
tual Estates
ovide for the control of river waters and for the equitable and
es recognition to the existence of any customary law and the nature
ary law in relation to a matter. The Act specifies that custom may be
elation to:
vnership by custom of rights in, over or in connection with
nary land of: anything in or on customary land; or the produce of
nary land, including rights of hunting or gathering
vnership by custom of rights in, over or in connection with the sea or
or in or on the bed of the sea or of a river or lake, including rights of
vnership by custom of water, or of rights in, or over water
volution of customary land or of rights in, over or in connection with
nary land
ss by animals.
es rules relating to employment. The Act defines workers' rights with
indancy payments and long service benefits. It also provides
r the details of employment contracts and requirements relating to
ity insurance.
es rules relating to working conditions. The Act defines the allowable
and minimum wages. It outlines workers' rights and employers'
ot complying with the requirements. It also includes a prohibition for
g at night and for child labor.
the duties of employers to employees, the duties of employees and
nnel in other employment or contacting arrangements with respect
afety. It also outlines the consequences for breach of duty.
THE STATE OF THE S

#### 3.1.4 Potentially Relevant International and Regional Agreements

Solomon Islands is a signatory to the following regional and international agreements:

London Convention and Protocol. The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972, commonly called the "London Convention", is an agreement to control pollution of the sea by dumping. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. In 1996, the "London Protocol" was agreed to further modernize the Convention and, eventually, replace it. Under the Protocol all dumping is prohibited, except for possibly acceptable wastes on the so-called "reverse list". The Protocol entered into force on 24 March 2006 and there are currently 53 Parties to the Protocol, including the Solomon Islands.

Natural Resources & Environment of South Pacific Region (1986) (SPREP or Noumea Convention). This Convention is the major multilateral umbrella agreement in the Pacific Region for the protection of natural resources and the environment. This Convention was ratified by the Solomon Islands in 1989.

Pacific Regional Solid Waste Management Strategy 2010-2015. Solomon Islands was one of several Pacific island countries to adopt the Pacific Regional Solid Waste Management Strategy, initiated by SPREP, and adopted by member countries in 2009. This regional strategy covers medical wastes from public institutions such as hospitals and health care clinics, and special and difficult wastes such as asbestos.

**Stockholm Convention for Persistent Organic Pollutants.** The Stockholm Convention on Persistent Organic Pollutants is an international environmental treaty, signed in 2001 and effective from May 2004, that aims to eliminate or restrict the production and use of persistent organic pollutants (POPs). This convention was ratified and entered into force in Solomon Islands in May 2004.

**Waigani Convention on Hazardous Waste.** The 1995 Waigani Convention is a treaty that bans the exporting of hazardous or radioactive waste to Pacific Islands Forum countries and prohibits Forum island countries from importing such waste. The convention has been ratified by Solomon Islands and entered into force in 2001.

#### 3.2 World Bank Environmental and Social Standards

The World Bank Environmental and Social Framework sets out the 'World Bank's commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards that are designed to support Borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity'. The framework was introduced in October 2018 and applies to all World Bank financed projects. The framework consists of three parts:

- 1. A Vision for Sustainable Development the Bank's aspirations regarding environmental and social sustainability.
- 2. The World Bank Environmental and Social Policy for Investment Project Financing requirements that apply to the Bank.
- 3. The ESS requirements that apply to the Borrower and projects. The ESS are comprised of ten standards covering various topics:
  - ESS1 Assessment and Management of Environmental and Social Risks and Impacts
  - ESS2 Labor and Working Conditions

- ESS3 Resource Efficiency and Pollution Prevention and Management
- ESS4 Community Health and Safety
- ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
- ESS8 Cultural Heritage
- ESS9 Financial Intermediaries
- ESS10 Stakeholder Engagement and Information Disclosure

#### 3.2.1 Environment and Social Risk Classification

As part of the Bank's requirements for project financing (as per the Environmental and Social Policy for Investment Project Financing) projects must be assessed and classified according to their level of environment and social risk. The classifications are: High Risk, Substantial Risk, Moderate Risk and Low Risk. This classification considers:

- Type, location, sensitivity, and scale of the project
- The nature and magnitude of the potential environmental and social risks and impacts
- The capacity and commitment of the Borrower to manage the environmental and social risks and impacts

The Environmental and Social Risk Classification for the IEDCR Project was undertaken by the Bank as part of the Environmental and Social Review Summary (ESRS) Concept Stage<sup>13</sup>. The risk ratings were assessed as:

- Environmental risk Moderate. Impacts are expected to be temporary (related mainly to construction), minor and easily managed through conventional environmental and social (E&S) risk management approaches.
- Social risk Moderate. The project will mainly finance sub-projects that will have minor impacts on land usage and access, require the temporary mobilization of limited amounts of contracted and community workers<sup>14</sup>, and the potential for social conflict over access to project benefits (albeit minimal due to a bottom-up, and community informed approach being adopted). The social impacts of this project are expected to benefit the overall population of Solomon Islands, particularly in the nine provinces where the project will be implemented. While the negative social impacts are expected to be limited, a moderate social risk rating is justified, due to the fragile country context, the complexity of matters related to land, and the history of social conflict. As the exact locations for subprojects are not confirmed social impacts will vary depending on the location of the subprojects.

<sup>&</sup>lt;sup>13</sup> Report No: ESRSC01215

<sup>&</sup>lt;sup>14</sup> Community workers are no longer being considered for use on the Project.

#### 3.2.2 Applicable Environmental and Social Standards

The ESS that apply to the Project and the required measures and actions that apply, as contained in the Environmental and Social Commitment Plan (ESCP), are listed in **Table 3**. The responsibility for these actions is the IAs.

**Table 3 - Required Project Environmental and Social Standard Actions** 

Action	Timing
MONITORING AND REPORTING	
Prepare and submit to the Association regular monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project, including but not limited to the implementation of the ESCP, status of preparation and implementation of E&S documents required under the ESCP, stakeholder engagement activities, functioning of the grievance mechanism(s).	Six-monthly throughout Project implementation.
Notify the Association of any incident or accident related to the Project, which has, or is likely to have, a significant adverse effect on the environment, the affected communities.  Provide sufficient detail regarding the incident or accident, indicating immediate measures taken or planned to be taken to address it, and any information provided by any contractor and supervising entity, as appropriate. Subsequently, as per the Association's request, prepare a report on the incident or accident and propose any measures to prevent its recurrence.	All incidents shall be reported to the Association as soon as practicable, with all Serious and Severe incidents being reported within 24 hours of their occurrence as outlined in Section 6.4 of the ESMF.  The incident investigation report shall be provided within a timeframe acceptable to the Association, as requested.
Require (via inclusion in ESHS specifications for bidding documents) the contractor to notify the IAs (via the contracting entity) of any incident or accident related to the Project, which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public, or workers.  Require (via inclusion in ESHS specifications for bidding documents) contractors to provide monthly monitoring reports to the contracting entity.	All incidents shall be reported to the Project Management Unit (PMU) Project Manager or his/her alternative as soon as practicable, with all Serious and Severe incidents being reported within 24 hours of their occurrence. The incident investigation report shall be provided within a timeframe acceptable to the Association, as requested.
ESS 1: ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS	
Establish and maintain a Project Management Unit ( <b>PMU</b> ) in accordance with the Financing Agreement. The PMU shall be led by the Project Manager reporting to the Permanent Secretaries MPGIS and MECDM and will be staffed with qualified staff and with the necessary resources to support the management of ESHS risks and impacts of the Project.	PMU local and international E&S Specialist to be recruited within one month after the effective date of the Financing Agreement for the Project (Effective Date) and maintained throughout Project implementation.
Recruit and retain a full-time local PMU E&S Specialist, with terms of reference acceptable to the Association, and who have the necessary skill to manage the E&S risks and impacts associated with the Project.	CCARROs to be recruited and/or nominated within three months after the effective date of the Financing Agreement for the Project (Effective Date) and maintained throughout Project implementation.
Recruit and retain a part-time international PMU E&S specialist with terms of reference acceptable to the Association, and	

who have the necessary skill to manage the E&S risks and impacts associated with the Project. Recruit and retain and/or nominate a minimum of five full-time local resources, nominally called Climate Change and Risk Reduction Officers (CCARROs), to support the PMU E&S Specialist manage E&S risks at a provincial level, with at least one resource (noting only five resources to be funded by the project) in each province. Update, adopt, and implement, the following set of E&S ESMF, LMP, and SEP will be finalized and instruments that have been prepared and disclosed for the disclosed within 30 days of the effective Project, in a manner acceptable to the Association: date of the Financing Agreement for the **Environmental and Social Management Framework** Project (Effective Date). (ESMF) E&S screening reports/assessments to be Labor Management Procedure (LMP) approved by the CCARROs before carrying Stakeholder Engagement Plan (SEP) out the relevant subproject activities, and the subproject ESMPs and/or other Screen any proposed subproject in accordance with the ESMF subproject specific ESF instruments prepared for the Project. Support the development of and implemented throughout the carrying out of approve any subproject Environmental and Social subproject activities. Management Plans (ESMPs) (which is to be prepared in alignment with Good International Industry Practice including the WBG EHS guidelines) and/or any other E&S instruments required for the respective subproject activities based on the E&S screening or assessment process, following the ESMP and other relevant in a manner acceptable to the Association. Incorporate the relevant aspects of the ESCP, including the Prior to the preparation of procurement relevant E&S documents and/or plans, such as the ESMF, SEP documents. and LMP, into the ESHS specifications of the procurement Supervise contractors throughout Project documents with contractors. Thereafter ensure that the implementation. contractors comply with the ESHS specifications of their respective contracts. **ESS 2: LABOR AND WORKING CONDITIONS** Adopt and implement the LMP that has been developed for LMP will be finalized and disclosed within 30 the Project and which includes: days of the effective date of the Financing OHS Agreement for the Project (**Effective Date**). Fair Treatment and Non-Discrimination LMP shall be implemented on its terms Prevention of Forced Labour and Restrictions on Child throughout Project implementation. Guidelines of Code of Practice for Contractor's Workers Workers' Grievance Mechanism Establish, maintain, and operate a grievance mechanism for Grievance mechanism operational prior to Project workers, as described in the LMP (section 7.9) and engaging Project workers and maintained consistent with ESS2. throughout Project implementation. Establish proportionate rules, to be included in the ESHS specifications of the bidding or contractual document to ensure

that all contracted workers are briefed or taught by the

contractor about (a) their rights to express grievances; (b) where	
to address a grievance in the first instance; (c) what action they	
can expect as of right when a grievance is expressed; and (d)	
that they are adequately protected against sanctions or	
recriminations.	
Prepare, adopt, and implement OHS measures specified in the	Before the carrying out the relevant Project
LMP and ESMF, and in compliance with the World Bank Group	activities, and thereafter throughout the
Environmental, Health and Safety Guidelines (EHSGs), GIIP and	carrying out of such activities.
national legislation for all Project activities.	
Update, adopt, and implement the OHS measures for the direct	Before the carrying out the relevant Project
workers as outlined in the LMP. Risks (such as road safety,	activities, and thereafter throughout the
security, avoidance of infection) associated with travel to and	carrying out of such activities.
work at remote sites shall be a vital focus of the OHS measures.	
Update, adopt, and implement OHS measures for contracted	ESHS specifications to be included in all
workers in the LMP through the ESHS Specifications to be	contract documents for works and services
included in the contract documentation.	entered into during the Project
	implementation period.
ESS 3: RESOURCE EFFICIENCY AND POLLUTION PREVENTION AND	·
Implement pollution prevention and management measures	Throughout Project implementation.
specified in the ESMF and agreed contractor ESMP.	J
Include measures to manage wastes and other types of	Throughout Project implementation.
hazardous and non-hazardous wastes including compliance	······cug···cuc····ojccc·····p·c····c···cuc··c···
with GIIP and local legislation as described in the ESMF,	
including the preparation and implementation of contractor	
Waste Management Plans defined in Annex V of the ESMF as	
required.	
ESS 4: COMMUNITY HEALTH AND SAFETY	
Adopt and implement measures and actions to assess and	Throughout Project implementation.
manage traffic and road safety risks as required in the ESMF,	····· ougoutojeetp.eee
including implementation of the Code of Environmental and	
Social Practice (CoESP) and any subproject specific ESF	
instruments to be developed under action 1.2 above.	
Prepare, adopt, and implement measures and actions to assess	Throughout Project implementation.
and manage specific risks and impacts to the community	
arising from the Project activities and include these measures	
into the ESMP, subproject specific ESMPs and ESCoP in a	
manner acceptable to the Association.	
The IAs shall require contractors and workers to abide by a	
Code of Conduct to reduce the incidence of sexual exploitation	
and abuse (SEA) and gender-based violence (GBV), including	
among others safe, accessible, separate facilities for women,	
well-lit areas, signage, training, and monitoring and evaluation	
of SEA and GBV prevalence. The contractor code of practice,	
GBV training and establishment of a GRM will also consider	
SFA and GBV risks.	
SEA and GBV risks.  FSS 5: LAND ACQUISITION RESTRICTIONS ON LAND USE AND INV	/OLUNTARY RESETTLEMENT
ESS 5: LAND ACQUISITION, RESTRICTIONS ON LAND USE AND INV	/OLUNTARY RESETTLEMENT
ESS 5: LAND ACQUISITION, RESTRICTIONS ON LAND USE AND INV. Screen any proposed subproject in accordance with the ESMF	
ESS 5: LAND ACQUISITION, RESTRICTIONS ON LAND USE AND INV Screen any proposed subproject in accordance with the ESMF prepared for the Project, which includes assessment against an	E&S screening reports/assessments to be
ESS 5: LAND ACQUISITION, RESTRICTIONS ON LAND USE AND INV Screen any proposed subproject in accordance with the ESMF prepared for the Project, which includes assessment against an Ineligible Activity List which deems subprojects that require	E&S screening reports/assessments to be approved by the CCARROs before carrying
ESS 5: LAND ACQUISITION, RESTRICTIONS ON LAND USE AND INV Screen any proposed subproject in accordance with the ESMF prepared for the Project, which includes assessment against an	E&S screening reports/assessments to be

	subproject specific ESF instruments
Permanent or temporary loss of livelihood is not expected for	implemented throughout the carrying out of
this Project as confirmed within the ESIA/ESMP. If this impact	subproject activities.
does arise, once the Project commences, a Livelihood	50.45 / 1:1: 1 / 1:
Restoration Plan will be required in accordance with the	ESMF (which includes a section on
requirements of ESS5.	resettlement) will be finalized and disclosed
ESC C. BIODUVEDCITY CONCERVATION AND CUSTAMABLE MANAGE	prior to project Implementation.
ESS 6: BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGE	
Adopt and implement the ESCoP or other instruments required	Throughout Project implementation.
by the ESMF (e.g., subproject specific ESMP) for the respective	
Project activities based on the environmental and social	
screening or assessment process, to minimise biodiversity	
impacts associated with land clearing and other construction activities.	
ESS 7: INDIGENOUS PEOPLES/SUB-SAHARAN AFRICAN HISTORICA COMMUNITIES	ALLY UNDERSERVED TRADITIONAL LOCAL
	Throughout Project implementation.
Prepare, adopt, and implement the arrangements for the Project GM prepared under ESS10. The majority of the national	Throughout Project implementation.
population is indigenous and therefore a separate grievance	
mechanism for indigenous is not required.	
ESS 8: CULTURAL HERITAGE	
Prepare, adopt, and implement the chance finds procedure	Throughout Project implementation.
described in the Annex III of the ESMF developed for the	Throughout Project implementation.
Project.	
ESS 10: STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLO	I OSURF
Update, disclose, adopt, and implement SEP.	SEP will be finalized and disclosed within 30
, , , , , , , , , , , , , , , , , , ,	days of the effective date of the Financing
	Agreement for the Project ( <b>Effective Date</b> ).
Establish, maintain, operate, publicize, monitor, document and	Finalize the Project GM within 60 days of
update as required the Project GM as described in the SEP.	the effective date of the Financing
	Agreement for the Project (Effective Date).
	Establish and publicize prior to the
	commencement of Project activities, and
	operate, maintain, monitor, document and
	update as required throughout Project
	Implementation.
CAPACITY SUPPORT (TRAINING)	T
PMU will prepare, update, and implement a capacity building	Throughout Project implementation.
plan for E&S risk management with the following outcomes:	
<ul> <li>All project staff familiar with all E&amp;S instruments</li> </ul>	
<ul> <li>Grievance mechanism established and operating</li> </ul>	
effectively	
<ul> <li>E&amp;S, risk management measures, integrated into</li> </ul>	
Project activity designs	
<ul> <li>E&amp;S risk management measures integrated into</li> </ul>	
bidding and contracting documents	
Contractors and suppliers understand and can implement their	
E&S obligations	
Provide targeted training to contractors, suppliers, and project	Throughout Project implementation.
beneficiaries before subproject activities commence and	
throughout Project implementation as needed, including but	
not limited to management of E&S risks, labour management	

and OH&S, traffic safety, community health and safety and	
grievance mechanisms.	

#### 3.2.3 World Bank Group Environmental, Health and Safety Guidelines

The Project will utilise the WB Group's Environmental, Health, and Safety (EHS) Guidelines<sup>15</sup>. The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice. It contains the performance levels and measures that are normally acceptable to the WB Group and are generally considered to be achievable in new facilities at reasonable costs by existing technology. The EHS Guidelines are comprised of General Guidelines which are organised by themes (environmental; occupational health and safety; community health and safety; construction and decommissioning) and industry-specific guidelines that cover over 60 specific industries relating to agribusiness and food production; chemicals; forestry; general manufacturing; infrastructure; mining; oil and gas; and power.

The following EHS guidelines<sup>16</sup> are relevant to the project and have been used to guide the development of the Code of Environmental and Social Practice (CoESP) and LMP:

- General EHS Guidelines: Environmental
- General EHS Guidelines: Occupational Health and Safety
- General EHS Guidelines: Community Health and Safety
- General EHS Guidelines: Construction and Decommissioning

#### 3.3 Gap Analysis

A gap analysis between the Solomon Islands legal framework and the WB requirements (ESF and ESSs) with respect to environmental and social assessment is provided in Table 4. A gap analysis identified several differences between frameworks and gap filling measures have been identified where necessary. Where national legal framework differs from the WB requirements, the project is expected to align to whichever is more stringent.

<sup>&</sup>lt;sup>15</sup>https://www.ifc.org/wps/wcm/connect/topics\_ext\_content/ifc\_external\_corporate\_site/sustainability-at-ifc/policies-standards/ehs-guidelines

 $<sup>^{16}</sup>$  https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=nPtguVM

Table 4 - Gap Analysis and Filling Measures<sup>17</sup>

Assessment stage	WB ESF and ESSs	National Legislation	Gap Filling Measures
Objectives	The WB Environment and Social Framework (ESF) describes the 10 Environmental and Social Standards (ESSs) which were designed to avoid, minimize, reduce or mitigate the adverse E&S risks and impacts of projects.	<ul> <li>Environment Act 1998</li> <li>The aim of EIA can be divided into two categories. The immediate aim of EIA is to inform the process of decision-making by identifying the potentially significant environmental effects and risks of development proposals. The long-term aim of EIA is to promote sustainable development by ensuring that development proposals do not undermine critical resource and ecological functions or the wellbeing, lifestyle and livelihood of the communities and peoples who depend on them.</li> <li>General duty to consider environmental impact.</li> <li>In considering the grant of or further expansion in any existing development, the Director, the Division and the relevant public authority shall have regard as far as practicable to the effect such development or expansion would have on the environment.</li> <li>Applications for approval</li> <li>In determining as to whether the developer is required to submit a report referred to in paragraph (a) or (b) of subsection (2), the Director shall take into consideration the significant impact the development is likely to have on the environment and other factors that may be prescribed by regulations made by the Minister under section 55.</li> <li>Publication of public environmental report and procedure in respect of objections and appeal.</li> </ul>	Principles of the WB ESF policy and the project's ESMF, SEP, LMP and ESCP will be applied.
Screening	<ul> <li>The WB will classify all projects into one of four classifications: high risk, substantial risk, moderate risk or low risk.</li> <li>In determining the appropriate risk classification, the WB will take into account relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential E&amp;S risks and impacts; and the capacity and commitment of the Borrower (including any other entity responsible for the implementation of the</li> </ul>	<ul> <li>Environment Act 1998</li> <li>Screening is the first step in the EIA process in which the Consent Authority (CA) or ECD decides on whether or not EIA is required for a development proposal.</li> <li>Screening of all 'the proposed development type' must lead to a "yes" decision that EIA is required.         <ul> <li>Environment Impact Assessment is required where the proposed development is likely to have significant adverse environmental impacts.</li> </ul> </li> </ul>	Screening for eligibility and potential impacts according to the ESMF  Since the Project is classified as "moderate", use the national laws and specific WB's ESS as agreed with WB will be applied.

<sup>&</sup>lt;sup>17</sup> Adopted from the ESMF of the Solomon Islands Agriculture and Rural Transformation Project (P173043)

	project) to manage the E&S risks and impacts in a manner consistent with the ESSs.  Other areas of risk may also be relevant to the delivery of E&S mitigation measures and outcomes, depending on the specific project and the context in which it is being developed. These could include legal and institutional considerations; the nature of the mitigation and technology being proposed; governance structures and legislation; and considerations relating to stability, conflict or	<ul> <li>Environmental Impact Assessment is not required     where the proposed development is unlikely to cause     significant environmental impacts.</li> <li>Applications for approval</li> </ul>	
	security. The WB will disclose the project's classification and the basis for that classification on the WB's website and in project documents.		
ESA instrument	<ul> <li>Depending on the project risks and impact, a range of instruments and procedures required to meet the ESSs' objectives, these include ESIA; ESMF; ESMPs, sectoral &amp; regional ESIA; a hazard or risk assessment; environmental and social audit; cumulative impacts assessment (CIA); and social and conflict analysis. The WB provides general guidance for the implementation of each instrument.</li> <li>Based on the information provided by the Borrower, the WB will conduct E&amp;S due diligence for all projects requesting for WB support.</li> <li>The Borrower will be required to prepare, submit, and disclose the Environmental and Social Commitment Plan (ESCP) and the Stakeholder Engagement Plan (SEP) to WB before the appraisal.</li> </ul>	The EIA study subsequently follows the scoping where a study is conducted to assess the significant environmental issues and develop adequate mitigation measures and alternatives. The developer is responsible for carrying out the EIA study following the national requirements. The outcome of the study is the production of an environmental report (EIS or PER). The developer should engage qualified and experience	Apply the project's ESMF, ESCP, SEP, and LMP for the subproject to meet the WB and national requirements.
Scope and clearance	<ul> <li>The WB will require the Borrower to carry out appropriate ESA of subprojects, and prepare and implement such subprojects, as follows: (a) high-risk subprojects, following the ESSs; and (b) substantial risk, moderate risk and low-risk subprojects, in accordance with national law and any requirement of the ESSs that the Bank deems relevant to such subprojects.</li> <li>If the WB is not satisfied that adequate capacity exists on the part of the Borrower, all high risk and, as appropriate, substantial risk subprojects will be subject to prior review and approval by the WB until it is established that adequate capacity exists.</li> </ul>	<ul> <li>Environment Act 1998</li> <li>Scoping applies to the development proposal, which is identified in the previous stage to undergo EIA. It is principally to identify the main issues to be addressed by an EIA, the information to be collected, the baseline studies that should be carried out and the methodology that should be used to evaluate their significance. It is the stage whereby the Consent Authority identifies and highlights the major impacts of the proposed development.</li> <li>When the EIA study is completed, the developer must submit the development application (Form 2 of the Environment Regulations) together with an EIA report as determined in the scoping stage. There are two forms of</li> </ul>	Apply the ESMF, ESCP, SEP, and LMP for the subproject to meet the WB and national requirements.

If the risk rating of a subproject increases to a
higher risk rating, the WB will require the Borrower
to apply relevant requirements of the ESSs in a
manner agreed with the WB. The measures and
actions agreed will be included in the ESCP and will
be monitored by the WB.
The WB helps Borrower draft the TOR for ESA and
identify the scope of ESA, procedures, schedule and
outline of the ESA report.
For a high-risk project, the ESS1-10 applied.
• For substantial, moderate, and low risk, the national
system can be applied with some specific ESSs as
deem necessary by WB.

WB prior clearance is required if the implementing

agency do not have adequate capacity to ensure

measures.

effective implementation of the required mitigation

- EIA reports that are required in the EIA procedure: Public Environment Report (PER) and Environmental Impact Statement. The developer is required to send only one type of EIA report with the development application. The development application and processing fees will be paid at this stage, and receipts attached to the development application and submitted to the consent authority.
- 17. (1) Any developer who proposes to carry out any Applications for prescribed development in the Solomon Islands shall make an application to the Director in such form as may be approved by the Minister.
- (2) On receipt of the application referred to in subsection (1), the Director shall within fifteen working days of such receipt advise the developer to submit (a) a development application accompanied by a public environmental report, together with any additional requirements as notified by the Director; or (b) a development application accompanied by an environmental impact statement, together with any additional requirements as notified by the Director, etc.
- (4) Where the Director decides to dispense with the requirements of subsection (2), he shall advise the developer accordingly within the time stipulated in that subsection.

Public consultation, stakeholder engagement, and grievance redress mechanism (GRM)

- During the ESA process, the Borrower consults project-affected groups and local NGOs about the project's environmental aspects and takes their views into account.
- In line with ESS10, preparation of a Stakeholder Engagement Plan (SEP), information disclosure, and establishment and operations of a GRM are required to ensure adequate consultation and transparency.
- ESS2 also require the preparation of the labor management procedures (LMP) and an establishment and operation of a GRM for project workers.
- For meaningful consultations, the Borrower provides relevant project documents promptly before the consultation in a form and language that

- Environment Act 1998
- Publication of public environmental report and procedure in respect of objections and appeal.
- The Director on being satisfied that a public environmental report meets the requirements of this Act shall cause the public environmental report to be published in such manner as he considers adequate or most effective for bringing it to the attention of all public authorities and other persons, whose interests are likely to be affected by the proposed development.
- Publication of environmental impact statement and procedure in respect of objections and appeal.
- The Director on being satisfied that an environmental impact statement meets the requirements of this Act shall cause such statement to be published in such manner as he considers adequate or most effective for bringing it to the attention of all public authorities, and other persons whose

Apply the project's ESMF, ESCP, SEP, and LMP for the subproject to meet the WB and national requirements.

	<ul> <li>are understandable and accessible to the group being consulted.</li> <li>Minutes of the public meetings are included in the reports.</li> </ul>	interests are likely to be affected by the proposed development The Constitution provides for protection against discrimination. Environment Regulations 2008 require ensuring public participation	
Disclosure	The WB will disclose documentation relating to the E&S risks and impacts of high risks and substantial risks projects before project appraisal. Once the WB officially receives the report, it will make the EA report in English available to the public through the Infoshop.	<ul> <li>Environment Act 1998</li> <li>Act 24(1)(2),30 and Reg 11 &amp; 12: The ECD will publish the EIS document such that it is made available to the public and convene a meeting that ensures public participation.</li> <li>The notice of the meeting shall be published in the newspaper and posted in public places in the communities, which will be likely affected. The developer will bear any cost associated with the publication of the Notice or EIS.</li> <li>Environment Regulations 2008</li> <li>Where the Director has received the development application and the relevant PER or EIS and other information or documents required by the Director from the applicant, the Director shall within 30 days of receipt of the same, bring or cause to be brought to the notice of the public</li> <li>Before the meeting, the Director shall make available to the public and in particular, in the communities, if the proposed prescribed development is to be undertaken in a rural area, copies of the [PER] or the [EIS] as the case may be.</li> </ul>	Follow the WB requirements.
ESA supervision	During project implementation, the WB supervises the project's environmental aspects based on the environmental provisions, and the Borrower's reporting arrangement agreed in the loan agreement and described in the other project documentation, to determine whether the Borrower's compliance with the environmental covenant (primarily with ESMP) is satisfactory. If compliance is not satisfactory, the WB will discuss with the Borrower action necessary to comply.	Monitoring will be carried out by the Consent Authority (ECD) according to its monitoring programme and will concentrate on the developer's Environmental and Social Management Plan (ESMP). This monitoring should focus on the environmental impacts, the effectiveness of the mitigation measures, standards adopted by the developer for the protection of the environment. The developer may also execute its internal monitoring based on its monitoring plan.	Apply the project's ESMF, ESCP, SEP, and LMP for the subproject to meet the WB and national requirements.

#### 4 Environmental and Social Baseline

#### 4.1 Population

Solomon Islands is a small remote archipelago of 997 islands in the South Pacific with a dispersed population of less than one million. The Solomon Islands is comprised of nine provinces with the national capital Honiara (population of 130,176) governed separately. The provinces and their respective populations are provided in Table 5.

Table 5 - Provincial Populations

Province	Population <sup>18</sup>	
Malaita	173,347	
Guadalcanal	154,150	
Western	94,209	
Makira-Ulawa	52,006	
Choiseul	30,619	
Isabel	30,399	
Central	30,326	
Temotu	22,132	
Rennell-Bell	4,091	

#### 4.2 Economy

Following civil conflict, which ended in 2003 after a regional intervention, real Gross Domestic Product (GDP) growth averaged 7.3 percent between 2003 and 2009. Following a modest contraction during the Global Financial Crisis, GDP grew on average by 5 percent between 2010 and 2016. Since 2003, measures of health and education have improved. Poverty rates have declined by about eight percentage points between 2005/06 and 2012/13.19 However, this growth performance and restoration of economic and social stability since the civil conflict masks some key problems. The population has continued to expand relatively rapidly (at 2.5 percent each year) and per capita real GDP remains below its pre-conflict peak. Logging, which has been the main driver of growth, continues to decline overtime and approximately 13 percent of the population live below the national basic-needs poverty line, with the incidence of poverty higher in rural areas where more than 75 percent of the population resides.<sup>20</sup> There are also many more households and individuals who have expenditure only just above the basic needs poverty line and are vulnerable to rising prices and/or declining incomes/expenditure. With a per capita gross national income of roughly US\$2,020 per annum, 21 Solomon Islands is classified by the United Nations as a 'least developed country'. Its ranking is 151 out of 189 countries based on the 2020 United Nations Human Development Index, placing it in the 'low human development' category. This is similar to Papua New Guinea (at 155) but below the other Melanesian countries (Vanuatu at 141 and Fiji at 98). Most people engage in subsistence farming or informal sector economic activities, such as smallscale farming, market gardening, fishing, handicrafts, and petty trading.

<sup>&</sup>lt;sup>18</sup> Provisional Count 2019 Census, Solomon Islands National Statistics Office

<sup>&</sup>lt;sup>19</sup> World Bank Solomon Islands Systematic Country Diagnostic, Report No.:115425-SB, June 1, 2017.

<sup>&</sup>lt;sup>20</sup> UN-CDP (2018). Vulnerability Profile of Solomon Islands.

<sup>&</sup>lt;sup>21</sup> World Bank national accounts data, and OECD National Accounts data files, 2018.

#### 4.3 Infrastructure

Providing access to basic services is extraordinarily challenging given the small, dispersed nature of the population. The country is spread over 1.34 million square kilometers (sq. km) that lie east of PNG and north of Vanuatu. There are nine provinces spread across six major mountainous islands. The total land area is approximately 29,900 km² and distances between islands are significant. For example, the northwestern Choiseul group of islands is approximately 1,500 km from the south-eastern Santa Cruz Islands—a distance equivalent to that between London and Rome. The difference in access to services between urban and rural areas is particularly stark. There are only five kilometers of roads per 100 sq. km, the lowest ratio in the Pacific, and travel in most rural areas is only by motorboat. Nationally, less than 20 percent of the population has access to electricity. However, in Honiara, this figure is over 63 percent.

#### 4.4 Natural Hazards and Climate Change

Solomon Islands is in the 'Pacific Ring of Fire' and within the cyclone belt, making it highly prone to natural hazards. It is amongst the 20 countries with the highest economic risk exposure to two or more geological, hydrological and climatic hazards that include tropical cyclones, volcanic eruptions, earthquakes, tsunamis, landslides, floods and droughts. Over the past 30 years there have been seven major disasters triggered by natural hazards, resulting in loss of life and severe adverse economic impacts. Volcanic eruptions have caused the largest number of deaths because of associated pyroclastic flows that travel at high speed and cover a wide area. Modelling suggests that due to natural hazards and climate change, in the next 50 years Solomon Islands is likely to incur an average direct loss of US\$20.5 million per year (three percent of GDP) and has a 50 percent chance of experiencing an event causing a loss exceeding US\$240 million and casualties larger than 1,650 people, and a 10 percent chance of incurring a catastrophic event causing a loss exceeding US\$527 million and casualties larger than 4,600 people. Solomon Islands is also one of the most exposed and vulnerable countries affected by natural hazards, ranked sixth out of 171 countries based on the World Risk Index. Its capacity to cope and adapt to natural disasters such as earthquakes, floods, cyclones, droughts, and sea level rise, is weak.

#### 4.5 Gender Issues

Women and girls in Solomon Islands face multiple gender-based constraints to their wellbeing as well as access and participation in all aspects of civic, political and economic life. Yet in terms of health, Solomon Islands has one of highest fertility rates, youngest populations and highest rates of maternal mortality in the region, with women having limited access to equipment and medicines for safe deliveries, especially in rural areas.<sup>23</sup> The 2015 Solomon Islands Demographic and Health Survey reveals that 93 percent of women in rural areas (compared to 79 percent in urban areas) report problems with accessing health services, with lack of medications, providers and access to transport cited as the most common constraints. Educational attainment of the adult population (aged 15 and above) is relatively low, with only 20 percent of women and 29 percent of men having at least some secondary schooling.<sup>24</sup> Women are nearly twice as likely as men to have no schooling at all (21 percent vs. 12 percent), and in

<sup>&</sup>lt;sup>22</sup> Probabilistic risk analysis based on simulated potential losses to buildings, infrastructure and crops from earthquakes, tsunami and tropical cyclones, carried out as part of the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), September 2011, http://pacrisk.sopac.org.

<sup>&</sup>lt;sup>23</sup> Ministry of Health and Medical Services (2020). Descriptive Health Core Indicator Report Solomon Islands 2019 (16 July 2020).

<sup>&</sup>lt;sup>24</sup> Asian Development Bank (2015). *Solomon Islands Country Gender Assessment*.

rural areas only 14 percent of women have functional literacy, compared with 21 percent of men.<sup>25</sup> Furthermore, violence against women and girls is normalized and widespread.<sup>26</sup> The patriarchal nature of Solomon Islands society and gender norms further constrain women's abilities to participate in social, political and economic life. Current social norms and customary values establish a hierarchy in which women often play a subservient role and where men often make decision on behalf of women.<sup>27</sup>

A World Bank study in Solomon Islands identified that gendered differences in the following four key areas limited women's meaningful participation in rural development: (i) access to resources (especially land and credit); (ii) production decisions (lacking decision-making power or appropriate skills to inform production); access to and control over income and expenditures; (iii) group participation and leadership (limited participation in economic and social groups); and (iv) time allocation (limited due to heavy workloads, unpaid care work and health issues). <sup>28</sup> This has resulted in women's low political representation on a national and subnational level, with only 8 percent of Members of Parliament being women and only five out of 39 Provincial Assembly members are women (12.8 percent of seats) across all nine provinces. <sup>29</sup>

Women are also constrained by domestic responsibilities, poor numeracy and literacy skills, and lack of access to information and financial services.<sup>30</sup> Furthermore, rural women are only half as likely as rural men to engage in paid work (only 19 percent of rural women compared to 41 percent of men.<sup>31</sup> A main source of income for rural women is the sale of lower value crops such as peanuts and vegetables at roadside stalls or markets. However, their access to markets is often constrained by time, safety and mobility barriers.<sup>32</sup>

#### 4.6 Indigenous People and Culture

The majority of Solomon Islanders are 'indigenous people" with traditional tenure, knowledge and governance structure which are still prevalent in their livelihood. Almost 87 per cent of the land in the Solomon Islands remains under some form of customary tenure and group or individual right of access to land through customary processes. Customary law and practices are rights recognised in the laws and the Solomon Islands Constitution and remain one of the main components of ethnic and national identity. Ninety-five per cent of the population is indigenous Melanesian, with smaller Chinese, European, Micronesian (1.2%) and Polynesian groups (3.1%) also resident.

However, there is significant diversity within the Melanesian population, which comprises approximately 95 language groups with strong affiliation to cultural groupings. Governance and politics is also usually based on cultural traits such as patronage and the 'big man' patrimonial system which is deeply rooted

<sup>&</sup>lt;sup>25</sup> Asian Development Bank (2015). Solomon Islands Country Gender Assessment.

<sup>&</sup>lt;sup>26</sup> Secretariat of the Pacific Community (2009). *Solomon Islands Family Health and Safety Study*. Approximately two-thirds of women (between the ages of 15-49) reported having experienced physical or sexual abuse by an intimate partner, and more than one third of women (37 percent) report being sexually abused before the age of 15, often by a male acquaintance.

<sup>&</sup>lt;sup>27</sup> Australian Government Department of Foreign Affairs (2020). Gender Equality Plan for Solomon Islands (2020-2022).

<sup>&</sup>lt;sup>28</sup> World Bank (2018). Gender Inclusive Value Chains: Improving Women's Participation in Solomon Islands.

<sup>&</sup>lt;sup>29</sup> Pacific Women in Politics (2021).

<sup>&</sup>lt;sup>30</sup> Asian Development Bank (2015). *Solomon Islands Country Gender Assessment*.

<sup>31</sup> https://www.adb.org/sites/default/files/institutional-document/176812/sol-country-gender-assessment.pdf

<sup>&</sup>lt;sup>32</sup> https://documents.worldbank.org/en/publication/documents-reports/documentdetail/353911538724168885/gender-inclusive-value-chains-improving-women-s-participation-in-solomon-islands

in tradition and culture. This cultural orientation plays an important role in how communities respond to socioeconomic development and the management of their environment and natural resources<sup>33</sup>.

#### 4.7 COVID-19 Pandemic

#### 4.7.1 Current situation

The Solomon Islands faired very well at the start of the COVID-19 pandemic compared to most other countries and remained COVID-19-free until October 2020. Between October 2020 and April 2021 there were 20 confirmed cases. At the time of this document preparation (November 2021) there had been zero confirmed cases since 15 April 2021 and there had been no reported deaths from COVID-19 in the Solomon Islands<sup>34</sup>. All international flights were stopped on March 22, 2020. With the limited number of flights between May 26 and September 29, 2020, a total of 1,159 passengers (899 nationals and 260 foreign nationals) have travelled back to Solomon Islands on 18 flights. While borders are currently closed between Papua New Guinea and Solomon Islands, Papua New Guinea has recorded a total of 32,279 cases and 415 deaths as of November 2021, and there is a risk that COVID-19 could potentially cross to Solomon Islands through some of the northern island groups such as Shortland islands, Choiseul and Malaita Outer Islands.

#### 4.7.2 Response

The Solomon Islands prepared the Consolidated National Preparedness and Response Plan for COVID-19 (issued on March 12, 2020) and an updated Phase 2 plan issued on August 27, 2020. The Solomon Islands Government (SIG) declared a public health state of emergency on March 26, 2020. This allowed the government to enforce a number of emergency measures and procedures stipulated under its Emergency Act. In early March, Ministry of Health and Medical Services (MHMS) developed a COVID-19 preparedness and response plan with support from Australia's Department of Foreign Affairs and Trade (DFAT), with estimated cost of SBD 20 million (~US\$ 2.42 million) largely for Personal Protective Equipment (PPE) and Consumables. The MHMS was also allocated a supplementary domestic budget of SBD 6.6 million (~US\$ 0.8 million) to assist with implementing the plan. The World Bank has increased the financing amount for the First Solomon Islands Transition to Sustainable Growth Development Policy Operation (approved in May 2020) from US\$10 million to US\$15 million to respond to critical fiscal needs due to COVID-19; and the Solomon Islands Port Authority and Solomon Power (both state owned entities) have together contributed SBD 10 million (~US\$1.2 million) towards the COVID-19 response.

The Solomon Islands, in addition to the internal domestic support for activities related to COVID-19, is also receiving assistance from several development partners. These include the United Nations (mainly World Health Organization [WHO] and United Nations Children's Fund [UNICF]), who are providing personal protective equipment along with laboratory supplies, disease surveillance and response technical assistance, and communications support efforts; DFAT is providing a broad range of ongoing technical assistance, as well as funding for budget support and other health related activities (including quarantine facilities, laboratory and medical equipment), as is the New Zealand Ministry of Foreign Affairs and Trade (MFAT). The European Union, Asian Development Bank, and China have all contributed financially and in-kind to the MHMS COVID-19 response efforts. The WB is providing investment support to fill critical gaps in the preparedness and response efforts and complement activities committed by

<sup>&</sup>lt;sup>33</sup> MECDM, 2017. Solomon Islands National Waste Management and Pollution Control Strategy – 2017-2026

<sup>&</sup>lt;sup>34</sup>https://ourworldindata.org/coronavirus/country/solomon-islands

other development partners In addition, through a multi-year program of advisory and analytics, the WB continues to provide advisory and analytical services to MHMS on health financing and related health system strengthening activities.

The Solomon Islands has established a National Health Emergency Operations Center (NHEOC) to oversee all operations and activities relating to COVID-19. The public health State of Emergency remains in effect since March 26, 2020. This allows the government to enforce several emergency measures and procedures stipulated under its Emergency Act.

#### 4.7.3 Vaccine roll-out

The SIG set a target of 90% vaccination rate for the international borders to re-open. As of November 5, 2021 (latest available report), the vaccination rate was:

- Fully vaccinated: 59,226 people (14.3% of target population)
- Partially vaccinated: 120,986 people (29.2% of target population)

There were approximately 29,000 doses administered between October 30, 2021 and November 5, 2021. The Astrazeneca, Sinopharm and Pzifer vaccines are being used in the Solomon Islands.

Barriers to vaccination access include the remoteness of some communities and lack of logistics available for health care staff to reach them to undertake advocacy and communication relating to vaccine uptake. These communities often have no access to internet, mobile communications, and in some cases even radio.

There are also high levels of vaccine hesitancy. The National Democratic Institute conducted national public opinion research related to attitudes toward vaccines<sup>35</sup>. The study, published in August 2021, included a national survey and focus group discussions across the country. The results show high levels of COVID-19 vaccine hesitancy with 48% of the participants expressing vaccine hesitancy.

# 5 Environment and Social Risks, Potential Impacts and Mitigation

The Project is being implemented to improve access to climate resilient infrastructure and services in rural communities and provincial governments' accountability to citizen priorities, which is thus expected to result in long-term positive environment and social impacts. In the short to medium term, however, environmental and social risks are assessed to be Moderate.

The key environmental and social risks associated with this Project relate to Component 1 (Performance-based Grants for Resilient Development) as this component will fund small infrastructure projects (subprojects) through the PCDF. The anticipated subprojects include construction of small buildings, feeder roads, water supply infrastructure and other small civil works projects.

#### 5.1 Summary of Main Environmental Risks

The main environmental impacts are expected to be typical construction-related impacts and easily managed through conventional environmental risk management approaches. These include impact related to:

<sup>&</sup>lt;sup>35</sup> https://www.ndi.org/our-stories/ndi-public-opinion-research-approval-solomon-islands-government-covid-19-prevention

Solomon Islands Integrated Economic Development and Community Resilience Project (P173688) – Environmental and Social Management Framework | January 2021

- Waste management.
- Erosion and sedimentation.
- Dust, noise and traffic.
- Occupational health and safety.

#### 5.2 Summary of Main Social Risks

The main social impacts are expected to be:

- Minor impacts on land usage and access.
- Temporary mobilization of limited amounts of contracted and community workers.
- Potential for social conflict over access to project benefits (albeit minimal due to a bottom-up, and community informed approach being adopted).
- Community health and safety impacts from construction.
- Minor nuisance from construction works (e.g., noise, dust, traffic deviations, etc).

#### 5.3 Preliminary Risk Analysis

A preliminary analysis of the type of project activities identified, potential social and environmental impacts that may result from the project activities, key mitigation methods for residual impacts, and environmental and social risk management tools that are required is provided in Table 6.

Table 6 - Assessment of Key Project Risks/Impacts and Proposed Mitigation Methods

Activity	Significant Potential Risks / Impacts	Key Mitigation Methods	E&S Risk Management Tools
Design  Buildings (e.g., accommodation, markets, storage sheds, classrooms, health clinics)	Design of facilities does not consider access for all users (e.g., people with disabilities)  Design of facilities do not meet siting, layout and/or engineering requirements  Location of proposed buildings does not consider potential environmental and social impacts	Consideration of the need for differentiated access for different users of the facilities in the design as detailed in the Code of Environmental and Social Practice (CoESP) for Small Infrastructure.  Consultation with community in accordance with the SEP to ensure proposed project sites can be utilized for project infrastructure activities and would not result in physical or economic displacement, or restriction of access to natural resources.  Consultation with end-users (e.g., Ministry of Health and Medical Services) accordance with the SEP to ensure design of proposed facilities are fit-for-purpose.	COESP for Small Infrastructure SEP
<u>Design</u> Feeder roads and footpaths	Location of proposed feeder roads not in alignment with community needs  Location of proposed feeder roads does not consider potential environmental and social impacts  Design of proposed feeder roads do not meet engineering requirements	Consultation with community in accordance with the SEP to ensure proposed project sites can be utilized for project infrastructure activities and would not result in physical or economic displacement, or restriction of access to natural resources.  Review of design by Provincial engineer to ensure proposed roads / footpaths are fit-for-purpose and sustainable (e.g., not flood prone, erosion control considered in siting, etc)	COESP for Small Infrastructure SEP
Design  Water supply (e.g., piped water supply systems, boreholes)	Contamination of water supply sources resulting in health impacts to end-users	Review of design by Provincial engineer and Provincial E&S Specialist to ensure water supply locations are suitable (e.g.,	CoESP for Small Infrastructure SEP

	Location of water supply outlets (e.g., taps, boreholes) not freely accessible to community members, including vulnerable people  Water supply from unsustainable sources	upstream of human activity) and sustainable (e.g., flow year-round)  Consultation with community in accordance with the SEP to ensure proposed water supply outlet sites can be freely accessed by community members, including vulnerable people.	
Construction	Civil works may generate limited adverse environmental impacts such as extraction of materials, nuisances from dust, noise, vibration; pollution from erosion and uncontrolled sediment; hazardous materials management, minor hydrocarbon spills; and traffic obstruction.  Incorrect waste disposal causing negative impacts to soil and groundwater or on community and/or worker health.  Occupational health and safety (OHS): activities pose various OHS risks such as working at heights, suspended loads, handling hazardous materials and sprains, strains, cuts and crush injuries etc.  Community health and safety: activities pose a risk to community members through increased noise, dust and traffic, storage and delivery the incorrect disposal of hazardous materials.  Issues related to inappropriate worker accommodations further spread COVID-19.  Increase in sexual exploitation and abuse/ harassment (SEA/SH) related to workforce	Impacts managed and monitored in accordance with the CoESP for Small Infrastructure.  Waste minimization and management measures detailed in Waste Management Plan.  Subproject-specific WMP to be developed if generic WMP provided does not cover waste types to be generated during the project by the contractor.  Health and Safety (H&S) management plan(s) to be developed during project by the contractor, and refurbishment works completed accordingly. H&S management plan(s) must be developed and submitted to the CCARRO for approval prior to any physical works commencing. A Traffic management plan must be included in the Contractor(s) H&S Management Plan (if traffic is identified as a potential issue).  Labour issues including working conditions, OHS, SEA/SH addressed in Project's LMP and CoESP. Implementation of Code of Conduct (as per LMP). Provide separate facilities for female and male workers.	CoESP for Small Infrastructure  Waste Management Plan  Subproject-specific Waste Management Plan (contractor) (if/when required)  H&S Management Plan(s) (contractor)  LMP  GM  CFP  EIA (if/when required)

Cultural heritage impacts.  Drilling (i.e., borehole installation) cause contamination of groundwater aquifer.  Worker OHS and community safety risk from disturbance of UXOs  Materials (e.g., rock, timber etc) sourced from unsustainable sources  Introduction of weeds and pests through movement of plant/machinery and materials	Chance Finds Procedure (CFP) in place prior to any physical works commencing (Annex II).  Hire experienced and reputable drilling contractor to install boreholes.
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# 6 Procedures to Address Environmental and Social Issues

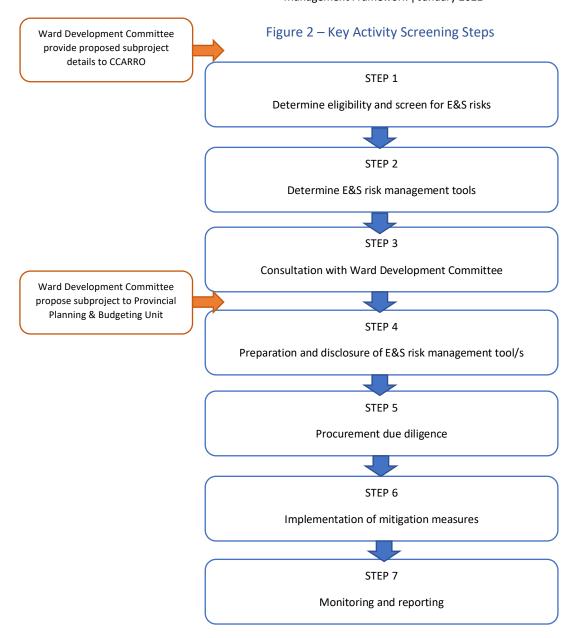
# 6.1 Overview of the Screening Process

The screening process will be used to screen all Project activities for risks and then identify the environmental and social risk management tools that need to be prepared or followed. The purpose of the screening is to: (i) determine whether activities are likely to have potential negative environmental and social risks and impacts; (ii) identify appropriate mitigation measures for activities with adverse risks or impacts; (iii) incorporate mitigation measures into implementation of the activity; (iv) review and approve the management plan/s and (v) monitor application of management plan/s for those activities requiring E&S due diligence.

The CCARRO, supported by the PMU E&S Specialist, (and International E&S Specialist as required) will undertake the environmental screening, preparation and disclosure of site-specific instruments, ECD development consent applications and preparation of additional E&S instruments (ESMP, as required), and consultation and information dissemination activities with relevant stakeholders. Responsibilities for implementing these procedures are outlined in further detail in Section 8. The screening process should be reviewed after 12 months of project implementation by the PMU E&S Specialist to ensure that the process is appropriate.

# 6.2 Screening of Project Activities

The following provides the steps that will be undertaken in the assessment of project activities. The screening of activities will take place as subproject are put up for potential funding by the WDCs. The screening process will follow the key steps in Figure 2.



Ward Development Committee provide proposed subproject details to CCARRO

#### Step 1: Determine Eligibility and Screen for E&S Risks

This step is to determine eligibility for project funding (check against Table 7) and complete the Screening Form for Potential Env & Social Issues (Annex III). This step will be carried out on subprojects that have been identified Ward Development Committees (through consultation with communities). The purpose of screening is to (i) determine whether activities are eligible to be financed, and likely to have potential negative environmental and social risks and impacts; and (ii) identify appropriate mitigation measures for activities with adverse risks or impacts. It is important that Step 1, Step 2 and Step 3 are carried out before the subproject is put forward to the Provincial Planning & Budgeting Unit for

potential inclusion into the budget as the results may influence the feasibility (and cost) of the subproject.

#### **Step 2: Determine E&S Risk Management Tool/s**

The second step is to determine what specific E&S risk management tool/s are required or apply, if any, under World Bank and Solomon Islands E&S risk management requirements. The completed Screening Form for Potential Env & Social Issues (Annex III) will identify what specific E&S risk management tool/s are required or apply, if any.

For the impacts related to small infrastructure identified in Section 2.4, namely buildings (e.g., accommodation, markets, storage sheds, classrooms, health clinics), water supply (e.g., piped water supply systems, storage tanks, boreholes) and maintenance of small roads and footpaths, the CoESP for Small Infrastructure (Annex I) should be sufficient to address the site-specific and localizable environmental and social issues for both the design and construction phases.

For the impacts related to other subproject types the CoESP for Small Infrastructure (Annex I) should be sufficient to address the anticipated, localizable environmental and social issues. The results of the environment and social risk screening, would be submitted to the PMU E&S Specialist for review and determination if any additional E&S tools are required. Approval under the *Environmental Act 1998* is not anticipated for subprojects, however, if there is uncertainty this should be clarified with the ECD by the PMU E&S Specialist.

#### **Step 3: Consultation with Ward Development Committee**

If required, the screening outcomes will be discussed with the Ward Development Committee and design personnel to identify ways to reduce or avoid any adverse impacts. Any adjustments to the design, categorization or E&S risk management tool/s can be refined following this process.

Ward Development Committee propose subproject to Provincial Planning & Budgeting Unit. If approved for funding, the following steps apply.

#### Step 4: Preparation and Disclosure of E&S Risk Management Tools

If required, the next step is to prepare the relevant E&S risk management tool/s, both for Solomon Islands and WB processes. This process may include site visits and data gathering, consultation, and public disclosure of the documents in accordance with Section 7.

#### **Step 5: Procurement Due Diligence**

Determine if procurement is required for the activity. If yes, then EHS provisions will be incorporated into bidding documents, in accordance with the World Bank Procurement Framework. This would include copies of this ESMF, the LMP and the SEP. The focus for contractors for bidding purposes would be the CoESP for Small Infrastructure (Annex I) as it summarizes the E&S requirements that would need to be costed.

#### **Step 7: Implementation of Mitigation Measures**

The implementation of the E&S risk management tool/s and conditions of any environmental approvals will need to be implemented, monitored and enforced. Training of implementing staff may be needed to

ensure that conditions of the E&S risk management tool/s are met. For contractors, monitoring and supervision will be needed to ensure that conditions of the E&S risk management tool/s are met.

# **Step 8: Monitoring and Reporting**

Monitoring is required to gather information to determine the effectiveness of implemented mitigation and management measures and to ensure compliance with the approved E&S risk management tool/s. Monitoring methods must provide assurance that E&S risk management tool/s measures are undertaken effectively.

Contractors are to provide monthly monitoring reports to the CCARRO on environmental, social, health and safety performance of their contracted works. In the case of an incident, the PMU and WB should be notified within 24 hours.

Six-monthly reports will need to be prepared by the PMU E&S Specialist and provided to the WB. The semi-annual E&S monitoring reports to the Bank will include: (i) the status of the implementation of mitigation measures; (ii) the findings of monitoring programs; (iii) stakeholder engagement activities; (iv) grievances log; and (v) any incidents/accidents with adverse impacts and the actions taken to address it and prevent reoccurrence.

#### **Table 7 - Ineligible Activity List**

The following type of activities shall not be eligible for financing under the Project:

- Activities of any type classifiable as "Substantial" or "High" risk pursuant to the World Bank's ESS1 of the ESF.
- The following activities are illustrative examples of "High" risk activities:
  - Activities that may cause long term, permanent and/or irreversible (e.g. loss of major natural habitat) adverse impacts;
  - Activities that have high probability of causing serious adverse effects to human health and/or the environment;
  - Activities that may have significant adverse social impacts and may give rise to significant social conflict;
  - Activities that may affect lands or rights of indigenous people or other vulnerable minorities;
  - Activities that may involve permanent resettlement or land acquisition.
  - Activities that result in adverse impacts on cultural heritage;
  - O Activities that are considered by the World Bank (a) to have potential to cause significant loss or degradation of critical natural habitats whether directly or indirectly or those that could adversely affect forest and forest health; (b) that could affect sites with archaeological, paleontological, historical, religious, or unique natural values; and (c) that will result in adverse impacts on involuntary taking of land, relocation of households, loss of assets or access to assets that leads to loss of income sources or other means of livelihoods, and interference with households' use of land and livelihoods; and
  - Use of goods and equipment as considered by the World Bank to meet the following conditions: (a) lands abandoned due to social tension/conflict, or the ownership of the land is disputed or cannot be ascertained; (b) to demolish or remove assets, unless the ownership of the assets can be ascertained, and the owners are consulted; (c) involving forced/conscripted labour, child labour (under the age of 18), or other harmful or exploitative forms of labour; (d) activities that would affect indigenous peoples, unless due consultation and broad support has been documented and confirmed prior to the commencement of the activities; and/or (e) other paramilitary purposes.
  - Subprojects involving major construction and civil works that would cause significant adverse impact and require a full ESIA report according to the national ESIA regulation.
- "Substantial" risk activities are likely to have considerable adverse E&S impacts but are less sensitive and more limited than those under category High. Their impacts are site-specific and largely reversible, which could be readily identified and mitigated through recognized good practices.
- Additional ineligible activities listed in the existing PCDF Operational Manual include complete
  drainage of lakes, wetland areas, pollution of the ecosystem, extraction of water for irrigation
  or systematic clearing of forests areas for agriculture.

#### 6.3 Resettlement

Resettlement as per the Scope of Application in ESS5 will not be required for the Project as the acquisition of private land is not permitted and the Ineligible Activity List (provided in the ESMF) deems subprojects that require permanent resettlement or land acquisition ineligible for funding. In addition, the existing PCDF Operation Manual states the following with respect to land use:

Any project that requires the use of land, that is encumbered in a way - land must already belong to the Assembly or it must be known that legal ownership can and will be transferred to the Assembly prior to the commencement of intended project.

Projects are disallowed, if they deal with land that is occupied, unless the current occupants can and will be satisfactorily resettled. In cases where there are legal issues on the ownership of land, the PG can use part of the investment servicing costs for hiring in of legal advice to avoid any issue of disputes. PCDF cannot be used in areas where this has not been clarified.

# 6.4 Incident Management

Despite efforts to manage environmental and social risks, there is potential for incidents to occur. An incident is defined as an accident or negative event resulting from failure to comply with the WB E&S requirements, or conditions that occur because of unexpected or unforeseen events during project implementation.

The Project will adopt the incident classifications contained in the "Environmental and Social Incident Response Toolkit for Word Bank Staff". These classifications area as follows:

#### Indicative incident:

- Relatively minor and small-scale localized incident that negatively impacts a small geographical areas or small number of people
- Does not result in significant or irreparable harm
- o Failure to implement agreed E&S measures with limited immediate impacts

#### Serious incident:

- An incident that caused or may potentially cause significant harm to the environment, workers, communities, or natural or cultural resources
- Failure to implement E&S measures with significant impacts or repeated noncompliance with E&S policies incidents
- Failure to remedy Indicative non-compliance that may potentially cause significant impacts
- Is complex and/or costly to reverse
- May result in some level of lasting damage or injury
- Requires an urgent response
- o Could pose a significant reputational risk for the Bank

#### Severe incident:

- Any fatality
- Incidents that caused or may cause great harm to the environment, workers, communities, or natural or cultural resources
- Failure to remedy serious non-compliance that may potentially cause significant impacts that cannot be reversed

- Failure to remedy serious non-compliance that may potentially cause severe or complex impacts and/or be costly to reverse
- May result in high levels of lasting damage or injury
- o Requires an urgent and immediate response
- o Poses a significant reputational risk to the IDA

All incidents are to be reported to the to the IDA as soon as practicable, with all Serious and Severe incidents being reported within 24 hours of their occurrence. The PMU and/or contractor involved in the incident are responsible for also reporting the incident to the relevant regulatory authority if required.

Upon request of the IDA, the PMU (with support of the contractor involved, if applicable) shall prepare a report detailing the incident. The report should include the following information:

- Classification of the incident
- What was the incident? What happened? To what or to whom?
- Where and when did the incident occur?
- When and how did the PMU find out about it?
- Are the basic facts of the incident clear and uncontested, or are there conflicting versions?
   What are those versions?
- What were the conditions or circumstances under which the incident occurred (if known at this stage)?
- Is the incident still ongoing or is it contained?
- Is loss of life or severe harm involved?
- What has been the response to date?
- What remedial action, if any, is required?
- What measures have been or are being implemented to prevent reoccurrence?

The carrying out of any remedial action or implementation of preventive measures to prevent recurrence should be tracked to closure and progress included in the regular progress reports to the IDA.

# 7 Proposed Consultation and Stakeholder Engagement

A stand-alone SEP has been developed to describe the project's program for stakeholder engagement, public information disclosure and consultation. The SEP outlines the ways in which the project team will communicate with stakeholders and provides a mechanism through which people can raise concerns, provide feedback, or make complaints about the project or any activities related to the project. A summary of the SEP is provided in the following sections. In the event of discrepancy between this summary and the SEP, the SEP takes precedence.

# 7.1 Project Stakeholders

To ensure effective and targeted engagement, the Project identifies four core stakeholder categories:

- Project Partners stakeholders that contribute to the execution and implementation of a project.
- Affected Parties persons, groups and other entities within the Project Area of Influence that are directly influenced (actually or potentially) by the Project and/or have been identified as

most susceptible to change associated with the Project, and who need to be closely engaged in identifying impacts and their significance, as well as in decision-making on mitigation and management measures.

- Other Interested Parties individuals/groups/entities that may not experience direct impacts from the Project but who consider or perceive their interests as being affected by the Project and/or who could affect the Project and the process of its implementation in some way.
- Vulnerable Groups persons who may be disproportionately impacted or further
  disadvantaged by the Project as compared with any other groups due to their vulnerable status,
  and that may require special engagement efforts to ensure their equal representation in the
  consultation and decision-making process associated with the Project. The vulnerability may
  stem from a person's origin, gender, age, health condition, economic deficiency and financial
  insecurity, disadvantaged status in the community (e.g., minorities or fringe groups),
  dependence on other individuals or natural resources, etc.

Stakeholders identified for the Project are provided in

Table 8.

Table 8 - Identified Stakeholders

Groups	Organisation
Project Partners	Organisation
Froject Furthers	MEDCM
	MPGIS
	MOFT
SIG Ministries and Offices	Ministry of Agriculture and Finance
	National Disaster Management Office
	Ministry of Health and Medical Services
	Ministry of Education and Human Resources Development
	National Planning and Development Cooperation
	Central Islands Provincial Government
	Choiseul Provincial Government
	Guadalcanal Provincial Government
	Isabel Provincial Government
Provincial governments	Makira-Ulawa Provincial Government
	Malaita Provincial Government
	Rennell and Bellona Provincial Government
	Temotu Provincial Government
	Western Provincial Government
Dalayant dayalan maant muanyana	Rural Development Program II
Relevant development programs	Provincial Capacity Development Fund
W 118 1	IDA
World Bank	Local Office
Other Development Partners	United Nations Capital Development Fund
Affected Parties	·
	Individuals (i.e., citizens of the 156 Wards where the Project will operate)
People in the project area of	and community groups/organisation/business that will direct benefit from
influence	subprojects.
Contractors	Various civil works contractors
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Groups	Organisation
Suppliers	Various suppliers
Other Interested Parties	
	Australian Department of Foreign Affairs and Trade
Other Davidenment Bartners	New Zealand Ministry of Foreign Affairs and Trade
Other Development Partners	European Union
	International Finance Corporation
SIG Ministries and Offices	Environment and Conservation Division
	Organisations focusing on topics such as:
	Rural development
Non-Government Organisations	Agriculture
Non-Government Organisations	Climate change
	Environmental management
	Woman and children's rights
Vulnerable Groups	
	Including, but not limited to:
	elderly
	children
Vulnerable or disadvantaged	youth
groups	poor households
	women-headed households
	residents in remote areas
	people with disabilities

# 7.2 Consultation and Information Disclosure

An indicative stakeholder engagement plan is outlined in Table 9Error! Reference source not found. and an indicative disclosure plan is provided in Table 10. These plans will be further refined during Project implementation when the PMU Media and Communications Officer is engaged for the Project.

Table 9 - Indicative Stakeholder Engagement Plan

Project stage Topic of consultation / message		consultation / message		Responsibilities
Planning of subprojects	Participatory planning for potential subprojects	Face-to-face meetings	Community (potential project beneficiaries)	WDCs WSOs
Annually Performance of the PCDF over the implementation phase		Performance Scorecard posted on the provincial and ward level notice boards, provided to community through face-to-face meetings	Community (potential project beneficiaries)	Provincial Program Coordinators
Annually throughout implementation phase  Performance of the WDC over the previous year		Performance Scorecard posted on the provincial and ward level notice boards, provided to	Community (potential project beneficiaries)	WSO

		community through face-to-face meetings		
Planning and design of subprojects	Siting of infrastructure — confirmation that subproject would not result in physical or economic displacement, or restriction of access to natural resources.	Face-to-face meetings	People residing in the project area, including vulnerable people	CCARRO PMU E&S Specialist
Prior to, during and post construction of subprojects	Construction progress (timing, likely impacts, etc), grievance mechanism	Face-to-face meetings	People residing in the project area, including vulnerable people	WDCs WSOs
Quarterly throughout the implementation phase	Key project updates and reports on the project's environmental and social performance	MPGIS and/or MEDCM website	All stakeholders	PMU Media and Communications Officer (in collaboration with the project's M&E team)
Design and implementation	Subproject design (select subprojects)	Face-to-face meetings	Relevant government department, e.g. Ministry of Health and Medical Services (for subprojects such as clinics); Ministry of Education and Human Resources Development (for subprojects such as classrooms)	Provincial Engineer
Throughout Project implementation (6-monthly)	Implementation support missions	Face-to-face and teleconference meetings; site visits	Project Partners	IDA, MPGIS and MECDM
Implementation	Environmental, Social and Health and Safety, Worker GRM	Formal and on-the- job training;	Contractor and community workers	Contractors CCARRO
Implementation	Environmental, Social and Health and Safety related training, including WB ESF requirements	Face-to-face and teleconference meetings	PMU CCARRO	PMU E&S Specialist

Implementation	Environmental,	Disclosure of site-	Works contractors	CCARRO
	Social and Health	based ESMP in		
	and Safety, Worker	selected provinces;		
	GRM	Site meetings		

Table 10 - Indicative Disclosure Plan

Project stage	Target stakeholders	List of information to be disclosed	Methods proposed
Prior to implementation	All	Environmental and Social Commitment Plan Environmental and Social Management Framework Labor Management Procedure Stakeholder Engagement Plan (i.e., this document) Abbreviated Resettlement Plan Grievance Mechanism	IA and IDA websites once documents approved by WB
Early in implementation phase	All	Clear information on how feedback, questions, comments, concerns, and grievances can be submitted by any stakeholder	Website, face-to-face meetings with community (including vulnerable people), noticeboards
Early in implementation phase	Community (potential project beneficiaries)	Awareness of PCDF process and cycles; and how community members can participate; Grievance Mechanism	TBC, may include media releases, newspapers articles, broadcasts on TV and radio stations, and posted on the provincial and ward level notice boards
Implementation	Potential civil works contractors	Project bidding documents (including E&S-related requirements)	Email and hard copy
Implementation	People residing in the project area, including vulnerable people	Subproject ESMP and/or other subproject specific E&S management tools	Face-to-face meetings

#### 7.3 Grievance Mechanism

The Project GM will seek to resolve complaints and grievances in a timely, effective and efficient manner that satisfies all parties involved. It will provide a transparent and credible process for fair, effective and lasting resolution of grievances. It will also build trust and cooperation as an integral component of broader community consultation that facilitates corrective actions. The Project GM is provided in Annex III of the SEP and will be established and publicized prior to the commencement of Project activities.

# 8 Implementation Arrangements, Responsibilities and Capacity Building

# 8.1 Implementing Agency

The two Implementing Agencies for the project will be MPGIS and MECDM who will operate a joint a PMU housed with MPGIS. They will have the overall implementation responsibility for the Project, including the responsibility for carrying out day-to-day management and implementation of the project and coordinating with other government ministries/agencies and stakeholders on all aspects of project implementation as required.

Specific responsibilities for the various project components are:

- Component 1 will be implemented by MPGIS in coordination with MECDM and the PGs.
- Component 2 will be implemented by MPGIS (leading Subcomponent 2a) and MECDM (leading Subcomponent 2b) in coordination with the PGs.
- Component 3 will be implemented by MPGIS and MECDM jointly.

The Project will operate within existing institutional arrangements under the PCDF. The Project will report to a Steering Committee being, the standing PCDF Joint Oversight Committee (JOC), with support and input from the Provincial Fiscal Grant Coordination Committee (PFGCC). The members of the JOC are the Permanent Secretaries of MPGIS, MoFT, MDPAC, and MPS, the Secretary to the Prime Minister (PM Office), and Provincial Secretaries of three Provinces as well as donor representatives. The JOC will be chaired by the Permanent Secretaries of MPGIS and MoFT.

#### 8.1.1 Project Management Unit

The PMU jointly managed by MPGIS and MECDM will implement and oversee the Project on behalf of the agencies. The functions of the PMU include:

- Project coordination
- Performance assessment
- Financial / procurement support / audit
- Central engineering design / standards / specifications / quality assurance
- Environmental and social safeguards
- Training program development
- Surveys / communications /medica

Most Project activities (approximately 80 percent) will be implemented in the PGs. Infrastructure investments will be identified, designed, procured, and managed by the provinces using provincial procurement systems and local contracting resources. SIG has recently hired engineers for each province who are supporting provincial works divisions and is planning to hire Ward Support Officers (WSO) for each ward to support the WDCs (156 officers). The Project will supplement capacity by hiring Provincial Program Coordinators (reporting to the Provincial Capacity Development Officers) and five Climate Change Adaptation and Risk Reduction Officers (CCARROs) (under MECDM located at Provincial

headquarters). MECDM has some provincial-based environmental staff who will provide support in the provinces that do not have an CCARRO.

SIG aims to fund the Provincial Capacity Development Officer and CCARRO roles so they can be absorbed as permanent staff before the Project closes.

Contracts will be overseen by Provincial Engineer and they would travel as a team with the CCARROs (other MECDM provincial-based staff) to assess and monitor projects (thereby reducing costs). When there are issues on site the contractor should contact provincial engineer to report issues.

The Project will also hire other specialists to be based out of the PMU covering E&S management, training design M&E, financial management, procurement specialist, media and communications,

The PMU will prepare and submit regular (six-monthly) monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project, including but not limited to, the implementation of the ESCP, status of preparation and implementation of the Project's environmental and social documents, stakeholder engagement activities and grievances log, LMP, contractor's EHS implementation, EHS incidents, and the functioning of the grievance mechanism.

#### 8.1.2 Key Roles

Key roles responsible for implementation of this ESMF are:

- CCARROs (x5) (and other MECDM provincial-based environmental staff)
- PMU E&S Specialist (x1)
- International E&S Specialist (x1 part time)

These roles are discussed in the following sections.

#### 8.1.2.1 Climate Change Adaptation and Risk Reduction Officers (CCARROS)

The CCARROs will be under MECDM and indirectly report to the PMU E&S Specialist. They will ensure that environmental, social, and health and safety risks are managed in accordance with the requirements of the World Bank's ESF, ESCP and SIG Law. The CCARRO will be based in the Provincial headquarters and work closely with the Provincial Engineers. In provinces without a CCARRO, this role may be undertaken by another MECDM provincial-based environmental staff member.

The CCARRO's role with respect to implementation of the E&S instruments is to:

- Lead the implementation at the ground level of the Project's ESMF and associated instruments in accordance with the World Bank ESF, project ESCP and SIG legal requirements including:
  - Develop and deliver E&S training for Provincial and Ward-based staff.
  - Managing the oversight of project contractors, including Civil Works Contractors, and review of contractor(s) waste management and health and safety plan(s).
  - Environmental and social screening (outlined in section 6), preparation and disclosure of site-specific instruments (e.g., ESMP) and, consultation and information dissemination activities with relevant stakeholders.
  - Managing environmental and social risks in procurement.

- Site-based environmental, safety and social monitoring. Address non-compliances and develop and confirm the implementation of corrective actions. Assist with the implementation of project investment opportunities that would improve performance.
- Providing information to the PMU E&S Specialist to support with the preparation of the monthly and six-monthly monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project.
- Notification, reporting and management of incidents or accidents related to the Project which have, or are likely to have, a significant adverse effect on the environment, the affected communities, the public or workers.
- o Provide support to contractors on E&S risk management.
- Oversee the Ward Support Officer's implementation of the Project's GM, ensuring timely resolution of project related grievances.
- Conduct other ESHS and Community Engagement-related activities as required.

#### 8.1.2.2 PMU E&S Specialist

The PMU E&S Specialist, reporting to the Project Manager, functions as a core member of the PMU and will ensure that environmental, social, and health and safety risks are managed in accordance with the requirements of the World Bank's ESF, ESCP and SIG Law.

The PMU E&S Specialist's role is to:

- Lead the implementation of the Project's ESMF and associated instruments in accordance with the World Bank ESF, project ESCP and SIG legal requirements including:
  - Supporting the CCARROs.
  - o Develop and deliver E&S training for the PMU and other relevant stakeholders.
  - Review of environmental and social screening (outlined in section 6), review of site-specific instruments (e.g., ESMP), prepare ECD consent applications and associated documents (PER/EIS) (if required), consultation and information dissemination activities with relevant stakeholders.
  - Support the CCARROs in managing environmental and social risks in procurement.
  - Preparation of the monthly and six-monthly monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project.
  - Notification, reporting and management of incidents or accidents related to the Project which have, or are likely to have, a significant adverse effect on the environment, the affected communities, the public or workers.
- Oversee the implementation of the Project's SEP Plan in close collaboration with the Project Manager.
- Participate in semi-annual Project Supervision missions, representing MPGIS and MECDM on environmental, safety and social aspects.
- Conduct other ESHS and Community Engagement-related activities as required.

# 8.1.2.3 International E&S Specialist

The International E&S Specialist will be recruited/appointed and retained on an as-required basis and report to the Project Manager. The PMU E&S Specialist will:

- Provide technical support to the PMU E&S Specialist to implement the Project's ESMF and associated instruments in accordance with the World Bank ESF, ESCP and SIG legal requirements including:
  - Support the PMU E&S Specialist to develop and deliver E&S training for the PMU and other relevant stakeholders.
  - Support environmental screening, preparation and disclosure of site-specific instruments, and consultation and information dissemination activities with relevant stakeholders.
  - Support site-based environmental, safety and social monitoring. Advise on suitable corrective actions/opportunities for improving performance.
  - Support/Review monthly and six-monthly monitoring reports on ESHS performance of the Project.
  - Support notification, reporting and management of incidents or accidents related to the Project which have, or are likely to have, a significant adverse effect on the environment, the affected communities, the public or workers.
  - Participate (remotely) in semi-annual Project Supervision missions, representing MPGIS and MECDM on environmental, safety and social aspects.

#### 8.2 Construction Contractors

Construction contractor's will be used for the delivery of small infrastructure subprojects. Contractor(s) will be required to comply with the Project's E&S risk management plans and procedures, including the CoESP and LMP, as well as local legislations and this will be specified in the contractor's agreements. Contractor(s), with support from the CCARRO, will need to disseminate and create awareness within their workforce of E&S risk management compliance, and undertake any staff training necessary for their effective implementation. It is unlikely that contractors have existing environmental staff and therefore the CCARRO, supported by the PMU E&S Specialist and World Bank Environmental and Social team, will make arrangements for adequate capacity building within the contractor's workforce.

Contractor(s) will also be required to prepare and comply with WMP(s) and health and safety plan(s) in compliance with both the ESMF and local legislation, and submit those plans to the CCARRO for approval, prior to the commencement of construction activities and to take all necessary precautions to maintain the health and safety of their personnel. The contractor(s) will appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site, to take protective measures to prevent accidents, to ensure suitable arrangements are made for all necessary welfare and hygiene requirements, to undertake worker training.

# 8.3 World Bank Environmental and Social Team

The Bank's Environmental and Social team will provide regular E&S risk management compliance monitoring and support for the duration of the project, remote and during missions, and to build capacity for ESMF implementation and stakeholder engagement. As international travel may be slow to resume, supervision and missions may continue to be conducted remotely for some time.

# 8.4 Capacity Building

Subcomponent 2b of the Project is focussed on capacity building, including financing the development of training materials so that the PPCs can travel, train and coordinate the work of the Ward Support

Officers who will responsible for supervising the works; identifying operations and maintenance needs; implement a range of communications and awareness raising activities concerning the PCDF program and on climate risk and adaptation measures, training for the WDCs on a range of local-level governance and social accountability initiatives.

With respect to the capacity of the agencies to implement the WB ESF, it is important to understand that this is the first MECDM/MPGIS project financed by the World Bank that is subject to the WB ESF, and, as such, training is required to provide awareness of the specific requirements of the WB ESF to the PMU and at the Provincial and Ward levels. The PMU may need ongoing support, training, and technical assistance to implement the Project E&S documents (which would be passed down to the Provincial and Ward levels) and prepare project activity instruments during project implementation. It is expected that enhanced oversight from the World Bank E&S team will be required.

Implementation support will include: (a) capacity building for staff on WB implementation and requirements; (b) an implementation support mission every six months, once international travel has resumed to Solomon Islands; (c) interim technical discussions and site visits by the WB; (d) monitoring and reporting by the implementation team on implementation progress and achievement of results; (e) annual internal and external financial audits and reporting; and (f) periodic procurement post review. In the event of the inability of relevant staff to travel to Solomon Islands to undertake implementation support, the use of audio/video conferencing, as has been the case during Project preparation, will continue in order to ensure support to the IAs. The WB will also maintain a close dialogue with the PMU E&S Specialist and ensure implementation support for environmental and social risk management and stakeholder engagement when needed. Further capacity assessments during project implementation will identify where training and further capacity building will be needed.

E&S related training topics/themes will include:

- OHS risk identification and mitigation
- Waste management
- Sedimentation and erosion control
- Labour management procedures
- Grievance mechanisms
- Prevention of GBV; violence against children; and discrimination
- Incident management

#### 8.5 E&S Risk Management Budget

Budget allocation for items that relate to the implementation of the ESMF are included in the overall project budget. These include:

- CCARRO (x5) (48 months)
- PMU E&S Specialist (x1) (48 months)
- International PMU E&S Specialist (12 months)
- Travel and PPE costs for E&S staff to travel to sites for training and conducting project supervision, monitoring and reporting.

# Annex I. Code of Environmental and Social Practice (CoESP) for Small Infrastructure

This Code of Environmental and Social Practice (CoESP) has been developed to manage the risks associated with the small infrastructure civil works, including but not limited to, construction of buildings (accommodation, markets, storage sheds, classrooms, health clinics), water supply (piped water supply systems, boreholes) and construction of small feeder roads and footpaths.

All civil works supported under the Project are required to comply with the CoESP and this will be specified in the contractor(s) agreements.

The CoESP provides the guidance for the environmental and social risk management of the civil works during the implementation of the Project. The potential environmental and social impacts, mitigation measures, and responsibilities during the planning / design and construction stages are outlined.

This CoESP should be read in conjunction with the following Project documents:

- Environmental and Social Management Framework (ESMF)
- Labour Management Procedure (LMP)
- Stakeholder Engagement Plan (SEP)
- PCDF Project Operational Manual (POM)

#### **Monitoring and Compliance**

The planning and design stages of the CoESP will be followed by the PMU Engineer; Provincial engineers; CCARROs and PMU E&S Specialist and compliance monitored by the World Bank E&S Risk Management Team.

The construction and installation stages of the CoESP will be followed by the contractor(s) and compliance monitored by the Provincial Engineers and CCARROs.

#### Reporting

Six-monthly reports will need to be prepared by the PMU E&S Specialists and provided to the World Bank. The semi-annual environmental and social monitoring reports to the World Bank will include: (i) the status of the implementation of mitigation measures; (ii) the findings of monitoring programs; (iii) stakeholder engagement activities; (iv) grievances log; and (v) any incidents/accidents with adverse impacts and the actions taken to address it and prevent reoccurrence.

Incidents/accidents must be initially reported as soon as practicable in accordance with Section 6.5 of the ESMF.

Monthly reports shall be prepared by the contractor(s) and submitted to the CCARROsand WSOs for review. The reports will include information on: (i) the implementation of Health and Safety and Waste Management plans; (ii) any health and safety or environmental incidents; and (iii) information on any grievances received and how they were resolved.

Planning and Design Stage				
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
Design of facilities do not meet layout and engineering requirements	Consultation with end-users (e.g., Ministry of Health and Medical Services; Ministry of Education and Human Resources Development) accordance with the SEP to ensure design of proposed facilities are fit-for-purpose.	Approved engineering designs.	During detail design period – prior to works commencing - once	PMU and related department at national and provincial levels (implementation)
Design of facilities do not meet requirements for people with disabilities	Consideration of access for people with disabilities in building design (e.g. ramps, bathrooms with facilities for people with disabilities, etc).	Approved engineering designs.	During detail design period – prior to works commencing - once	PMU (engineer and E&S Specialist); Provincial Program Coordinators; and Provincial engineers
Design of facilities do not consider security (including prevention of GBV)	Consideration of personal and asset security in building design (e.g., fencing, lighting, secure access, peep holes on doors, etc.)	Approved engineering designs.	During detail design period – prior to works commencing - once	PMU (engineer and E&S Specialist); Provincial Program Coordinators; and Provincial engineers
Facilities to be renovated/refurbished/de molished may contain asbestos, lead from lead paints, synthetic mineral fibre (SMF), ozone depleting substances (from old air conditioning units) and polychlorinated biphenyls (PCBs).	Building inspection(s) that identifies whether asbestos or other hazardous materials are present prior to renovations/refurbishments commencing.	Hazardous material assessment.	During detail design period – prior to works commencing - once	PMU (implementation)
Location of proposed feeder roads does not consider potential	Consultation with community in accordance with the SEP to ensure proposed project sites can be utilized for project infrastructure activities and	Results of consultation.	During detail design period – prior to works	PMU (engineer and E&S Specialist); Provincial Program

Planning and Design Stage				
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
environmental and social impacts	would not result in physical or economic displacement, or restriction of access to natural resources.		commencing - once	Coordinators; and Provincial engineers
Design of proposed feeder roads do not meet engineering requirements	Review of design to ensure feeder road / footpaths are fit-for-purpose and sustainable (e.g., not flood prone, erosion control considered in siting, etc)	Approved engineering designs.	During detail design period – prior to works commencing - once	PMU (engineer and E&S Specialist); Provincial Program Coordinators; and Provincial engineers
Siting of infrastructure results in physical or economic displacement, or restriction of access to natural resources	The acquisition of private land is not permitted.  Undertake consultation to ensure proposed site would not result in physical or economic displacement, or restriction of access to natural resources and can be utilized for Project activities.  See also Section 6.3 of ESMF	Results of consultation.	During detail design period – prior to works commencing – once	PMU (implementation)
Source water for water supply not sustainable resulting in unusable infrastructure.	Source water from sustainable sources (e.g., creeks that flow year-round)	Results of review	During detail design period – prior to works commencing – once	PMU (engineer and E&S Specialist); Provincial Program Coordinators; and Provincial engineers
Location of water supply outlets (e.g., taps, boreholes) not freely accessible to community members, including vulnerable people	Consultation with community in accordance with the SEP to ensure proposed water supply outlet sites can be freely accessed by community members, including vulnerable people.	Results of consultation.	During detail design period – prior to works commencing – once	PMU (implementation)
Location of jetty has potential to impact sensitive marine habitat (from direct clearing and	Site jetties away from sensitive habitats such as coral and seagrass.	Approved engineering designs.	During detail design period – prior to works	PMU (engineer and E&S Specialist); Provincial Program Coordinators; and

Planning and Design Stage					
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities	
sedimentation) associated with construction			commencing – once	Provincial engineers	
Drilling (i.e., borehole installation) causes contamination of groundwater aquifer	Hire experienced and reputable drilling contractor to install boreholes.	Review of contractor experience as part of procurement process	During procurement stage	PMU (engineer and E&S Specialist); Provincial Program Coordinators; and Provincial engineers	

Renovation / Refurbishment / Installation Stage					
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities	
Air quality, noise, and vibration generated from civil works	The contractor(s) is responsible for compliance with all relevant national legislation and international standards with respect to noise and vibration and ambient air quality.  Noise and vibration:  The contractor(s) undertaking works shall implement the following at a minimum:  Plan activities in consultation with communities so that noisiest activities are restricted to being undertaken during periods that will result in least disturbance  Noise levels should be maintained within the national permissible limits/standards  If necessary, use temporary noise-control methods such as fences, barriers or deflectors (such as muffling devices for combustion engines) and select equipment with lower sound power levels where possible  Minimize transportation of demolition waste and construction materials through community areas during regular working time	Designated stockpile areas approved; dust plumes; complaints register; vehicle and plant maintenance records.	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs(oversight)	

Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	<ul> <li>Maintain a buffer zone (such as open spaces, row of trees or vegetated areas) between the project site and surrounding areas if possible, to lessen the impact of noise.</li> </ul>			
	<ul> <li>Noise impacts should not exceed 55 dB(A) for residential; institutional, or educational receptors during the daytime (07:00 – 22:00) and 45 dB(A) during the Night-time (22:00 – 07:00) and for industrial or commercial receptors should not exceed 70 dB(A) at anytime or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site).</li> </ul>			
	<ul> <li>Given the small scale of subprojects, modification of noise levels in response to community concerns is likely sufficient and noise monitoring unnecessary.</li> </ul>			
	Air Quality:			
	The contractor(s) undertaking works shall implement dust suppression measures (e.g. covering of material stockpiles, etc.) as required. At a minimum the following is required:			
	<ul> <li>Materials used shall be covered and secured properly during transportation to prevent scattering of soil, sand, materials, or generating dust</li> </ul>			
	<ul> <li>Keep stockpiles of aggregate materials covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals</li> </ul>			
	<ul> <li>Minimize dust from exposed work sites and stockpiles by applying water on the ground regularly</li> </ul>			
	<ul> <li>No burning of site clearance debris (trees, undergrowth) or construction waste materials</li> </ul>			
	Hydrocarbons shall not be used as a method of dust control			
	<ul> <li>Immediately re-vegetate and/or stabilize exposed areas (if required).</li> </ul>			

Renovation / Refurbishmen	nt / Installation Stage					
Risks and Impacts				Monitoring - Verification	Monitoring - Frequency	Responsibilities
		Averaging Period	Guideline value in			
	Particulate Matter PM <sub>10</sub>	1-year 24-hour	20 50			
	Particulate Matter PM <sub>2.5</sub>	1-year 24-hour	10 25			
Soil erosion and uncontrolled sediment causing negative impacts to surface or groundwater.	<ul> <li>The contractor(s) undertaking works shall implement the following at a minimum:</li> <li>Implement suitable project design (e.g., establish appropriate erosion and sediment control measures) to minimize soil erosion and identify and protect receiving water courses and bodies;</li> <li>Scheduling to avoid heavy rainfall periods; and</li> <li>Use mulch, grasses or compacted soil to stabilize exposed areas promptly.</li> </ul>			On-site sediment control measures; records of water quality monitoring (visual); revegetation.	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)
				revegetation		
	<ul><li>Minimise cleare</li><li>Avoid clearing sl</li></ul>	d areas. oped areas where practical	ole.			
Resource efficiency issues, including materials supply	The contractor(s) unde	ertaking works shall at a mir	nimum:	Contract for local materials.	Prior to works commencing and then	Contractor(s) (implementation)

Renovation / Refurbishmen	t / Installation Stage			
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
and extraction of raw materials.	<ul> <li>Estimate the quantities of raw materials needed for the minor civil works;</li> <li>Source raw materials and construction materials locally and from licenced/permitted facilities only; and</li> <li>Use recycled or renewable building materials (e.g. timber) where possible.</li> </ul>		throughout construction as required	CCARROs (oversight)
Impacts on local communities from traffic obstruction, congestion, and traffic and road safety.	<ul> <li>The contractor(s) undertaking works shall implement the following at a minimum:</li> <li>Construction and establishment of haul roads shall be kept to a minimum;</li> <li>Communicate traffic management plans – including traffic volumes, schedules, road closures and community safety measures – to project stakeholders and local communities.</li> <li>Minimise the extent of traffic and construction impacts on adjacent villages and other residential areas where possible; and</li> <li>All traffic signs used for the warning or direction of traffic at road works sites shall comply with appropriate traffic regulations. Homemade signs shall not be used.</li> <li>Implement dust suppression measures.</li> </ul>	Traffic management plan included in the Contractor(s) H&S Management Plan; traffic control measures implemented; signage and barriers installed as required; complaints register.	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)
Damage to cultural heritage.	The contractor(s) shall have a Chance-Finds Procedure in place prior to any physical works beginning. Chance Finds Procedure is available in Annex II.	Chance-Finds Procedure in place; complaints register.	Prior to works commencing and then maintained throughout construction.	Contractor(s) Site Engineer (implementation) CCARROs (oversight)
Disturbance of UXO results in OHS and community safety risks	Discuss UXO potential with community and have the site cleared prior to ground disturbance activities if warranted.  Should a UXO be discovered one works have commenced, the contractor is to immediately cordon off the area, arrange the evacuation of nearby residences	Records of community consultation regarding UXO	Prior to works commencing and then	

Renovation / Refurbishment / Installation Stage				
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	and inform the police of the find. Currently, all UXO finds are reported to the police who arrange the pickup, transport, storage and ultimate disposal of the finds.	potential, UXO clearance and disposal	throughout construction.	
Land and/or water pollution from waste generated by demolition debris, construction materials, and/or workers (solid, hazardous, and wastewater)	<ul> <li>The contractor(s) undertaking works shall implement the following at a minimum:</li> <li>Follow the Project WMP and develop site-specific WMP is required.</li> <li>The WMP must include the principles of the Waste Hierarchy (Reduce, Reuse, Recycle, Residual Disposal) as outlined in the National Waste Management and Pollution Control Strategy 2017-2026. The following methods for waste reduction and recycling should be utilized:         <ul> <li>Minimise waste production by reusing existing structures; initially remove materials by hand e.g. wooden floorboards, to avoid damage and excess waste; separating materials (metal, timber etc.) and storing them in neat piles to avoid cross contamination; ensuring safe and dry storage of salvaged items; placing clear signage on all waste separation and collection areas;</li> <li>Recyclable materials such as packaging material etc., shall be segregated and collected on-site from other waste sources for reuse or recycle (sale);</li> <li>Remove scrap metal, such as roofing materials and iron rebar from concrete, for reuse off-site or metal recycling where practicable. Steel off-cuts can be recovered and sold as scrap metal;</li> <li>Timber can be resold for utilisation as fuel (non-treated) or for repairing houses in villages or outer island communities (treated);</li> <li>On-site and off-site transportation of waste should be conducted to prevent or minimize spills, releases, and exposures to employees and the public;</li> </ul> </li> <li>Use litter bins, containers and waste collection facilities at all places during works;</li> </ul>	Contractor's WMP; sanitation facilities maintained onsite; waste and recycling records; worker training records.	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)

Renovation / Refurbishm	ent / Installation Stage			
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	<ul> <li>Store solid waste temporarily on site in a designated place prior to off- site transportation and disposal through a licenced waste collector;</li> </ul>			
	<ul> <li>Dispose of waste only at designated place identified and approved by local authority. It is prohibited for the contractor(s) to dispose of any debris or construction material/paint in environmentally sensitive areas (including watercourses);</li> </ul>			
	<ul> <li>Provide adequate portable sanitation facilities serving all workers at all construction sites;</li> </ul>			
	<ul> <li>Ensure onsite worker sanitation facilities be properly operated and maintained to collect and dispose of wastewater;</li> </ul>			
	<ul> <li>Minimize hazardous waste generation by ensuring hazardous waste is not co-mingled with non-hazardous waste. Collect, transport and disposal of hazardous waste to licenced/permitted hazardous waste sites only following good international industry practice (GIIP) for the waste being handled; and</li> </ul>			
	<ul> <li>Design training for staff in the segregation of wastes.</li> </ul>			
Land and/or water pollution from use and storage of hazardous substances e.g. minor	The contractor(s) undertaking works shall implement the following at a minimum in accordance with relevant Solomon Islands laws and GIIP such as the <a href="IFC EHS Guideline">IFC EHS Guideline</a> : Hazardous Materials Management:	Secured storage areas and secondary containment; spill kit and worker training	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)
substances e.g. minor spills from fuel, oils, lubricants.	<ul> <li>Using impervious surfaces for refuelling areas and other fluid transfer areas;</li> </ul>			
	<ul> <li>Ensure that refuelling and maintenance facilities are not located, or that activities do not take place, within 30 m of a watercourse, or in ecologically sensitive areas. If a 30m limit is impracticable then a lesser limit may be adopted provided approval is obtained. On no account shall the limit be less than 10 m;</li> </ul>	records; records of safety briefings; vehicle and plant maintenance		
	<ul> <li>Providing adequate secondary containment for fuel storage tanks and for the temporary storage of other fluids such as lubricating oils and hydraulic fluids. If the secondary containment used is bunding, then the area should also be lined and covered;</li> </ul>	records.		

Renovation / Refurbishment / Installation Stage				
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	<ul> <li>Ensure that vehicles and plant are not stored within 30 m of a watercourse, or in ecologically sensitive areas, overnight or when not in use;</li> </ul>			
	<ul> <li>Regular checks for leaking oil or fuel from machinery undertaken. Any leaks are promptly repaired and/or parts replaced within two days as part of maintenance of vehicles and equipment;</li> </ul>			
	<ul> <li>Training workers on the correct transfer and handling of fuels and chemicals and the response to spills; and</li> </ul>			
	<ul> <li>Spill kit, appropriate to the hazardous materials being used, to be kept on-site and workers to be trained in its deployment.</li> </ul>			
Land and/or water pollution from hazardous wastes such as asbestos, lead paints, SMF, ozone depleting substances (from old air conditioning units) and PCBs that may be present in demolition or refurbishment debris.	<ul> <li>The contractor(s) undertaking works shall be required to do the following at a minimum:         <ul> <li>Hazardous material management procedure detailed in WMP(s) to be developed during project by the contractor in accordance with GIIP. WMP(s) must be submitted to the PMU E&amp;S Specialists for approval prior to any physical works commencing;</li> <li>Asbestos containing materials managed in accordance with GIIP such as WBG guidelines on asbestos management. GIIP for asbestos includes:</li></ul></li></ul>	Hazardous material management procedure as part of Contractor's WMP; record of building inspection; hazardous waste records; worker training records.	Procedure prepared prior to works commencing and then weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)
	<ul> <li>Safe removal of any asbestos-containing materials or other toxic substances shall be performed and disposed of by specially trained workers in line with the WBG guidelines on asbestos management;</li> </ul>			

Renovation / Refurbishmen	nt / Installation Stage			
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	<ul> <li>Removal personnel will have proper training prior to removal or repair of asbestos containing materials;</li> <li>All asbestos waste and products containing asbestos is to be buried at an appropriate landfill and not to be tampered or broken down to ensure no fibres are airborne. Disposal of waste containing asbestos should be agreed with ECD; and</li> <li>No asbestos containing materials shall be used for construction works.</li> </ul>			
Loss of vegetation cover / trees	<ul> <li>Minimise area to be cleared.</li> <li>Store topsoil from excavated area for vegetation. planting/reinstatement at the end of construction.</li> <li>Only cut trees and remove vegetation in areas specified in the design.</li> <li>Keep the area of vegetation removal minimal. Avoid loading the pipes, timbers, construction tools on vegetated areas. Place them on barren soil.</li> <li>Restore vegetation cover on barren soil at the end of construction.</li> <li>Plant native trees to compensate for trees logged for timber used in the sub-project or create vegetation cover.</li> <li>Refill excavated areas and cover with top soil for vegetation cover to regenerate.</li> </ul>	Revegetation.	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)
Occupational Health and Safety (OHS) risks for workers from civil works.	The contractor(s) undertaking works shall comply with all national and good practice regulations and GIIP regarding workers' safety, such as OHS section of the IFC EHS Guidelines on Construction and Decommissioning, and implement the following at a minimum:  • Complete different levels of risk assessment, i.e. from whole Job Safety Analysis down to the personal level, to identify any potential hazards, rank the risks, and identify ways to eliminate, control or minimize the hazards. Develop and follow a site-specific health and safety (H&S) management plan that is compliant with the ESMF and World Bank Environment and Health and Safety Guidelines (EHSGs). H&S	Contractors Health and Safety plan(s); Emergency Action Plan; Workers allocated and wearing PPE; first aid kits in vehicles and at work sites; worker training records;	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)

-	ment / Installation Stage			
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	management plan(s) must be submitted to the PMU E&S Specialists for approval prior to any physical works commencing;	complaints record; accident/		
	<ul> <li>Appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site;</li> </ul>	incidents register.		
	<ul> <li>Prepare and implement a simple action plan to cope with risk and emergency (e.g., fire, storm surge, cyclone, COVID-19 outbreak);</li> </ul>			
	<ul> <li>Have or receive minimum required training on occupational safety regulations and use of PPE;</li> </ul>			
	<ul> <li>Undertake training of staff to meet standards for the proper operation and use of equipment;</li> </ul>			
	<ul> <li>Training of workers in lifting and materials handling techniques in renovation / refurbishing projects, including the placement of weight limits above which mechanical assists or two-person lifts are necessary;</li> </ul>			
	<ul> <li>Training and use of temporary fall prevention devices, such as rails or other barriers able to support a weight of 200 pounds, when working at heights equal or greater than two meters (e.g. on scaffolding);</li> </ul>			
	<ul> <li>Use of control zones and safety monitoring systems to warn workers of their proximity to fall hazard zones, as well as securing, marking, and labeling covers for openings in floors, roofs, or walking surfaces;</li> </ul>			
	<ul> <li>Take protective measures to prevent accidents such as:</li> </ul>			
	<ul> <li>implementing good house-keeping practices, such as the sorting and placing loose construction materials or demolition debris in established areas away from foot paths.</li> </ul>			
	<ul> <li>Locating electrical cords and ropes in common areas and marked corridors.</li> </ul>			
	<ul> <li>Planning and segregating the location of vehicle traffic, machine operation, and walking areas, and controlling vehicle traffic through the use of one-way traffic routes, establishment of speed</li> </ul>			

Renovation / Refurbishmen	nt / Installation Stage			
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	limits, and on-site trained flag-people wearing high-visibility vests or outer clothing covering to direct traffic.			
	<ul> <li>Ensuring moving equipment is outfitted with audible back-up alarms.</li> </ul>			
	<ul> <li>Use of temporary fall protection measures in scaffolds and out edges of elevated work surfaces, such as handrails and toe boards to prevent materials from being dislodged.</li> <li>Provide PPE and other safety measures as appropriate during works such as safety glasses with side shields, face shields, hard hats, hi-vis vests and safety shoes with non-slip soles, first aid kits, restricted access zones, warning signs, overhead protection against falling debris;</li> </ul>			
	<ul> <li>Refer any grievances received by the community or local businesses to the WSO who will coordinate the GM; and</li> </ul>			
	<ul> <li>Provide project workers with accessible means to raise workplace concerns (refer to Project LMP).</li> </ul>			
Construction jetties results in sedimentation of sensitive marine habitat	Use coarse fill material if fill material is required.  Use geotextile or similar to minimise mobilisation of loose material.  Consider current velocity (including tidal movements) and location of sensitive habitat when choosing construction windows.	On-site sediment control measures; records of water quality monitoring (visual	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)
Health and safety risks for community from civil works.	<ul> <li>The contractor(s) undertaking works shall implement the following at a minimum:</li> <li>Develop and follow a site-specific health and safety (H&amp;S) management plan that is compliant with the ESMF and World Bank Environment and Health and Safety Guidelines (EHSGs) and which includes health and safety measures for the community. H&amp;S management plan(s) must be submitted to the PMU E&amp;S Specialists for approval prior to any physical works commencing;</li> <li>A Traffic Management Plan must be included in the H&amp;S Management Plan;</li> </ul>	Contractor's Health and Safety plan which includes a Traffic Management Plan; signage and traffic control measures; site barriers such as fencing; records of consultations;	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)

Renovation / Refurbishment / Installation Stage				
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities
	<ul> <li>Comply with all national and good practice regulations regarding workers' safety and the Project's LMP;</li> <li>Take protective measures to prevent accidents such as:         <ul> <li>Barriers to prevent unauthorised access to worksites.</li> <li>Implementing good house-keeping practices to eliminate the hazard where possible, such as the sorting and placing loose construction materials or demolition debris in established areas away from foot paths.</li> <li>Planning and segregating the location of vehicle traffic, machine operation, and walking areas, and controlling vehicle traffic through the use of one-way traffic routes, establishment of speed limits, and on-site trained flag-people wearing high-visibility vests or outer clothing covering to direct traffic.</li> <li>Ensuring moving equipment is outfitted with audible back-up alarms.</li> </ul> </li> <li>Provide safe access routes and other safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, covering openings to small confined spaces, overhead protection against falling debris and barricaded exclusion areas for drop zones (e.g. when working at heights), lighting system to protect community against construction risks;</li> </ul> <li>Communicate risks and community safety mitigation measures to project stakeholders and communities; and</li> <li>Grievance mechanism (GM) developed and operational in accordance with the Project SEP.</li>	complaints records; accident/incidents register.		
Increase in sexual exploitation and abuse/ harassment (SEA/H) related to project workforce	<ul> <li>The Contractor(s) should at a minimum:</li> <li>Comply with all relevant national laws and legislations.</li> <li>Include SEA/H requirements in the site-specific H&amp;S management plan including aspects relating to preventing GBV and SEA/H and zero tolerance for these behaviours.</li> </ul>	Contractor's Health and Safety Management plan which includes SEA/H	Weekly inspections throughout construction period.	Contractor(s) (implementation

Renovation / Refurbishme	ent / Installation Stage		Renovation / Refurbishment / Installation Stage			
Risks and Impacts	Mitigation Measures	Monitoring - Verification	Monitoring - Frequency	Responsibilities		
	<ul> <li>Ensure that workers are well briefed on the GBV and SEA/H requirements in the H&amp;S management plan.</li> <li>Provide separate facilities for female and male workers.</li> <li>Refer to the Project LMP for further mitigation measures.</li> </ul>	requirements; Agreed Code of Ethics and Professional Conduct; worker training records; complaints record.		CCARROs (oversight)		
Workers are underaged.	Child labour or forced labour is absolutely prohibited in the project.	Records of workers by age; complaints record.	Weekly inspections throughout construction period.	Contractor(s) (implementation)  CCARROs (oversight)		

#### Annex II. Chance Finds Procedure

Cultural heritage encompasses tangible and intangible heritage which may be recognized and valued at a local, regional, national or global level. Tangible cultural heritage, which includes movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Tangible cultural heritage may be located in urban or rural settings, and may be above or below land or under the water. Intangible cultural heritage, which includes practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith— that communities and groups recognize as part of their cultural heritage, as transmitted from generation to generation and constantly recreated by them in response to their environment, their interaction with nature and their history.

The list of negative activity attributes which would make an activity ineligible for support includes any activity that would adversely impact cultural heritage assets. In the event that during minor civil works sites of cultural value are found, the following procedures for identification, protection from theft, and treatment of discovered artefacts should be followed and included in standard bidding documents.

Chance find procedures will be used as follows:

- (a) Stop the earthworks, construction or land clearing activities in the area of the chance find;
- (b) Delineate the discovered site or area;
- (c) Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the relevant Ministry take over;
- (d) Notify the supervisory Engineer who in turn will notify the responsible local authorities and the relevant Ministry immediately;
- (e) Responsible local authorities and the relevant Ministry would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures;
- (f) Decisions on how to handle the finding shall be taken by the responsible authorities and the relevant Ministry;
- (g) Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the relevant Ministry; and
- (h) Construction work could resume only after permission is given from the responsible local authorities and the relevant Ministry concerning safeguard of the heritage.

These procedures must be referred to as standard provisions in construction contracts. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered are observed.

Relevant findings will be recorded in World Bank Supervision Reports and Implementation Completion Reports will assess the overall effectiveness of the project's cultural heritage mitigation, management, and activities.

# Annex III. Screening Form for Potential Environmental and Social Impacts

This form is to be used by the CCARROs to screen potential environmental and social risks and impacts of a proposed subproject. The purpose of screening is to (i) determine whether activities are eligible to be financed, and likely to have potential negative environmental and social risks and impacts; and (ii) identify appropriate mitigation measures for activities with adverse risks or impacts. The screening will help the CCARRO and PMU E&S Specialist in identifying the relevant Environmental and Social Standards (ESS), establishing an appropriate E&S risk rating for these activities and specifying the type of environmental and social assessment required, including specific instruments/plans.

Use of this form will allow the CCARRO and PMU E&S Specialist to form an initial view of the potential risks and impacts of a project activity. It is not a substitute for project-specific E&S assessments or specific mitigation plans.

The completed forms will be signed and kept in the Project ESF file and included in the ESF implementation progress report to be submitted to World Bank (WB) per the schedule as agreed with WB.

# **IMPACTS SCREENING FORM**

Sul	oproject name and	d a brief description:			
Loc	cation of Village ar	nd Province:			
Dat	te of site visit / fie	ld investigation:			:
		IMPACTS SCREENII	NG FORI	VI	
	•	ARRO (name): MU E&S Specialist (if required) (name	e):		
	Sub-project name	and a brief description:			
	ocation of Village	and Dravince			
'	Location of Village	and Province:			
	Subject	Screening Questions	Yes	No	Note/Comment (column to be completed with additional information where the response to a screening question is yes)
	CONSTRUCTION		1		
		Will the subproject:			(guidance are given below)
	1. Vegetation cover, trees, insects, animal	Remove vegetation cover, cut down trees for timber or site clearance?			Specify the number and the type of trees to be cut down
		Affect cropland with waste and wastewater?			Assess if waste and wastewater generated during construction affect existing crops
		Disturb wildlife?			
	2. Natural resources	Be located near forest or least disturbed /nature reserve area?			Estimate the distance
	3. Landscape	Cause significant changes to, or			Describe the nature of

negatively affect the landscape of

the area?

change, e.g. from green site

to concrete/ wooden

		structures, dumps created in green area,
4.Solid waste	Generate solid waste such as excavated soil, unused materials	Will the generated waste be able to be managed in accordance with WMP (Annex IV of ESMF)?
5. Hazardous	Generate hazardous waste such as	Will the generated waste be
wastes	batteries, unused paints, oil,	able to be managed in
	lubricant	accordance with WMP
	etc.	(Annex IV of ESMF)?
6.Wastewater	Generate wastewater from the site?	List the types of activities
		(e.g. concrete mixing, tools
		washing etc.) that may
		generate waste water and quantity.
7.Dust and	Cause increased dust level at the	Identify the sources, e.g.
smoke	site, or generate smoke	barren soil, disturbed ground,
		solid waste dumped at the
		sites, sand, gravel loaded at the site etc.
8.Noise and	Generate high noise and vibration	Identify the sources, e.g.
vibration		drilling, pile driving,
		steel/timber cutting and
		the time that
		noise/vibration lasts
		Describe the distance from the
0 [	Distruction of 2	nearest house to noise source
9. Erosion	Disturb slopes?	Describe the construction
risks		site, status of vegetation
		cover and the level of
		interference by the project. Consider rainfall during
		construction phase
10. Water	Cause water pollution by	Estimate the type and
quality	construction waste and materials	quantity of materials loaded
4/	loaded at the construction site	at the site at a time, the
		distance from construction
		site to the nearest water
		bodies and
		topographical condition
11. Local	Increase localised flooding	Describe site topographical
flooding	risk by temporary/permanent	condition, drainage and
	loading of construction	estimate the maximum
	materials/wastes	quantity of granular
		construction materials
		loaded/exist
		at the time at a time

12. Water quantity	a. Withdraw groundwater in a coastal area that may lead to the risk of salinity intrusion	estimate the nature of water use by the project
	b. Extract or use a large amount of water in local river/streams may cause shortage to water supply to other users in the locality?	estimate the nature of water use by the project
13. Social disturbance	a. Disrupt local traffic/ transportation/ pedestrian traffic	List the activities/circumstance that can cause Social disturbance (e.g. Disrupt the pedestrian traffic or the operation of local water supply system etc.
	b. Disrupt the operation of local water supply system c. Disrupt the operation of local	
	d. Disrupt the operation of local drainage system	
	e. Disrupt local farming activities  f. Disrupt community meetings/social events	
14. Safety to community	g. Affect community security?  Cause safety risk to the community	List the activities/circumstance that may cause safety risks to local community
15. Public health	Cause concerns on public health/ sanitation /hygiene in the local community	Describe the nature of the activities that may cause health risks or create unhygienic conditions in project area
16.Worker's health & safety	Cause workers health and safety concerns	
17.PCR	Impact cultural sites such as church, historical site, graveyard, etc.	
18. Community support	Does the project enjoy broad community support?	
19. Sustainability	Does the community have a plan for the management and maintenance of assets after implementation?	Management Plan to accompany an application for funding

Does the subproject involve land acquisition	See section 6.3 of ESMF for requirements
From discussions with local community around previous potential finds, is there likely to the UXOs at the site?	If yes, need to get site cleared before ground disturbance activities can commence. Need to ensure allocation for this is included the project budget.
Has the project design considered universal access?	, and a second s
	Specify
Will the subproject:	
Generate wastewater from the site? e.g. slaughterhouse wastewater, fertilizer runoff etc.	
Generate solid waste e.g. slaughterhouse waste	
Result in noise or odour impacts to nearby receivers (houses, schools, community facilities etc.)	
Require training and health and safety management for workers to allow for safe operation	List the activities/circumstance that may create safety risks to workers
	List the activities/circumstance that may create conflict with downstream water users  Specify
	From discussions with local community around previous potential finds, is there likely to the UXOs at the site?  Has the project design considered universal access?  Will the subproject:  Generate wastewater from the site? e.g. slaughterhouse wastewater, fertilizer runoff etc.  Generate solid waste e.g. slaughterhouse waste  Result in noise or odour impacts to nearby receivers (houses, schools, community facilities etc.)  Require training and health and safety management for workers to

Conclusion: Based on the above screening preparation of the below ESF documents/instruments is recommended:

- 1. ECOP (in the ESMF) (Solomon Islands & WB)
- 2. ESIA/ESMP (Solomon Islands/WB)
- 3. Full EIA incorporating ESMP (Solomon Islands)
- 4. Waste Management Plan

# Annex IV. Environmental and Social Management Plan (ESMP) Template

An Environmental and social management plan (ESMP) is an instrument that details (i) the measures to be taken during the implementation and operation of an activity to eliminate or offset adverse environmental and social impacts, or to reduce them to acceptable levels; and (ii) the actions needed to implement these measures.

The PMU E&S Specialists may need to develop an Environmental and Social Management Plan (ESMP) where E&S risks of subprojects are not covered by the following existing documents:

- Environmental and Social Management Framework (ESMF)
- Labor Management Procedure (LMP)
- Stakeholder Engagement Plan (SEP)

If a PER/EIS are determined during subproject planning to be required by ECD, the requirements of the PER/EIS can be incorporated into the ESMP to be prepared in accordance with the ESF.

The ESMP should be incorporated into the contractors bidding document(s) and/or contract(s).

The content requirements of a subproject-specific ESMP are provided below.

1. Location/Project Description/E&S Baseline Information. This section would:

Concisely describe the proposed location and its geographic, ecological, social and temporal context including any offsite investments that may be required (e.g. access roads, water supply, etc.). Normally includes a map showing the location and project areas of influence.

Include a description of the proposed works.

Describe relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.

- **2. Potential Impacts.** This section would predict and assesses the likely positive and negative impacts environmental and social risk/impacts
- **3. Mitigation. This section would** identify measures to reduce potentially significant adverse environmental impacts to acceptable levels. The plan should include compensatory measures if mitigation measures are not feasible. This section would:

Identify and summarize all anticipated significant adverse environmental impacts (including those involving indigenous people or involuntary resettlement).

Describe each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate.

Estimate any potential environmental impacts of these measures.

Identify magnitude of risk and who is responsible for the implementation of the measure and timing. Provide linkage with any other mitigation plans required for the project (e.g., LMP).

**4. Monitoring.** This section would identify monitoring objectives and specifies the type of monitoring, with linkages to the potential impacts identified and the proposed mitigation measures. This section would include:

Description and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.

Monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

#### 5. Implementation Arrangements and Capacity Development. This section would include:

Reference other sub-plans such as (i) location-specific stakeholder engagement plan, (ii) disclosure and consultation, (iii) grievance redress mechanism, (iv) and others.

Description of institutional arrangements--who is responsible for carrying out the mitigatory and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).

#### 7. Implementation Schedule and Cost Estimates. This section would include:

implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and

description of the capital and recurrent cost estimates and sources of funds for implementing and monitoring the ESMP.

# Annex V. Waste Management Plan for Contractors

#### Scope

The objective of this waste management pan (WMP) is to provide guidance to contractors on the IEDCR Project on the management of Project-generated waste. If waste types will be generated that are not covered by this plan or if the proposed management strategy for waste types differs from this WMP, then contractors are to prepare a WMP for these waste streams and provide to the Provincial Engineer and/or Climate Change and Risk Reduction Officer for review and approval.

Wastes, if not managed responsibly, have the potential to contaminate land, groundwater and/or surface water, which can adversely impact flora, fauna and human health.

Wastes will be generated by the Project through construction of subprojects. Subproject types are expected to include buildings (e.g., accommodation, markets, storage sheds, classrooms, health clinics), water supply (e.g., piped water supply systems, storage tanks, boreholes) and maintenance of small roads and footpaths.

# Waste Management Hierarchy

Waste should be managed according to the following hierarchy:

- Avoid avoid generation of waste (e.g., purchase products with no packaging materials)
- Reduce reduce generation of waste (e.g., purchase product in bulk to reduce packaging materials)
- Reuse reuse waste products (e.g., reuse packaging materials)
- Recycle recycle waste products (e.g., recycle packaging materials)

#### Waste Register

The following table provides guidance on the management of each waste type that is expected to be generated by the Project. The guidance includes:

- Classification
- Waste generating process
- Opportunities for minimisation
- Handling requirements
- Disposal method in order of preference. It is acknowledged that some works will be undertaken in remote areas with limited municipal waste management areas (WMA) and therefore some options are provided for disposal to ensure this WMP remains practical, and the safe disposal of hazardous waste is prioritised.

All waste that require storage and/or transport prior to disposal should also be clearly labelled and care taken not to mix non-hazardous waste with hazardous waste.

Waste Type	Classification	Waste Generating Process	Opportunities for Minimisation	Handling Requirements	Disposal Method (in order of preference)
Ash from burn pits- non- restricted	Non-hazardous	Residual matter from burning of non-restricted waste	Minimisation of waste in general before requirement for incineration	Avoid contact or ingestion. Wear standard PPE, leather gloves and dust mask when handling this waste. Cease ash handling activities during high wind conditions.	1. Bury
Clearing and grubbing waste	Non-hazardous	Excess soil, rock, and vegetative material produced from the clearing	Only clear area required for safe operation. Only grub when necessary.	Wear standard PPE and leather gloves	Use for rehabilitation.     Gift to community for building materials and fuel
Domestic – food waste	Non-hazardous	Kitchen scraps, food leftovers	Training of catering staff to cook only what is required.		Burn pit     Bury
Domestic - other	Non-hazardous	General rubbish from domestic bins in offices and accommodation	Print double sided		1. Burn pit
Electrical goods waste	Non-hazardous	Electrical parts, fittings, cable, electrodes.			Reuse where parts where possible     Take to municipal WMA
Empty containers (non-hazardous)	Non-hazardous	Generated from containerized products. Includes only containers that did not contain materials that would be hazardous wastes if discarded, or that have been emptied and cleaned of such contents.	Use returnable containers whenever possible.	Consult labelling of original material stored in the drum/barrel/container. Avoid physical contact with container residues.	Reuse     Gift to community (clean very well first)     Tale to recycling facility     Take to municipal WMA
Fill Material	Non-hazardous	Excess spoil material generated during construction activities.	Ensure Project design is followed to minimise Project footprint.		<ol> <li>Reuse</li> <li>Gift to community</li> <li>Spoil dump</li> </ol>

Waste Type	Classification	Waste Generating Process	Opportunities for Minimisation	Handling Requirements	Disposal Method (in order of preference)
Concrete	Non-hazardous	Non-combustible waste	Reuse/recycle to the maximum	Wear standard PPE and leather	Reuse as fill Material
		generated during construction activities. I.e., concrete.	extent practicable.	gloves.	Take to municipal WM     Bury
Glass	Non-hazardous	Produced from glass containers and construction waste.		Wear standard PPE and leather gloves	1. Take to municipal WMA
Paper and cardboard	Non-hazardous	Paper and cardboard produced from packaging materials		Wear standard PPE and leather gloves	1. Burn pit 2. Bury
Plastic and insulation	Non-hazardous	Plastic and insulation used for construction and shipment of materials. Consumables and domestic products from packaging materials.	Order materials in bulk to decrease packaging materials.	Wear standard PPE and leather gloves	1. Take to municipal WMA
Scrap metal	Non-hazardous	Generated from construction activities.		Wear standard PPE and leather gloves when handling this waste. Scrap metals should be cut to size and sorted prior to conveyance to the WMA. Any contaminated scrap metal should be thoroughly decontaminated and landfilled.	Reuse     Take to recycling facility     Take to municipal WMA
Tyres	Non-hazardous	Used tyres from vehicles on site.	Avoid driving practices that promote wear and tear of tyres, regular wheel alignments on vehicles	Wear standard PPE and potentially supplemented with leather gloves when handling this waste.	Reuse     Take to recycling facility     Take to municipal WMA

Waste Type	Classification	Waste Generating Process	Opportunities for Minimisation	Handling Requirements	Disposal Method (in order of preference)
Wood scrap	Non-hazardous	Wood waste, insulation, and other combustible waste from packaging and/or construction activities.	Reuse/recycle wood to the maximum extent practicable. Order materials in bulk to decrease packaging materials.	Wear standard PPE and leather gloves	Reuse     Gift to community     Burn pit
Empty gas cylinders	Hazardous	Empty pressurized gas tanks i.e from welding activities.	N/A	Wear standard PPE and leather gloves  Secure and store in the designated area away from naked flames	Return to supplier for refilling     Take to recycling facility     Take to municipal WMA
Empty containers (hazardous)	Hazardous	Generated from containerized products used that contained materials that would be hazardous wastes if discarded that have not been emptied and cleaned of such contents.	Use returnable containers whenever possible.	Consult labelling and MSDS of original material stored in the drum/barrel/container. Avoid physical contact with container residues.	1. Return to supplier for refilling 2. Take to recycling facility 3. Take to municipal WMA *Do not gift to community*

Waste Type	Classification	Waste Generating Process	Opportunities for Minimisation	Handling Requirements	Disposal Method (in order of preference)
Filters	Hazardous	Spent engine oil filters used for vehicles.		Avoid skin contact with or ingestion of oil. Wear standard PPE, and potentially supplemented with disposable coveralls, chemically resistant gloves, and/or activated breathing protection device when handling this waste. Drain free liquids.	Take to recycling facility     Take to municipal WMA
Miscellaneous Restricted	Hazardous	Restricted waste not represented in any other category.			1. Take to municipal WMA
Spent Batteries	Hazardous	Lead-acid electrical storage batteries and disposable dry cells used in various fields and plant operations, including vehicles and construction equipment.	Use rechargeable batteries where possible	Avoid skin contact or ingestion of acid. Avoid acid fumes. Wear standard PPE, potentially supplemented with acid/caustic resistant gloves, acid/caustic resistant apron, and/or face shield when handling this waste. Do not damage or crack batteries.  Neutralising materials should be readily on hand in the event of an accident or spillage at place of work.	Take to recycling facility     Take to municipal WMA
Waste Oils	Hazardous	Oil waste from maintenance and operations of construction equipment and vehicles.	Review processes to evaluate the effectiveness of current materials used to ensure maximum efficiency is obtained prior to changing oils and lubes. Ensure equipment arrives fully serviced.	Avoid skin contact or ingestion. Wear standard PPE, and potentially supplemented with disposable coveralls, chemically resistant gloves, and/or activated carbon-equipped breathing protection device when handling this waste.	Take to recycling facility     Take to municipal WMA

Waste Type	Classification	Waste Generating Process	Opportunities for Minimisation	Handling Requirements	Disposal Method (in order of preference)
Oily rags and used absorbent materials	Hazardous	Oily rags from maintenance and operations of construction equipment and vehicles; used absorbent materials used for cleaning up spills		Avoid skin contact or ingestion. Wear standard PPE, and potentially supplemented with disposable coveralls, chemically resistant gloves, and/or activated carbon-equipped breathing protection device when handling this waste.	1. Take to municipal WMA
Soil contaminated with restricted waste	Hazardous	Soil that have been collected from the location of a spill of restricted substance	Minimise spills	Avoid skin contact or ingestion. Wear standard PPE, and potentially supplemented with disposable coveralls, chemically resistant gloves, and/or activated carbon-equipped breathing protection device when handling this waste.	1. Take to municipal WMA
Unused, spent, expired and contaminated solvents, paints, chemicals and additives	Hazardous	Chemical compounds and products used for maintenance and facility construction.	Personnel to ensure that the materials are fully used before generating as a waste.	Avoid skin contact with or ingestion. Wear standard PPE, and potentially supplemented with disposable coveralls, chemically resistant gloves, and/or activated carbon-equipped breathing protection device when handling this waste.	1. Take to municipal WMA

Solomon Islands Integrated Economic Development and Community Resilience Project (P173688) – Environmental and Social Management Framework | January 2021